SILVER KING
SITE #1
MINFILE 105M 001ba

1. LOCATION AND ACCESS

The Silver King mine site straddles the Silver Trail Highway (Hwy. 11) at Galena Creek, about 4 kilometres southwest of Elsa Village. Silver King is the westernmost mine in the Keno Hill mining camp. It is located at UTM coordinates 473,050m east and 7,085,275m north. The site extends between elevations of 650m and 800m. The mine was recently active and is scheduled for future mining. It is currently under care and maintenance by UKHM employees.

2. SITE PHYSIOGRAPHY (photo 1-1)

The site is on the lower northwest-facing slope of Galena Hill. The site is drained by Galena Creek, part of the Flat Creek drainage. The area is well forested with fir, spruce and alder trees.

3. GEOLOGY AND MINERALIZATION

The silver veins are hosted in quartzite and graphitic schist rocks. The mine is near the top of the Keno Hill quartzite, which is relatively thin-bedded at this location. The veins consist of quartz, pyrite, siderite, calcite and galena, with minor sphalerite, ruby silver, and tetrahedrite. The veins are often low in sulphide minerals, though high in silver.

4. SITE HISTORY

The Silver King was the first silver mine in the Keno Hill area. The mine is really two separate mines, consisting of two separate groups of adits, raises, levels and stopes. The first mine was, and mined underground between 1912 and 1939. The open pit was mined on these veins in 1983. The second mine am accessed by the 100 level adit, and mines. It was mined between 1984 and 1997. The two mines are not connected by underground workings, although the two sets of workings come within about 10 metres of each other in one location.

The mine was initially developed from 1912 to 1918 with a shaft and two adits on the No. 1 and 2 veins. The ore was hand-sorted for direct shipment. In the period 1928 to 1939 there was production from additional shallow shafts and adits, with lateral development on the 100, 200 and 300 levels. There is indication that there were nine shafts and seven raises present on No. 1 and 2 veins from work in this period. The ore was processed at the Elsa mill during this time. An open pit was established in 1983 to remove the #3 shaft pillar on the No. 1 vein.

In 1984 to 1988 the 100 level portal was developed to access the No. 4, 5, 6 and 7 veins. These underground workings are not directly connected to the older workings. The workings were extended in 1994 to 1996. The vent raise was constructed and the backfill hole was drilled at this time.

Total production from the Silver King was 188,345 tonnes grading 1817 g/t Ag, 7.7% Pb, 0.9% Zn.

A few old pits and shallow shafts are present on the Mabel and Adam claims to the southwest of the mine.

5. MINE DEVELOPMENT

5.1 Mine Openings and Excavations

Adits/Shafts/Portals

Silver King 100 Level Adit – Under Care and Maintenance (photo 1-1)

Description: This portal is currently under care and maintenance; access is maintained for pumping and treatment of mine water. There is a long (about 100m) galvanized shed that extends from the portal, covering the ore dump tracks.

Location: The portal is west of Galena Creek, a few hundred metres north of the Silver Trail highway.

Dimensions (L x W x H): The adit is about 2.5m by 2.5m, and extends for about 1km underground.

Supports: Wooden timbers, screens and bolts, some shotcrete.

Condition: Appears to be stable.

Accessibility: A locked door blocks access to underground. A locked gate at the highway blocks vehicle access.

Ventilation Raise – Under care and maintenance (photo 1-2)

Description: A ventilation raise is covered by a wooden shed.

Location: About 100m southeast of the open pit.

Dimensions (L x W x H): About 2m by 2m.

Supports: Unknown.

Condition: Appears to be stable.

Accessibility: The shed is kept locked, and steel mesh covers the raise entrance.

75 Level Adit

Description: A small adit is present just above creek level in the canyon. It is connected to the recent workings for ventilation, and is suitable for access on foot only.

Location: This portal is cut into the Galena Creek canyon wall on the west side, just upstream from the highway.

Dimensions: The portal is about 1.5m high by 2m wide.

Supports: Timber supports are present, in fair to good condition.

Condition: Appears to be stable.

Accessibility: Access underground is blocked by steel mesh, site access is easy along the creek. The portal is visible from the highway.

Shaft #1 - Open Pit Shaft (photo 1-2)

Description: Timbers and pipes exposed in the bottom of the open pit identify former shaft, filled with waste rock. This is likely the number 3 shaft, which was the main production shaft for this part of the mine.

Location: Northwest corner of the open pit.

