

Table 1. 2018 Water Quality Results - La Plata River - Upper Sampling Point (SW-1)
May Day Idaho Mine Complex
Sunrise Mining, LLC

All values in mg/L unless otherwise noted

Analyte	Date				Safe Drinking Water Act MCL ⁽¹⁾ or SMCL ⁽²⁾
	2/9/2018	4/27/2018			
Field Measurements					
Temperature (°C)	Dry	10.4			
Conductivity (µS/cm)	Dry	109			
pH (S.U.)	Dry	7.71			6 - 8.5
Flow (cfs)*	Dry	40			
Lab Results					
Alkalinity, Bicarbonate	Dry	31			
Alkalinity, Carbonate	Dry	ND			
Alkalinity, Hydroxide	Dry	ND			
Alkalinity, Total	Dry	31.0			
Aluminum Dissolved by ICP	Dry	ND			0.05 to 0.2 ⁽²⁾
Ammonia	Dry	ND			TVS ⁽⁴⁾
Antimony Dissolved by ICPMS	Dry	ND			0.006 ⁽¹⁾
Arsenic 200.8 by ICPMS	Dry	ND			0.01 ⁽¹⁾
Arsenic Dissolved by ICPMS	Dry	ND			0.01 ⁽¹⁾
Barium Dissolved by ICPMS	Dry	0.0342			2 ⁽¹⁾
Beryllium Dissolved by ICPMS	Dry	ND			0.004 ⁽¹⁾
Boron 200.2 by ICP	Dry	ND			
Cadmium Dissolved by ICPMS	Dry	ND			0.005 ⁽¹⁾
Calcium Dissolved by ICP	Dry	17.2			
Chloride by IC	Dry	ND			250 ⁽²⁾
Chromium 200.8 by ICPMS	Dry	ND			0.1 ⁽¹⁾
Copper Dissolved by ICPMS	Dry	0.0052			1.3 ⁽¹⁾⁽³⁾ , 1.0 ⁽²⁾
Cyanide, WAD	Dry	ND			0.2 ⁽¹⁾
Fluoride by IC	Dry	0.237			4.0 ⁽¹⁾ , 2.0 ⁽²⁾
Hardness, dis	Dry	52.1			
Iron 200.2 by ICP	Dry	ND			0.30 ⁽²⁾
Iron Dissolved by ICP	Dry	ND			0.30 ⁽²⁾
Lead 200.8 by ICPMS	Dry	ND			0.015 ⁽¹⁾⁽³⁾
Lead Dissolved by ICPMS	Dry	ND			0.015 ⁽¹⁾⁽³⁾
Magnesium Dissolved by ICP	Dry	2.22			0.05 ⁽²⁾
Manganese Dissolved by ICPMS	Dry	2.0			TVS ⁽⁴⁾ µg/L
Mercury Dissolved by CVAA	Dry	ND			0.002 ⁽¹⁾
Molybdenum Dissolved by ICPMS	Dry	0.0010			
Nickel Dissolved by ICPMS	Dry	0.0014			0.1 ⁽¹⁾
Nitrate as N by IC	Dry	0.139			10 ⁽¹⁾
Nitrate/Nitrite as N by IC Package	Dry	0.139			10 ⁽¹⁾
Nitrite as N by IC	Dry	ND			1 ⁽¹⁾
pH (Standard Units)	Dry	8.17			6 - 8.5
Selenium Dissolved by ICPMS	Dry	ND			0.05 ⁽¹⁾
Silver Dissolved by ICPMS	Dry	ND			0.10 ⁽²⁾
Solids, Total Dissolved (TDS)	Dry	65.0			500 ⁽²⁾
Solids, Total Suspended (TSS)	Dry	1.00			
Sulfate by IC	Dry	14.9			250 ⁽²⁾
Thallium Dissolved by ICPMS	Dry	ND			0.002 ⁽¹⁾
Uranium Dissolved by ICPMS	Dry	0.1			30 µg/L ⁽¹⁾
Zinc Dissolved by ICPMS	Dry	0.0039			TVS ⁽⁴⁾

Notes:

mg/L = milligrams per Liter

°C = degrees Celsius

µS/cm = microsiemens per centimeter

S.U. = standard units

mV = millivolts

cfs = cubic feet per second

µg/L = microgram per Liter

NA = not applicable

ND = not detected

TVS = table value standards

Footnotes:

* La Plata River flow taken from Hesperus Gage (LAPHESCO).

(1) SDWA NPDWR MCL= Safe Drinking Water Act National Primary Drinking Water Regulations Maximum Contaminant Level. These are legally enforceable standards that apply to public drinking water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.

(2) SDWA NSDWR SMCL= Safe Drinking Water Act National Secondary Drinking water Regulations Secondary Maximum Contaminant Level. These are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply.

(3) Treatments Technique (TT). A required process intended to reduce the level of a contaminants in drinking water. Lead and copper are regulated by a Treatment Technique that requires a system to control the corrosiveness of their water. If more than 10% of tap water samples exceed the Action Level, water systems must take additional steps to treat the water.

(4) 1002-31 - Regulation 31 - Colorado Water Quality Control Division, Tables III and IV.

