

Silver Range Resources

REBEL/SNAP/HAMMER CLAIMS

Baseline Water Quality / Hydrology Survey

Environmental Data Update

April, 2014

REBEL/ SNAP/HAMMER Claims April 2014

Silver Range Resources baseline water quality / hydrology surveys of the REBEL, SNAP and HAMMER Claims surface waters continued in April, 2014.

Water quality / hydrology surveys of the SNAP and HAMMER Claims were started in October 2012. Surveys of the REBEL Claims started in August 2010.

The sites are located in the Anvil Range approximately 30 kilometers north of Faro, Yukon and 15 kilometers north of the former Faro Mine.

The REBEL Claims are located on tributaries to Anvil Creek and Rose Creeks.

The SNAP Claims are located on tributaries to Blind Creek.

The HAMMER Claims are located on tributaries to Rose Creek.

All surface waters are tributaries to the Pelly River.

All survey sites were accessed by helicopter.

The baseline survey consisted of water quality samples for routine chemistry, total metals, dissolved metals, total organic carbon, total cyanide and total mercury with field measurements for pH, water temperature and flow volume.

Sample Locations

Three sample sites were established on the REBEL Claims during the initial survey in August 2010.

Four sites were established on each of the SNAP and HAMMER Claims in October 2012.

All sites are on the attached location map.

Silver Range Resources

Rebel / Snap / Hammer Properties
Water Quality / Hydrology Stations

Legend

- ▲ Water Quality/
Hydrology Station
- NTS Boundary
- Road
- ~ Limited-use Road
- Trail
- Water Course
- Contour
- Water Body
- Quartz Claim

Updated January 2014

J. GIBSON ENVIRONMENTAL CONSULTING

REB #1

REB #2

REB #3

HAM #3

HAM #2

HAM #1

HAM #4

SNAP #1

SNAP #4

SNAP #2

SNAP #3

Creek

April

NOTES

Projection: UTM Zone 8 NAD83
Units: Meters
NTS: 105K006, 105K007

National Topographic Data Base (NTDB) compiled by Natural Resources Canada at a scale of 1:50,000. Cadastral data compiled by Natural Resources Canada. Reproduced under license from © Her Majesty the Queen in Right of Canada, Department of Natural Resources Canada. All rights reserved.

Quartz claim data obtained from Yukon Mining Recorder via <http://www.geomatics.yukon.ca>. Claim data current as of January 2, 2014

1:100,000



REBEL/ SNAP/ HAMMER Claims April 2014

REBEL Claim sample station designations and coordinates are:

Station #	Lat/Long Coordinates	Elevation(m)
REB #1	62 27 42.8N / 133 13 32.8W	1305
REB #2	62 24 58.7N / 133 13 26.1 W	1425
REB #3	62 24 30.3N / 133 11 12.1W	1365

SNAP Claims station designations and coordinates are:

Station #	Lat/Long Coordinates	Elevation(m)
SNAP #1	62 22 52.6N / 133 6 13W	
SNAP #2	62 20 34.9N / 133 5 5.4 W	
SNAP #3	62 20 7 N / 133 1 17.1 W	
SNAP #4	62 22 21.1N / 133 06 90.6W NEW LOCATION	

HAMMER Claims station designations and coordinates are:

Station #	Lat/Long Coordinates	Elevation(m)
HAM#1	62 23 37.9N / 133 8 53.9W	
HAM #2	62 23 47.3N / 133 10 16.9W	
HAM #3	62 24 0.7N / 133 9 36.6W	
HAM #4	62 23 22.1N / 133 11 28.1W	

Station SNAP#4 was relocated from the right fork (looking downstream) among the beaver dams to the left fork approximately 1 km upstream of the fork's confluence. The original site was unsuitable for flow measurements as the beaver activity was modifying channels and the left fork stream channel behind the HAMMER required coverage. The site map was modified for the January 2014 report.

Sample Analysis Parameters

All REBEL, SNAP and HAMMER Stations were sampled for total metals, dissolved metals and 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.

New B.C. Ministry of Environment protocols require total mercury to be sampled in a 125 ml glass bottle with a Teflon lid and be preserved with HCL. The new protocol was initiated in the January 2014 surveys.

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, conductivity, total dissolved solids were taken with an Oakton PCS TestR 35, water temperatures with a digital thermometer.

Sample Frequency

All REBEL, SNAP and HAMMER stations are on a quarterly sample frequency.

Flow Volume Measurements

Flow volume measurements were taken in April reflect winter minimum volumes.

All sites remain under total ice cover.

Analysis Results

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

Table 1 REBEL Stations April 2014 Routine Chemistry – laboratory and field

Table 2.REBEL Stations April 2014 Total Metals ICP–MS laboratory analysis

Table 3.REBEL Stations April 2014 Dissolved Metals ICP–MS laboratory analysis

Table 4. REBEL/SNAP/HAMMER Stations Flow Volume Summary 2010- 2014.

Table 5.SNAP Stations April 2014 Routine Chemistry – laboratory and field

Table 6.SNAP Stations April 2014 Total Metals ICP–MS laboratory analysis

Table 7.SNAP Stations April 2014 Dissolved Metals ICP-MS laboratory analysis

Table 8.HAMMER Stations April 2014 Routine Chemistry – laboratory and field

Table 9.HAMMER Stations April 2014 Total Metals ICP–MS laboratory analysis

Table 10.HAMMER Stations April 2014 Dissolved Metals ICP-MS laboratory analysis

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 and a total hardness as CaCO₃ > 180 mg/L according to ***CCME – Canadian Water Quality Guidelines***.

Table 1. Silver Range Resources - REBEL Claims, April 2014.
Routine Chemistry and Field Measurement Results

Parameter	Unit	STATIONS			DWQ*	Aquatic**
		REB #1	REB #2	REB #3	G.lines	G.lines
pH (field)	ru	7.95	7.80	7.79		
pH (lab)	ru	7.82	7.67	7.74		
Conductivity (lab)	uS/cm	357	238	185	6.5-8.5	6.5-9
Water temperature	C	-0.2	0.5	0.0		
Flow Volume(field)	cms	0.113	nr	nr		
Organic Carbon-Total	mg/L	0.8	0.9	1.9		
Cyanide - Total	mg/L	<0.002	<0.002	<0.002	0.2	0.005
Phosphorus (T)	mg/L	0.005	<0.003	0.01		
Ammonia -N	mg/L	0.02	0.02	0.02		1.37-2.2
Nitrate - N	mg/L	0.23	0.12	0.11	10	
Nitrite - N	mg/L	<0.01	<0.01	<0.01	1	0.06
Alkalinity (as CaCO3)	mg/L	164	115	92		
Chloride	mg/L	0.11	0.06	0.08	<250	
Sulphate (SO4)	mg/L	39.9	16.2	11.3		
Hardness (as CaCO3)	mg/L	194	123	92	<500	
T.Suspended Solids	mg/L	<3	<3	<3		
T.Dissolved Solids	mg/L	234	148	130	500	

All results and limits in mg/L unless noted otherwise. Nr = no sample/reading
Indicates concentration exceeds Guideline limits

Table 2. Silver Range Resources - REBEL Claims April, 2014

Total Metals Analysis Results.

Parameter	Units	REB #1	REB #2	REB #3	DWQ* G.Lines	Aquatic** G.Lines
Calcium	mg/L	48.4	44.5	30.3		
Iron	mg/L	0.051	0.159	0.028	0.3	0.3
Magnesium	mg/L	17.2	4.37	3.9		
Manganese	mg/L	0.0121	0.0079	0.002	0.05	
Potassium	mg/L	1.2	0.6	1.2		
Silicon	mg/L	3.8	4.6	5.29		
Sodium	mg/L	1.6	1.7	2.1	<200	
Titanium	mg/L	<0.0005	<0.0005	<0.0005		
Aluminum	mg/L	0.006	<0.005	0.021		0.1
Antimony	mg/L	0.0002	0.0001	<0.0001	0.006	
Arsenic	mg/L	0.00043	0.00143	0.00062	0.01	
Barium	mg/L	0.0782	0.0392	0.0377	1	
Beryllium	mg/L	<0.00005	<0.00005	<0.00005		
Bismuth	mg/L	<0.0001	<0.0001	<0.0001		
Boron	mg/L	0.002	<0.002	<0.002	5	
Cadmium	mg/L	0.00005	0.00003	0.00002	0.005	0.0018
Chromium	mg/L	<0.0005	<0.0005	<0.0005	0.05	0.002
Cobalt	mg/L	<0.0001	<0.0001	<0.0001		
Copper	mg/L	0.0004	0.0028	0.0006	1	0.004
Lead	mg/L	<0.0001	<0.0001	<0.0001	0.01	0.007
Lithium	mg/L	0.0016	0.0009	0.001		
Molybdenum	mg/L	0.00282	0.00061	0.001		
Nickel	mg/L	0.0005	<0.0002	<0.0002		0.15
Selenium	mg/L	0.0018	0.0005	0.0004	0.01	0.001
Silver	mg/L	<0.00005	<0.00005	<0.00005		0.0001
Strontium	mg/L	0.117	0.167	0.118		
Thallium	mg/L	<0.00001	<0.00001	<0.00001		
Thorium	mg/L	<0.00001	<0.00001	0.00004		
Tin	mg/L	<0.0001	<0.0001	<0.0001		
Uranium	mg/L	0.0028	0.00111	0.00062	0.02	
Vanadium	mg/L	0.0002	0.0001	0.0002		
Zinc	mg/L	0.0025	0.0024	0.0021	<5	0.03
Zirconium	mg/L	<0.0005	<0.0005	<0.0005		
Mercury	mg/L	<0.00001	<0.00001	<0.00001	0.001	0.1

Indicates concentration exceeds Guideline limits

Table 3. Silver Range Resources - REBEL Claims April, 2014.