Dimensions: About 1.5m wide by 1.5m high.

Supports: Milled timber supports.

Condition: Appears to be stable.

Accessibility: Access to underground is blocked with fill.

Shaft #2 - Old Round-Timbered Raise or Shaft

Description: An old raise lined with log timbers that had been sunk in overburden has been left standing at the edge of the open pit.

Location: South-central side of the open pit.

Dimensions: About 1.5m high by 1.5m wide.

Supports: Round log timbers (about 10 to 20cm diameter) line the shaft horizontally, in the style of old-time placer miners. The shaft has had overburden removed from around it so that it stands as a tower, leaning.

Condition: The wooden timbers are leaning, but moderately stable. The raise is filled with overburden.

Accessibility: There is no access to underground.

Raise #1 - Small Raise West of Galena Creek

Description: A small raise was located above Galena Creek canyon on the west side. The site is overgrown with dense vegetation. A pipe extends to surface. The raise is collapsed.

Location: In dense bush about 30m west of Galena Creek (at the top of the canyon), about 30m south of the old bridge site.

Dimensions (L x W x H): About 1m by1m, collapsed at about 1m depth.

Supports: Some rotten wooden supports are present.

Condition: Raise is collapsed.

Accessibility: No access to underground.

Backfill Pipe (photo 1-4)

Description: Steel pipe that provides access to the recent workings for delivering backfill underground.

Location: Roughly 50m west of the Ventilation Raise.

Dimensions: Roughly 0.3m diameter by 1.0m high.

Condition: In sound condition.

Accessibility: Not capped. Access to site by road.

Shallow Test Pits and Shafts West of the Main Mine

Description: Several shafts are indicated on mine plans in the area about 200m west of the main mine, south of the highway. This area is overgrown with dense second growth. Two old pits were found, with very little waste material present. These are very shallow test pits.

Location: See map.

Dimensions (L x W x H): Both pits were about 2m by 2m, and about 0.5m deep.

Supports: Some rotten timbers.

Condition: Collapsed, overgrown.

Accessibility: No access to underground and no apparent hazard.

Note: There is no sign of most of the raises and shafts that were originally present at the old Silver King mine. The old shafts and raises were likely filled during open pit mining.

Silver King Open Pit (photo 1-5, 1-6)

Description: The pit was mined to remove a shaft pillar of ore left from the early days of mining. Most of the waste material removed here was overburden (glacial till). The waste was dumped across the highway. Large blocks of concrete that were foundations for shaft hoists are located on the north side of the pit, near the highway. There are reports that one of these blocks covers a shaft, but there was no evidence of subsidence. The pit overlies a zone of underground mining with minimal crown pillar, and there is evidence of subsidence in several places along the vein trend to the northeast of the pit towards the highway (see map). An open slump hole is present along the north-central wall of the pit, at the pit entrance.

Location: The pit is located immediately south of the Silver Trail highway, immediately east of Galena Creek. The original road to Elsa was re-routed to bypass this pit.

Dimensions (L x W x H): The pit is about 150m long and averages about 50m wide. The maximum depth is about 20m.

Condition: The pit walls are mostly gravel, at a moderate angle of repose, and appear to be stable. There is considerable natural revegetation in and around the pit.

Accessibility: Easy access from the highway, only 50 m away. A locked gate blocks access to vehicles.

Trenches

Much of the area has been disturbed by bulldozing, but mostly for drill access roads. No real exploration trenches were noted.

5.2 Waste Rock Disposal Areas

Waste Rock Pile WR-01 - Open Pit Waste Dump

General Description: A large waste rock dump of open pit material is located across the highway from the open pit. Based on observations in the pit, about half of the waste dump is thought to be overburden, although the material on surface is of bedrock origin. The material has low to moderate water retention capacity, and no drainage was observed on the dump. The rock present is thin-bedded quartzite and schist/ phyllite. Local rusty staining of the waste rock appears to be due to pre-mining oxidation. Minor pyrite was noted in the waste rock. There are stockpiles of sand and gravel on top of the dump for use by the Highways department, so there is ongoing disturbance of the site. There is local natural revegetation on the top and sides of the dump.

Location: North of and adjacent to the Silver Trail highway, 50m east of Galena Creek.

Dimensions: (L x W x H) About 100m by 75m by 10m, reported to be 109,000 tonnes (Access, 1996).

Sampling: Two samples were collected for ABA from the north and east sides of the dump. Note that all four samples tested in the field were too fine-grained to sieve - the clay content caused lumping of the material. The field tests were performed using unsieved material.