Table 2. 2018 Water Quality Results - La Plata River - Lower Sampling Point (SW-2)
May Day Idaho Mine Complex
Sunrise Mining, LLC

All values in mg/L unless otherwise noted

Analyte	Date				Safe Drinking Water Act MCL ⁽¹⁾ or SMCL ⁽²⁾
	2/9/2018	4/27/2018			
Field Measurements					
Temperature (°C)	5.0	3.6			
Conductivity (µS/cm)	182	131			
pH (S.U.)	7.53	7.34			6 - 8.5
Flow (cfs)*	4.16	40			
Lab Results					
Alkalinity, Bicarbonate	68.0	34.0			
Alkalinity, Carbonate	ND	ND			
Alkalinity, Hydroxide	ND	ND			
Alkalinity, Total	68.0	34.0			
Aluminum Dissolved by ICP	ND	ND			0.05 to 0.2 ⁽²⁾
Ammonia	ND	ND			TVS ⁽⁴⁾
Antimony Dissolved by ICPMS	ND	ND			0.006 ⁽¹⁾
Arsenic 200.8 by ICP-MS	ND	ND			0.01 ⁽¹⁾
Arsenic Dissolved by ICPMS	ND	ND			0.01 ⁽¹⁾
Barium Dissolved by ICPMS	0.0715	0.0404			2 ⁽¹⁾
Beryllium Dissolved by ICPMS	ND	ND			0.004 ⁽¹⁾
Boron 200.7 by ICP	ND	ND			
Cadmium Dissolved by ICPMS	ND	ND			0.005 ⁽¹⁾
Calcium Dissolved by ICP	30.8	20.3			
Chloride by IC	ND	ND			250 ⁽²⁾
Chromium 200.8 by ICPMS	ND	ND			0.1 ⁽¹⁾
Copper Dissolved by ICPMS	0.0018	0.0040			1.3 ⁽¹⁾⁽³⁾ , 1.0 ⁽²⁾
Cyanide, WAD	ND	ND			0.2 ⁽¹⁾
Fluoride by IC	0.224	0.225			4.0 ⁽¹⁾ , 2.0 ⁽²⁾
Hardness, dis	93.4	61.2			
Iron 200.7 by ICP	0.239	0.137			0.30 ⁽²⁾
Iron Dissolved by ICP	ND	ND			0.30 ⁽²⁾
Lead 200.8 by ICPMS	0.0011	0.0007			0.015 ⁽¹⁾⁽³⁾
Lead Dissolved by ICPMS	ND	ND			0.015 ⁽¹⁾⁽³⁾
Magnesium Dissolved by ICP	4.02	2.56			0.05 ⁽²⁾
Manganese Dissolved by ICPMS	0.7	1.3			TVS ⁽⁴⁾ µg/L
Mercury Dissolved by CVAA	ND	ND			0.002 ⁽¹⁾
Molybdenum Dissolved by ICPMS	0.0011	0.0009			
Nickel Dissolved by ICPMS	0.0025	0.0017			0.1 ⁽¹⁾
Nitrate as N by IC	0.100	0.145			10 ⁽¹⁾
Nitrate/Nitrite as N by IC Package	0.0996	0.145			10 ⁽¹⁾
Nitrite as N by IC	ND	ND			1 ⁽¹⁾
pH (S.U.)	7.78	7.95			6 - 8.5
Selenium Dissolved by ICPMS	ND	ND			0.05 ⁽¹⁾
Silver Dissolved by ICPMS	ND	ND			0.10 ⁽²⁾
Solids, Total Dissolved (TDS)	85.0	95.0			
Solids, Total Suspended (TSS)	NA	2.83			
Sulfate by IC	31.0	19.2			250 ⁽²⁾
Thallium Dissolved by ICPMS	ND	ND			0.002 ⁽¹⁾
Uranium Dissolved by ICPMS	0.3	0.2			30 µg/L ⁽¹⁾
Zinc Dissolved by ICPMS	0.0024	0.0034			TVS ⁽⁴⁾

Notes:

mg/L = milligrams per Liter
°C = degrees Celsius
µS/cm = microsiemens per centimeter
S.U. = standard units
mV = millivolts
cfs = cubic feet per second
µg/L = microgram per Liter
NA = not applicable
ND = not detected
TVS = table value standards

Footnotes:

* La Plata River flow taken from Hesperus Gage (LAPHESCO).

- (1) SDWA NPDWR MCL= Safe Drinking Water Act National Primary Drinking Water Regulations Maximum Contaminant Level. These are legally enforceable standards that apply to public drinking water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.
- (2) SDWA NSDWR SMCL= Safe Drinking Water Act National Secondary Drinking water Regulations Secondary Maximum Contaminant Level. These are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to
- (3) Treatments Technique (TT). A required process intended to reduce the level of a contaminants in drinking water. Lead and copper are regulated by a Treatment Technique that requires a system to control the corrosiveness of their water. If more than 10% of tap water samples exceed the Action Level, water systems must take additional steps to treat the water.
- (4) 1002-31 - Regulation 31 - Colorado Water Quality Control Division, Tables III and IV.

Table 3. 2018 Water Quality Results - Beaver Pond (BP-1)