Dissolved Metals Analysis Results

Parameter	Units	REB#1	REB#2	REB#3
Calcium	mg/L	48.3	42.1	30.2
Iron	mg/L	0.006	0.088	<0.005
Magnesium	mg/L	17.7	4.26	3.97
Manganese	mg/L	0.004	0.002	<0.001
Potassium	mg/L	1.1	0.5	1.1
Silicon	mg/L	3.61	4.11	4.93
Sodium	mg/L	1.6	1.5	2
Sulfur	mg/L	12.2	5.2	3.6
Titanium	mg/L	<0.010	<0.010	<0.010
Aluminum	mg/L	<0.005	<0.005	<0.005
Antimony	mg/L	0.0003	<0.0002	<0.0002
Arsenic	mg/L	0.0005	0.0013	0.0007
Barium	mg/L	0.076	0.036	0.036
Beryllium	mg/L	<0.00004	<0.00004	<0.00004
Bismuth	mg/L	<0.001	<0.001	<0.001
Boron	mg/L	<0.004	<0.004	<0.004
Cadmium	mg/L	0.00007	0.00002	0.00002
Chromium	mg/L	<0.0004	<0.0004	<0.0004
Cobalt	mg/L	0.00005	0.00004	0.00002
Copper	mg/L	<0.001	<0.001	0.018
Lead	mg/L	<0.0001	<0.0001	<0.0001
Lithium	mg/L	0.002	<0.001	<0.001
Molybdenum	mg/L	0.00255	0.00047	0.00084
Nickel	mg/L	<0.001	<0.001	<0.001
Selenium	mg/L	0.0016	<0.0006	<0.0006
Silver	mg/L	<0.00001	<0.00001	<0.00001
Strontium	mg/L	0.109	0.151	0.11
Thallium	mg/L	0.00001	<0.00001	<0.00001
Thorium	mg/L	<0.0004	<0.0004	<0.0004
Tin	mg/L	<0.0001	<0.0001	<0.0001
Uranium	mg/L	0.0029	0.0011	0.0006
Vanadium	mg/L	0.00016	0.00012	0.00014
Zinc	mg/L	0.002	0.005	0.005
Zirconium	mg/L	<0.00010	<0.00010	<0.00010

Table 4. Silver Range Resources - Summary of REB/SNAP/HAMMER Flow Volumes 2010 - 2014
(Cubic meters per second)

Station	Date												
	Aug-10	Oct-10	Mar-11	Jun-11	Sep-11	Mar-12	May-12	Jul-12	Oct-12	Mar-13	Jun-13	Sep-13	Apr-14
REB #1	0.403	0.311	0.068	1.252	0.776	0.055	0.218	nr	0.314	0.1024	1.476	0.9404	0.1129
REB #2	0.015	0.028	Dry	0.054	0.034	Dry	Dry	nr	0.018	nr	0.0553	0.0679	nr
REB #3	0.024	0.047	0.0015	0.639	0.040	0.002	0.1021	nr	0.106	nr	0.097	nr	nr
SNAP#1									0.0695	nr	1.526	1.0857	nr
SNAP#2									0.0935	0.0079	0.635	0.2386	0.0012
SNAP#3									0.0573	nr	0.277	nr	nr
SNAP#4									nr	nr	nr	nr	nr
HAM#1									nr	nr	nr	nr	nr
HAM#2									nr	nr	0.4957	0.3734	nr
HAM#3									0.0474	0.0332	0.5034	0.2287	0.0315
HAM#4									0.0469	nr	0.3118	0.2233	nr

Table 5 . Silver Range Resources - SNAP Claims, April 2014.
Routine Chemistry and Field Measurement Results

Parameter	Unit	STATIONS				DWQ* G.lines	Aquatic** G.lines
		SNAP#1	SNAP#2	SNAP#3	SNAP#4		
pH (field)	ru	7.68	6.62	6.35	7.73		
pH (lab)	ru	7.53	6.8	5.84	7.61	6.5-8.5	6.5-9
Conductivity (lab)	uS/cm	251	183	150	306		
Water temperature	C	0.2	0.7	1.2	0.2		
Flow Volume(field)	cms	nr	0.0012	nr	nr		
Organic Carbon-Total	mg/L	1.5	<0.5	0.7	1.4		
Cyanide - Total	mg/L	0.002	<0.002	<0.002	<0.002	0.2	0.005
Phosphorus (T)	mg/L	0.032	0.008	0.004	0.007		
Ammonia -N	mg/L	0.05	<0.01	0.02	0.06		1.37-2.2
Nitrate - N	mg/L	0.11	0.17	0.02	0.05	10	
Nitrite - N	mg/L	<0.01	<0.01	<0.01	<0.01	1	0.06
Alkalinity (as CaCO3)	mg/L	56	10	<5	59		
Chloride	mg/L	0.11	0.05	0.06	0.07	<250	
Sulphate (SO4)	mg/L	63.8	68.4	60.3	91.1		
Hardness (as CaCO3)	mg/L	121	81	63	156	<500	
T.Suspended Solids	mg/L	<3	<3	6	<3		
T.Dissolved Solids	mg/L	160	122	100	198	500	

All results and limits in mg/L unless noted otherwis. Nr = no sample/reading

DWQ* Guidelines are Maximum Acceptable Concentrations according to

Canadian Drinking Water Quality

Aquatic Guidelines are for protection of aquatic life in waters with pH >6.5 and Hardness as CaCO3 >180 mg/L**

Canadian Water Quality Guidelines

equal or exceeds Guideline limit

Table 6. Silver Range Resources - SNAP Claims April, 2014

Total Metals Analysis Results.

Parameter	Units	SNAP#1	SNAP#2	SNAP#3	SNAP#4	DWQ* G.Lines	Aquatic** G.Lines
Calcium	mg/L	34	23.5	18.2	50.3		
Iron	mg/L	0.44	0.36	0.022	0.234	0.3	0.3
Magnesium	mg/L	6.22	4.22	3.14	4.92		
Manganese	mg/L	0.127	0.0525	0.0083	0.131	0.05	
Potassium	mg/L	1.2	0.8	0.4	1.5		
Silicon	mg/L	4.46	3.91	5.62	4.69		
Sodium	mg/L	3	2.3	2.3	2.6	<200	
Titanium	mg/L	<0.0005	0.0012	<0.0005	<0.0005		
Aluminum	mg/L	0.016	0.368	0.17	0.005		0.1
Antimony	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.006	
Arsenic	mg/L	0.00151	0.00422	0.00054	0.00049	0.01	
Barium	mg/L	0.0433	0.0235	0.0607	0.039	1	
Beryllium	mg/L	<0.00005	0.00058	0.00022	<0.00005		
Bismuth	mg/L	<0.0001	<0.0001	<0.0001	<0.0001		
Boron	mg/L	<0.002	<0.002	<0.002	<0.002	5	
Cadmium	mg/L	0.00068	0.00367	0.00201	0.00006	0.005	0.0018
Chromium	mg/L	0.0006	<0.0005	<0.0005	<0.0005	0.05	0.002
Cobalt	mg/L	<0.0001	<0.0001	<0.0001	0.0004		
Copper	mg/L	0.0014	0.0029	0.0012	0.0009	1	0.004
Lead	mg/L	0.0005	0.0062	0.0003	<0.0001	0.01	0.007
Lithium	mg/L	0.0025	0.0021	0.0019	0.0015		
Molybdenum	mg/L	0.00064	0.00011	<0.00005	0.00039		
Nickel	mg/L	0.009	0.012	0.0074	0.0012		0.15
Selenium	mg/L	0.0002	0.0003	0.0001	0.0004	0.01	0.001
Silver	mg/L	<0.00005	<0.00005	<0.00005	<0.00005		0.0001
Strontium	mg/L	0.178	0.151	0.113	0.22		
Thallium	mg/L	0.00002	0.00001	<0.00001	0.00001		
Thorium	mg/L	0.00004	0.00003	0.00001	<0.00001		
Tin	mg/L	<0.0001	<0.0001	<0.0001	<0.0001		
Uranium	mg/L	0.00127	0.00031	0.00021	0.00184	0.02	
Vanadium	mg/L	0.0001	0.0002	0.0001	<0.0001		
Zinc	mg/L	0.13	0.708	1.11	0.0053	<5	0.03
Zirconium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005		
Mercury	mg/L	<0.00001	<0.00001	<0.00001	<0.00001	0.001	0.1

equal or exceeds Guideline limit

nr=no sample or analysis done

Table 7. Silver Range Resources - SNAP Claims April 2014.