Samples:

Sample #	Location	Paste pH	Conductivity
1-WR-TPBM-03	East	2.80	2,570µS/cm
1-WR-TPBM-04	North	5.30	3,000µS/cm

There is one sample from this waste dump reported in the Access Site Characterization Report.

Waste Rock Pile WR-02 - 100 Level Adit Waste Dump (photo 1-1)

General Description: Quartzite and phyllite from underground development is distributed in front of the portal, and was used to construct the roads and settling ponds. The material is grey, fine-grained and clay-rich. This material retains water due to the fine-grained nature. The waste averages about 1% pyrite. Some calcite and siderite were noted. Natural revegetation is sparse, however there is little staining due to oxidation.

There are two areas where approximately 1,100 tonnes of lowgrade ore from underground has been stockpiled on surface in the portal area.

Location: See map. This waste underlies and surrounds the portal shed and settling ponds.

Dimensions: (L x W x H) 39,000 tonnes of waste have been used for site construction, including the settling ponds. The area underlain by waste rock is about 200m long and 75m wide; thickness is variable.

Samples: Two samples of underground waste rock were collected from the north end of the dump, near the settling ponds.

Sample #	Location	Paste pH	Conductivity
1-WR-TPBM-01	Northeast end	1.6	2,670µS/cm
1-WR-TPBM-02	Northwest end	1.9	1,840µS/cm

5.3 Tailings Impoundments

No tailings impoundments were observed at this site.

5.4 Minesite Water Treatment (photo 1-1)

Description and type: Mine wastewater from the 100 Level portal is treated by mixing with lime, and settling in two ponds connected in series. The lime mixer is in an insulated part of the portal shed at the end of the tracks.

Location: The ponds are immediately below the portal shed, on the west side of Galena Creek, below the Silver Trail highway.

Dimensions (L x W x H): The pond area measures about 50m long by 15m wide by 1.5m deep.

Drainage: The ponds flow into Galena Creek, part of the Flat Creek drainage basin.

Piping: Unknown.

Impacted vegetation: There is some rusty precipitate deposited in the outflow area. Vegetation may be impacted in an area about 10m by 20m.

Sampling: See Section 9 of this report.

6. MINE SITE INFRASTRUCTURE

6.1 Buildings

The Silver King buildings were not investigated in detail. No samples were collected from any of the buildings at this site.

1A - Silver King 100 Level Portal Shed (photo 1-1)

Description: A water treatment facility is located in an insulated room at the far end of the shed from the portal.

Dimensions (L x W x H): About 100m long, 4m high, 4m wide, with a higher, wider shop section near the portal.

Location: Located immediately west of Galena Creek about 150m north (downstream) from the highway.

Construction: The shed is constructed of galvanized steel siding and roof on a wood frame.

Paint: Not painted.

Asbestos: None observed.

Foundation: Unknown.

Non-Hazardous Contents: Assorted mining equipment.

Hazardous Contents: None noted.

1B - Silver King 100 Level Shifters Office/ Lunch Room (photo 1-1)

Dimensions (L x W x H): About 5m by 4m, 4m high.

Location: Located near the main door to the portal shed.

Construction: Wood frame construction. One door, one window.

Paint: Yes.

Asbestos: None noted.

Foundation: Unknown.

Non-Hazardous Contents: Table, benches, desk.

Hazardous Contents: None noted.

1C - Compressor Building (photo 1-1)

Description and type: Large building; pipes lead to portal.

Dimensions (L x W x H): about 8m by 4m by 4m high.

Location: About 30m west of building 1A.

Construction: Metal roof.

Paint: Unknown.

Asbestos: None noted.

Foundation: Unknown.

Non-Hazardous Contents: Unknown.

Hazardous Contents: None noted.

1D - Collapsed Storage Shed (photo 1-7)

Dimensions (L x W x H): About 9m by 5m, was about 6m high before collapse.

Location: Beside old road, about 100m south of the Silver Trail highway, 50m west of Galena Creek.

Construction: Wood frame and siding, asphalt roofing.

Paint: Not painted.

Asbestos: None noted.

Foundation: Unknown.

Non-Hazardous Contents: Pipe fittings, exploration samples, sample bags, and miscellaneous materials.

Hazardous Contents: None noted.

1E - Ventilation Raise Building (photo 1-2)

Description: One door, plus screened entrance to raise. No windows

Dimensions (L x W x H): About 4m by 3m by 4m.