May Day Idaho Mine Complex

Sunrise Mining, LLC

All values in mg/L unless otherwise noted

Analyte	Date				Safe Drinking Water Act MCL ⁽¹⁾ or SMCL ⁽²⁾
	2/8/2018	4/27/2018			
Field Measurements					
Temperature (°C)	4.0	6.3			
Conductivity (µS/cm)	176	160			
pH (S.U.)	7.26	6.67			6 - 8.5
Flow (cfs)	Pond	Pond			
Lab Results					
Alkalinity, Bicarbonate	56.0	59.0			
Alkalinity, Carbonate	ND	ND			
Alkalinity, Hydroxide	ND	ND			
Alkalinity, Total	56.0	59.0			
Aluminum Dissolved by ICP	ND	ND			0.05 to 0.2 ⁽²⁾
Ammonia	ND	ND			TVS ⁽⁴⁾
Antimony Dissolved by ICPMS	ND	ND			0.006 ⁽¹⁾
Arsenic 200.8 by ICPMS	ND	ND			0.01 ⁽¹⁾
Arsenic Dissolved by ICPMS	ND	ND			0.01 ⁽¹⁾
Barium Dissolved by ICPMS	0.0658	0.0539			2 ⁽¹⁾
Beryllium Dissolved by ICPMS	ND	ND			0.004 ⁽¹⁾
Boron 200.7 by ICP	ND	ND			
Cadmium Dissolved by ICPMS	ND	ND			0.005 ⁽¹⁾
Calcium Dissolved by ICP	29.4	26.0			
Chloride by IC	ND	ND			250 ⁽²⁾
Chromium 200.8 by ICPMS	ND	ND			0.1 ⁽¹⁾
Copper Dissolved by ICPMS	0.0015	0.0017			1.3 ⁽¹⁾⁽³⁾ , 1.0 ⁽²⁾
Cyanide, WAD	ND	ND			0.2 ⁽¹⁾
Fluoride by IC	0.227	0.232			4.0 ⁽¹⁾ , 2.0 ⁽²⁾
Hardness, dis	89.5	79.4			
Iron 200.7 by ICP	ND	ND			0.30 ⁽²⁾
Iron Dissolved by ICP	ND	ND			0.30 ⁽²⁾
Lead 200.8 by ICPMS	0.0005	0.0007			0.015 ⁽¹⁾⁽³⁾
Lead Dissolved by ICPMS	ND	ND			0.015 ⁽¹⁾⁽³⁾
Magnesium Dissolved by ICP	3.91	3.53			0.05 ⁽²⁾
Manganese Dissolved by ICPMS	0.9	0.8			TVS ⁽⁴⁾ µg/L
Mercury Dissolved by CVAA	ND	ND			0.002 ⁽¹⁾
Molybdenum Dissolved by ICPMS	0.0011	0.0011			
Nickel Dissolved by ICPMS	0.0025	0.0034			0.1 ⁽¹⁾
Nitrate as N by IC	0.089	0.078			10 ⁽¹⁾
Nitrate/Nitrite as N by IC Package	0.0891	0.0777			10 ⁽¹⁾
Nitrite as N by IC	ND	ND			1 ⁽¹⁾
pH (S.U.)	7.47	7.45			6 - 8.5
Selenium Dissolved by ICPMS	ND	ND			0.05 ⁽¹⁾
Silver Dissolved by ICPMS	ND	ND			0.10 ⁽²⁾
Solids, Total Dissolved (TDS)	120	90.0			
Solids, Total Suspended (TSS)	NA	2.75			
Sulfate by IC	30.2	25.8			250 ⁽²⁾
Thallium Dissolved by ICPMS	ND	ND			0.002 ⁽¹⁾
Uranium Dissolved by ICPMS	0.3	0.3			30 µg/L ⁽¹⁾
Zinc Dissolved by ICPMS	ND	0.0041			TVS ⁽⁴⁾

Notes:

mg/L = milligrams per Liter

°C = degrees Celsius

µS/cm = microsiemens per centimeter

S.U. = standard units

mV = millivolts

cfs = cubic feet per second

µg/L = microgram per Liter

NA = not applicable

ND = not detected

TVS = table value standards

Footnotes:

- (1) SDWA NPDWR MCL= Safe Drinking Water Act National Primary Drinking Water Regulations Maximum Contaminant Level. These are legally enforceable standards that apply to public drinking water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.
- (2) SDWA NSDWR SMCL= Safe Drinking Water Act National Secondary Drinking water Regulations Secondary Maximum Contaminant Level. These are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply.
- (3) Treatments Technique (TT). A required process intended to reduce the level of a contaminants in drinking water. Lead and copper are regulated by a Treatment Technique that requires a system to control the corrosiveness of their water. If more than 10% of tap water samples exceed the Action Level, water systems must take additional steps to treat the water.
- (4) 1002-31 - Regulation 31 - Colorado Water Quality Control Division, Tables III and IV.

Table 4. 2018 Water Quality Results - Idaho Mill Spring (ID-SW)
May Day Idaho Mine Complex
Sunrise Mining, LLC

All values in mg/L unless otherwise noted

Analyte	Date				Safe Drinking Water Act MCL ⁽¹⁾ or SMCL ⁽²⁾
	2/9/2018	4/27/2018			
Field Measurements					
Temperature (°C)	5.6	6.6			
Conductivity (µS/cm)	294	288			
pH (S.U.)	8.26	7.94			6 - 8.5
Flow (cfs)	NA	NA			
Lab Results					
Alkalinity, Bicarbonate	123	118			
Alkalinity, Carbonate	12.0	ND			
Alkalinity, Hydroxide	ND	ND			
Alkalinity, Total	135	118			
Aluminum Dissolved by ICP	ND	ND			0.05 to 0.2 ⁽²⁾
Ammonia	ND	ND			TVS ⁽⁴⁾
Antimony Dissolved by ICPMS	0.0008	ND			0.006 ⁽¹⁾
Arsenic 200.8 by ICPMS	ND	ND			0.01 ⁽¹⁾
Arsenic Dissolved by ICPMS	ND	0.0011			0.01 ⁽¹⁾
Barium Dissolved by ICPMS	0.0877	0.0756			2 ⁽¹⁾
Beryllium Dissolved by ICPMS	ND	ND			0.004 ⁽¹⁾
Boron 200.7 by ICP	ND	ND			
Cadmium Dissolved by ICPMS	0.0001	ND			0.005 ⁽¹⁾
Calcium Dissolved by ICP	41.3	39.2			
Chloride by IC	ND	ND			250 ⁽²⁾
Chromium 200.8 by ICPMS	ND	ND			0.1 ⁽¹⁾
Copper Dissolved by ICPMS	0.0005	0.0013			1.3 ⁽¹⁾⁽³⁾ , 1.0 ⁽²⁾
Cyanide, WAD	ND	ND			0.2 ⁽¹⁾
Fluoride by IC	ND	ND			4.0 ⁽¹⁾ , 2.0 ⁽²⁾
Hardness, dis	161	154			
Iron 200.7 by ICP	ND	ND			0.30 ⁽²⁾
Iron Dissolved by ICP	ND	ND			0.30 ⁽²⁾
Lead 200.8 by ICPMS	ND	0.0005			0.015 ⁽¹⁾⁽³⁾
Lead Dissolved by ICPMS	ND	ND			0.015 ⁽¹⁾⁽³⁾
Magnesium Dissolved by ICP	14.1	13.7			0.05 ⁽²⁾
Manganese Dissolved by ICPMS	ND	0.8			TVS ⁽⁴⁾ µg/L
Mercury Dissolved by CVAA	ND	ND			0.002 ⁽¹⁾
Molybdenum Dissolved by ICPMS	0.0006	0.0006			
Nickel Dissolved by ICPMS	0.0039	0.0026			0.1 ⁽¹⁾
Nitrate as N by IC	0.157	0.190			10 ⁽¹⁾
Nitrate/Nitrite as N by IC Package	0.157	0.190			10 ⁽¹⁾
Nitrite as N by IC	ND	ND			1 ⁽¹⁾
pH (S.U.)	8.25	8.26			6 - 8.5
Selenium Dissolved by ICPMS	ND	ND			0.05 ⁽¹⁾
Silver Dissolved by ICPMS	ND	ND			0.10 ⁽²⁾
Solids, Total Dissolved (TDS)	215	180			
Solids, Total Suspended (TSS)	NA	N			
Sulfate by IC	40.4	38.8			250 ⁽²⁾
Thallium Dissolved by ICPMS	ND	ND			0.002 ⁽¹⁾
Uranium Dissolved by ICPMS	1.1	1.2			30 µg/L ⁽¹⁾
Zinc Dissolved by ICPMS	0.0158	0.0152			TVS ⁽⁴⁾