Dissolved Metals Analysis Results

Parameter	Units	SNAP#1	SNAP#2	SNAP#3	SNAP#4
Calcium	mg/L	37.3	25.1	19.5	53.8
Iron	mg/L	0.144	0.052	<0.005	0.091
Magnesium	mg/L	6.83	4.54	3.37	5.22
Manganese	mg/L	0.119	0.04	<0.001	0.122
Potassium	mg/L	1.1	0.7	0.3	1.3
Silicon	mg/L	4.33	3.64	5.29	4.46
Sodium	mg/L	2.6	2.1	2	2.3
Sulfur	mg/L	19.7	21	18.3	27.8
Titanium	mg/L	<0.010	<0.010	<0.010	<0.010
Aluminum	mg/L	<0.005	0.052	0.117	<0.005
Antimony	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Arsenic	mg/L	0.0012	0.0008	0.0003	0.0005
Barium	mg/L	0.041	0.023	0.057	0.037
Beryllium	mg/L	<0.00004	0.00025	0.00018	<0.00004
Bismuth	mg/L	<0.001	<0.001	<0.001	<0.001
Boron	mg/L	<0.004	<0.004	<0.004	<0.004
Cadmium	mg/L	0.00057	0.00358	0.00192	0.00003
Chromium	mg/L	<0.0004	<0.0004	<0.0004	<0.0004
Cobalt	mg/L	0.0001	0.00006	<0.00002	0.00035
Copper	mg/L	<0.001	0.001	<0.001	<0.001
Lead	mg/L	0.0002	0.0009	<0.0001	<0.0001
Lithium	mg/L	0.002	0.002	0.002	0.002
Molybdenum	mg/L	0.0004	<0.00010	<0.00010	0.00028
Nickel	mg/L	0.006	0.011	0.007	0.002
Selenium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006
Silver	mg/L	<0.00001	<0.00001	<0.00001	<0.00001
Strontium	mg/L	0.175	0.146	0.102	0.208
Thallium	mg/L	<0.00001	<0.00001	<0.00001	<0.00001
Thorium	mg/L	<0.0004	<0.0004	<0.0004	<0.0004
Tin	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Uranium	mg/L	0.0013	<0.0004	<0.0004	0.0018
Vanadium	mg/L	<0.00010	<0.00010	<0.00010	<0.00010
Zinc	mg/L	0.131	0.716	1.11	0.003
Zirconium	mg/L	<0.00010	<0.00010	<0.00010	<0.00010

Table 8. Silver Range Resources - HAMMER Claims, April, 2014.
Routine Chemistry and Field Measurement Results

Parameter	Unit	STATIONS				Aquatic** G.lines
		HAM#1	HAM#2	HAM#3	HAM#4	
pH (field)	ru	7.35		8.08		
pH (lab)	ru	7.35		7.84		
Conductivity (lab)	uS/cm	306	Dry	268	Dry	6.5-8.5
Water temperature	C	0.3		0.3		6.5-9
Flow Volume(field)	cms	nr		0.0315		
Organic Carbon-Total	mg/L	3.2		2.2		
Cyanide - Total	mg/L	<0.002		<0.002		0.2
Phosphorus (T)	mg/L	0.06		0.02		
Ammonia - N	mg/L	0.06		0.02		1.37-2.2
Nitrate - N	mg/L	0.08		0.17		10
Nitrite - N	mg/L	<0.01		<0.01		1
Alkalinity (as CaCO3)	mg/L	161		131		0.06
Chloride	mg/L	0.19		0.2		<250
Sulphate (SO4)	mg/L	7.6		17.3		
Hardness (as CaCO3)	mg/L	155		141		<500
T.Suspended Solids	mg/L	4		<3		
T.Dissolved Solids	mg/L	196		178		500

All results and limits in mg/L unless noted otherwise. Nr = no sample/reading

DWQ Guidelines are Maximum Acceptable Concentrations according to*

Canadian Drinking Water Quality

*Aquatic** Guidelines are for protection of aquatic life in waters with pH >6.5 and Hardness as CaCO3 >180 mg/L*

Canadian Water Quality Guidelines

equal or exceeds Guideline limit

Table 9. Silver Range Resources - HAMMER Claims , April 2014

Total Metals Analysis Results.						
Parameter	Units	HAM#1	HAM#2	HAM#3	HAM#4	DWQ* Aquatic**
Calcium	mg/L	45.3	38.4			
Iron	mg/L	1.55	0.068		0.3	0.3
Magnesium	mg/L	11	11.4			
Manganese	mg/L	0.202	0.0094		0.05	
Potassium	mg/L	1.6	0.4			
Silicon	mg/L	6.01	3.66			
Sodium	mg/L	3	1.5		<200	
Titanium	mg/L	0.0009	<0.0005			
Aluminum	mg/L	0.03	0.013			0.1
Antimony	mg/L	<0.0001	<0.0001		0.006	
Arsenic	mg/L	0.00943	0.00027		0.01	
Barium	mg/L	0.2	0.0663		1	
Beryllium	mg/L	<0.00005	<0.00005			
Bismuth	mg/L	<0.0001	<0.0001			
Boron	mg/L	0.004	<0.002		5	
Cadmium	mg/L	0.00002	0.00001		0.005	0.0018
Chromium	mg/L	<0.0005	<0.0005		0.05	0.002
Cobalt	mg/L	0.0002	<0.0001			
Copper	mg/L	0.0004	0.001		1	0.004
Lead	mg/L	<0.0001	<0.0001		0.01	0.007
Lithium	mg/L	0.0046	0.0013			
Molybdenum	mg/L	0.00145	0.00079			
Nickel	mg/L	0.0003	<0.0002			0.15
Selenium	mg/L	0.0007	0.0008		0.01	0.001
Silver	mg/L	<0.00005	<0.00005			0.0001
Strontium	mg/L	0.206	0.127			
Thallium	mg/L	<0.00001	<0.00001			
Thorium	mg/L	0.00003	<0.00001			
Tin	mg/L	<0.0001	<0.0001			
Uranium	mg/L	0.00242	0.00132		0.02	
Vanadium	mg/L	0.0003	0.0001			
Zinc	mg/L	0.0036	0.0018		<5	0.03
Zirconium	mg/L	<0.0005	<0.0005			
Mercury	mg/L	<0.00001	<0.00001		0.001	0.1

equal or exceeds Guideline limit

nr=no sample or analysis done

Table 10. Silver Range Resources - HAMMER Claims April, 2014.

Dissolved Metals Analysis Results

Parameter	Units	HAM#1	HAM#2	HAM#3	HAM#4
Calcium	mg/L	43.8		37.7	
Iron	mg/L	0.449		0.026	
Magnesium	mg/L	11		11.4	
Manganese	mg/L	0.18		<0.001	
Potassium	mg/L	1.4		0.3	
Silicon	mg/L	5.46		3.35	
Sodium	mg/L	2.7		1.3	
Sulfur	mg/L	2.7		5.4	
Titanium	mg/L	<0.010		<0.010	
Aluminum	mg/L	<0.005		<0.005	
Antimony	mg/L	<0.0002		<0.0002	
Arsenic	mg/L	0.0065		0.0003	
Barium	mg/L	0.183		0.063	
Beryllium	mg/L	<0.00004		<0.00004	
Bismuth	mg/L	<0.001		<0.001	
Boron	mg/L	<0.004		<0.004	
Cadmium	mg/L	<0.00001		<0.00001	
Chromium	mg/L	<0.0004		<0.0004	
Cobalt	mg/L	0.00015		0.00003	
Copper	mg/L	<0.001		<0.001	
Lead	mg/L	<0.0001		<0.0001	
Lithium	mg/L	0.005		0.001	
Molybdenum	mg/L	0.00123		0.00063	
Nickel	mg/L	<0.001		<0.001	
Selenium	mg/L	0.0006		0.0006	
Silver	mg/L	<0.00001		<0.00001	
Strontium	mg/L	0.189		0.116	
Thallium	mg/L	<0.00001		<0.00001	
Thorium	mg/L	<0.0004		<0.0004	
Tin	mg/L	<0.0001		<0.0001	
Uranium	mg/L	0.0024		0.0013	
Vanadium	mg/L	0.00013		0.00012	
Zinc	mg/L	0.001		<0.001	
Zirconium	mg/L	<0.00010		<0.00010	

REBEL/ SNAP / HAMMER Claims April 2014

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

All laboratory analysis was done by Exova Canada Inc of Surrey B.C.

Laboratory Analytical Reports are attached in Appendix 1.

Data Summaries for REBEL, SNAP and HAMMER stations are on the attached disc.

Quality Control

No Quality control samples were taken in April 2014.

Discussion

Hydrology

All water quality / hydrology stations were in base low flow winter conditions. All stations had total ice cover.

Laboratory Analytical Results

Parameters that equal or exceed either ***Drinking Water or Aquatic Guidelines*** are highlighted in yellow in the data reporting tables.

REBEL Stations

Station REBEL #1 results exceed the ***Aquatic Guidelines*** for selenium.

Stations REBEL #2 and #3 met all ***Guideline*** limits

SNAP Stations

Station SNAP#1 results exceed ***Aquatic Guidelines*** for iron and zinc; and exceeds the ***Drinking Water MAC*** for iron and manganese.

Station SNAP #2 results exceed the ***Aquatic Guidelines*** for iron, aluminum, cadmium and zinc; and exceeds the ***Drinking Water MAC*** for iron and manganese.

REBEL/ SNAP / HAMMER Claims April 2014

Station SNAP#3 results exceed *Aquatic Guidelines* for pH, aluminum, cadmium and zinc; and exceeds the *Drinking Water range* for pH.

Station SNAP #4 results exceed the *Aquatic Guidelines* and *Drinking Water MAC* for iron.

HAMMER Stations

Station HAM#1 results exceed *Aquatic Guidelines* for iron and zinc; and *Drinking Water MAC* for iron and manganese.

Station HAM#3 met all *Guideline* limits.

Stations HAM#2 and #4 had no flow.

Total Mercury concentrations were below the detection limit of 0.0001 mg/L at all stations.

Total cyanide concentrations were at or below the lab detection limit of 0.002 mg/L at all stations.

A P P E N D I X 1

LABORATORY ANALYTICAL REPORTS

REBEL/SNAP/HAMMER Claims

APRIL 2014

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Report Transmission Cover Page

Bill To: J. Gibson & Associates	Project:	Lot ID: 999085
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15265
Box 20913	Name: Rebel Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1912090
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

Contact & Affiliation	Address	Delivery Commitments
John Gibson	, Box 20913	On [Lot Verification] send
J. Gibson & Associates	Whitehorse, Yukon Territory Y1A 6P2	(COA) by Email - Single Report
	Phone: (867) 633-4522	On [Report Approval] send
	Fax: (867) 668-6895	(COC, Test Report) by Email - Merge Reports
	Email: ludditegibson@gmail.com	On [Report Approval] send
		(Test Report) by Email - Single Report
		On [Lot Approval and Final Test Report Approval] send
		(Invoice) by Email - Single Report
		On [Lot Creation] send
		(COR) by Email - Single Report

Notes To Clients:

- Sample 999085-1; 4725503 pH analysis was performed past the recommended holding time of 15 minutes from sample collection.