Location: About 100m southeast of open pit.

Construction: Wood frame and siding, metal roof.

Paint: Green.

Asbestos: None noted.

Foundation: Metal skids.

Non-Hazardous Contents: None.

Hazardous Contents: None noted.

1F - Old Log Cabin – Collapsed

Description and type: Collapsed log cabin, one door, and two windows.

Dimensions (L x W x H): About 4m by 3m.

Location: In dense woods about 250m west of Galena Creek, 150m south of highway.

Construction: Logs, flattened tins.

Paint: None

Asbestos: None noted.

Foundation: Logs.

Non-Hazardous Contents: None noted.

Hazardous Contents: None noted.

6.2 Fuel Storage

Drum Storage Area: No fuel drums were noted at this site.

Above Ground Storage Tanks: Fuel storage was not reported at this site, however some diesel fuel was likely stored near the 100 Level Portal.

Samples: No samples were collected of fuel.

6.3 Rail and Trestle

Location: 100 Level Adit is the only location with rails at the Silver King site. This site is under care and maintenance.

Fabrication: Steel rails, wood ties.

Amount of materials: About 100m of rail line extends from the portal to the ore loadout.

Condition: Appears to be in stable condition.

6.4 Milling and Processing Infrastructure

No milling or processing infrastructure was observed at this site.

6.5 Electrical Equipment

A transformer station is present immediately south of the highway, immediately west of Galena Creek. It appears to be part of the main powerline to Elsa from Mayo. It was not investigated.

7. SOLID WASTE DUMPS

No solid waste dumps were observed.

8. POTENTIAL CONTAMINANTS OF CONCERN

8.1 Out-of-Service Transformers

No out-of-service transformers were noted on site.

8.2 Metals and Hydrocarbons in Soil

No significant hydrocarbons in soil were noted. A small, very shallow (<0.1m) stain from drilling lubricant or hydraulic oil was noted around the Backfill Pipe.

Samples: None collected.

8.3 Liquid Hazardous Materials

No liquid hazardous materials were observed on site.

8.4 Solid Hazardous Materials

No solid hazardous materials were observed on site.

9. WATER QUALITY

A total of five water samples were collected on the site.

Samples:

Sample #	Location	Field pH	Conductivity	Flow Rate
Site 01-01-Water-Silverking	Water treatment facility outflow	7.8	680 µS/cm	n/a
Site 01-02-Water-Silverking	250m downslope from 01-01	7.4	770 µS/cm	n/a
Site 01-03-Water-Silverking	Galena Creek 250m below portal	7.9	350 µS/cm	n/a
Site 01-04-Adit-Sept.20/99	100 level adit outflow (pre-treatment)	6.6	1,490 µS/cm	4 L/s
Site 01-05-Water-Sept.20/99	Galena Creek 250m above highway	7.4	720 µS/cm	20 L/s

There is an extensive database of water sample results for this area, from the United Keno Hill Mines Ltd. (see Appendices).

10. RECLAMATION

The adits, shafts and raises associated with the early phases of mining have been filled by the mine operators, likely during open pit mining. The open pit walls have been bulldozed into gentle slopes after mining. There does not appear to have been any revegetation efforts.

Natural revegetation consisting of very dense deciduous trees and shrubs is present covering the older disturbed areas (pre-1980's). The open pit area and waste dump have significant patches of grasses, shrubs and small trees growing naturally. The well-drained character and lack of organic matter of most of the material in the open pit and waste dump area appears to limit the extent of revegetation.

11. REFERENCES AND PERSONAL COMMUNICATIONS

United Keno Hill Mines Limited. 1996. *United Keno Hill Mines Limited – Site Characterization.* Report No. UKH/96/01, prepared by Access Mining Consultants Limited.

United Keno Hill Mines Limited. 1996. *United Keno Hill Mines Limited – Site Characterization, Technical Appendices I-VI.* Report No. UKH/96/01, prepared by Access Mining Consultants Limited.

