

Silver Range Resources

SNAP and HAMMER CLAIMS

Baseline Water Quality / Hydrology Survey

Environmental Data Update

July, 2014

SNAP and HAMMER Claims July 2014

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

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

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 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.

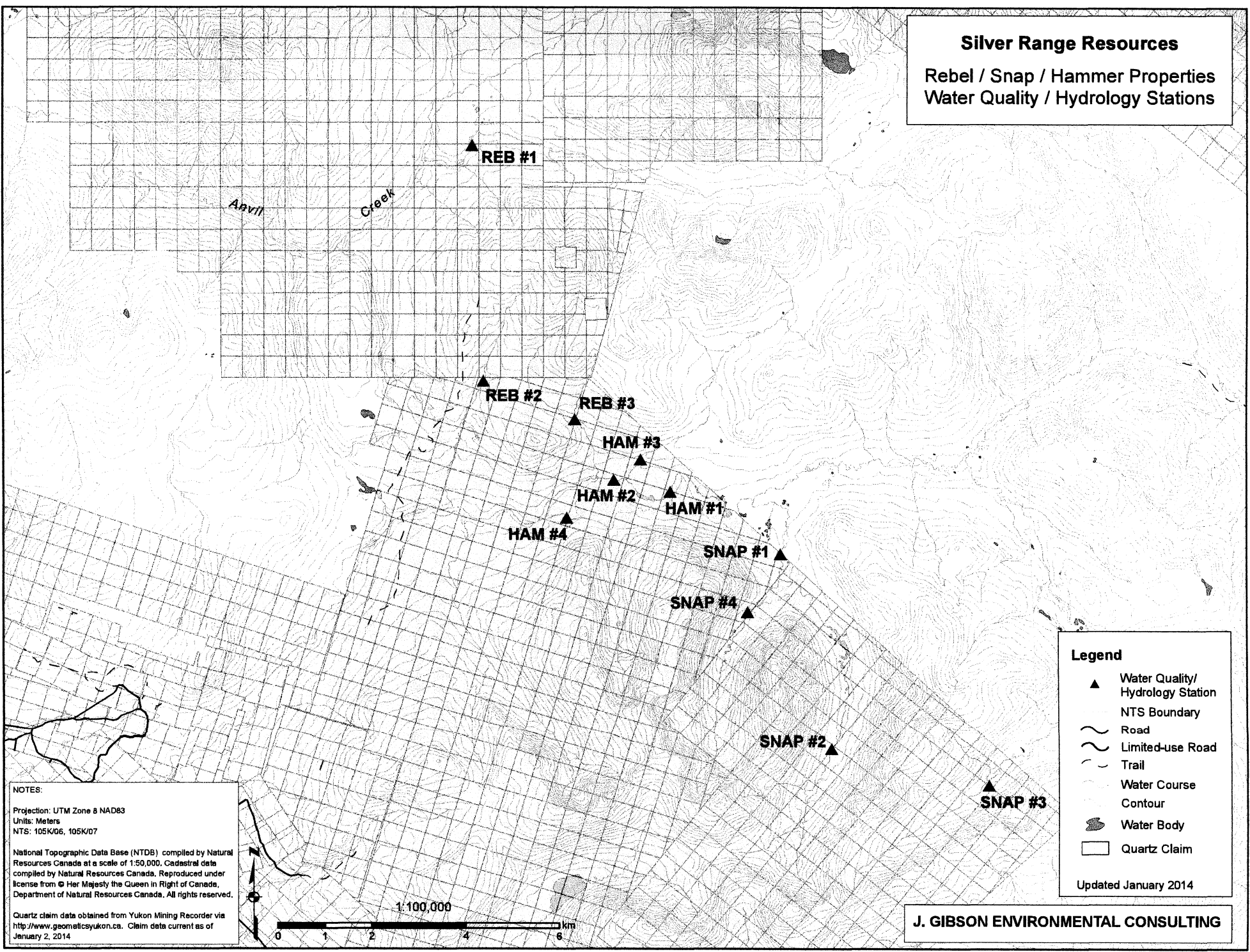
The baseline survey consisted of water quality samples for routine chemistry, total metals, dissolved metals, total organic carbon, total cyanide and total mercury with field measurements for pH, water temperature and flow volume.

Sample Locations

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

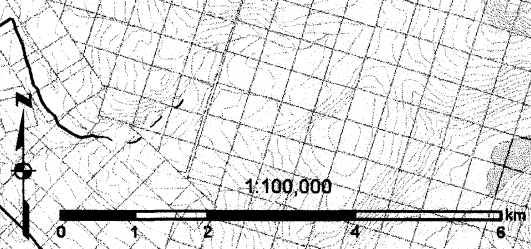
- ▲ Water Quality/ Hydrology Station
- NTS Boundary
- Road
- ~ Limited-use Road
- - - Trail
- ~ Water Course
- Contour
- ☪ Water Body
- Quartz Claim

Updated January 2014

NOTES:
 Projection: UTM Zone 8 NAD83
 Units: Meters
 NTS: 105K/06, 105K/07

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



J. GIBSON ENVIRONMENTAL CONSULTING

SNAP and HAMMER Claims July 2014

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 SNAP and HAMMER stations are on a quarterly sample frequency.

Flow Volume Measurements

Flow volume measurements were taken in July 2014 reflect low midsummer volumes. SNAP stations range from 27 to 33% of volumes measured in June 2013 while HAMMER Stations range from 41 to 57% of June 2013 volumes.

All sites were ice free

Analysis Results

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

Table 1.SNAP Stations July 2014 Routine Chemistry – laboratory and field

Table 2.SNAP Stations July 2014 Total Metals ICP–MS laboratory analysis

Table 3.SNAP Stations July 2014 Dissolved Metals ICP-MS laboratory analysis

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

Table 5.HAMMER Stations July 2014 Routine Chemistry – laboratory and field

Table 6.HAMMER Stations July 2014 Total Metals ICP–MS laboratory analysis

Table 7.HAMMER Stations July 2014 Dissolved Metals ICP-MS laboratory analysis

Table 8. Quality Control Samples, Total and Dissolved Metals. SNAP 1 July 2014

**Table 1 . Silver Range Resources - SNAP Claims, July 2014.
Routine Chemistry and Field Measurement Results**

Parameter	Unit	STATIONS				DWQ*	Aquatic**
		SNAP#1	SNAP#2	SNAP#3	SNAP#4	G.lines	G.lines
pH (field)	ru	7.62	7.47	6.43	7.83		
pH (lab)	ru	7.48	7	5.95	7.63	6.5-8.5	6.5-9
Conductivity (lab)	uS/cm	144	145	109	166		
Water temperature	C	9.4	6.5	9.7	9.0		
Flow Volume(field)	cms	0.4444	0.1746	0.0924	0.1437		
Organic Carbon-Total	mg/L	1.5	0.6	0.8	1.7		
Cyanide - Total	mg/L	<0.002	<0.002	<0.002	<0.002	0.2	0.005
Phosphorus (T)	mg/L	0.007	0.006	0.003	0.007		
Ammonia -N	mg/L	0.03	0.06	0.03	0.02		1.37-2.2
Nitrate - N	mg/L	<0.01	0.06	<0.01	0.01	10	
Nitrite - N	mg/L	<0.01	<0.01	<0.01	<0.01	1	0.06
Alkalinity (as CaCO3)	mg/L	26	10	<5	41		
Chloride	mg/L	<0.05	<0.05	<0.05	<0.05	<250	
Sulphate (SO4)	mg/L	43.5	54.2	43.6	40.4		
Hardness (as CaCO3)	mg/L	63	60	39	75	<500	
T.Suspended Solids	mg/L	<3	<3	<3	<3		
T.Dissolved Solids	mg/L	100	98	106	122	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 2. Silver Range Resources - SNAP Claims July, 2014