Notes:

mg/L = milligrams per Liter
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Footnotes:

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- (3) Treatments Technique (TT). A required process intended to reduce the level of a contaminants in drinking water. Lead and copper are regulated by a Treatment Technique that requires a system to control the corrosiveness of their water. If more than 10% of tap water samples exceed the Action Level, water systems must take additional steps to treat the water.
- (4) 1002-31 - Regulation 31 - Colorado Water Quality Control Division, Tables III and IV.

Table 5. 2018 Water Quality Results - Little Deadwood Gulch - Upper Station (LDG-1)

May Day Idaho Mine Complex

Sunrise Mining, LLC

All values in mg/L unless otherwise noted

Analyte	Date				Safe Drinking Water Act MCL ⁽¹⁾ or SMCL ⁽²⁾
	2/9/2018	4/27/2018			
Field Measurements					
Temperature (°C)	Dry	Dry			
Conductivity (µS/cm)	Dry	Dry			
pH (S.U.)	Dry	Dry			6 - 8.5
Flow (cfs)	Dry	Dry			
Lab Results					
Alkalinity, Bicarbonate	Dry	Dry			
Alkalinity, Carbonate	Dry	Dry			
Alkalinity, Hydroxide	Dry	Dry			
Alkalinity, Total	Dry	Dry			
Aluminum Dissolved by ICP	Dry	Dry			0.05 to 0.2 ⁽²⁾
Ammonia	Dry	Dry			TVS ⁽⁴⁾
Antimony Dissolved by ICPMS	Dry	Dry			0.006 ⁽¹⁾
Arsenic 200.2 by ICP-MS	Dry	Dry			0.01 ⁽¹⁾
Arsenic Dissolved by ICPMS	Dry	Dry			0.01 ⁽¹⁾
Barium Dissolved by ICPMS	Dry	Dry			2 ⁽¹⁾
Beryllium Dissolved by ICPMS	Dry	Dry			0.004 ⁽¹⁾
Boron 200.2 by ICP	Dry	Dry			
Cadmium Dissolved by ICPMS	Dry	Dry			0.005 ⁽¹⁾
Calcium Dissolved by ICP	Dry	Dry			
Chloride by IC	Dry	Dry			250 ⁽²⁾
Chromium 200.2 by ICPMS	Dry	Dry			0.1 ⁽¹⁾
Chromium	Dry	Dry			
Cobalt	Dry	Dry			
Copper Dissolved by ICPMS	Dry	Dry			1.3 ⁽¹⁾⁽³⁾ , 1.0 ⁽²⁾
Cyanide, WAD	Dry	Dry			0.2 ⁽¹⁾
Fluoride by IC	Dry	Dry			4.0 ⁽¹⁾ , 2.0 ⁽²⁾
Hardness, dis	Dry	Dry			
Iron 200.2 by ICP	Dry	Dry			0.30 ⁽²⁾
Iron Dissolved by ICP	Dry	Dry			0.30 ⁽²⁾
Lead 200.2 by ICPMS	Dry	Dry			0.015 ⁽¹⁾⁽³⁾
Lead Dissolved by ICPMS	Dry	Dry			0.015 ⁽¹⁾⁽³⁾
Magnesium Dissolved by ICP	Dry	Dry			0.05 ⁽²⁾
Manganese Dissolved by ICPMS	Dry	Dry			TVS ⁽⁴⁾ µg/L
Mercury Dissolved by CVAA	Dry	Dry			0.002 ⁽¹⁾
Molybdenum Dissolved by ICPMS	Dry	Dry			
Nickel Dissolved by ICPMS	Dry	Dry			0.1 ⁽¹⁾
Nitrate as N by IC	Dry	Dry			10 ⁽¹⁾
Nitrate/Nitrite as N by IC Package	Dry	Dry			10 ⁽¹⁾
Nitrite as N by IC	Dry	Dry			1 ⁽¹⁾
pH (S.U.)	Dry	Dry			6 - 8.5
Selenium Dissolved by ICPMS	Dry	Dry			0.05 ⁽¹⁾
Silver Dissolved by ICPMS	Dry	Dry			0.10 ⁽²⁾
Solids, Total Dissolved (TDS)	Dry	Dry			
Solids, Total Suspended (TSS)	Dry	Dry			
Sulfate by IC	Dry	Dry			250 ⁽²⁾
Thallium Dissolved by ICPMS	Dry	Dry			0.002 ⁽¹⁾
Uranium Dissolved by ICPMS	Dry	Dry			30 µg/L ⁽¹⁾
Vanadium	Dry	Dry			
Zinc Dissolved by ICPMS	Dry	Dry			TVS ⁽⁴⁾