ATTACHMENT 2: 1999 SILVER KING WATER SAMPLES LABORATORY RESULTS					
Sample Number	**Detection Limit**	**Units**	**Site 01 - 01 - Water Silverking 19/9/99**	**Site 01 - 02 - Water Silverking 19/9/99**	**Site 01 - 03 - Water Silverking 19/9/99**
Site Desciption			Water treatment facility outflow	250m downslope below sample 01-01	Galena Creek: 250m below 100 level portal
pH (field)	N/A	pH	7.8	7.4	7.9
Conductivity (field)	N/A	µS/cm	680	770	350
pH (Lab)	0.01	pH	7.71	7.68	7.99
Conductivity (Lab)	0.01	µS/cm	970	970	440
Total Alkalinity	5	mg CaCO3/L	80	82	154
Chloride	0.25	mg/L	0.54	0.77	<0.25
Hardness (CaCO3 equiv)	5	mg/L	507	569	249
Nitrate-N	0.05	mg/L	<0.05	<0.05	<0.05
Nitrite-N	0.003	mg/L	0.011	0.005	0.005
Sulphate	1	mg/L	438	410	76
Total Dissolved Solids	5	mg/L	726	734	288
Analysis by ICP-USN					
Aluminum	0.0008	mg/L	0.144	0.133	0.0201
Antimony	0.005	mg/L	0.021	<0.005	<0.005
Arsenic	0.01	mg/L	0.01	<0.01	<0.01
Barium	0.00004	mg/L	0.00917	0.0502	0.0529
Beryllium	0.00001	mg/L	<0.00001	<0.00001	<0.00001
Bismuth	0.0004	mg/L	<0.0004	<0.0004	<0.0004
Boron	0.002	mg/L	<0.002	<0.002	<0.002
Cadmium	0.00006	mg/L	0.00427	0.00004	0.00042
Calcium	0.002	mg/L	150	148	60.3
Chromium	0.00006	mg/L	0.00029	0.00031	<0.00006
Cobalt	0.00003	mg/L	0.00676	0.00011	<0.00003
Copper	0.00003	mg/L	0.0127	0.0018	0.0027
Iron	0.00001	mg/L	4.95	0.375	0.036
Lead	0.0003	mg/L	0.0223	0.0006	<0.0003
Lithium	0.001	mg/L	0.023	0.018	0.005
Magnesium	0.0005	mg/L	34.3	35.1	18.3
Manganese	0.00002	mg/L	1.88	0.00669	0.00434
Mercury	0.0001	mg/L	<0.0001	<0.0001	<0.0001
Molybdenum	0.00007	mg/L	0.00072	0.00018	0.00091
Nickel	0.00001	mg/L	0.0277	0.0006	0.0026
Phosphorus	0.03	mg/L	<0.03	<0.03	<0.03
Potassium	0.4	mg/L	1.2	1	<0.4
Selenium	0.004	mg/L	<0.004	<0.004	<0.004
Silicon	0.004	mg/L	2.62	2.75	2.58
Silver	0.00005	mg/L	0.00083	<0.00005	0.00068
Sodium	0.004	mg/L	1.9	1.8	1.6
Strontium	0.00002	mg/L	0.262	0.266	0.172
Sulphur	0.008	mg/L	139	135	40.1
Thallium	0.001	mg/L	0.005	<0.001	<0.001
Titanium	0.00002	mg/L	0.00066	0.00367	0.0132
Vanadium	0.00003	mg/L	<0.00003	0.00021	0.00073
Zinc	0.0002	mg/L	0.287	0.0041	0.195
Analysis by Hydride AA					
Arsenic	0.0002	mg/L	0.007	0.001	0.0016
Selenium	0.0001	mg/L	<0.0001	<0.0001	0.0003