Total Metals Analysis Results.						DWQ*	Aquatic**
Parameter	Units	SNAP#1	SNAP#2	SNAP#3	SNAP#4	G.Lines	G.Lines
Calcium	mg/L	21.5	19	13	28.5		
Iron	mg/L	0.267	0.019	0.043	0.285	0.3	0.3
Magnesium	mg/L	3.4	4.04	2.3	2.55		
Manganese	mg/L	0.0289	0.0339	0.635	0.0114	0.05	
Potassium	mg/L	0.6	0.7	0.4	0.6		
Silicon	mg/L	3.25	3.68	4.94	3.19		
Sodium	mg/L	1.6	1.7	1.6	1.3	<200	
Titanium	mg/L	0.0008	<0.0005	<0.0005	0.0012		
Aluminum	mg/L	0.035	0.08	0.799	0.038		0.1
Antimony	mg/L	0.0001	<0.0001	<0.0001	0.0002	0.006	
Arsenic	mg/L	0.00119	0.0003	0.0004	0.0006	0.01	
Barium	mg/L	0.0217	0.0208	0.0234	0.018	1	
Beryllium	mg/L	0.00006	0.00051	0.00093	<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	0.00057	0.00222	0.00499	0.00002	0.005	0.0018
Chromium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	0.05	0.002
Cobalt	mg/L	<0.0001	0.0001	0.0001	<0.0001		
Copper	mg/L	0.0015	0.0016	0.0034	0.0007	1	0.004
Lead	mg/L	0.0007	0.002	0.0005	<0.0001	0.01	0.007
Lithium	mg/L	0.0026	0.0038	0.0029	0.0015		
Molybdenum	mg/L	0.00026	0.00012	<0.00005	0.0005		
Nickel	mg/L	0.011	0.0425	0.0039	0.0007		0.15
Selenium	mg/L	0.0002	0.0002	0.0005	0.0003	0.01	0.001
Silver	mg/L	<0.00005	<0.00005	<0.00005	<0.00005		0.0001
Strontium	mg/L	0.113	0.119	0.0685	0.12		
Thallium	mg/L	<0.00001	<0.00001	<0.00001	<0.00001		
Thorium	mg/L	0.00002	0.00002	0.00002	0.00002		
Tin	mg/L	<0.0001	<0.0001	<0.0001	<0.0001		
Uranium	mg/L	0.00091	0.00018	0.00042	0.00219	0.02	
Vanadium	mg/L	0.0002	<0.0001	0.0001	0.0003		
Zinc	mg/L	0.133	0.324	1.12	0.0034	<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

nr=no sample or analysis done

equal or exceeds Guideline limit

Table 3. Silver Range Resources - SNAP Claims July 2014.

Dissolved Metals Analysis Results

Parameter	Units	SNAP#1	SNAP#2	SNAP#3	SNAP#4
Calcium	mg/L	19.8	17.4	11.9	26
Iron	mg/L	0.145	0.011	0.011	0.169
Magnesium	mg/L	3.35	3.98	2.27	2.5
Manganese	mg/L	0.024	0.03	0.558	0.007
Potassium	mg/L	0.6	0.7	0.4	0.6
Silicon	mg/L	2.66	3.02	4.01	2.55
Sodium	mg/L	1.5	1.8	1.5	1.3
Sulfur	mg/L	14.3	17.9	14.2	13.3
Titanium	mg/L	<0.010	<0.010	<0.010	<0.010
Aluminum	mg/L	0.009	0.041	0.176	0.009
Antimony	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Arsenic	mg/L	0.0009	0.0003	<0.0002	0.0005
Barium	mg/L	0.018	0.018	0.02	0.015
Beryllium	mg/L	0.00004	0.00039	0.00066	<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	0.00045	0.00193	0.00435	0.00002
Chromium	mg/L	<0.0004	<0.0004	<0.0004	<0.0004
Cobalt	mg/L	0.00009	0.00013	0.00011	0.00007
Copper	mg/L	<0.001	0.001	0.002	<0.001
Lead	mg/L	0.0003	0.0017	0.0003	<0.0001
Lithium	mg/L	0.002	0.003	0.002	0.001
Molybdenum	mg/L	0.00016	<0.00010	<0.00010	0.00036
Nickel	mg/L	0.009	0.035	0.003	<0.001
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	0.096	0.103	0.06	0.104
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	0.0008	<0.0004	<0.0004	0.0021
Vanadium	mg/L	<0.00010	<0.00010	<0.00010	0.00015
Zinc	mg/L	0.11	0.284	1.03	0.001
Zirconium	mg/L	<0.00010	<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	Jul-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	nr
REB #2	0.015	0.028	Dry	0.054	0.034	Dry	Dry	nr	0.018	nr	0.0553	0.0679	nr	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	nr
SNAP#1									0.0695	nr	1.526	1.0857	nr	0.4444
SNAP#2									0.0935	0.0079	0.635	0.2386	0.0012	0.1746
SNAP#3									0.0573	nr	0.277	nr	nr	0.0924
SNAP#4									nr	nr	nr	nr	nr	0.1437
HAM#1									nr	nr	nr	nr	nr	nr
HAM#2									nr	nr	0.4957	0.3734	nr	0.2863
HAM#3									0.0474	0.0332	0.5034	0.2287	0.0315	0.2095
HAM#4									0.0469	nr	0.3118	0.2233	nr	0.1471

**Table 5. Silver Range Resources - HAMMER Claims, July, 2014.
Routine Chemistry and Field Measurement Results**

Parameter	Unit	STATIONS				DWQ*	Aquatic**
		HAM#1	HAM#2	HAM#3	HAM#4	G.lines	G.lines
pH (field)	ru	7.24	8.07	8.21	7.74		
pH (lab)	ru	7.22	7.96	8.07	7.4	6.5-8.5	6.5-9
Conductivity (lab)	uS/cm	249	239	241	37		
Water temperature	C	9.3	7.3	6.1	6.9		
Flow Volume(field)	cms	nr	0.2863	0.2095	0.1471		
Organic Carbon-Total	mg/L	6.2	2.1	1.5	2.1		
Cyanide - Total	mg/L	<0.002	<0.002	<0.002	<0.002	0.2	0.005
Phosphorus (T)	mg/L	0.033	0.014	0.005	0.008		
Ammonia -N	mg/L	0.07	0.03	0.03	0.03		1.37-2.2
Nitrate - N	mg/L	<0.01	0.04	0.06	0.01	10	
Nitrite - N	mg/L	<0.01	<0.01	<0.01	<0.01	1	0.06
Alkalinity (as CaCO3)	mg/L	142	124	126	16		
Chloride	mg/L	0.08	<0.05	<0.05	<0.05	<250	
Sulphate (SO4)	mg/L	2.3	15.8	16.8	2.5		
Hardness (as CaCO3)	mg/L	133	129	132	16	<500	
T.Suspended Solids	mg/L	28	<3	<3	3		
T.Dissolved Solids	mg/L	156	148	148	42	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 6. Silver Range Resources - HAMMER Claims July, 2014

Total Metals Analysis Results.						DWQ*	Aquatic**
Parameter	Units	HAM#1	HAM#2	HAM#3	HAM#4	G.Lines	G.Lines
Calcium	mg/L	40.6	36.2	36.8	5.48		
Iron	mg/L	0.469	0.337	0.108	0.128	0.3	0.3
Magnesium	mg/L	7.82	10.6	11	0.76		
Manganese	mg/L	0.0074	0.0225	0.0133	0.0055	0.05	
Potassium	mg/L	0.3	0.2	0.2	0.2		
Silicon	mg/L	4.32	3.42	3.66	3.7		
Sodium	mg/L	2.4	1.1	1	1.3	<200	
Titanium	mg/L	<0.0005	0.0006	0.0012	0.0027		
Aluminum	mg/L	0.008	0.018	0.037	0.085		0.1
Antimony	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	0.006	
Arsenic	mg/L	0.00228	0.00129	0.0003	0.0004	0.01	
Barium	mg/L	0.148	0.0714	0.0642	0.0201	1	
Beryllium	mg/L	<0.00005	<0.00005	<0.00005	<0.00005		
Bismuth	mg/L	<0.0001	<0.0001	<0.0001	<0.0001		
Boron	mg/L	0.003	0.002	0.002	<0.002	5	
Cadmium	mg/L	0.00003	<0.00001	0.00002	<0.00001	0.005	0.0018
Chromium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	0.05	0.002
Cobalt	mg/L	<0.0001	<0.0001	<0.0001	<0.0001		
Copper	mg/L	0.0008	0.0004	0.0007	0.0008	1	0.004
Lead	mg/L	<0.0001	<0.0001	<0.0001	0.0002	0.01	0.007
Lithium	mg/L	0.0047	0.0013	0.0012	0.0008		
Molybdenum	mg/L	0.00026	0.00078	0.00078	0.00014		
Nickel	mg/L	0.0003	0.0005	0.0002	0.0003		0.15
Selenium	mg/L	0.0002	0.0006	0.0006	<0.0001	0.01	0.001
Silver	mg/L	<0.00005	<0.00005	<0.00005	<0.00005		0.0001
Strontium	mg/L	0.178	0.105	0.103	0.0265		
Thallium	mg/L	<0.00001	<0.00001	<0.00001	<0.00001		
Thorium	mg/L	0.00005	0.00003	0.00003	0.00004		
Tin	mg/L	<0.0001	<0.0001	<0.0001	<0.0001		
Uranium	mg/L	0.00106	0.00097	0.00101	0.00029	0.02	
Vanadium	mg/L	<0.0001	0.0001	0.0002	0.0003		
Zinc	mg/L	0.0046	0.0029	0.0036	0.0036	<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

nr=no sample or analysis done

equal or exceeds Guideline limit

Table 7. Silver Range Resources - HAMMER Claims July, 2014.**Dissolved Metals Analysis Results**