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Analytical Report

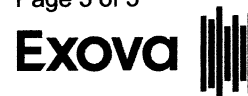
Bill To: J. Gibson & Associates	Project:	Lot ID: 999085
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15265
Box 20913	Name: Rebel Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1912090
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

		Reference Number	999085-1	999085-2	999085-3	
		Sample Date	Apr 26, 2014	Apr 26, 2014	Apr 26, 2014	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	REB #1	REB #2	REB #3	
		Matrix	Water	Water	Water	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Inorganic Nonmetallic Parameters						
Organic Carbon	Total Nonpurgeable	mg/L	0.8	0.9	1.9	0.5
Cyanide	Total	mg/L	<0.002	<0.002	<0.002	0.002
Ammonia - N		mg/L	0.02	0.02	0.02	.01
Phosphorus	Total	mg/L	0.005	<0.003	0.010	0.003
Metals Dissolved						
Subsample	Field Filtered		Field Filtered	Field Filtered	Field Filtered	
Sulfur	Dissolved	mg/L	12.2	5.2	3.6	0.2
Aluminum	Dissolved	mg/L	<0.005	<0.005	<0.005	0.005
Antimony	Dissolved	mg/L	0.0003	<0.0002	<0.0002	0.0002
Arsenic	Dissolved	mg/L	0.0005	0.0013	0.0007	0.0002
Barium	Dissolved	mg/L	0.076	0.036	0.036	0.001
Beryllium	Dissolved	mg/L	<0.00004	<0.00004	<0.00004	0.00004
Bismuth	Dissolved	mg/L	<0.001	<0.001	<0.001	0.001
Boron	Dissolved	mg/L	<0.004	<0.004	<0.004	0.004
Cadmium	Dissolved	mg/L	0.00007	0.00002	0.00002	0.00001
Chromium	Dissolved	mg/L	<0.0004	<0.0004	<0.0004	0.0004
Cobalt	Dissolved	mg/L	0.00005	0.00004	0.00002	0.00002
Copper	Dissolved	mg/L	<0.001	<0.001	0.018	0.001
Lead	Dissolved	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Lithium	Dissolved	mg/L	0.002	<0.001	<0.001	0.001
Molybdenum	Dissolved	mg/L	0.00255	0.00047	0.00084	0.0001
Nickel	Dissolved	mg/L	<0.001	<0.001	<0.001	0.001
Selenium	Dissolved	mg/L	0.0016	<0.0006	<0.0006	0.0006
Silver	Dissolved	mg/L	<0.00001	<0.00001	<0.00001	0.00001
Titanium	Dissolved	mg/L	<0.010	<0.010	<0.010	0.01
Strontium	Dissolved	mg/L	0.109	0.151	0.110	0.001
Tellurium	Dissolved	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Thallium	Dissolved	mg/L	0.00001	<0.00001	<0.00001	0.00001
Thorium	Dissolved	mg/L	<0.0004	<0.0004	<0.0004	0.0004
Tin	Dissolved	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Uranium	Dissolved	mg/L	0.0029	0.0011	0.0006	0.0004
Vanadium	Dissolved	mg/L	0.00016	0.00012	0.00014	0.0001
Zinc	Dissolved	mg/L	0.002	0.005	0.005	0.001
Zirconium	Dissolved	mg/L	<0.00010	<0.00010	<0.00010	0.0001
Metals Total						
Mercury	Total	mg/L	<0.00001	<0.00001	<0.00001	0.00001

Analytical Report

Bill To: J. Gibson & Associates	Project:	Lot ID: 999085
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15265
Box 20913	Name: Rebel Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1912090
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

		Reference Number	999085-1	999085-2	999085-3	
		Sample Date	Apr 26, 2014	Apr 26, 2014	Apr 26, 2014	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	REB #1	REB #2	REB #3	
		Matrix	Water	Water	Water	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Total - Continued						
Aluminum	Total	mg/L	0.006	<0.005	0.021	0.005
Antimony	Total	mg/L	0.0002	0.0001	<0.0001	0.0001
Arsenic	Total	mg/L	0.00043	0.00143	0.00062	0.00005
Barium	Total	mg/L	0.0782	0.0392	0.0377	0.00005
Beryllium	Total	mg/L	<0.00005	<0.00005	<0.00005	0.00005
Bismuth	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Boron	Total	mg/L	0.002	<0.002	<0.002	.002
Cadmium	Total	mg/L	0.00005	0.00003	0.00002	0.00001
Calcium	Total	mg/L	48.4	44.5	30.3	0.05
Chromium	Total	mg/L	<0.0005	<0.0005	<0.0005	0.0005
Cobalt	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Copper	Total	mg/L	0.0004	0.0028	0.0006	0.0001
Iron	Total	mg/L	0.051	0.159	0.028	0.002
Lead	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Lithium	Total	mg/L	0.0016	0.0009	0.0010	0.0005
Magnesium	Total	mg/L	17.2	4.37	3.90	0.04
Manganese	Total	mg/L	0.0121	0.0079	0.0020	0.001
Molybdenum	Total	mg/L	0.00282	0.00061	0.00100	0.00005
Nickel	Total	mg/L	0.0005	<0.0002	<0.0002	0.0002
Potassium	Total	mg/L	1.2	0.6	1.2	0.1
Selenium	Total	mg/L	0.0018	0.0005	0.0004	0.0001
Silicon	Total	mg/L	3.80	4.60	5.29	0.02
Silver	Total	mg/L	<0.00005	<0.00005	<0.00005	0.00005
Sodium	Total	mg/L	1.6	1.7	2.1	0.1
Strontium	Total	mg/L	0.117	0.167	0.118	0.0001
Thallium	Total	mg/L	<0.00001	<0.00001	<0.00001	0.00001
Thorium	Total	mg/L	<0.00001	<0.00001	0.00004	0.00001
Tin	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Titanium	Total	mg/L	<0.0005	<0.0005	<0.0005	0.0005
Uranium	Total	mg/L	0.00280	0.00111	0.00062	0.00001
Vanadium	Total	mg/L	0.0002	0.0001	0.0002	0.0001
Zinc	Total	mg/L	0.0025	0.0024	0.0021	0.0005
Zirconium	Total	mg/L	<0.0005	<0.0005	<0.0005	0.0005
Hardness	as CaCO3	mg/L	192	129	92	1
Physical and Aggregate Properties						
Solids	Total Suspended	mg/L	<3	<3	<3	1



Analytical Report

Bill To: J. Gibson & Associates	Project:	Lot ID: 999085
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15265
Box 20913	Name: Rebel Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1912090
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

		Reference Number	999085-1	999085-2	999085-3	
		Sample Date	Apr 26, 2014	Apr 26, 2014	Apr 26, 2014	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	REB #1	REB #2	REB #3	
		Matrix	Water	Water	Water	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Physical and Aggregate Properties - Continued						
Solids	Total Dissolved	mg/L	234	148	130	5
Routine Water						
pH	at 25 °C		7.82	7.67	7.74	
Electrical Conductivity		µS/cm at 25 C	357	238	185	1
Calcium	Dissolved	mg/L	48.3	42.1	30.2	0.1
Iron	Dissolved	mg/L	0.006	0.088	<0.005	0.005
Magnesium	Dissolved	mg/L	17.7	4.26	3.97	0.1
Manganese	Dissolved	mg/L	0.004	0.002	<0.001	0.001
Potassium	Dissolved	mg/L	1.1	0.5	1.1	0.1
Silicon	Dissolved	mg/L	3.61	4.11	4.93	0.05
Sodium	Dissolved	mg/L	1.6	1.5	2.0	0.1
Bicarbonate		mg/L	200	141	112	5
Carbonate		mg/L	<6	<6	<6	6
Hydroxide		mg/L	<5	<5	<5	5
P-Alkalinity	as CaCO3	mg/L	<5	<5	<5	5
T-Alkalinity	as CaCO3	mg/L	164	115	92	5
Chloride	Dissolved	mg/L	0.11	0.06	0.08	0.05
Nitrate - N	Dissolved	mg/L	0.23	0.12	0.11	0.01
Nitrite - N	Dissolved	mg/L	<0.01	<0.01	<0.01	0.01
Sulfate (SO4)	Dissolved	mg/L	39.9	16.2	11.3	0.5
Hardness	as CaCO3	mg/L	194	123	92	5

Approved by: 
 Mathieu Simoneau
 Operations Manager

Methodology and Notes

Bill To: J. Gibson & Associates	Project:	Lot ID: 999085
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15265
Box 20913	Name: Rebel Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1912090
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (Surrey)	APHA	* Alkalinity - Titration Method, 2320 B	29-Apr-14	Exova Surrey
Alk, pH, EC, Turb in water (Surrey)	APHA	* Conductivity, 2510 B	29-Apr-14	Exova Surrey
Alk, pH, EC, Turb in water (Surrey)	APHA	* pH - Electrometric Method, 4500-H+ B	29-Apr-14	Exova Surrey
Ammonia-N in Water (Surrey)	APHA	* Flow Injection Analysis, 4500-NH3 H	02-May-14	Exova Surrey
Anions by IEC in water (Surrey)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	29-Apr-14	Exova Surrey
BC ICP-MS Total Metals in Water	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	01-May-14	Exova Edmonton
BC Trace Total Metals in Water	APHA	* Inductively Coupled Plasma (ICP) Method, 3120 B	01-May-14	Exova Edmonton
Carbon Organic (Total) in water (TOC)	APHA	High-Temperature Combustion Method, 5310 B	30-Apr-14	Exova Edmonton
Cyanide (Total) in water	US EPA	* US EPA method, 335.3	02-May-14	Exova Edmonton
Mercury Low Level (Total) in water (Surrey)	EPA	* Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry, 245.7	29-Apr-14	Exova Surrey
Metals SemiTrace (Dissolved) in water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	29-Apr-14	Exova Surrey
Phosphorus - total by Smartchem (Surrey)	APHA	* Preliminary Acid Hydrolysis, Ascorbic Acid Reduction Method, 4500-P B,E	29-Apr-14	Exova Surrey
Solids Dissolved (Total, Fixed and Volatile) - Surrey	APHA	* Total Dissolved Solids Dried at 180 C, 2540 C	01-May-14	Exova Surrey
Solids Suspended (Total, Fixed and Volatile)	APHA	* Total Suspended Solids Dried at 103-105°C, 2540 D	01-May-14	Exova Surrey
Trace Metals (dissolved) in Water (Surrey)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	29-Apr-14	Exova Surrey
Trace Metals (dissolved) in Water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	29-Apr-14	Exova Surrey

* Reference Method Modified

References

APHA Standard Methods for the Examination of Water and Wastewater
 US EPA US Environmental Protection Agency Test Methods

Comments:

- Sample 999085-1; 4725503 pH analysis was performed past the recommended holding time of 15 minutes from sample collection.

