

Reply to Additional Information Required, 3rd quarter 2022 Ground and Surface Water Monitoring Report

1 message

Daniel Takami <danieltakami@gmail.com>

Sat, Jan 7, 2023 at 12:58 PM

To: Patrick Lennberg - DNR <patrick.lennberg@state.co.us>

Cc: Sergio Rivera <sergio.rivera@novametallix.com>, Je'an-Paul Brewer <jpbrewer@nedmining.com>

Patrick,

Enclosed it our response to DRMS's letter dated December 9, 2022. Please let us know if you have any questions.

Respectfully,

Daniel J. Takami

President, Sustainable Metal Solutions, LLC President, Nederland Mining Consultants Inc. President, Grand Island Resources, LLC danieltakami@gmail.com 501.256.4444

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2022.12.09 DRMS SW GW Additional Information Signed Response - v1r0a.pdf 615K



Division of Reclamation, Mining & Safety c/o Mr. Patrick Lennberg 1001 E 62nd Ave, Room 215
Denver, CO 80216

RE: Additional Information Required No. 2, 3rd Quarter 2022 Groundwater and Surface Water Monitoring Report; Cross Gold Mine, Permit No. M-1977-410

Dear Mr. Lennberg:

This is in response to DRMS letter dated December 9, 2022. The letter in reference indicates that "On December 1, 2022, the Division of Reclamation, Mining and Safety (Division/DRMS) received your responses to the Division's request for additional information dated November 8, 2022, for the 3rd Quarter 2022 Groundwater and Surface Water Monitoring Report for the Cross Gold Mine. After review of the submission the Division has additional items that need to be addressed or clarified."

DRMS COMMENT:

General

1. In the Operator's response to the Division's question #1, it is stated duplicate samples for groundwater and surface water locations were collected in September and effluent duplicate samples will be collected beginning in October. In the narrative sections for groundwater and surface water sampling it does not mention that duplicate samples were collected. Additionally, the only way the Division was able to verify that duplicate samples were collected was to review the field sheets. For future reporting, please include a narrative section that explains where duplicate and other QA/QC samples were collected. Finally, update the September sample result tables to include the results of the duplicate sample and clearly state what the parent sample for the duplicate was.

GIR RESPONSE:

- 1.a) GIR will include in future reports narrative pertaining to Duplicate and other QA Sample Collection.
- 1.b) GIR will going forward, include on the monthly results tables duplicate sample results.
- 1.c) the September Sample Results Table below provides the duplicate sample results.