Notes:

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NA = not applicable

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Footnotes:

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- (4) 1002-31 - Regulation 31 - Colorado Water Quality Control Division, Tables III and IV.

Table 6. 2018 Water Quality Results - Little Deadwood Gulch - Lower Station (LDG-2)

May Day Idaho Mine Complex

Sunrise Mining, LLC

All values in mg/L unless otherwise noted

Analyte	Date				Safe Drinking Water Act MCL ⁽¹⁾ or SMCL ⁽²⁾
	2/9/2018	4/27/2018			
Field Measurements					
Temperature (°C)	Dry	Dry			
Conductivity (µS/cm)	Dry	Dry			
pH (S.U.)	Dry	Dry			6 - 8.5
Flow (cfs)	Dry	Dry			
Lab Results					
Alkalinity, Bicarbonate	Dry	Dry			
Alkalinity, Carbonate	Dry	Dry			
Alkalinity, Hydroxide	Dry	Dry			
Alkalinity, Total	Dry	Dry			
Aluminum Dissolved by ICP	Dry	Dry			0.05 to 0.2 ⁽²⁾
Ammonia	Dry	Dry			TVS ⁽⁴⁾
Antimony Dissolved by ICPMS	Dry	Dry			0.006 ⁽¹⁾
Arsenic 200.2 by ICP-MS	Dry	Dry			0.01 ⁽¹⁾
Arsenic Dissolved by ICPMS	Dry	Dry			0.01 ⁽¹⁾
Barium Dissolved by ICPMS	Dry	Dry			2 ⁽¹⁾
Beryllium Dissolved by ICPMS	Dry	Dry			0.004 ⁽¹⁾
Boron 200.2 by ICP	Dry	Dry			
Cadmium Dissolved by ICPMS	Dry	Dry			0.005 ⁽¹⁾
Calcium Dissolved by ICP	Dry	Dry			
Chloride by IC	Dry	Dry			250 ⁽²⁾
Chromium 200.2 by ICPMS	Dry	Dry			0.1 ⁽¹⁾
Chromium	Dry	Dry			
Cobalt	Dry	Dry			
Copper Dissolved by ICPMS	Dry	Dry			1.3 ⁽¹⁾⁽³⁾ , 1.0 ⁽²⁾
Cyanide, WAD	Dry	Dry			0.2 ⁽¹⁾
Fluoride by IC	Dry	Dry			4.0 ⁽¹⁾ , 2.0 ⁽²⁾
Hardness, dis	Dry	Dry			
Iron 200.2 by ICP	Dry	Dry			0.30 ⁽²⁾
Iron Dissolved by ICP	Dry	Dry			0.30 ⁽²⁾
Lead 200.2 by ICPMS	Dry	Dry			0.015 ⁽¹⁾⁽³⁾
Lead Dissolved by ICPMS	Dry	Dry			0.015 ⁽¹⁾⁽³⁾
Magnesium Dissolved by ICP	Dry	Dry			0.05 ⁽²⁾
Manganese Dissolved by ICPMS	Dry	Dry			TVS ⁽⁴⁾ µg/L
Mercury Dissolved by CVAA	Dry	Dry			0.002 ⁽¹⁾
Molybdenum Dissolved by ICPMS	Dry	Dry			
Nickel Dissolved by ICPMS	Dry	Dry			0.1 ⁽¹⁾
Nitrate as N by IC	Dry	Dry			10 ⁽¹⁾
Nitrate/Nitrite as N by IC Package	Dry	Dry			10 ⁽¹⁾
Nitrite as N by IC	Dry	Dry			1 ⁽¹⁾
pH (S.U.)	Dry	Dry			6 - 8.5
Selenium Dissolved by ICPMS	Dry	Dry			0.05 ⁽¹⁾
Silver Dissolved by ICPMS	Dry	Dry			0.10 ⁽²⁾
Solids, Total Dissolved (TDS)	Dry	Dry			
Solids, Total Suspended (TSS)	Dry	Dry			
Sulfate by IC	Dry	Dry			250 ⁽²⁾
Thallium Dissolved by ICPMS	Dry	Dry			0.002 ⁽¹⁾
Uranium Dissolved by ICPMS	Dry	Dry			30 µg/L ⁽¹⁾
Vanadium	Dry	Dry			
Zinc Dissolved by ICPMS	Dry	Dry			TVS ⁽⁴⁾

Notes:

mg/L = milligrams per Liter

°C = degrees Celsius

µS/cm = microsiemens per centimeter

S.U. = standard units

mV = millivolts

cfs = cubic feet per second

µg/L = microgram per Liter

NA = not applicable

ND = not detected

TVS = table value standards

Footnotes:

- (1) SDWA NPDWR MCL= Safe Drinking Water Act National Primary Drinking Water Regulations Maximum Contaminant Level. These are legally enforceable standards that apply to public drinking water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.
- (2) SDWA NSDWR SMCL= Safe Drinking Water Act National Secondary Drinking water Regulations Secondary Maximum Contaminant Level. These are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply.
- (3) Treatments Technique (TT). A required process intended to reduce the level of a contaminants in drinking water. Lead and copper are regulated by a Treatment Technique that requires a system to control the corrosiveness of their water. If more than 10% of tap water samples exceed the Action Level, water systems must take additional steps to treat the water.
- (4) 1002-31 - Regulation 31 - Colorado Water Quality Control Division, Tables III and IV.