Exova
#104, 19575-55 A Ave.
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V3S 8P8, Canada

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Page 5 of 5

Exova



Methodology and Notes

Bill To:	J. Gibson & Associates	Project:		Lot ID:	999085
Report To:	J. Gibson & Associates	ID:	Silver Range Res.	Control Number:	B15265
	Box 20913	Name:	Rebel Project	Date Received:	Apr 28, 2014
	Whitehorse, YT, Canada	Location:		Date Reported:	May 2, 2014
	Y1A 6P2	LSD:		Report Number:	1912090
Attn:	John Gibson	P.O.:			
Sampled By:	R. Gibson	Acct code:			
Company:					

Please direct any inquiries regarding this report to our Client Services group.

Results relate only to samples as submitted.

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Received by: DS

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Report Transmission Cover Page

Bill To:	J. Gibson & Associates	Project:		Lot ID:	999001
Report To:	J. Gibson & Associates	ID:	Silver Range Res.	Control Number:	B15266
	Box 20913	Name:	SNAP Project	Date Received:	Apr 28, 2014
	Whitehorse, YT, Canada	Location:		Date Reported:	May 2, 2014
	Y1A 6P2	LSD:		Report Number:	1911991
Attn:	John Gibson	P.O.:			
Sampled By:	R. Gibson	Acct code:			
Company:					

Contact & Affiliation	Address	Delivery Commitments
John Gibson	, Box 20913	On [Lot Verification] send
J. Gibson & Associates	Whitehorse, Yukon Territory Y1A 6P2	(COA) by Email - Single Report
	Phone: (867) 633-4522	On [Report Approval] send
	Fax: (867) 668-6895	(COC, Test Report) by Email - Merge Reports
	Email: ludditegibson@gmail.com	On [Report Approval] send
		(Test Report) by Email - Single Report
		On [Lot Approval and Final Test Report Approval] send
		(Invoice) by Email - Single Report
		On [Lot Creation] send
		(COR) by Email - Single Report

Notes To Clients:

- pH analysis was performed past the recommended holding time of 15 minutes from sample collection.

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Analytical Report

Bill To: J. Gibson & Associates	Project:	Lot ID: 999001
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15266
Box 20913	Name: SNAP Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1911991
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

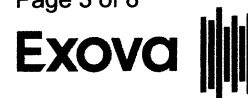
		Reference Number	999001-1	999001-2	999001-3	
		Sample Date	Apr 26, 2014	Apr 26, 2014	Apr 26, 2014	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	Surf / SNAP #1	Surf / SNAP #2	Surf / SNAP #3	
		Matrix	Water	Water	Water	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Inorganic Nonmetallic Parameters						
Organic Carbon	Total Nonpurgeable	mg/L	1.5	<0.5	0.7	0.5
Cyanide	Total	mg/L	0.002	<0.002	<0.002	0.002
Ammonia - N		mg/L	0.05	<0.01	0.02	.01
Phosphorus	Total	mg/L	0.032	0.008	0.004	0.003
Metals Dissolved						
Subsample	Field Filtered		Field Filtered	Field Filtered	Field Filtered	
Sulfur	Dissolved	mg/L	19.7	21.0	18.3	0.2
Aluminum	Dissolved	mg/L	<0.005	0.052	0.117	0.005
Antimony	Dissolved	mg/L	<0.0002	<0.0002	<0.0002	0.0002
Arsenic	Dissolved	mg/L	0.0012	0.0008	0.0003	0.0002
Barium	Dissolved	mg/L	0.041	0.023	0.057	0.001
Beryllium	Dissolved	mg/L	<0.00004	0.00025	0.00018	0.00004
Bismuth	Dissolved	mg/L	<0.001	<0.001	<0.001	0.001
Boron	Dissolved	mg/L	<0.004	<0.004	<0.004	0.004
Cadmium	Dissolved	mg/L	0.00057	0.00358	0.00192	0.00001
Chromium	Dissolved	mg/L	<0.0004	<0.0004	<0.0004	0.0004
Cobalt	Dissolved	mg/L	0.00010	0.00006	<0.00002	0.00002
Copper	Dissolved	mg/L	<0.001	0.001	<0.001	0.001
Lead	Dissolved	mg/L	0.0002	0.0009	<0.0001	0.0001
Lithium	Dissolved	mg/L	0.002	0.002	0.002	0.001
Molybdenum	Dissolved	mg/L	0.00040	<0.00010	<0.00010	0.0001
Nickel	Dissolved	mg/L	0.006	0.011	0.007	0.001
Selenium	Dissolved	mg/L	<0.0006	<0.0006	<0.0006	0.0006
Silver	Dissolved	mg/L	<0.00001	<0.00001	<0.00001	0.00001
Titanium	Dissolved	mg/L	<0.010	<0.010	<0.010	0.01
Strontium	Dissolved	mg/L	0.175	0.146	0.102	0.001
Tellurium	Dissolved	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Thallium	Dissolved	mg/L	<0.00001	<0.00001	<0.00001	0.00001
Thorium	Dissolved	mg/L	<0.0004	<0.0004	<0.0004	0.0004
Tin	Dissolved	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Uranium	Dissolved	mg/L	0.0013	<0.0004	<0.0004	0.0004
Vanadium	Dissolved	mg/L	<0.00010	<0.00010	<0.00010	0.0001
Zinc	Dissolved	mg/L	0.131	0.716	1.110	0.001
Zirconium	Dissolved	mg/L	<0.00010	<0.00010	<0.00010	0.0001
Metals Total						
Mercury	Total	mg/L	<0.00001	<0.00001	<0.00001	0.00001



Analytical Report

Bill To: J. Gibson & Associates	Project:	Lot ID: 999001
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15266
Box 20913	Name: SNAP Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1911991
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

		Reference Number	999001-1	999001-2	999001-3	
		Sample Date	Apr 26, 2014	Apr 26, 2014	Apr 26, 2014	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	Surf / SNAP #1	Surf / SNAP #2	Surf / SNAP #3	
		Matrix	Water	Water	Water	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Total - Continued						
Aluminum	Total	mg/L	0.016	0.368	0.170	0.005
Antimony	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Arsenic	Total	mg/L	0.00151	0.00422	0.00054	0.00005
Barium	Total	mg/L	0.0433	0.0235	0.0607	0.00005
Beryllium	Total	mg/L	<0.00005	0.00058	0.00022	0.00005
Bismuth	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Boron	Total	mg/L	<0.002	<0.002	<0.002	.002
Cadmium	Total	mg/L	0.00068	0.00367	0.00201	0.00001
Calcium	Total	mg/L	34.0	23.5	18.2	0.05
Chromium	Total	mg/L	0.0006	<0.0005	<0.0005	0.0005
Cobalt	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Copper	Total	mg/L	0.0014	0.0029	0.0012	0.0001
Iron	Total	mg/L	0.440	0.360	0.022	0.002
Lead	Total	mg/L	0.0005	0.0062	0.0003	0.0001
Lithium	Total	mg/L	0.0025	0.0021	0.0019	0.0005
Magnesium	Total	mg/L	6.22	4.22	3.14	0.04
Manganese	Total	mg/L	0.127	0.0525	0.0083	0.001
Molybdenum	Total	mg/L	0.00064	0.00011	<0.00005	0.00005
Nickel	Total	mg/L	0.0090	0.0120	0.0074	0.0002
Potassium	Total	mg/L	1.2	0.8	0.4	0.1
Selenium	Total	mg/L	0.0002	0.0003	0.0001	0.0001
Silicon	Total	mg/L	4.46	3.91	5.62	0.02
Silver	Total	mg/L	<0.00005	<0.00005	<0.00005	0.00005
Sodium	Total	mg/L	3.0	2.3	2.3	0.1
Strontium	Total	mg/L	0.178	0.151	0.113	0.0001
Thallium	Total	mg/L	0.00002	0.00001	<0.00001	0.00001
Thorium	Total	mg/L	0.00004	0.00003	0.00001	0.00001
Tin	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Titanium	Total	mg/L	<0.0005	0.0012	<0.0005	0.0005
Uranium	Total	mg/L	0.00127	0.00031	0.00021	0.00001
Vanadium	Total	mg/L	0.0001	0.0002	0.0001	0.0001
Zinc	Total	mg/L	0.130	0.708	1.11	0.0005
Zirconium	Total	mg/L	<0.0005	<0.0005	<0.0005	0.0005
Hardness	as CaCO3	mg/L	110	76	58	1
Physical and Aggregate Properties						
Solids	Total Suspended	mg/L	<3	<3	6	1