Groundwater Test Results - September 2022 - Updated

Sample Collected on:	September 27, 2022			-		.z - opuate		
Parameter	Standard	Cross Well	Caribou Well	Cabin Well	Duplicate Cabin Well	Unit	Comments	Method
Total Coliform 30-day avg.	2.2	ND	ND	ND	no Lab data	org/100 ml		SM 9221-9223
Aluminum	5	ND	0.027	0.031	no Lab data	mg/l	Dissolved	EPA 200.8
Antimony	0.006	ND	ND	ND	no Lab data	mg/l		EPA 200.8
Arsenic	0.01	ND	ND	ND	no Lab data	mg/l		EPA 200.8
Asbestos	7,000,000	ND	ND	ND	no Lab data	fibers/liter		EPA 100.2M
Barium	2	0.0279	0.0059	0.0449	no Lab data	mg/l		EPA 200.8
Beryllium	0.004	ND	ND	ND	no Lab data	mg/l		EPA 200.8
Beta and Photon Emitters	4	<2.8	3	<2.9	no Lab data	mrem/year		SM 7110B
Boron	0.75	ND	ND	ND	0.0	mg/l		EPA 200.7
Cadmium	0.005	0.0002	ND	ND	no Lab data	mg/l		EPA 200.8
Calcium	Non Corrosive	15.9	3.7	15.5	no Lab data	mg/l as CaCO3	Dissolved	EPA 200.7
Chloride	250	4.22	0.45	2.64	no Lab data	mg/l		EPA 300.0
Chlorophenol	0.0002	ND	ND	ND	no Lab data	mg/l	Standard in mg/l; results in	EPA 625
Chromium	0.1	ND	ND	ND	no Lab data	mg/l		EPA 200.8
Cobalt	0.05	ND	ND	ND	no Lab data	mg/l	Dissolved	EPA 200.8
Color	15	ND	ND	ND	no Lab data	color units		SM 2120 A
Copper	0.2	0.0045	0.4548	0.0011	no Lab data	mg/l	Dissolved	EPA 200.8
Corrosivity	Non Corrosive	-1.94	-3.38	-1.57	no Lab data	Langelier Units		SM 2330-B
Cyanide [Free]	0.2	ND	ND	ND	no Lab data	mg/l		ASTM D4282-15
Fluoride	2	ND	ND	ND	no Lab data	mg/l		EPA 300.0
Foaming Agents	0.5	ND	ND	ND	no Lab data	mg/l		SM 5540 C
Gross Alpha Particle Activity	15	1.4	0.2	0.9	no Lab data	pCi/l		SM 7110B
Iron	0.3	0.037	0.011	0.186	0.5	mg/l		EPA 200.7
Lead	0.05	0.0008	0.0004	0.002	no Lab data	mg/l		EPA 200.8
Lithium	2.5	ND	ND	ND	no Lab data	mg/l		E200.7
Manganese	0.05	0.0031	ND	0.19	no Lab data	mg/l		EPA 200.8
Max Total Coliforms	23	ND	ND	ND	no Lab data	org/100 ml		SM 9221-B
Mercury (inorganic)	0.002	ND	ND	ND	0.0	mg/l		EPA 245.7
Molybdenum	0.21	0.0006	ND	0.0056	no Lab data	mg/l		EPA 200.8
Nickel	0.1	ND	ND	ND	no Lab data	mg/l		EPA 200.8
Nitrate	10	0.26	0.16	0.31	0.3	mg as N		EPA 300.0
Nitrate-NitriteTotal	10	0.26	0.16	0.31	no Lab data	mg as N		Calculation
Nitrite	1	ND	ND	ND	0.0	mg as N		EPA 300.0
Odor	3	ND	ND	ND	no Lab data	odor units		SM 2150 B
pH (water field)	6.5 - 8.5	6.42	6.06	6.74	no Lab data	pH units		SM 4500- H-B
Phenol	0.3	ND	ND	ND	no Lab data	mg/l	Standard in mg/l; results in	EPA 625
Selenium	0.02	ND	ND	ND	no Lab data	mg/l	Dissolved	EPA 200.8
Silver Dissolved	0.05	ND	ND	ND	no Lab data	mg/l	Dissolved	EPA 200.8
Silver Total		ND	ND	ND	no Lab data	mg/l		EPA 200.8
Sulfate	250	10.12	2.75	8.96	1.3	mg/l		EPA 300.0
TDS	400	127	41	89	3.0	mg/l		SM 2540-C
Thallium	0.002	ND	ND	ND	no Lab data	mg/l		EPA 200.8
Uranium	0.0168 -0.03	ND	ND	ND	no Lab data	mg/l		EPA 200.8
Vanadium	0.1	ND	ND	ND	no Lab data		Dissolved	EPA 200.8
Zinc	2	0.868	0.003	0.109	no Lab data		Dissolved	EPA 200.8

Note 1: The standard value indicated is for dissolved concentrations; however, unless indicted on the Comments, the test results provided correspond to total concentrations this is due to an interpretation error by the Operator

The highlighted cells Indicate Test Results Higher than the Reference Values from Reg. 5 CCR 1002-41



DRMS COMMENT:

General

2. Rinsate samples are collected to assess the adequacy of the decontamination process. If disposable one-time use or dedicated equipment is used to collect water samples then a rinsate sample is not needed but the field sheets should reflect the use of such equipment. However, if sampling equipment, including but not limited to buckets or dippers, are used on multiple sites then a rinsate is warranted. As stated above, a section in future reports should be included to describe which QA/QC were collected and an explanation why other samples were not collected or needed. Please note sample result tables need to include the results of the QA/QC samples.

GIR RESPONSE:

GIR will utilize disposable on-time use equipment to collect water samples; this will be noted on the Field Sheets.

Should temporary equipment (non-single-use or disposable) be required, on occasion, due to field conditions, GIR will note the Filed Sheets and Rinsate Samples will collected and tested.

DRMS COMMENT:

Groundwater

3. The Division is seeking an explanation as to why the Winze groundwater elevation changes dramatically, from 9605' to 9667', between the August and September sampling events.

GIR RESPONSE:

From August 22nd to September 16th, rehabilitation work on the Cross Adit and Snowshed was conducted by mine operations; as a result, the power supply to the Winze Pump was disconnected and therefore no mine dewatering occurred during that period of time. It is likely that groundwater recovered as a result to the levels observed.

GIR appreciates the opportunity to submit clarification regarding our 3rd Quarter Water Collection and Testing in accordance with Technical Revision 10 (TR10).

Respectfully submitted

Dig J. The

Grand Island Resources, LLC

Daniel J. Takami

President Grand Island Resources LLC

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