Parameter	Units	HAM#1	HAM#2	HAM#3	HAM#4
Calcium	mg/L	40	34.3	34.8	5.11
Iron	mg/L	0.206	0.17	0.032	0.038
Magnesium	mg/L	8.03	10.4	10.8	0.74
Manganese	mg/L	0.017	0.017	0.005	0.002
Potassium	mg/L	0.6	0.2	0.2	0.2
Silicon	mg/L	3.44	2.85	3.02	3.03
Sodium	mg/L	2.2	1.1	1	1.3
Sulfur	mg/L	1.5	5.5	6	0.9
Titanium	mg/L	<0.010	<0.010	<0.010	<0.010
Aluminum	mg/L	<0.005	<0.005	<0.005	0.022
Antimony	mg/L	<0.0002	<0.0002	<0.0002	<0.0002
Arsenic	mg/L	0.0018	0.0009	<0.0002	0.0003
Barium	mg/L	0.133	0.063	0.057	0.016
Beryllium	mg/L	<0.00004	<0.00004	<0.00004	<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	0.00002	<0.00001	0.00001	0.00002
Chromium	mg/L	<0.0004	<0.0004	<0.0004	<0.0004
Cobalt	mg/L	0.00006	0.00006	0.00005	0.00003
Copper	mg/L	<0.001	<0.001	<0.001	<0.001
Lead	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Lithium	mg/L	0.004	0.001	0.001	<0.001
Molybdenum	mg/L	0.00015	0.00064	0.00059	<0.00010
Nickel	mg/L	<0.001	<0.001	<0.001	<0.001
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	0.157	0.093	0.088	0.025
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	0.0002	<0.0001	<0.0001	<0.0001
Uranium	mg/L	0.0008	0.0009	0.001	<0.0004
Vanadium	mg/L	0.00017	0.00017	0.0002	0.00015
Zinc	mg/L	0.003	0.001	0.001	0.001
Zirconium	mg/L	<0.00010	<0.00010	<0.00010	<0.00010

Table 8. SNAP Claims. Quality Control Metals Analysis Results, July 2014.

Parameter	Units	SNAP#1	SNAP#1 Duplicate	SNAP#1	SNAP#1 Duplicate
		Total Metals	Total Metals	Dissolved Metals	Dissolved Metals
Calcium	mg/L	21.5	20.9	19.8	19.6
Iron	mg/L	0.267	0.257	0.145	0.143
Magnesium	mg/L	3.4	3.29	3.35	3.34
Manganese	mg/L	0.0289	0.0278	0.024	0.023
Potassium	mg/L	0.6	0.6	0.6	0.6
Silicon	mg/L	3.25	3.16	2.66	2.6
Sodium	mg/L	1.6	1.6	1.5	1.5
Titanium	mg/L	0.0008	0.0009	<0.010	<0.010
Aluminum	mg/L	0.035	0.036	0.009	0.009
Antimony	mg/L	0.0001	0.0001	<0.0002	<0.0002
Arsenic	mg/L	0.00119	0.00112	0.0009	0.0009
Barium	mg/L	0.0217	0.0215	0.018	0.018
Beryllium	mg/L	0.00006	0.00011	0.00004	0.00007
Bismuth	mg/L	<0.0001	<0.0001	<0.001	<0.001
Boron	mg/L	<0.002	<0.002	<0.004	<0.004
Cadmium	mg/L	0.00057	0.00056	0.00045	0.00049
Chromium	mg/L	<0.0005	<0.0005	<0.0004	<0.0004
Cobalt	mg/L	<0.0001	<0.0001	0.00009	0.00009
Copper	mg/L	0.0015	0.0008	<0.001	<0.001
Lead	mg/L	0.0007	0.0007	0.0003	0.0003
Lithium	mg/L	0.0026	0.0024	0.002	0.002
Molybdenum	mg/L	0.00026	0.00025	0.00016	0.00017
Nickel	mg/L	0.011	0.0103	0.009	0.009
Selenium	mg/L	0.0002	0.0002	<0.0006	<0.0006
Silver	mg/L	<0.00005	<0.00005	<0.00001	<0.00001
Strontium	mg/L	0.113	0.106	0.096	0.098
Thallium	mg/L	<0.00001	<0.00001	<0.00001	<0.00001
Thorium	mg/L	0.00002	0.00002	<0.0004	<0.0004
Tin	mg/L	<0.0001	<0.0001	<0.0001	<0.0001
Uranium	mg/L	0.00091	0.00088	0.0008	0.0008
Vanadium	mg/L	0.0002	0.0002	<0.00010	<0.00010
Zinc	mg/L	0.133	0.126	0.11	0.112
Zirconium	mg/L	<0.0005	<0.0005	<0.00010	<0.00010
Mercury	mg/L	<0.00001			

indicates > 10% variation between samples

SNAP and HAMMER Claims July 2014

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***.

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 SNAP and HAMMER stations are on the attached disc.

Quality Control

Quality control samples were taken at Station SNAP #1 in July 2014.

Discussion

Hydrology

All water quality / hydrology stations were in conditions.

Laboratory Analytical Results

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

SNAP Stations

Station SNAP#1 results exceed ***Aquatic Guidelines*** for zinc.

Station SNAP #2 results exceed the ***Aquatic Guidelines*** for cadmium and zinc.

SNAP and HAMMER Claims July 2014

Station SNAP#3 results exceed *Aquatic Guidelines* for aluminum, cadmium and zinc; and exceed the *Drinking Water Guidelines* for manganese. The pH is below the minimum range value for both Guidelines.

Station SNAP #4 results met all *Aquatic Guidelines* and *Drinking Water MAC's*.

HAMMER Stations

Station HAM#1 and **HAM#2** results exceed *Aquatic Guidelines* and *Drinking Water MAC* for iron.

Station HAM#3 and **HAM#4** met all *Guideline* limits.

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

SNAP and HAMMER Claims

July 2014

Report Transmission Cover Page

Bill To:	J. Gibson & Associates	Project:		Lot ID:	1015170
Report To:	J. Gibson & Associates	ID:	Silver Range Res.	Control Number:	B15241
	Box 20913	Name:	Snap Project	Date Received:	Jul 18, 2014
	Whitehorse, YT, Canada	Location:		Date Reported:	Jul 24, 2014
	Y1A 6P2	LSD:		Report Number:	1933777
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
 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: **1015170**
 Control Number: B15241
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933777