Table 7. 2018 Water Quality Results - May Day No. 1 Well (MD-1)

May Day Idaho Mine Complex

Sunrise Mining, LLC

All values in mg/L unless otherwise noted

Analyte	Date				Safe Drinking Water Act MCL ⁽¹⁾ or SMCL ⁽²⁾
	2/9/2018	4/27/2018			
Field Measurements					
Temperature (°C)	7.7	7.8			
Conductivity (µS/cm)	751	747			
pH (S.U.)	7.18	7.14			6 - 8.5
Static Water Level (feet)	143	140.17			
Lab Results					
Aluminum Dissolved by ICP	ND	ND			0.05 to 0.2 ⁽²⁾
Antimony Dissolved by ICPMS	ND	ND			0.006 ⁽¹⁾
Arsenic Dissolved by ICPMS	ND	ND			0.01 ⁽¹⁾
Barium Dissolved by ICPMS	0.0181	0.0169			2 ⁽¹⁾
Beryllium Dissolved by ICPMS	ND	ND			0.004 ⁽¹⁾
Boron Dissolved by ICP	ND	ND			
Cadmium Dissolved by ICPMS	ND	ND			0.005 ⁽¹⁾
Chromium Dissolved by ICPMS	0.0093	0.0081			0.1 ⁽¹⁾
Cobalt Dissolved by ICPMS	0.0005	0.0005			
Copper Dissolved by ICPMS	0.0004	0.0030			1.3 ⁽¹⁾⁽³⁾ , 1.0 ⁽²⁾
Cyanide, WAD	ND	ND			0.2 ⁽¹⁾
Fluoride by IC	0.241	0.233			4.0 ⁽¹⁾ , 2.0 ⁽²⁾
Iron Dissolved by ICP	ND	ND			0.30 ⁽²⁾
Lead Dissolved by ICPMS	ND	ND			0.015 ⁽¹⁾⁽³⁾
Manganese Dissolved by ICPMS	236	216			TVS ⁽⁴⁾ µg/L
Mercury Dissolved by CVAA	ND	ND			0.002 ⁽¹⁾
Molybdenum Dissolved by ICPMS	ND	ND			
Nickel Dissolved by ICPMS	0.0092	0.0070			0.1 ⁽¹⁾
Nitrate as N by IC	ND	ND			10 ⁽¹⁾
Nitrate/Nitrite as N by IC Package	ND	ND			10 ⁽¹⁾
Nitrite as N by IC	ND	ND			1 ⁽¹⁾
pH (S.U)	7.51	7.32			6 - 8.5
Selenium Dissolved by ICPMS	ND	ND			0.05 ⁽¹⁾
Silver Dissolved by ICPMS	ND	ND			0.10 ⁽²⁾
Sodium Dissolved by ICP	2.54	2.52			
Solids, Total Dissolved (TDS)	555	535			
Sulfate by IC	154	145			250 ⁽²⁾
Thallium Dissolved by ICPMS	ND	ND			0.002 ⁽¹⁾
Uranium Dissolved by ICPMS	0.7	0.8			30 µg/L ⁽¹⁾
Vanadium	ND	ND			
Zinc Dissolved by ICPMS	0.0032	0.0053			TVS ⁽⁴⁾

Notes:

mg/L = milligrams per Liter

°C = degrees Celsius

µS/cm = microsiemens per centimeter

S.U. = standard units

mV = millivolts

µg/L = microgram per Liter

NA = not applicable

ND = not detected

TVS = table value standards

Footnotes:

(1) SDWA NPDWR MCL= Safe Drinking Water Act National Primary Drinking Water Regulations Maximum Contaminant Level. These are legally enforceable standards that apply to public drinking water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.

(2) SDWA NSDWR SMCL= Safe Drinking Water Act National Secondary Drinking water Regulations Secondary Maximum Contaminant Level. These are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to

(3) Treatments Technique (TT). A required process intended to reduce the level of a contaminants in drinking water. Lead and copper are regulated by a Treatment Technique that requires a system to control the corrosiveness of their water. If more than 10% of tap water samples exceed the Action Level, water systems must take additional steps to treat the water.

(4) 1002-31 - Regulation 31 - Colorado Water Quality Control Division, Tables III and IV.

Table 8. 2018 Water Quality Results - May Day No. 2 Well (MD-2)
May Day Idaho Mine Complex
Sunrise Mining, LLC

