

Klaza Property January 2016

KLAZA Claim sample station designations and coordinates are:

Station #	LAT/LONG Coordinates	
Surface Waters		
KLAZA-1	62.132	137.216
KLAZA-2	62.101	137.218
KLAZA-3	62.143	137.242
KLAZA-4	62.126	137.274
KLAZA-5	62.137	137.255
KLAZA-6	62.135	137.273
KLAZA-7	62.088	137.232
KLAZA-8	62.079	137.226
KLAZA-9	62.144	137.286
KLAZA-10	62.129	137.261
KLAZA -11	no data	
Groundwater Monitoring Wells		
MW15-01	383413 E	6888610 N
MW15-02	383355 E	6890004 N
MW15-03	383056 E	6890592 N
MW15-04	382484 E	6891020 N
MW15-05	381552 E	6890347 N
Thermistor String Well		
GTC15-01	382824 E	6890304 N

Sample Parameters

All stations with surface water flow were sampled for total metals, dissolved metals, routine chemistry, total organic carbon, total cyanide and total mercury.

Dissolved metals samples were filtered onsite using disposable 60 ml syringes and 0.45 micron filters. New syringes and filters were used for each station.

Total and dissolved metal samples were preserved with nitric acid immediately after sampling.

Total Organic Carbon samples were preserved with HCL immediately after sampling.

Klaza Property January 2016

Total cyanide samples were preserved with sodium hydroxide immediately after sampling.

There were no Quality Control samples taken this survey.

Ground water monitoring wells were not sampled. Wells were located, standing water levels were measured and data loggers were downloaded at MW15-01. Well MW15-05 had a logger installed but was frozen in and could not be downloaded.

Thermistor string measurements were taken at GTC15-01.

All samples were stored in coolers, kept at 4 Celsius and shipped by air cargo to the Exova Canada Inc. laboratory in Surrey B.C. for analysis within recommended holding times.

Field measurements for pH and conductivity were taken with an Oakton PCS TestR 35, water temperatures with a digital thermometer.

Stream flow volumes were measured with a Price Velocity meter and cross sectional area.

Analysis Results

Laboratory analysis and field measurement results are listed in the following tables:

Table 1. KLAZA Stations Routine Chemistry – laboratory analysis and field Measurements. January 2016.

Table 2. KLAZA Stations Total Metals ICP–MS laboratory analysis results. January 2016.

Table 3. KLAZA Stations Dissolved Metals ICP–MS laboratory analysis results. January 2016.

Table 4. Flow Volume Measurement Summary 2012 – 2016

Table 5. Ground water well standing water levels. January 2016.

Table 6. Thermistor String Measurements. January 2016

Klaza Property January 2016

As a guide for reviewing site water quality, the Maximum Acceptable Concentration (MAC) according to ***Canadian Drinking Water Quality*** are listed along with the Aquatic Guidelines for the protection of aquatic life in water with a pH of > 6.5 according to ***CCME – Canadian Water Quality Guidelines***.

All water quality ***Guideline*** concentrations are based on total metal values.

Laboratory Analytical Reports are attached in Appendix 1.

Data Summaries for each station are on the attached disc.

Discussion

Hydrology

January 2016 stream flow in Klaza Property channels had volumes similar to January 2014 and February 2015. Station KZ#3 had higher measured volumes than the two previous winter low flow measurements.

Stations KZ#1, KZ#2, KZ#6, KZ#10 and KZ#11 were dry, consistent with past winter surveys.

Stations KZ#4 and KZ#7 were heavily glaciated and were not sampled. The diversion channel on upper East Fork Nansen (KZ#8) was completely full of glacial ice to an estimated 3 meter depth. The KZ#8 sample was taken of flows on the left / east limit which during mining operations is the effluent channel.

Table 4 is a summary of flow measurements 2012 -2016. January 2 flow volume calculations are attached in Appendix 2.

Laboratory Analytical Results

Parameters that equal or exceed either ***Drinking Water or Aquatic Guidelines*** are highlighted in yellow in Tables 1 and 2.

Stations KZ-1, KZ-2, KZ-6, KZ-10 and KZ-11 were dry channels and not sampled.

Stations KZ-4 and KZ-7 had heavy glacial ice and were not sampled.

Klaza Property January 2016

Station KZ-3 exceeds the *Drinking Water Guidelines* for iron and the *Aquatic Guidelines* for iron and nitrite.

Stations KZ-5 exceeds the *Aquatic Guidelines* for nitrite.

Station KZ-8 exceeds the *Aquatic Guidelines* for nitrite.

Station KZ-9 exceeds the *Aquatic Guidelines* for nitrite.

All stations sampled reported total cyanide at less than laboratory detection limits (0.002 mg/L).

All stations sampled reported total mercury at less than detection limit (0.00001 mg/L).

As a result of placer activity on China Creek (effluent at KZ-11), sediment loading in the Klaza River downstream had increase significantly, in May 2015 an estimated 40% of original stream bed rocks and cobbles were visible and in August 2015 the original stream bed was reduced to an estimated 20%. In January 2016 a large percentage of the sediment had been “flushed” with an estimated 80% of the original stream bed material being visible.

Quality Control

No Quality Control samples were taken this survey.

Onset Weather Station

The **Onset / Hobo** weather station installed near camp on June, 2013 was downloaded on January 2, 2016. All parameter sensors with exception of solar radiation were operating.

The 2015 final weather data report for period January 1 to December 31 is attached.

APPENDIX 1

LABORATORY ANALYTICAL REPORTS

Water Quality Analysis

KLAZA PROPERTY

January, 2016

APPENDIX 2
STREAM FLOW VOLUME CALCULATIONS

January 2, 2016