Analyte	Matrix	Units	Reference Number	1015170-1	1015170-2	1015170-3	Nominal Detection Limit
			Sample Date	Jul 16, 2014	Jul 16, 2014	Jul 16, 2014	
			Sample Time	NA	NA	NA	
			Sample Location	Surf / Snap #1	Surf / Snap #2	Surf / Snap #3	
			Water	Water	Water		
Inorganic Nonmetallic Parameters							
Organic Carbon	Total Nonpurgeable	mg/L		1.5	0.6	0.8	0.5
Cyanide	Total	mg/L		<0.002	<0.002	<0.002	0.002
Ammonia - N		mg/L		0.03	0.06	0.03	.01
Phosphorus	Total	mg/L		0.007	0.006	0.003	0.003
Metals Dissolved							
Subsample	Field Filtered		Field Filtered	Field Filtered	Field Filtered	Field Filtered	
Sulfur	Dissolved	mg/L		14.3	17.9	14.2	0.2
Aluminum	Dissolved	mg/L		0.009	0.041	0.176	0.005
Antimony	Dissolved	mg/L		<0.0002	<0.0002	<0.0002	0.0002
Arsenic	Dissolved	mg/L		0.0009	0.0003	<0.0002	0.0002
Barium	Dissolved	mg/L		0.018	0.018	0.020	0.001
Beryllium	Dissolved	mg/L		0.00004	0.00039	0.00066	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		0.00045	0.00193	0.00435	0.00001
Chromium	Dissolved	mg/L		<0.0004	<0.0004	<0.0004	0.0004
Cobalt	Dissolved	mg/L		0.00009	0.00013	0.00011	0.00002
Copper	Dissolved	mg/L		<0.001	0.001	0.002	0.001
Lead	Dissolved	mg/L		0.0003	0.0017	0.0003	0.0001
Lithium	Dissolved	mg/L		0.002	0.003	0.002	0.001
Molybdenum	Dissolved	mg/L		0.00016	<0.00010	<0.00010	0.0001
Nickel	Dissolved	mg/L		0.009	0.035	0.003	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		0.096	0.103	0.060	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		0.0008	<0.0004	<0.0004	0.0004
Vanadium	Dissolved	mg/L		<0.00010	<0.00010	<0.00010	0.0001
Zinc	Dissolved	mg/L		0.110	0.284	1.030	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
 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: **1015170**
 Control Number: B15241
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933777

Analyte	Units	Reference Number	1015170-1	1015170-2	1015170-3	Nominal Detection Limit
		Sample Date	Jul 16, 2014	Jul 16, 2014	Jul 16, 2014	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	Surf / Snap #1	Surf / Snap #2	Surf / Snap #3	
		Matrix	Water	Water	Water	
Metals Total - Continued						
Aluminum	Total	mg/L	0.035	0.080	0.799	0.005
Antimony	Total	mg/L	0.0001	<0.0001	<0.0001	0.0001
Arsenic	Total	mg/L	0.00119	0.00030	0.00040	0.00005
Barium	Total	mg/L	0.0217	0.0208	0.0234	0.00005
Beryllium	Total	mg/L	0.00006	0.00051	0.00093	0.00005
Bismuth	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Boron	Total	mg/L	<0.002	<0.002	<0.002	0.002
Cadmium	Total	mg/L	0.00057	0.00222	0.00499	0.00001
Calcium	Total	mg/L	21.5	19.0	13.0	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	0.0015	0.0016	0.0034	0.0001
Iron	Total	mg/L	0.267	0.019	0.043	0.002
Lead	Total	mg/L	0.0007	0.0020	0.0005	0.0001
Lithium	Total	mg/L	0.0026	0.0038	0.0029	0.0005
Magnesium	Total	mg/L	3.40	4.04	2.30	0.04
Manganese	Total	mg/L	0.0289	0.0339	0.635	0.001
Molybdenum	Total	mg/L	0.00026	0.00012	<0.00005	0.00005
Nickel	Total	mg/L	0.0110	0.0425	0.0039	0.0002
Potassium	Total	mg/L	0.6	0.7	0.4	0.1
Selenium	Total	mg/L	0.0002	0.0002	0.0005	0.0001
Silicon	Total	mg/L	3.25	3.68	4.94	0.02
Silver	Total	mg/L	<0.00005	<0.00005	<0.00005	0.00005
Sodium	Total	mg/L	1.6	1.7	1.6	0.1
Strontium	Total	mg/L	0.113	0.119	0.0685	0.0001
Thallium	Total	mg/L	<0.00001	<0.00001	<0.00001	0.00001
Thorium	Total	mg/L	0.00002	0.00002	0.00002	0.00001
Tin	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Titanium	Total	mg/L	0.0008	<0.0005	<0.0005	0.0005
Uranium	Total	mg/L	0.00091	0.00018	0.00042	0.00001
Vanadium	Total	mg/L	0.0002	<0.0001	0.0001	0.0001
Zinc	Total	mg/L	0.133	0.324	1.12	0.0005
Zirconium	Total	mg/L	<0.0005	<0.0005	<0.0005	0.0005
Hardness	as CaCO3	mg/L	68	64	42	1
Physical and Aggregate Properties						
Solids	Total Suspended	mg/L	<3	<3	<3	1



Analytical Report

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 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: **1015170**
 Control Number: B15241
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933777

		Reference Number	1015170-1	1015170-2	1015170-3	
		Sample Date	Jul 16, 2014	Jul 16, 2014	Jul 16, 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	100	98	106	5
Routine Water						
pH	at 25 °C		7.48	7.00	5.95	
Electrical Conductivity		µS/cm at 25 C	144	145	109	1
Calcium	Dissolved	mg/L	19.8	17.4	11.9	0.1
Iron	Dissolved	mg/L	0.145	0.011	0.011	0.005
Magnesium	Dissolved	mg/L	3.35	3.98	2.27	0.1
Manganese	Dissolved	mg/L	0.024	0.030	0.558	0.001
Potassium	Dissolved	mg/L	0.6	0.7	0.4	0.1
Silicon	Dissolved	mg/L	2.66	3.02	4.01	0.05
Sodium	Dissolved	mg/L	1.5	1.8	1.5	0.1
Bicarbonate		mg/L	32	<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	26	10	<5	5
Chloride	Dissolved	mg/L	<0.05	<0.05	<0.05	0.05
Nitrate - N	Dissolved	mg/L	<0.01	0.06	<0.01	0.01
Nitrite - N	Dissolved	mg/L	<0.01	<0.01	<0.01	0.01
Sulfate (SO4)	Dissolved	mg/L	43.5	54.2	43.6	0.5
Hardness	as CaCO3	mg/L	63	60	39	5



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 Company:

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

Lot ID: **1015170**
 Control Number: B15241
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933777

Reference Number 1015170-4
 Sample Date Jul 16, 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	1.7		0.5
Cyanide	Total	mg/L	<0.002		0.002
Ammonia - N		mg/L	0.02		.01
Phosphorus	Total	mg/L	0.007		0.003
Physical and Aggregate Properties					
Solids	Total Suspended	mg/L	<3		1
Solids	Total Dissolved	mg/L	122		5



Analytical Report

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 Box 20913
 Whitehorse, YT, Canada
 Y1A 6P2
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 Company:

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

Lot ID: **1015170**
 Control Number: B15241
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933777

Analyte	Units	Reference Number		Nominal Detection Limit
		1015170-4	1015170-5	
		Sample Date	Sample Date	
		Sample Time	Sample Time	
		Sample Location	Sample Location	
	Matrix	Surf / Snap #4	Surf / Snap #1 Duplicate Water	
Metals Dissolved				
Subsample	Field Filtered	Field Filtered	Field Filtered	
Sulfur	Dissolved mg/L	13.3	14.2	0.2
Aluminum	Dissolved mg/L	0.009	0.009	0.005
Antimony	Dissolved mg/L	<0.0002	<0.0002	0.0002
Arsenic	Dissolved mg/L	0.0005	0.0009	0.0002
Barium	Dissolved mg/L	0.015	0.018	0.001
Beryllium	Dissolved mg/L	<0.00004	0.00007	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	0.00002	0.00049	0.00001
Chromium	Dissolved mg/L	<0.0004	<0.0004	0.0004
Cobalt	Dissolved mg/L	0.00007	0.00009	0.00002
Copper	Dissolved mg/L	<0.001	<0.001	0.001
Lead	Dissolved mg/L	<0.0001	0.0003	0.0001
Lithium	Dissolved mg/L	0.001	0.002	0.001
Molybdenum	Dissolved mg/L	0.00036	0.00017	0.0001
Nickel	Dissolved mg/L	<0.001	0.009	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	0.104	0.098	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	0.0021	0.0008	0.0004
Vanadium	Dissolved mg/L	0.00015	<0.00010	0.0001
Zinc	Dissolved mg/L	0.001	0.112	0.001
Zirconium	Dissolved mg/L	<0.00010	<0.00010	0.0001
Metals Total				
Mercury	Total mg/L	<0.00001		0.00001
Aluminum	Total mg/L	0.038	0.036	0.005
Antimony	Total mg/L	0.0002	0.0001	0.0001
Arsenic	Total mg/L	0.00060	0.00112	0.00005
Barium	Total mg/L	0.0180	0.0215	0.00005
Beryllium	Total mg/L	<0.00005	0.00011	0.00005



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: **1015170**
 Control Number: B15241
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933777