All values in mg/L unless otherwise noted

Analyte	Date				Safe Drinking Water Act MCL ⁽¹⁾ or SMCL ⁽²⁾
	2/9/2018	4/27/2018			
Field Measurements					
Temperature (°C)	8.8	9.1			
Conductivity (µS/cm)	613	610			
pH (S.U.)	7.37	7.32			6 - 8.5
Static Water Level (feet)	50	57.58			
Lab Results					
Aluminum Dissolved by ICP	ND	ND			0.05 to 0.2 ⁽²⁾
Antimony Dissolved by ICPMS	ND	ND			0.006 ⁽¹⁾
Arsenic Dissolved by ICPMS	ND	ND			0.01 ⁽¹⁾
Barium Dissolved by ICPMS	0.0563	0.0501			2 ⁽¹⁾
Beryllium Dissolved by ICPMS	ND	ND			0.004 ⁽¹⁾
Boron Dissolved by ICP	ND	ND			
Cadmium Dissolved by ICPMS	0.0003	0.0002			0.005 ⁽¹⁾
Chromium Dissolved by ICPMS	0.0089	0.0074			0.1 ⁽¹⁾
Cobalt Dissolved by ICPMS	0.0002	0.0001			
Copper Dissolved by ICPMS	0.0011	0.0060			1.3 ⁽¹⁾⁽³⁾ , 1.0 ⁽²⁾
Cyanide, WAD	ND	ND			0.2 ⁽¹⁾
Fluoride by IC	0.819	0.799			4.0 ⁽¹⁾ , 2.0 ⁽²⁾
Iron Dissolved by ICP	ND	ND			0.30 ⁽²⁾
Lead Dissolved by ICPMS	ND	ND			0.015 ⁽¹⁾⁽³⁾
Manganese Dissolved by ICPMS	49.1	0.0527			TVS ⁽⁴⁾ µg/L
Mercury Dissolved by CVAA	ND	ND			0.002 ⁽¹⁾
Molybdenum Dissolved by ICPMS	ND	ND			
Nickel Dissolved by ICPMS	0.0046	0.0036			0.1 ⁽¹⁾
Nitrate as N by IC	ND	ND			10 ⁽¹⁾
Nitrate/Nitrite as N by IC Package	ND	ND			10 ⁽¹⁾
Nitrite as N by IC	ND	ND			1 ⁽¹⁾
pH (S.U.)	7.66	7.65			6 - 8.5
Selenium Dissolved by ICPMS	ND	ND			0.05 ⁽¹⁾
Silver Dissolved by ICPMS	ND	ND			0.10 ⁽²⁾
Sodium Dissolved by ICP	38.5	37.9			
Solids, Total Dissolved (TDS)	390	400			
Sulfate by IC	46.7	48.2			250 ⁽²⁾
Thallium Dissolved by ICPMS	ND	ND			0.002 ⁽¹⁾
Uranium Dissolved by ICPMS	1.5	1.5			30 µg/L ⁽¹⁾
Vanadium	ND	ND			
Zinc Dissolved by ICPMS	ND	0.0082			TVS ⁽⁴⁾

Notes:

mg/L = milligrams per Liter

°C = degrees Celsius

µS/cm = microsiemens per centimeter

S.U. = standard units

mV = millivolts

µg/L = microgram per Liter

NA = not applicable

ND = not detected

TVS = table value standards

Footnotes:

(1) SDWA NPDWR MCL= Safe Drinking Water Act National Primary Drinking Water Regulations Maximum Contaminant Level. These are legally enforceable standards that apply to public drinking water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.

(2) SDWA NSDWR SMCL= Safe Drinking Water Act National Secondary Drinking water Regulations Secondary Maximum Contaminant Level. These are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply.

(3) Treatments Technique (TT). A required process intended to reduce the level of a contaminants in drinking water. Lead and copper are regulated by a Treatment Technique that requires a system to control the corrosiveness of their water. If more than 10% of tap water samples exceed the Action Level, water systems must take additional steps to treat the water.

(4) 1002-31 - Regulation 31 - Colorado Water Quality Control Division, Tables III and IV.

Table 9. 2018 Water Quality Results - La Plata River Alluvium Well (LP-1)
May Day Idaho Mine Complex
Sunrise Mining, LLC

All values in mg/L unless otherwise noted

Analyte	Date				Safe Drinking Water Act MCL ⁽¹⁾ or SMCL ⁽²⁾
	2/9/2018	4/27/2018			
Field Measurements					
Temperature (°C)	4.0	8.0			
Conductivity (µS/cm)	179	755			
pH (S.U.)	7.51	7.14			6 - 8.5
Static Water Level (feet)	9.25	8.17			
Lab Results					
Aluminum Dissolved by ICP	ND	ND			0.05 to 0.2 ⁽²⁾
Antimony Dissolved by ICPMS	ND	ND			0.006 ⁽¹⁾
Arsenic Dissolved by ICPMS	ND	ND			0.01 ⁽¹⁾
Barium Dissolved by ICPMS	0.0558	0.0446			2 ⁽¹⁾
Beryllium Dissolved by ICPMS	ND	ND			0.004 ⁽¹⁾
Boron Dissolved by ICP	ND	ND			
Cadmium Dissolved by ICPMS	ND	ND			0.005 ⁽¹⁾
Chromium Dissolved by ICPMS	0.0017	0.0020			0.1 ⁽¹⁾
Cobalt Dissolved by ICPMS	0.0004	0.0004			
Copper Dissolved by ICPMS	0.0020	0.0034			1.3 ⁽¹⁾⁽³⁾ , 1.0 ⁽²⁾
Cyanide, WAD	ND	ND			0.2 ⁽¹⁾
Fluoride by IC	0.222	0.227			4.0 ⁽¹⁾ , 2.0 ⁽²⁾
Iron Dissolved by ICP	0.151	0.135			0.30 ⁽²⁾
Lead Dissolved by ICPMS	ND	ND			0.015 ⁽¹⁾⁽³⁾
Manganese Dissolved by ICPMS	24.6	16.2			TVS ⁽⁴⁾ µg/L
Mercury Dissolved by CVAA	ND	ND			0.002 ⁽¹⁾
Molybdenum Dissolved by ICPMS	0.0029	0.0027			
Nickel Dissolved by ICPMS	0.0127	0.0108			0.1 ⁽¹⁾
Nitrate as N by IC	0.100	0.102			10 ⁽¹⁾
Nitrate/Nitrite as N by IC Package	0.100	0.102			10 ⁽¹⁾
Nitrite as N by IC	ND	ND			1 ⁽¹⁾
pH (S.U.)	7.88	7.69			6 - 8.5
Selenium Dissolved by ICPMS	ND	ND			0.05 ⁽¹⁾
Silver Dissolved by ICPMS	ND	ND			0.10 ⁽²⁾
Sodium Dissolved by ICP	1.48	1.04			
Solids, Total Dissolved (TDS)	140	95.0			
Sulfate by IC	30.4	21.3			250 ⁽²⁾
Thallium Dissolved by ICPMS	ND	ND			0.002 ⁽¹⁾
Uranium Dissolved by ICPMS	0.3	0.2			30 µg/L ⁽¹⁾
Vanadium	ND	ND			
Zinc Dissolved by ICPMS	ND	ND			TVS ⁽⁴⁾ µg/L