Analytical Report

Bill To: J. Gibson & Associates	Project:	Lot ID: 999001
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15266
Box 20913	Name: SNAP Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1911991
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

		Reference Number	999001-1	999001-2	999001-3	
		Sample Date	Apr 26, 2014	Apr 26, 2014	Apr 26, 2014	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	Surf / SNAP #1	Surf / SNAP #2	Surf / SNAP #3	
		Matrix	Water	Water	Water	
Analyte		Units	Results	Results	Results	Nominal Detection Limit
Physical and Aggregate Properties - Continued						
Solids	Total Dissolved	mg/L	160	122	100	5
Routine Water						
pH	at 25 °C		7.53	6.80	5.84	
Electrical Conductivity		µS/cm at 25 C	251	183	150	1
Calcium	Dissolved	mg/L	37.3	25.1	19.5	0.1
Iron	Dissolved	mg/L	0.144	0.052	<0.005	0.005
Magnesium	Dissolved	mg/L	6.83	4.54	3.37	0.1
Manganese	Dissolved	mg/L	0.119	0.040	<0.001	0.001
Potassium	Dissolved	mg/L	1.1	0.7	0.3	0.1
Silicon	Dissolved	mg/L	4.33	3.64	5.29	0.05
Sodium	Dissolved	mg/L	2.6	2.1	2.0	0.1
Bicarbonate		mg/L	68	<5	<5	5
Carbonate		mg/L	<6	12	<6	6
Hydroxide		mg/L	<5	<5	<5	5
P-Alkalinity	as CaCO3	mg/L	<5	<5	<5	5
T-Alkalinity	as CaCO3	mg/L	56	10	<5	5
Chloride	Dissolved	mg/L	0.11	0.05	0.06	0.05
Nitrate - N	Dissolved	mg/L	0.11	0.17	0.02	0.01
Nitrite - N	Dissolved	mg/L	<0.01	<0.01	<0.01	0.01
Sulfate (SO4)	Dissolved	mg/L	63.8	68.4	60.3	0.5
Hardness	as CaCO3	mg/L	121	81	63	5



Analytical Report

Bill To: J. Gibson & Associates
 Report To: J. Gibson & Associates
 Box 20913
 Whitehorse, YT, Canada
 Y1A 6P2
 Attn: John Gibson
 Sampled By: R. Gibson
 Company:

Project:
 ID: Silver Range Res.
 Name: SNAP Project
 Location:
 LSD:
 P.O.:
 Acct code:

Lot ID: **999001**
 Control Number: B15266
 Date Received: Apr 28, 2014
 Date Reported: May 2, 2014
 Report Number: 1911991

Reference Number 999001-4
 Sample Date Apr 26, 2014
 Sample Time NA
 Sample Location
 Sample Description Surf / SNAP #4
 Matrix Water

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Inorganic Nonmetallic Parameters					
Organic Carbon	Total Nonpurgeable	mg/L	1.4		0.5
Cyanide	Total	mg/L	<0.002		0.002
Ammonia - N		mg/L	0.06		.01
Phosphorus	Total	mg/L	0.007		0.003
Metals Dissolved					
Subsample	Field Filtered		Field Filtered		
Sulfur	Dissolved	mg/L	27.8		0.2
Aluminum	Dissolved	mg/L	<0.005		0.005
Antimony	Dissolved	mg/L	<0.0002		0.0002
Arsenic	Dissolved	mg/L	0.0005		0.0002
Barium	Dissolved	mg/L	0.037		0.001
Beryllium	Dissolved	mg/L	<0.00004		0.00004
Bismuth	Dissolved	mg/L	<0.001		0.001
Boron	Dissolved	mg/L	<0.004		0.004
Cadmium	Dissolved	mg/L	0.00003		0.00001
Chromium	Dissolved	mg/L	<0.0004		0.0004
Cobalt	Dissolved	mg/L	0.00035		0.00002
Copper	Dissolved	mg/L	<0.001		0.001
Lead	Dissolved	mg/L	<0.0001		0.0001
Lithium	Dissolved	mg/L	0.002		0.001
Molybdenum	Dissolved	mg/L	0.00028		0.0001
Nickel	Dissolved	mg/L	0.002		0.001
Selenium	Dissolved	mg/L	<0.0006		0.0006
Silver	Dissolved	mg/L	<0.00001		0.00001
Titanium	Dissolved	mg/L	<0.010		0.01
Strontium	Dissolved	mg/L	0.208		0.001
Tellurium	Dissolved	mg/L	<0.0001		0.0001
Thallium	Dissolved	mg/L	<0.00001		0.00001
Thorium	Dissolved	mg/L	<0.0004		0.0004
Tin	Dissolved	mg/L	<0.0001		0.0001
Uranium	Dissolved	mg/L	0.0018		0.0004
Vanadium	Dissolved	mg/L	<0.00010		0.0001
Zinc	Dissolved	mg/L	0.003		0.001
Zirconium	Dissolved	mg/L	<0.00010		0.0001
Metals Total					
Mercury	Total	mg/L	<0.00001		0.00001



Analytical Report

Bill To: J. Gibson & Associates	Project:	Lot ID: 999001
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15266
Box 20913	Name: SNAP Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1911991
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

Reference Number 999001-4
 Sample Date Apr 26, 2014
 Sample Time NA
 Sample Location
 Sample Description Surf / SNAP #4
 Matrix Water

Analyte		Units	Results	Results	Results	Nominal Detection Limit
Metals Total - Continued						
Aluminum	Total	mg/L	0.005			0.005
Antimony	Total	mg/L	<0.0001			0.0001
Arsenic	Total	mg/L	0.00049			0.00005
Barium	Total	mg/L	0.0390			0.00005
Beryllium	Total	mg/L	<0.00005			0.00005
Bismuth	Total	mg/L	<0.0001			0.0001
Boron	Total	mg/L	<0.002			.002
Cadmium	Total	mg/L	0.00006			0.00001
Calcium	Total	mg/L	50.3			0.05
Chromium	Total	mg/L	<0.0005			0.0005
Cobalt	Total	mg/L	0.0004			0.0001
Copper	Total	mg/L	0.0009			0.0001
Iron	Total	mg/L	0.234			0.002
Lead	Total	mg/L	<0.0001			0.0001
Lithium	Total	mg/L	0.0015			0.0005
Magnesium	Total	mg/L	4.92			0.04
Manganese	Total	mg/L	0.131			0.001
Molybdenum	Total	mg/L	0.00039			0.00005
Nickel	Total	mg/L	0.0012			0.0002
Potassium	Total	mg/L	1.5			0.1
Selenium	Total	mg/L	0.0004			0.0001
Silicon	Total	mg/L	4.69			0.02
Silver	Total	mg/L	<0.00005			0.00005
Sodium	Total	mg/L	2.6			0.1
Strontium	Total	mg/L	0.220			0.0001
Thallium	Total	mg/L	0.00001			0.00001
Thorium	Total	mg/L	<0.00001			0.00001
Tin	Total	mg/L	<0.0001			0.0001
Titanium	Total	mg/L	<0.0005			0.0005
Uranium	Total	mg/L	0.00184			0.00001
Vanadium	Total	mg/L	<0.0001			0.0001
Zinc	Total	mg/L	0.0053			0.0005
Zirconium	Total	mg/L	<0.0005			0.0005
Hardness	as CaCO3	mg/L	146			1
Physical and Aggregate Properties						
Solids	Total Suspended	mg/L	<3			1

Analytical Report

Bill To: J. Gibson & Associates
Report To: J. Gibson & Associates
Box 20913
Whitehorse, YT, Canada
Y1A 6P2
Attn: John Gibson
Sampled By: R. Gibson
Company:

Project:
ID: Silver Range Res.
Name: SNAP Project
Location:
LSD:
P.O.:
Acct code:

Lot ID: **999001**
Control Number: B15266
Date Received: Apr 28, 2014
Date Reported: May 2, 2014
Report Number: 1911991

Reference Number 999001-4
Sample Date Apr 26, 2014
Sample Time NA
Sample Location
Sample Description Surf / SNAP #4
Matrix Water

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Physical and Aggregate Properties - Continued					
Solids	Total Dissolved	mg/L	198		5
Routine Water					
pH	at 25 °C		7.61		
Electrical Conductivity		µS/cm at 25 C	306		1
Calcium	Dissolved	mg/L	53.8		0.1
Iron	Dissolved	mg/L	0.091		0.005
Magnesium	Dissolved	mg/L	5.22		0.1
Manganese	Dissolved	mg/L	0.122		0.001
Potassium	Dissolved	mg/L	1.3		0.1
Silicon	Dissolved	mg/L	4.46		0.05
Sodium	Dissolved	mg/L	2.3		0.1
Bicarbonate		mg/L	72		5
Carbonate		mg/L	<6		6
Hydroxide		mg/L	<5		5
P-Alkalinity	as CaCO ₃	mg/L	<5		5
T-Alkalinity	as CaCO ₃	mg/L	59		5
Chloride	Dissolved	mg/L	0.07		0.05
Nitrate - N	Dissolved	mg/L	0.05		0.01
Nitrite - N	Dissolved	mg/L	<0.01		0.01
Sulfate (SO ₄)	Dissolved	mg/L	91.1		0.5
Hardness	as CaCO ₃	mg/L	156		5

Approved by: 
Mathieu Simoneau
Operations Manager

Methodology and Notes

Bill To:	J. Gibson & Associates	Project:		Lot ID:	999001
Report To:	J. Gibson & Associates	ID:	Silver Range Res.	Control Number:	B15266
	Box 20913	Name:	SNAP Project	Date Received:	Apr 28, 2014
	Whitehorse, YT, Canada	Location:		Date Reported:	May 2, 2014
	Y1A 6P2	LSD:		Report Number:	1911991
Attn:	John Gibson	P.O.:			
Sampled By:	R. Gibson	Acct code:			
Company:					