Reference Number		1015170-4	1015170-5		
Sample Date		Jul 16, 2014	Jul 16, 2014		
Sample Time		NA	NA		
Sample Location					
Sample Description		Surf / Snap #4	Surf / Snap #1		
Matrix		Water	Duplicate Water		
Analyte	Units	Results	Results	Results	Nominal Detection Limit
Metals Total - Continued					
Bismuth	Total	mg/L	<0.0001	<0.0001	0.0001
Boron	Total	mg/L	<0.002	<0.002	0.002
Cadmium	Total	mg/L	0.00002	0.00056	0.00001
Calcium	Total	mg/L	28.5	20.9	0.05
Chromium	Total	mg/L	<0.0005	<0.0005	0.0005
Cobalt	Total	mg/L	<0.0001	<0.0001	0.0001
Copper	Total	mg/L	0.0007	0.0008	0.0001
Iron	Total	mg/L	0.285	0.257	0.002
Lead	Total	mg/L	<0.0001	0.0007	0.0001
Lithium	Total	mg/L	0.0015	0.0024	0.0005
Magnesium	Total	mg/L	2.55	3.29	0.04
Manganese	Total	mg/L	0.0114	0.0278	0.001
Molybdenum	Total	mg/L	0.00050	0.00025	0.00005
Nickel	Total	mg/L	0.0007	0.0103	0.0002
Potassium	Total	mg/L	0.6	0.6	0.1
Selenium	Total	mg/L	0.0003	0.0002	0.0001
Silicon	Total	mg/L	3.19	3.16	0.02
Silver	Total	mg/L	<0.00005	<0.00005	0.00005
Sodium	Total	mg/L	1.3	1.6	0.1
Strontium	Total	mg/L	0.120	0.106	0.0001
Thallium	Total	mg/L	<0.00001	<0.00001	0.00001
Thorium	Total	mg/L	0.00002	0.00002	0.00001
Tin	Total	mg/L	<0.0001	<0.0001	0.0001
Titanium	Total	mg/L	0.0012	0.0009	0.0005
Uranium	Total	mg/L	0.00219	0.00088	0.00001
Vanadium	Total	mg/L	0.0003	0.0002	0.0001
Zinc	Total	mg/L	0.0034	0.126	0.0005
Zirconium	Total	mg/L	<0.0005	<0.0005	0.0005
Hardness	as CaCO3	mg/L	82		1
Routine Water					
pH	at 25 °C		7.63		
Electrical Conductivity		µS/cm at 25 C	166		1
Calcium	Dissolved	mg/L	26.0	19.6	0.1
Iron	Dissolved	mg/L	0.169	0.143	0.005
Magnesium	Dissolved	mg/L	2.50	3.34	0.1
Manganese	Dissolved	mg/L	0.007	0.023	0.001



Analytical Report

Bill To: J. Gibson & Associates
 Report To: J. Gibson & Associates
 Box 20913
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 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: **1015170**
 Control Number: B15241
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933777

Analyte	Units	Reference Number	1015170-4	1015170-5	Nominal Detection Limit
		Sample Date	Jul 16, 2014	Jul 16, 2014	
		Sample Time	NA	NA	
		Sample Location			
		Sample Description	Surf / Snap #4	Surf / Snap #1	
	Matrix		Water	Duplicate Water	
Routine Water - Continued					
Potassium	Dissolved	mg/L	0.6	0.6	0.1
Silicon	Dissolved	mg/L	2.55	2.60	0.05
Sodium	Dissolved	mg/L	1.3	1.5	0.1
Bicarbonate		mg/L	50		5
Carbonate		mg/L	<6		6
Hydroxide		mg/L	<5		5
P-Alkalinity	as CaCO3	mg/L	<5		5
T-Alkalinity	as CaCO3	mg/L	41		5
Chloride	Dissolved	mg/L	<0.05		0.05
Nitrate - N	Dissolved	mg/L	0.01		0.01
Nitrite - N	Dissolved	mg/L	<0.01		0.01
Sulfate (SO4)	Dissolved	mg/L	40.4		0.5
Hardness	as CaCO3	mg/L	75	63	5

Approved by: 
 Mathieu Simoneau
 Operations Manager

Data have been validated by Analytical Quality Control and Exova's Integrated Data Validation System (IDVS).
 Generation and distribution of the report, and approval by the digitized signature above, are performed through a secure and controlled automatic process.



Methodology and Notes

Bill To: J. Gibson & Associates	Project:	Lot ID: 1015170
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15241
Box 20913	Name: Snap Project	Date Received: Jul 18, 2014
Whitehorse, YT, Canada	Location:	Date Reported: Jul 24, 2014
Y1A 6P2	LSD:	Report Number: 1933777
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	21-Jul-14	Exova Surrey
Alk, pH, EC, Turb in water (Surrey)	APHA	* Conductivity, 2510 B	21-Jul-14	Exova Surrey
Alk, pH, EC, Turb in water (Surrey)	APHA	* pH - Electrometric Method, 4500-H+ B	21-Jul-14	Exova Surrey
Ammonia-N in Water (Surrey)	APHA	* Flow Injection Analysis, 4500-NH3 H	21-Jul-14	Exova Surrey
Anions by IEC in water (Surrey)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	21-Jul-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	22-Jul-14	Exova Edmonton
BC Trace Total Metals in Water	APHA	* Inductively Coupled Plasma (ICP) Method, 3120 B	22-Jul-14	Exova Edmonton
Carbon Organic (Total) in water (TOC)	APHA	High-Temperature Combustion Method, 5310 B	22-Jul-14	Exova Edmonton
Cyanide (Total) in water	US EPA	* US EPA method, 335.3	22-Jul-14	Exova Edmonton
Mercury Low Level (Total) in water (Surrey)	EPA	* Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry, 245.7	21-Jul-14	Exova Surrey
Metals SemiTrace (Dissolved) in water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	21-Jul-14	Exova Surrey
Phosphorus - total by Smartchem (Surrey)	APHA	* Preliminary Acid Hydrolysis, Ascorbic Acid Reduction Method, 4500-P B,E	21-Jul-14	Exova Surrey
Solids Dissolved (Total, Fixed and Volatile) - Surrey	APHA	* Total Dissolved Solids Dried at 180 C, 2540 C	21-Jul-14	Exova Surrey
Solids Suspended (Total, Fixed and Volatile)	APHA	* Total Suspended Solids Dried at 103-105°C, 2540 D	21-Jul-14	Exova Surrey
Trace Metals (dissolved) in Water (Surrey)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	21-Jul-14	Exova Surrey
Trace Metals (dissolved) in Water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	21-Jul-14	Exova Surrey

* Reference Method Modified

References

APHA Standard Methods for the Examination of Water and Wastewater



Methodology and Notes

Bill To:	J. Gibson & Associates	Project:		Lot ID:	1015170
Report To:	J. Gibson & Associates	ID:	Silver Range Res.	Control Number:	B15241
	Box 20913	Name:	Snap Project	Date Received:	Jul 18, 2014
	Whitehorse, YT, Canada	Location:		Date Reported:	Jul 24, 2014
	Y1A 6P2	LSD:		Report Number:	1933777
Attn:	John Gibson	P.O.:			
Sampled By:	R.Gibson	Acct code:			
Company:					

US EPA

US Environmental Protection Agency Test Methods

Comments:

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

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.