ATTACHMENT 2: 1999 SILVER KING WATER SAMPLES LABORATORY RESULTS				
Sample Number	**Detection Limit**	**Units**	**01-04-ADDIT Sept 20**	**01-05-Water Sept 20**
Site Desciption			100 Level Adit outflow (pre-treatment)	Galena Creek, 250m above highway
pH (field)	N/A	pH	6.6	7.4
Conductivity (field)	N/A	µS/cm	1490	720
pH (Lab)	0.01	pH	6.31	7.97
Conductivity (Lab)	0.01	µS/cm	935	290
Total Alkalinity	5	mg CaCO3/L	53	119
Chloride	0.25	mg/L	na	<0.25
Chloride	0.01	mg/L	0.01	na
Hardness (CaCO3 equiv)	5	mg/L	554	165
Nitrate-N	0.05	mg/L	<0.05	<0.05
Nitrite-N	0.003	mg/L	0.006	<0.003
Sulphate	1	mg/L	430	26.3
Total Dissolved Solids	5	mg/L	718	195
Analysis by ICP-USN				
Aluminum	0.0008	mg/L	0.482	0.0221
Antimony	0.005	mg/L	0.034	<0.005
Arsenic	0.01	mg/L	0.06	<0.01
Barium	0.00004	mg/L	0.0158	0.0584
Beryllium	0.00001	mg/L	0.00012	<0.00001
Bismuth	0.0004	mg/L	<0.0004	<0.0004
Boron	0.002	mg/L	0.011	<0.002
Cadmium	0.00006	mg/L	0.0179	0.00002
Calcium	0.002	mg/L	151	42.1
Chromium	0.00006	mg/L	0.00092	0.0003
Cobalt	0.00003	mg/L	0.0245	<0.00003
Copper	0.00003	mg/L	0.0776	0.00211
Iron	0.00001	mg/L	39.3	0.071
Lead	0.0003	mg/L	0.0046	0.0005
Lithium	0.001	mg/L	0.023	0.003
Magnesium	0.0005	mg/L	38.6	12
Manganese	0.00002	mg/L	3.45	0.00312
Mercury	0.0001	mg/L	<0.0001	<0.0001
Molybdenum	0.00007	mg/L	0.00076	0.0009
Nickel	0.00001	mg/L	0.0886	0.0018
Phosphorus	0.03	mg/L	0.09	<0.03
Potassium	0.4	mg/L	1.2	<0.4
Selenium	0.004	mg/L	<0.004	<0.004
Silicon	0.004	mg/L	5.59	2.51
Silver	0.00005	mg/L	0.00051	<0.00005
Sodium	0.004	mg/L	2	0.5
Strontium	0.00002	mg/L	0.24	0.127
Sulphur	0.008	mg/L	152	8.85
Thallium	0.001	mg/L	0.005	<0.001
Titanium	0.00002	mg/L	0.00012	0.00033
Vanadium	0.00003	mg/L	0.00011	<0.00003
Zinc	0.0002	mg/L	1.4	0.0069
Analysis by Hydride AA				
Arsenic	0.0002	mg/L	0.062	0.0025
Selenium	0.0001	mg/L	0.0006	0.0005

ATTACHMENT 2: 1999 SILVER KING WASTE ROCK LABORATORY RESULTS						
Site Number	**Detection Limit**	**Units**	**1_WR_TPBM_01 - Rock**	**1_WR_TPBM_02 - Rock**	**1_WR_TPBM_03 - Rock**	**1_WR_TPBM_04 - Rock**
Sample Desciption			Northeast end of Waste rock from the 100 level adit	Northwest end of waste rock from the 100 level adit	East side of waste rock from the open pit waste dump	North side of waste rock from the open pit waste dump
Paste pH (field)	N/A	pH	1.6	1.9	2.8	5.3
Conductivity (field)	N/A	µS/cm	2670	1840	2570	3000
pH in Saturated Paste						
pH	0.1	pH	2.1	2.7	2.5	3.6
pH in Soil (1:2 water)						
pH	0.01	pH	3.1	3.5	3.5	4.2
ICP Semi-Trace Scan						
Aluminum	5	µg/g	27800	26000	17900	18900
Antimony	2	µg/g	26	120	39	40
Arsenic	2	µg/g	108	162	252	261
Barium	0.05	µg/g	525	632	496	510
Beryllium	0.1	µg/g	0.8	1	0.6	0.6
Bismuth	5	µg/g	<5	<5	<5	<5
Cadmium	0.1	µg/g	0.6	4.8	2.3	2.3
Calcium	5	µg/g	2250	3930	615	587
Chromium	0.5	µg/g	39.8	37.7	28.3	29.7
Cobalt	0.1	µg/g	2.5	8	1.1	1.2
Copper	0.5	µg/g	64.4	118	55.2	59.2
Iron	1	µg/g	28000	34000	21000	22000
Lead	1	µg/g	2350	5540	2320	2480
Lithium	0.5	µg/g	14.8	9.2	9.8	11.2
Magnesium	1	µg/g	1330	1400	1210	1480
Manganese	0.5	µg/g	173	1770	101	105
Mercury	0.01	µg/g	0.22	0.48	0.25	0.33
Molybdenum	1	µg/g	1	3	3	3
Nickel	1	µg/g	19	30.2	6.6	7.4
Phosphorus	5	µg/g	604	574	670	697
Potassium	20	µg/g	6400	7800	5000	5300
Selenium	2	µg/g	<2	<2	<2	<2
Silicon	5	µg/g	219	351	253	626
Silver	0.5	µg/g	217	352	58.6	57.6
Sodium	5	µg/g	658	751	447	451
Strontium	1	µg/g	67	60	68	69
Sulphur	10	µg/g	10200	18900	3420	3390
Thorium	1	µg/g	2	3	8	6
Tin	1	µg/g	3	7	5	52.2
Titanium	0.2	µg/g	40.4	58.8	50.1	<0.2
Uranium	5	µg/g	<5	<5	<5	40
Vanadium	1	µg/g	68	49	39	211
Zinc	0.5	µg/g	108	235	223	25.9
Zirconium	0.1	µg/g	17	22.7	24	<0.1