Notes:

mg/L = milligrams per Liter

°C = degrees Celsius

µS/cm = microsiemens per centimeter

S.U. = standard units

mV = millivolts

µg/L = microgram per Liter

NA = not applicable

ND = not detected

TVS = table value standards

Footnotes:

(1) SDWA NPDWR MCL= Safe Drinking Water Act National Primary Drinking Water Regulations Maximum Contaminant Level. These are legally enforceable standards that apply to public drinking water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.

(2) SDWA NSDWR SMCL= Safe Drinking Water Act National Secondary Drinking water Regulations Secondary Maximum Contaminant Level. These are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to

(3) Treatments Technique (TT). A required process intended to reduce the level of a contaminants in drinking water. Lead and copper are regulated by a Treatment Technique that requires a system to control the corrosiveness of their water. If more than 10% of tap water samples exceed the Action Level, water systems must take additional steps to treat the water.

(4) 1002-31 - Regulation 31 - Colorado Water Quality Control Division, Tables III and IV.

Table 10. 2018 Water Quality Results - Idaho Mill Well (ID-GW)
May Day Idaho Mine Complex
Sunrise Mining, LLC

All values in mg/L unless otherwise noted

Analyte	Date				Safe Drinking Water Act MCL ⁽¹⁾ or SMCL ⁽²⁾
	2/9/2018	4/27/2018			
Field Measurements					
Temperature (°C)	6.7	7.0			
Conductivity (µS/cm)	287	296			
pH (S.U.)	8.24	8.19			6 - 8.5
Static Water Level (feet)	46.75	46.5			
Lab Results					
Aluminum Dissolved by ICP	ND	ND			0.05 to 0.2 ⁽²⁾
Antimony Dissolved by ICPMS	0.0006	ND			0.006 ⁽¹⁾
Arsenic Dissolved by ICPMS	0.0015	0.0013			0.01 ⁽¹⁾
Barium Dissolved by ICPMS	0.0546	0.0476			2 ⁽¹⁾
Beryllium Dissolved by ICPMS	ND	ND			0.004 ⁽¹⁾
Boron Dissolved by ICP	ND	ND			
Cadmium Dissolved by ICPMS	0.0001	0.0001			0.005 ⁽¹⁾
Chromium Dissolved by ICPMS	0.0037	0.0030			0.1 ⁽¹⁾
Cobalt Dissolved by ICPMS	0.0001	0.0001			
Copper Dissolved by ICPMS	0.0009	0.0022			1.3 ⁽¹⁾⁽³⁾ , 1.0 ⁽²⁾
Cyanide, WAD	ND	ND			0.2 ⁽¹⁾
Fluoride by IC	0.105	ND			4.0 ⁽¹⁾ , 2.0 ⁽²⁾
Iron Dissolved by ICP	ND	ND			0.30 ⁽²⁾
Lead Dissolved by ICPMS	ND	ND			0.015 ⁽¹⁾⁽³⁾
Manganese Dissolved by ICPMS	0.5	8.6			TVS ⁽⁴⁾ µg/L
Mercury Dissolved by CVAA	ND	ND			0.002 ⁽¹⁾
Molybdenum Dissolved by ICPMS	0.0009	0.0010			
Nickel Dissolved by ICPMS	0.0027	0.0026			0.1 ⁽¹⁾
Nitrate as N by IC	0.148	0.164			10 ⁽¹⁾
Nitrate/Nitrite as N by IC Package	0.148	0.164			10 ⁽¹⁾
Nitrite as N by IC	ND	ND			1 ⁽¹⁾
pH (S.U.)	8.21	8.23			6 - 8.5
Selenium Dissolved by ICPMS	ND	ND			0.05 ⁽¹⁾
Silver Dissolved by ICPMS	ND	ND			0.10 ⁽²⁾
Sodium Dissolved by ICP	4.92	5.48			
Solids, Total Dissolved (TDS)	175	170			
Sulfate by IC	33.4	35.9			250 ⁽²⁾
Thallium Dissolved by ICPMS	ND	ND			0.002 ⁽¹⁾
Uranium Dissolved by ICPMS	1.2	1.4			30 µg/L ⁽¹⁾
Vanadium	ND	ND			
Zinc Dissolved by ICPMS	ND	ND			TVS ⁽⁴⁾ µg/L

Notes:

mg/L = milligrams per Liter
°C = degrees Celsius
µS/cm = microsiemens per centimeter
S.U. = standard units
mV = millivolts
µg/L = microgram per Liter
NA = not applicable
ND = not detected
TVS = table value standards

Footnotes:

(1) SDWA NPDWR MCL= Safe Drinking Water Act National Primary Drinking Water Regulations Maximum Contaminant Level. These are legally enforceable standards that apply to public drinking water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.

(2) SDWA NSDWR SMCL= Safe Drinking Water Act National Secondary Drinking water Regulations Secondary Maximum Contaminant Level. These are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply.

(3) Treatments Technique (TT). A required process intended to reduce the level of a contaminants in drinking water. Lead and copper are regulated by a Treatment Technique that requires a system to control the corrosiveness of their water. If more than 10% of tap water samples exceed the Action Level, water systems must take additional steps to treat the water.

(4) 1002-31 - Regulation 31 - Colorado Water Quality Control Division, Tables III and IV.