Billing Information		Copy of Report To:		RUSH Priority	
Company: <u>J Gibson & Associates</u>	Address: <u>Whitehorse, YT Y1A 6P2</u>	Company: <u>J. Gibson & Associates</u>	Address: <u>Whitehorse, YT Y1A 6P2</u>	Upon filling out this section, client accepts that surcharges will be applied to the analysis	
Attention: <u>John Gibson</u>	Phone: <u>(867) 633-4522</u>	Attention: <u>John Gibson</u>	Phone: <u>(867) 633-4522</u>	Date Required	
Cell: _____	Fax: <u>(867) 668-6895</u>	Cell: _____	Fax: <u>(867) 668-6895</u>	As Indicated	All Analysis
E-mail: <u>ludditegibson@gmail.com</u>	Agreement ID: <u>6646</u>	E-mail: <u>ludditegibson@gmail.com</u>	Agreement ID: _____	When "ASAP" is requested, turn around will default to a 100% RUSH priority, with pricing and turn around time to match. Please contact the lab prior to submitting RUSH samples.	
Copy of report: <input checked="" type="checkbox"/>	Copy of invoice: <input checked="" type="checkbox"/>			Signature	

Project Information

Project ID: SILVER RANGERS

Project Name: SNAP PROJECT

Project Location: _____

Legal Location: _____

PO/AFE#: _____

Proj. Acct. Code: _____

Report Results	<input type="checkbox"/> E-mail	<input type="checkbox"/> Online	<input type="checkbox"/> PDF
	<input type="checkbox"/> Mail	<input type="checkbox"/> Fax	<input type="checkbox"/> Excel
Special Instructions/Comments (please include contact information including ph. # if different from above): <u>RUTOM = PH, EC, TP, N₂, N₃, TALK CL, SO₄, HARD T, BS, DS.</u> <u>TW23 field filtered, METALS + NITRIC, THg + HCL,</u> <u>TOC + HCL, NH₄ + SULFURIC, TON + NaOH.</u>			

QA/QC Report	Include Regulatory Requirements Below:
Number of Containers	RUTOM NH ₄ TOC TW23 NEW TW23 NEW TON THG

Sample Custody (please print)

Sampled by: R. GIBSON

Company: _____

I authorize Exova to proceed with the work indicated on this form.

Date: JUL 17 11 Initial: RG

This section for Lab use only

Date/Time stamp: JUL 18 2014

Sample Identification	Location	Depth IN CM M	Date/Time sampled	Matrix	Sampling Method	Enter tests above (√ relevant samples below)	Indicate below any deficiencies in the condition of samples:
1							Were Exova supplies used?
2	<u>SURF</u>	<u>-</u>	<u>JUL 16</u>	<u>H₂O</u>	<u>Grab</u>	<u>7</u> ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	Were there any damage to the shipping container?
3							Were the containers packaged well?
4	<u>↓</u>		<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>7</u> ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	Were any extra samples received (document below)?
5							Are samples within recommended holding times/temp?
6	<u>↓</u>					<u>7</u> ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	
7							
8						<u>7</u> ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	
9							
10	<u>SNAP #1 DUPLICATE</u>					<u>2</u> ✓ ✓	
11							
12							
13							
14							
15							

Environmental Sample Information Sheet

Note: Proper completion of this form is required in order to proceed with analysis

Please indicate any potentially hazardous samples

Page 1 of 1 Control # B15241

Lot: 1015170 COC

Shipping: _____ # and size of coolers received: _____

Cooler temp: 6°C Delivery Method: _____

Waybill: _____

Received by: _____

ED 120-00

Report Transmission Cover Page

Bill To: J. Gibson & Associates	Project:	Lot ID: 1015152
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15240
Box 20913	Name: Hammer Project	Date Received: Jul 18, 2014
Whitehorse, YT, Canada	Location:	Date Reported: Jul 24, 2014
Y1A 6P2	LSD:	Report Number: 1933765
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
 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: **1015152**
 Control Number: B15240
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933765

		Reference Number	1015152-1	1015152-2	1015152-3	
		Sample Date	Jul 16, 2014	Jul 16, 2014	Jul 16, 2014	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	Surf / HAM #1	Surf / HAM #2	Surf / HAM #3	
		Matrix	Water	Water	Water	
Analyte	Units	Results	Results	Results	Nominal Detection Limit	
Inorganic Nonmetallic Parameters						
Organic Carbon	Total Nonpurgeable	mg/L	6.2	2.1	1.5	0.5
Cyanide	Total	mg/L	<0.002	<0.002	<0.002	0.002
Ammonia - N		mg/L	0.07	0.03	0.03	.01
Phosphorus	Total	mg/L	0.033	0.014	0.005	0.003
Metals Dissolved						
Subsample	Field Filtered		Field Filtered	Field Filtered	Field Filtered	
Sulfur	Dissolved	mg/L	1.5	5.5	6.0	0.2
Aluminum	Dissolved	mg/L	<0.005	<0.005	<0.005	0.005
Antimony	Dissolved	mg/L	<0.0002	<0.0002	<0.0002	0.0002
Arsenic	Dissolved	mg/L	0.0018	0.0009	<0.0002	0.0002
Barium	Dissolved	mg/L	0.133	0.063	0.057	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	0.00002	<0.00001	0.00001	0.00001
Chromium	Dissolved	mg/L	<0.0004	<0.0004	<0.0004	0.0004
Cobalt	Dissolved	mg/L	0.00006	0.00006	0.00005	0.00002
Copper	Dissolved	mg/L	<0.001	<0.001	<0.001	0.001
Lead	Dissolved	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Lithium	Dissolved	mg/L	0.004	0.001	0.001	0.001
Molybdenum	Dissolved	mg/L	0.00015	0.00064	0.00059	0.0001
Nickel	Dissolved	mg/L	<0.001	<0.001	<0.001	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	0.157	0.093	0.088	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	0.0002	<0.0001	<0.0001	0.0001
Uranium	Dissolved	mg/L	0.0008	0.0009	0.0010	0.0004
Vanadium	Dissolved	mg/L	0.00017	0.00017	0.00020	0.0001
Zinc	Dissolved	mg/L	0.003	0.001	0.001	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
 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: **1015152**
 Control Number: B15240
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933765

		Reference Number	1015152-1	1015152-2	1015152-3	
		Sample Date	Jul 16, 2014	Jul 16, 2014	Jul 16, 2014	
		Sample Time	NA	NA	NA	
		Sample Location				
		Sample Description	Surf / HAM #1	Surf / HAM #2	Surf / HAM #3	
		Matrix	Water	Water	Water	
Analyte	Units	Results	Results	Results	Nominal Detection Limit	
Metals Total - Continued						
Aluminum	Total	mg/L	0.008	0.018	0.037	0.005
Antimony	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Arsenic	Total	mg/L	0.00228	0.00129	0.00030	0.00005
Barium	Total	mg/L	0.148	0.0714	0.0642	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	0.003	0.002	0.002	0.002
Cadmium	Total	mg/L	0.00003	<0.00001	0.00002	0.00001
Calcium	Total	mg/L	40.6	36.2	36.8	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	0.0008	0.0004	0.0007	0.0001
Iron	Total	mg/L	0.469	0.337	0.108	0.002
Lead	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Lithium	Total	mg/L	0.0047	0.0013	0.0012	0.0005
Magnesium	Total	mg/L	7.82	10.6	11.0	0.04
Manganese	Total	mg/L	0.0074	0.0225	0.0133	0.001
Molybdenum	Total	mg/L	0.00026	0.00078	0.00078	0.00005
Nickel	Total	mg/L	0.0003	0.0005	0.0002	0.0002
Potassium	Total	mg/L	0.3	0.2	0.2	0.1
Selenium	Total	mg/L	0.0002	0.0006	0.0006	0.0001
Silicon	Total	mg/L	4.32	3.42	3.66	0.02
Silver	Total	mg/L	<0.00005	<0.00005	<0.00005	0.00005
Sodium	Total	mg/L	2.4	1.1	1.0	0.1
Strontium	Total	mg/L	0.178	0.105	0.103	0.0001
Thallium	Total	mg/L	<0.00001	<0.00001	<0.00001	0.00001
Thorium	Total	mg/L	0.00005	0.00003	0.00003	0.00001
Tin	Total	mg/L	<0.0001	<0.0001	<0.0001	0.0001
Titanium	Total	mg/L	<0.0005	0.0006	0.0012	0.0005
Uranium	Total	mg/L	0.00106	0.00097	0.00101	0.00001
Vanadium	Total	mg/L	<0.0001	0.0001	0.0002	0.0001
Zinc	Total	mg/L	0.0046	0.0029	0.0036	0.0005
Zirconium	Total	mg/L	<0.0005	<0.0005	<0.0005	0.0005
Hardness	as CaCO3	mg/L	134	134	137	1
Physical and Aggregate Properties						
Solids	Total Suspended	mg/L	28	<3	<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: Hammer Project
 Location:
 LSD:
 P.O.:
 Acct code:

Lot ID: **1015152**
 Control Number: B15240
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933765