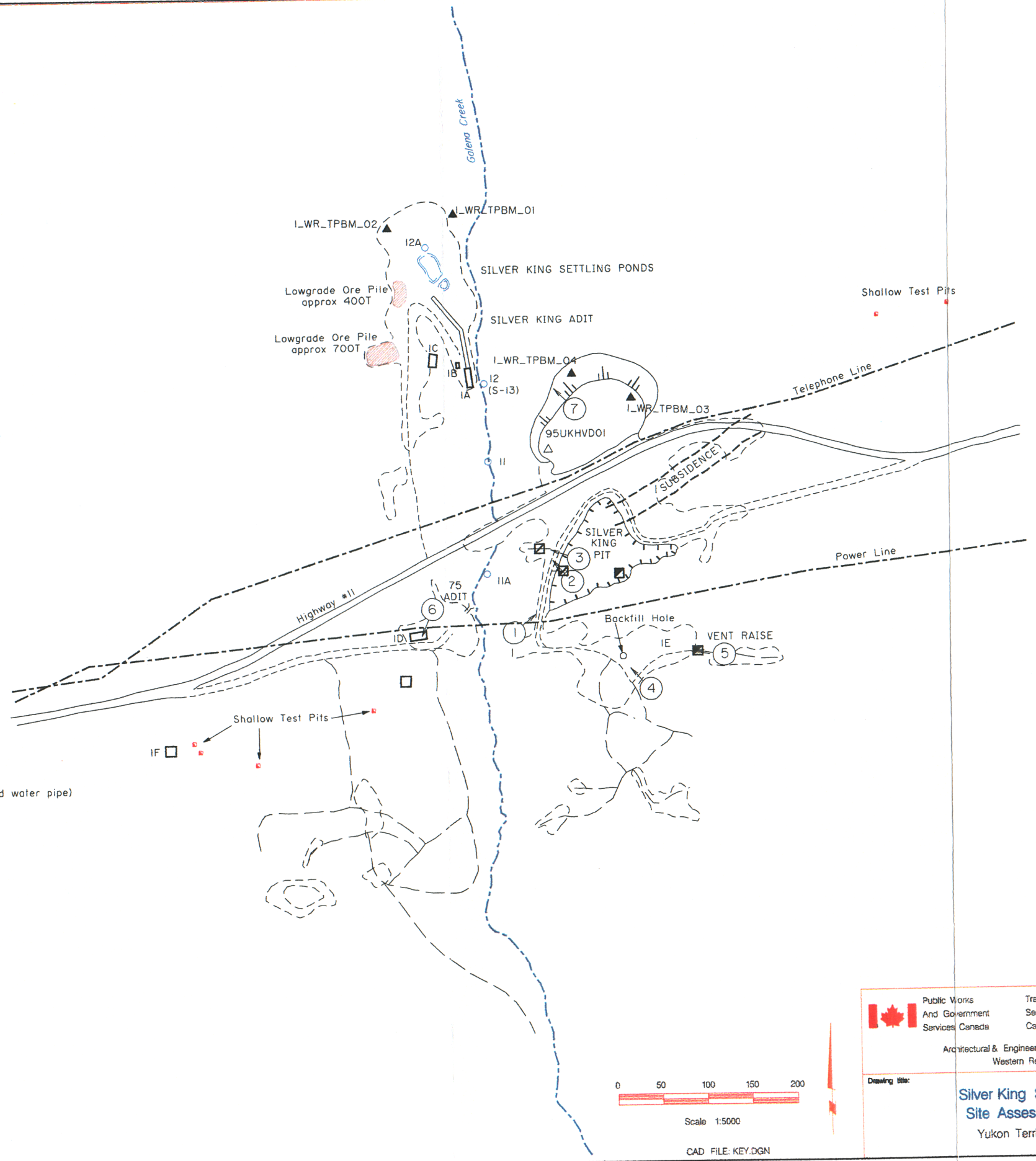
ATTACHMENT 2: 1999 SILVER KING WASTE ROCK LABORATORY RESULTS
MODIFIED SOBEK METHOD ACID-BASE ACCOUNTING TEST