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (Surrey)	APHA	* Alkalinity - Titration Method, 2320 B	29-Apr-14	Exova Surrey
Alk, pH, EC, Turb in water (Surrey)	APHA	* Conductivity, 2510 B	29-Apr-14	Exova Surrey
Alk, pH, EC, Turb in water (Surrey)	APHA	* pH - Electrometric Method, 4500-H+ B	29-Apr-14	Exova Surrey
Ammonia-N in Water (Surrey)	APHA	* Flow Injection Analysis, 4500-NH3 H	29-Apr-14	Exova Surrey
Anions by IEC in water (Surrey)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	29-Apr-14	Exova Surrey
BC ICP-MS Total Metals in Water	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	01-May-14	Exova Edmonton
BC Trace Total Metals in Water	APHA	* Inductively Coupled Plasma (ICP) Method, 3120 B	01-May-14	Exova Edmonton
Carbon Organic (Total) in water (TOC)	APHA	High-Temperature Combustion Method, 5310 B	01-May-14	Exova Edmonton
Cyanide (Total) in water	US EPA	* US EPA method, 335.3	02-May-14	Exova Edmonton
Mercury Low Level (Total) in water (Surrey)	EPA	* Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry, 245.7	29-Apr-14	Exova Surrey
Metals SemiTrace (Dissolved) in water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	29-Apr-14	Exova Surrey
Phosphorus - total by Smartchem (Surrey)	APHA	* Preliminary Acid Hydrolysis, Ascorbic Acid Reduction Method, 4500-P B,E	29-Apr-14	Exova Surrey
Solids Dissolved (Total, Fixed and Volatile) - Surrey	APHA	* Total Dissolved Solids Dried at 180 C, 2540 C	29-Apr-14	Exova Surrey
Solids Suspended (Total, Fixed and Volatile)	APHA	* Total Suspended Solids Dried at 103-105°C, 2540 D	29-Apr-14	Exova Surrey
Trace Metals (dissolved) in Water (Surrey)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	29-Apr-14	Exova Surrey
Trace Metals (dissolved) in Water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	29-Apr-14	Exova Surrey

* Reference Method Modified

References

APHA	Standard Methods for the Examination of Water and Wastewater
US EPA	US Environmental Protection Agency Test Methods

Comments:

- pH analysis was performed past the recommended holding time of 15 minutes from sample collection.

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Methodology and Notes

Bill To: J. Gibson & Associates
Report To: J. Gibson & Associates
Box 20913
Whitehorse, YT, Canada
Y1A 6P2
Attn: John Gibson
Sampled By: R. Gibson
Company:

Project:
ID: Silver Range Res.
Name: SNAP Project
Location:
LSD:
P.O.:
Acct code:

Lot ID: **999001**
Control Number: B15266
Date Received: Apr 28, 2014
Date Reported: May 2, 2014
Report Number: 1911991

Please direct any inquiries regarding this report to our Client Services group.

Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.

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Report Transmission Cover Page

Bill To:	J. Gibson & Associates	Project:		Lot ID:	999095
Report To:	J. Gibson & Associates	ID:	Silver Range RES	Control Number:	B15267
	Box 20913	Name:	HAMMER Project	Date Received:	Apr 28, 2014
	Whitehorse, YT, Canada	Location:		Date Reported:	May 2, 2014
	Y1A 6P2	LSD:		Report Number:	1912100
Attn:	John Gibson	P.O.:			
Sampled By:	R. Gibson	Acct code:			
Company:					

Contact & Affiliation	Address	Delivery Commitments
John Gibson	, Box 20913	On [Lot Verification] send
J. Gibson & Associates	Whitehorse, Yukon Territory Y1A 6P2	(COA) by Email - Single Report
	Phone: (867) 633-4522	On [Report Approval] send
	Fax: (867) 668-6895	(COC, Test Report) by Email - Merge Reports
	Email: ludditegibson@gmail.com	On [Report Approval] send
		(Test Report) by Email - Single Report
		On [Lot Approval and Final Test Report Approval] send
		(Invoice) by Email - Single Report
		On [Lot Creation] send
		(COR) by Email - Single Report

Notes To Clients:

- pH analysis was performed past the recommended holding time of 15 minutes from sample collection.

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Analytical Report

Bill To: J. Gibson & Associates	Project:	Lot ID: 999095
Report To: J. Gibson & Associates	ID: Silver Range RES	Control Number: B15267
Box 20913	Name: HAMMER Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1912100
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

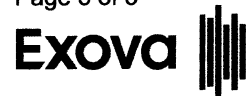
		Reference Number	999095-1	999095-2	
		Sample Date	Apr 26, 2014	Apr 26, 2014	
		Sample Time	NA	NA	
		Sample Location			
		Sample Description	Surf / HAM #1	Surf / HAM #3	
		Matrix	Water	Water	
Analyte		Units	Results	Results	Nominal Detection Limit
Inorganic Nonmetallic Parameters					
Organic Carbon	Total Nonpurgeable	mg/L	3.2	2.2	0.5
Cyanide	Total	mg/L	<0.002	<0.002	0.002
Ammonia - N		mg/L	0.06	0.02	.01
Phosphorus	Total	mg/L	0.069	<0.003	0.003
Metals Dissolved					
Subsample	Field Filtered		Field Filtered	Field Filtered	
Sulfur	Dissolved	mg/L	2.7	5.4	0.2
Aluminum	Dissolved	mg/L	<0.005	<0.005	0.005
Antimony	Dissolved	mg/L	<0.0002	<0.0002	0.0002
Arsenic	Dissolved	mg/L	0.0065	0.0003	0.0002
Barium	Dissolved	mg/L	0.183	0.063	0.001
Beryllium	Dissolved	mg/L	<0.00004	<0.00004	0.00004
Bismuth	Dissolved	mg/L	<0.001	<0.001	0.001
Boron	Dissolved	mg/L	<0.004	<0.004	0.004
Cadmium	Dissolved	mg/L	<0.00001	<0.00001	0.00001
Chromium	Dissolved	mg/L	<0.0004	<0.0004	0.0004
Cobalt	Dissolved	mg/L	0.00015	0.00003	0.00002
Copper	Dissolved	mg/L	<0.001	<0.001	0.001
Lead	Dissolved	mg/L	<0.0001	<0.0001	0.0001
Lithium	Dissolved	mg/L	0.005	0.001	0.001
Molybdenum	Dissolved	mg/L	0.00123	0.00063	0.0001
Nickel	Dissolved	mg/L	<0.001	<0.001	0.001
Selenium	Dissolved	mg/L	0.0006	0.0006	0.0006
Silver	Dissolved	mg/L	<0.00001	<0.00001	0.00001
Titanium	Dissolved	mg/L	<0.010	<0.010	0.01
Strontium	Dissolved	mg/L	0.189	0.116	0.001
Tellurium	Dissolved	mg/L	<0.0001	<0.0001	0.0001
Thallium	Dissolved	mg/L	<0.00001	<0.00001	0.00001
Thorium	Dissolved	mg/L	<0.0004	<0.0004	0.0004
Tin	Dissolved	mg/L	<0.0001	<0.0001	0.0001
Uranium	Dissolved	mg/L	0.0024	0.0013	0.0004
Vanadium	Dissolved	mg/L	0.00013	0.00012	0.0001
Zinc	Dissolved	mg/L	0.001	<0.001	0.001
Zirconium	Dissolved	mg/L	<0.00010	<0.00010	0.0001
Metals Total					
Mercury	Total	mg/L	<0.00001	<0.00001	0.00001



Analytical Report

Bill To: J. Gibson & Associates	Project:	Lot ID: 999095
Report To: J. Gibson & Associates	ID: Silver Range RES	Control Number: B15267
Box 20913	Name: HAMMER Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1912100
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

		Reference Number	999095-1	999095-2	
		Sample Date	Apr 26, 2014	Apr 26, 2014	
		Sample Time	NA	NA	
		Sample Location			
		Sample Description	Surf / HAM #1	Surf / HAM #3	
		Matrix	Water	Water	
Analyte		Units	Results	Results	Nominal Detection Limit
Metals Total - Continued					
Aluminum	Total	mg/L	0.030	0.013	0.005
Antimony	Total	mg/L	<0.0001	<0.0001	0.0001
Arsenic	Total	mg/L	0.00943	0.00027	0.00005
Barium	Total	mg/L	0.200	0.0663	0.00005
Beryllium	Total	mg/L	<0.00005	<0.00005	0.00005
Bismuth	Total	mg/L	<0.0001	<0.0001	0.0001
Boron	Total	mg/L	0.004	<0.002	.002
Cadmium	Total	mg/L	0.00002	0.00001	0.00001
Calcium	Total	mg/L	45.3	38.4	0.05
Chromium	Total	mg/L	<0.0005	<0.0005	0.0005
Cobalt	Total	mg/L	0.0002	<0.0001	0.0001
Copper	Total	mg/L	0.0004	0.0010	0.0001
Iron	Total	mg/L	1.55	0.068	0.002
Lead	Total	mg/L	<0.0001	<0.0001	0.0001
Lithium	Total	mg/L	0.0046	0.0013	0.0005
Magnesium	Total	mg/L	11.0	11.4	0.04
Manganese	Total	mg/L	0.202	0.0094	0.001
Molybdenum	Total	mg/L	0.00145	0.00079	0.00005
Nickel	Total	mg/L	0.0003	<0.0002	0.0002
Potassium	Total	mg/L	1.6	0.4	0.1
Selenium	Total	mg/L	0.0007	0.0008	0.0001
Silicon	Total	mg/L	6.01	3.66	0.02
Silver	Total	mg/L	<0.00005	<0.00005	0.00005
Sodium	Total	mg/L	3.0	1.5	0.1
Strontium	Total	mg/L	0.206	0.127	0.0001
Thallium	Total	mg/L	<0.00001	<0.00001	0.00001
Thorium	Total	mg/L	0.00003	<0.00001	0.00001
Tin	Total	mg/L	<0.0001	<0.0001	0.0001
Titanium	Total	mg/L	0.0009	<0.0005	0.0005
Uranium	Total	mg/L	0.00242	0.00132	0.00001
Vanadium	Total	mg/L	0.0003	0.0001	0.0001
Zinc	Total	mg/L	0.0036	0.0018	0.0005
Zirconium	Total	mg/L	<0.0005	<0.0005	0.0005
Hardness	as CaCO3	mg/L	159	143	1
Physical and Aggregate Properties					
Solids	Total Suspended	mg/L	4	<3	1