	Reference Number	1015152-1	1015152-2	1015152-3		
	Sample Date	Jul 16, 2014	Jul 16, 2014	Jul 16, 2014		
	Sample Time	NA	NA	NA		
	Sample Location					
	Sample Description	Surf / HAM #1	Surf / HAM #2	Surf / HAM #3		
	Matrix	Water	Water	Water		
Analyte	Units	Results	Results	Results	Nominal Detection Limit	
Physical and Aggregate Properties - Continued						
Solids	Total Dissolved	mg/L	156	148	148	5
Routine Water						
pH	at 25 °C		7.22	7.96	8.07	
Electrical Conductivity		µS/cm at 25 C	249	239	241	1
Calcium	Dissolved	mg/L	40.0	34.3	34.8	0.1
Iron	Dissolved	mg/L	0.206	0.170	0.032	0.005
Magnesium	Dissolved	mg/L	8.03	10.4	10.8	0.1
Manganese	Dissolved	mg/L	0.017	0.017	0.005	0.001
Potassium	Dissolved	mg/L	0.6	0.2	0.2	0.1
Silicon	Dissolved	mg/L	3.44	2.85	3.02	0.05
Sodium	Dissolved	mg/L	2.2	1.1	1.0	0.1
Bicarbonate		mg/L	174	151	153	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	142	124	126	5
Chloride	Dissolved	mg/L	0.08	<0.05	<0.05	0.05
Nitrate - N	Dissolved	mg/L	<0.01	0.04	0.06	0.01
Nitrite - N	Dissolved	mg/L	<0.01	<0.01	<0.01	0.01
Sulfate (SO4)	Dissolved	mg/L	2.3	15.8	16.8	0.5
Hardness	as CaCO3	mg/L	133	129	132	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: Hammer Project
 Location:
 LSD:
 P.O.:
 Acct code:

Lot ID: **1015152**
 Control Number: B15240
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933765

Reference Number 1015152-4
 Sample Date Jul 16, 2014
 Sample Time NA
 Sample Location
 Sample Description Surf / HAM #4
 Matrix Water

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Inorganic Nonmetallic Parameters					
Organic Carbon	Total Nonpurgeable	mg/L	2.1		0.5
Cyanide	Total	mg/L	<0.002		0.002
Ammonia - N		mg/L	0.03		.01
Phosphorus	Total	mg/L	0.008		0.003
Metals Dissolved					
Subsample	Field Filtered		Field Filtered		
Sulfur	Dissolved	mg/L	0.9		0.2
Aluminum	Dissolved	mg/L	0.022		0.005
Antimony	Dissolved	mg/L	<0.0002		0.0002
Arsenic	Dissolved	mg/L	0.0003		0.0002
Barium	Dissolved	mg/L	0.016		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	0.00002		0.00001
Chromium	Dissolved	mg/L	<0.0004		0.0004
Cobalt	Dissolved	mg/L	0.00003		0.00002
Copper	Dissolved	mg/L	<0.001		0.001
Lead	Dissolved	mg/L	0.0001		0.0001
Lithium	Dissolved	mg/L	<0.001		0.001
Molybdenum	Dissolved	mg/L	<0.00010		0.0001
Nickel	Dissolved	mg/L	<0.001		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	0.025		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	<0.0004		0.0004
Vanadium	Dissolved	mg/L	0.00015		0.0001
Zinc	Dissolved	mg/L	0.001		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
 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: **1015152**
 Control Number: B15240
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933765

Reference Number 1015152-4
 Sample Date Jul 16, 2014
 Sample Time NA
 Sample Location
 Sample Description Surf / HAM #4
 Matrix Water

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Metals Total - Continued					
Aluminum	Total	mg/L	0.085		0.005
Antimony	Total	mg/L	<0.0001		0.0001
Arsenic	Total	mg/L	0.00040		0.00005
Barium	Total	mg/L	0.0201		0.00005
Beryllium	Total	mg/L	<0.00005		0.00005
Bismuth	Total	mg/L	<0.0001		0.0001
Boron	Total	mg/L	<0.002		0.002
Cadmium	Total	mg/L	<0.00001		0.00001
Calcium	Total	mg/L	5.48		0.05
Chromium	Total	mg/L	<0.0005		0.0005
Cobalt	Total	mg/L	<0.0001		0.0001
Copper	Total	mg/L	0.0008		0.0001
Iron	Total	mg/L	0.128		0.002
Lead	Total	mg/L	0.0002		0.0001
Lithium	Total	mg/L	0.0008		0.0005
Magnesium	Total	mg/L	0.76		0.04
Manganese	Total	mg/L	0.0055		0.001
Molybdenum	Total	mg/L	0.00014		0.00005
Nickel	Total	mg/L	0.0003		0.0002
Potassium	Total	mg/L	0.2		0.1
Selenium	Total	mg/L	<0.0001		0.0001
Silicon	Total	mg/L	3.70		0.02
Silver	Total	mg/L	<0.00005		0.00005
Sodium	Total	mg/L	1.3		0.1
Strontium	Total	mg/L	0.0265		0.0001
Thallium	Total	mg/L	<0.00001		0.00001
Thorium	Total	mg/L	0.00004		0.00001
Tin	Total	mg/L	<0.0001		0.0001
Titanium	Total	mg/L	0.0027		0.0005
Uranium	Total	mg/L	0.00029		0.00001
Vanadium	Total	mg/L	0.0003		0.0001
Zinc	Total	mg/L	0.0036		0.0005
Zirconium	Total	mg/L	<0.0005		0.0005
Hardness	as CaCO3	mg/L	17		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: Hammer Project
 Location:
 LSD:
 P.O.:
 Acct code:

Lot ID: **1015152**
 Control Number: B15240
 Date Received: Jul 18, 2014
 Date Reported: Jul 24, 2014
 Report Number: 1933765

Reference Number 1015152-4
 Sample Date Jul 16, 2014
 Sample Time NA
 Sample Location
 Sample Description Surf / HAM #4
 Matrix Water

Analyte	Units	Results	Results	Results	Nominal Detection Limit
Physical and Aggregate Properties - Continued					
Solids	Total Dissolved	mg/L	42		5
Routine Water					
pH	at 25 °C		7.40		
Electrical Conductivity		µS/cm at 25 C	37		1
Calcium	Dissolved	mg/L	5.11		0.1
Iron	Dissolved	mg/L	0.038		0.005
Magnesium	Dissolved	mg/L	0.74		0.1
Manganese	Dissolved	mg/L	0.002		0.001
Potassium	Dissolved	mg/L	0.2		0.1
Silicon	Dissolved	mg/L	3.03		0.05
Sodium	Dissolved	mg/L	1.3		0.1
Bicarbonate		mg/L	20		5
Carbonate		mg/L	<6		6
Hydroxide		mg/L	<5		5
P-Alkalinity	as CaCO3	mg/L	<5		5
T-Alkalinity	as CaCO3	mg/L	16		5
Chloride	Dissolved	mg/L	<0.05		0.05
Nitrate - N	Dissolved	mg/L	0.01		0.01
Nitrite - N	Dissolved	mg/L	<0.01		0.01
Sulfate (SO4)	Dissolved	mg/L	2.5		0.5
Hardness	as CaCO3	mg/L	16		5

Approved by: 
 Mathieu Simoneau
 Operations Manager

Data have been validated by Analytical Quality Control and Exova's Integrated Data Validation System (IDVS).
 Generation and distribution of the report, and approval by the digitized signature above, are performed through a secure and controlled automatic process.

Methodology and Notes

Bill To: J. Gibson & Associates	Project:	Lot ID: 1015152
Report To: J. Gibson & Associates	ID: Silver Range Res.	Control Number: B15240
Box 20913	Name: Hammer Project	Date Received: Jul 18, 2014
Whitehorse, YT, Canada	Location:	Date Reported: Jul 24, 2014
Y1A 6P2	LSD:	Report Number: 1933765
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	21-Jul-14	Exova Surrey
Alk, pH, EC, Turb in water (Surrey)	APHA	* Conductivity, 2510 B	21-Jul-14	Exova Surrey
Alk, pH, EC, Turb in water (Surrey)	APHA	* pH - Electrometric Method, 4500-H+ B	21-Jul-14	Exova Surrey
Ammonia-N in Water (Surrey)	APHA	* Flow Injection Analysis, 4500-NH3 H	21-Jul-14	Exova Surrey
Anions by IEC in water (Surrey)	APHA	* Ion Chromatography with Chemical Suppression of Eluent Cond., 4110 B	21-Jul-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	22-Jul-14	Exova Edmonton
BC Trace Total Metals in Water	APHA	* Inductively Coupled Plasma (ICP) Method, 3120 B	22-Jul-14	Exova Edmonton
Carbon Organic (Total) in water (TOC)	APHA	High-Temperature Combustion Method, 5310 B	22-Jul-14	Exova Edmonton
Cyanide (Total) in water	US EPA	* US EPA method, 335.3	22-Jul-14	Exova Edmonton
Mercury Low Level (Total) in water (Surrey)	EPA	* Mercury in Water by Cold Vapor Atomic Fluorescence Spectrometry, 245.7	21-Jul-14	Exova Surrey
Metals SemiTrace (Dissolved) in water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	21-Jul-14	Exova Surrey
Phosphorus - total by Smartchem (Surrey)	APHA	* Preliminary Acid Hydrolysis, Ascorbic Acid Reduction Method, 4500-P B,E	21-Jul-14	Exova Surrey
Solids Dissolved (Total, Fixed and Volatile) - Surrey	APHA	* Total Dissolved Solids Dried at 180 C, 2540 C	21-Jul-14	Exova Surrey
Solids Suspended (Total, Fixed and Volatile)	APHA	* Total Suspended Solids Dried at 103-105°C, 2540 D	21-Jul-14	Exova Surrey
Trace Metals (dissolved) in Water (Surrey)	US EPA	* Determination of Trace Elements in Waters and Wastes by ICP-MS, 200.8	21-Jul-14	Exova Surrey
Trace Metals (dissolved) in Water (Surrey)	US EPA	* Metals & Trace Elements by ICP-AES, 6010C	21-Jul-14	Exova Surrey

* Reference Method Modified

References

APHA Standard Methods for the Examination of Water and Wastewater

Methodology and Notes

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Report To:	J. Gibson & Associates	ID:	Silver Range Res.	Control Number:	B15240
	Box 20913	Name:	Hammer Project	Date Received:	Jul 18, 2014
	Whitehorse, YT, Canada	Location:		Date Reported:	Jul 24, 2014
	Y1A 6P2	LSD:		Report Number:	1933765
Attn:	John Gibson	P.O.:			
Sampled By:	R.Gibson	Acct code:			
Company:					

US EPA

US Environmental Protection Agency Test Methods

Comments:

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

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.



Billing Information		Copy of Report To:		RUSH Priority	
Company:	J. Gibson & Associates	Company:	J. Gibson & Associates	Upon filling out this section, client accepts that surcharges will be applied to the analysis	
Address:	Whitehorse, YT Y1A 6P2	Address:	Whitehorse, YT Y1A 6P2	Date Required	
Attention:	John Gibson	Attention:	John Gibson	As Indicated	All Analysis
Phone:	(867) 633-4522	Phone:	(867) 633-4522	When "ASAP" is requested, turn around will default to a 100% RUSH priority, with pricing and turn around time to match. Please contact the lab prior to submitting RUSH samples.	
Cell:		Cell:		Signature	
Fax:	(867) 668-6895	Fax:	(867) 668-6895		
E-mail:	ludditegibson@gmail.com	E-mail:	ludditegibson@gmail.com		
Agreement ID:	6646	Copy of report:	X	Copy of invoice: X	

Project Information

Project ID: SILVER RANGÉ RES.
 Project Name: HAMMER PROJECT
 Project Location: _____
 Legal Location: _____
 PO/AFE#: _____
 Proj. Acct. Code: _____

Report Results

E-mail
 Mail

Online
 Fax

PDF
 Excel

Special Instructions/Comments (please include contact information including ph. # if different from above).
RUITEM = pH, EC, TP, N₂, N₃, TALK, Cl₂, SO₄, AMRT, TSS, TDS
TW23 - FIELD FILTERED, METALS + NITRIL, THg + HCL
SO₄ + HCL, NH₄ + SULFURIC, TON + NaOH.

QA/QC Report

Include Regulatory Requirements Below:

Number of Containers

RUITEM
NH₄
TOC

TW24 EW
TW25 EW
TON
THg

Sample Custody (please print)

Sampled by: R GIBSON

Company: _____

I authorize Exova to proceed with the work indicated on this form:

Date: July 14 Initial: RG

This section for Lab use only

Date/Time stamp: _____

Sample Identification	Location	Depth IN CM M	Date/Time sampled	Matrix	Sampling Method	↓	Enter tests above (√ relevant samples below)						Indicate below any deficiencies in the condition of samples:		
1															
2	<u>HAM # 1</u>	<u>SURF</u>	<u>July 16</u>	<u>H₂O</u>	<u>Grab</u>	<u>7</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>		Were Exova supplies used?
3															Was there any damage to the shipping container?
4	<u>HAM # 2</u>	<u>↓</u>				<u>7</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>		Were the containers packaged well?
5															Were any extra samples received (document below)?
6	<u>HAM # 3</u>					<u>7</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>		Are samples within recommended holding times/temp?
7															
8	<u>HAM # 4</u>					<u>7</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>	<u>√</u>		
9															
10															
11															
12															
13															
14															
15															

Environmental Sample Information Sheet

Note: Proper completion of this form is required in order to proceed with analysis

Please indicate any potentially hazardous samples

Page 1 of 1 Control # **B15240**

Lot: **1015152** **COC**

Shipping: _____ # and size of coolers received: _____

COD Y/N _____

Cooler temp: 7C Delivery Method: _____

Waybill: _____

Received by: _____

ED 120-00

APPENDIX 2

Flow Volume Calculations

SNAP and HAMMER July 2014

Stage Discharge Calculations

Project: Silver Range - SNAP Claims

Date: 16-Jul-14

Site: SNAP#3

Point (m)	Depth (meters)	Width (meters)	Velocity (m/sec)	Area (m sq)	Volume (cms)
2.1	0	0.1	0	0	0.0000
2.3	0.04	0.2	0	0.008	0.0000
2.5	0.06	0.2	0	0.012	0.0000
2.7	0.06	0.2	0.038	0.012	0.0005
2.9	0.1	0.2	0.128	0.02	0.0026
3.1	0.13	0.2	0.162	0.026	0.0042
3.3	0.15	0.2	0.173	0.03	0.0052
3.5	0.15	0.2	0.221	0.03	0.0066
3.7	0.13	0.2	0.22	0.026	0.0057
3.9	0.18	0.2	0.199	0.036	0.0072
4.1	0.21	0.2	0.464	0.042	0.0195
4.3	0.22	0.2	0.207	0.044	0.0091
4.5	0.3	0.2	0.365	0.06	0.0219
4.7	0.25	0.15	0.267	0.0375	0.0100
4.8	0	0.05	0	0	0.0000
2.7		2.7			0.0924

All velocity readings at 0.6 depth

No Staff Gauge

Data logger reading: No logger

Channel under ice? no ice

Method: Price Velocity meter#2/ TS Wading Rod

Measurement By: R.Gibson

Stage Discharge Calculations

Project: Silver Range - Hammer Claims **Date:** 16-Jul-14

Site: HAM #3

Point (m)	Depth (meters)	Width (meters)	Velocity (m/sec)	Area (m sq)	Volume (cms)
2.1	0	0.05	0	0	0.0000
2.2	0.14	0.1	0.341	0.014	0.0048
2.3	0.14	0.1	0.425	0.014	0.0059
2.4	0.18	0.1	0.444	0.018	0.0080
2.5	0.2	0.1	0.444	0.02	0.0089
2.6	0.22	0.1	0.434	0.022	0.0095
2.7	0.37	0.1	0.304	0.037	0.0112
2.8	0.22	0.1	0.417	0.022	0.0092
2.9	0.21	0.1	0.485	0.021	0.0102
3	0.39	0.1	0.59	0.039	0.0230
3.1	0.42	0.1	0.616	0.042	0.0259
3.2	0.43	0.1	0.661	0.043	0.0284
3.3	0.35	0.1	0.661	0.035	0.0231
3.4	0.43	0.1	0.661	0.043	0.0284
3.5	0.4	0.1	0.285	0.04	0.0114
3.6	0.39	0.1	0.038	0.039	0.0015
3.7	0.3	0.1	0	0.03	0.0000
3.8	0.28	0.085	0	0.0238	0.0000
3.87	0	0.035	0	0	0.0000
1.77		1.77			0.2095

All velocity readings at 0.6 depth

No Staff Gauge

Data logger reading: No logger

Channel under ice? no ice

Method: Price Velocity meter#2/ TS Wading Rod

Measurement By: R.Gibson