Analytical Report

Bill To: J. Gibson & Associates	Project:	Lot ID: 999095
Report To: J. Gibson & Associates	ID: Silver Range RES	Control Number: B15267
Box 20913	Name: HAMMER Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1912100
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

		Reference Number	999095-1	999095-2	
		Sample Date	Apr 26, 2014	Apr 26, 2014	
		Sample Time	NA	NA	
		Sample Location			
		Sample Description	Surf / HAM #1	Surf / HAM #3	
		Matrix	Water	Water	
Analyte		Units	Results	Results	Nominal Detection Limit
Physical and Aggregate Properties - Continued					
Solids	Total Dissolved	mg/L	196	178	5
Routine Water					
pH	at 25 °C		7.35	7.84	
Electrical Conductivity		µS/cm at 25 C	306	268	1
Calcium	Dissolved	mg/L	43.8	37.7	0.1
Iron	Dissolved	mg/L	0.449	0.026	0.005
Magnesium	Dissolved	mg/L	11.0	11.4	0.1
Manganese	Dissolved	mg/L	0.180	<0.001	0.001
Potassium	Dissolved	mg/L	1.4	0.3	0.1
Silicon	Dissolved	mg/L	5.46	3.35	0.05
Sodium	Dissolved	mg/L	2.7	1.3	0.1
Bicarbonate		mg/L	196	160	5
Carbonate		mg/L	<6	<6	6
Hydroxide		mg/L	<5	<5	5
P-Alkalinity	as CaCO ₃	mg/L	<5	<5	5
T-Alkalinity	as CaCO ₃	mg/L	161	131	5
Chloride	Dissolved	mg/L	0.19	0.20	0.05
Nitrate - N	Dissolved	mg/L	0.08	0.17	0.01
Nitrite - N	Dissolved	mg/L	<0.01	<0.01	0.01
Sulfate (SO ₄)	Dissolved	mg/L	7.6	17.3	0.5
Hardness	as CaCO ₃	mg/L	155	141	5

Approved by: 
Mathieu Simoneau
Operations Manager

Methodology and Notes

Bill To: J. Gibson & Associates	Project:	Lot ID: 999095
Report To: J. Gibson & Associates	ID: Silver Range RES	Control Number: B15267
Box 20913	Name: HAMMER Project	Date Received: Apr 28, 2014
Whitehorse, YT, Canada	Location:	Date Reported: May 2, 2014
Y1A 6P2	LSD:	Report Number: 1912100
Attn: John Gibson	P.O.:	
Sampled By: R. Gibson	Acct code:	
Company:		

Method of Analysis

Method Name	Reference	Method	Date Analysis Started	Location
Alk, pH, EC, Turb in water (Surrey)	APHA	* Alkalinity - Titration Method, 2320 B	29-Apr-14	Exova Surrey
Alk, pH, EC, Turb in water (Surrey)	APHA	* Conductivity, 2510 B	29-Apr-14	Exova Surrey
Alk, pH, EC, Turb in water (Surrey)	APHA	* pH - Electrometric Method, 4500-H+ B	29-Apr-14	Exova Surrey
Ammonia-N in Water (Surrey)	APHA	* Flow Injection Analysis, 4500-NH3 H	02-May-14	Exova Surrey
Anions by IEC in water (Surrey)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	29-Apr-14	Exova Surrey
BC ICP-MS Total Metals in Water	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	01-May-14	Exova Edmonton
BC Trace Total Metals in Water	APHA	* Inductively Coupled Plasma (ICP) Method, 3120 B	01-May-14	Exova Edmonton
Carbon Organic (Total) in water (TOC)	APHA	High-Temperature Combustion Method, 5310 B	30-Apr-14	Exova Edmonton
Cyanide (Total) in water	US EPA	* US EPA method, 335.3	02-May-14	Exova Edmonton
Mercury Low Level (Total) in water (Surrey)	EPA	* Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry, 245.7	29-Apr-14	Exova Surrey
Metals SemiTrace (Dissolved) in water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	29-Apr-14	Exova Surrey
Phosphorus - total by Smartchem (Surrey)	APHA	* Preliminary Acid Hydrolysis, Ascorbic Acid Reduction Method, 4500-P B,E	29-Apr-14	Exova Surrey
Solids Dissolved (Total, Fixed and Volatile) - Surrey	APHA	* Total Dissolved Solids Dried at 180 C, 2540 C	01-May-14	Exova Surrey
Solids Suspended (Total, Fixed and Volatile)	APHA	* Total Suspended Solids Dried at 103-105°C, 2540 D	01-May-14	Exova Surrey
Trace Metals (dissolved) in Water (Surrey)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	29-Apr-14	Exova Surrey
Trace Metals (dissolved) in Water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	29-Apr-14	Exova Surrey

* Reference Method Modified

References

APHA	Standard Methods for the Examination of Water and Wastewater
US EPA	US Environmental Protection Agency Test Methods

Comments:

- pH analysis was performed past the recommended holding time of 15 minutes from sample collection.

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Methodology and Notes

Bill To: J. Gibson & Associates
Report To: J. Gibson & Associates
Box 20913
Whitehorse, YT, Canada
Y1A 6P2
Attn: John Gibson
Sampled By: R. Gibson
Company:

Project:
ID: Silver Range RES
Name: HAMMER Project
Location:
LSD:
P.O.:
Acct code:

Lot ID: **999095**
Control Number: B15267
Date Received: Apr 28, 2014
Date Reported: May 2, 2014
Report Number: 1912100

Please direct any inquiries regarding this report to our Client Services group.

Results relate only to samples as submitted.

The test report shall not be reproduced except in full, without the written approval of the laboratory.

APPENDIX 2

Flow Volume Calculations

REBEL / SNAP / HAMMER APRIL 2014

Stage Discharge Calculations

Project: Silver Range - Rebel Claims

Date: 25-Apr-14

Site: Rebel #1

Point (m)	Depth (meters)	Width (meters)	Velocity (m/sec)	Area (m sq)	Volume (cms)
0.8	0	0.05	0	0	0.000
0.9	0.09	0.1	0	0.009	0.000
1	0.1	0.1	0.254	0.01	0.003
1.1	0.1	0.1	0.251	0.01	0.003
1.2	0.11	0.1	0.207	0.011	0.002
1.3	0.08	0.1	0.359	0.008	0.003
1.4	0.11	0.1	0.251	0.011	0.003
1.5	0.08	0.1	0.229	0.008	0.002
1.6	0.05	0.1	0.28	0.005	0.001
1.7	0.06	0.1	0.543	0.006	0.003
1.8	0.14	0.1	0.577	0.014	0.008
1.9	0.22	0.1	0.554	0.022	0.012
2	0.23	0.1	0.631	0.023	0.015
2.1	0.21	0.1	0.434	0.021	0.009
2.2	0.2	0.1	0.409	0.02	0.008
2.3	0.18	0.1	0.464	0.018	0.008
2.4	0.2	0.1	0.509	0.02	0.010
2.5	0.17	0.1	0.509	0.017	0.009
2.6	0.08	0.1	0.577	0.008	0.005
2.7	0.06	0.1	0.577	0.006	0.003
2.8	0.12	0.1	0.509	0.012	0.006
2.9	0.12	0.075	0	0.009	0.000
2.95	0	0.025	0	0	0.000

2.15 2.15 **0.1129**

All velocity readings at 0.6 depth

No Staff Gauge

Data logger reading: No logger

Channel under ice? ice removed for measurement

Method: Price Velocity meter#2/ TS Wading Rod

Measurement By: R.Gibson

Stage Discharge Calculations

Project: Silver Range - Hammer Claims **Date:** 25-Apr-14

Site: HAM #3

Point (m)	Depth (meters)	Width (meters)	Velocity (m/sec)	Area (m sq)	Volume (cms)
1.8	0	0.05	0	0	0.0000
1.9	0.08	0.15	0.207	0.012	0.0025
2.1	0.14	0.2	0.055	0.028	0.0015
2.3	0.16	0.2	0	0.032	0.0000
2.5	0.12	0.2	0.196	0.024	0.0047
2.7	0.16	0.2	0.101	0.032	0.0032
2.9	0.13	0.2	0.318	0.026	0.0083
3.1	0.18	0.2	0.055	0.036	0.0020
3.3	0.23	0.2	0.041	0.046	0.0019
3.5	0.14	0.2	0.11	0.028	0.0031
3.7	0.16	0.2	0.089	0.032	0.0028
3.9	0.14	0.2	0.053	0.028	0.0015
4.1	0.08	0.2	0	0.016	0.0000
4.3	0.06	0.125	0	0.0075	0.0000
4.35	0	0.025	0	0	0.0000
2.55		2.55			0.0315

All velocity readings at 0.6 depth

No Staff Gauge

Data logger reading: No logger

Channel under ice? ice removed for measurement

Method: Price Velocity meter#2/ TS Wading Rod

Measurement By: R.Gibson