SAMPLE	SITE DESCRIPTION	PASTE pH	S(T) %	S(SO4) %	AP	NP	NET NP	NP/AP
1_WR_TPBM_01 - Rock	Northeast end of Waste rock from the 100 level adit	2.9	0.52	0.24	8.8	-3.2	-11.9	<0.1
1_WR_TPBM_02 - Rock	Northwest end of waste rock from the 100 level adit	3.7	1.42	0.34	33.8	0.3	-33.4	<0.1
1_WR_TPBM_03 - Rock	East side of waste rock from the open pit waste dump	5.0	0.51	0.20	9.7	-0.8	-10.5	<0.1
1_WR_TPBM_04 - Rock	North side of waste rock from the open pit waste dump	4.8	0.18	0.13	1.6	-0.4	-1.9	<0.1

AP = ACID POTENTIAL IN TONNES CaCO3 EQUIVALENT PER 1000 TONNES OF MATERIAL.
NP = NEUTRALIZATION POTENTIAL IN TONNES CaCO3 EQUIVALENT PER 1000 TONNES OF MATERIAL.
NET NP = NET NEUTRALIZATION POTENTIAL = TONNES CaCO3 EQUIVALENT PER 1000 TONNES OF MATERIAL.
NOTE: WHEN S(T) AND/OR S(SO4) IS REPORTED AS <0.01, IT IS ASSUMED TO BE ZERO FOR THE AP CALCULATION.
N/D = NO DUPLICATE ASSAY. CALCULATIONS ARE BASED ON ASSAY RESULTS OF THE INITIAL SAMPLE.
RE = REPLICATE.

NOTE - A HIGH LEVEL OF SOLUBLE METALS (ESPECIALLY IRON) WERE OBSERVED IN MANY SAMPLES DURING THE ABA TITRATIONS.
SAMPLES WITH A NEGATIVE NET NP SHOULD BE TESTED FOR MOBILE METALS USING STANDARD SHAKE FLASK EXTRACTION TESTS.

- Building (22A: building site present reference*) 22A* Indicates Asbestos Material
- 22A Collapsed Building
- Adit
- Collapsed Adit
- Shaft
- Collapsed/Backfilled Shaft
- Mine Rock Dump
- Bedrock Open Pit
- Trench
- Stripped Overburden Stockpile
- Stripped / Disturbed Area
- Outcrop Boundary
- Highway
- Road (gravel, 2 wheel drive)
- Road (gravel, 4X4 accessible)
- Road (inaccessible)
- Trail
- Culvert
- 24501-01 1999 Soil Sample (this study)
- Pre 1999 Soil Sample (other sources)
- 25WR04-01 1999 Waste Rock Sample (this study)
- Pre 1999 Waste Rock Sample (other sources)
- WO-12-06 1999 Water Sample
- Pre 1999 Water Sample
- Tension Cracks
- Mass Movement (note: for Forms; BelleKeno)
- Groundwater Seep
- Surface Water Flow (Stream, Creek, River)
- Lake
- Settling Pond / Water Treatment Pond
- Tailings Dam / Tailings Pond / Mill Tails
- Ponded Water / Trench
- Barrels
- Abandoned Equipment (compressors, ore cars, rails, air and water pipe)
- Mine Rails / Trestle
- Collapsed Trestle
- Solid Waste Disposal Site
- Area of Soil Contamination
- *(6) Transformer Loaction (number of transformer in brackets)
- Power Line
- Power Line Collapsed
- Aerial Transmission Towers
- 5 Photo Site (arrow shows view direction)
- GPS Survey Location
- Former Building Site (Elsa)



Public Works And Government Services Canada / Travaux publics et Services gouvernementaux Canada

Architectural & Engineering Services
Western Region

Drawing title: / Titre du dessin:

Silver King Site #1
Site Assessment
Yukon Territory

designed by: / conçu par:		date:
drawn by: / dessiné par:	I.B.	Mar./99
approved by: / approuvé par:		
revisions:		
project no. / no. du projet:	125-12.01	
dwg. no. / dessin no.	1 of 1	

Photo 1-1 : Silver King. Silver King 100 Level Portal site, showing buildings (1A, 1B & 1C) and settling ponds. Looking northwest from the open pit waste dump across Galena Creek.

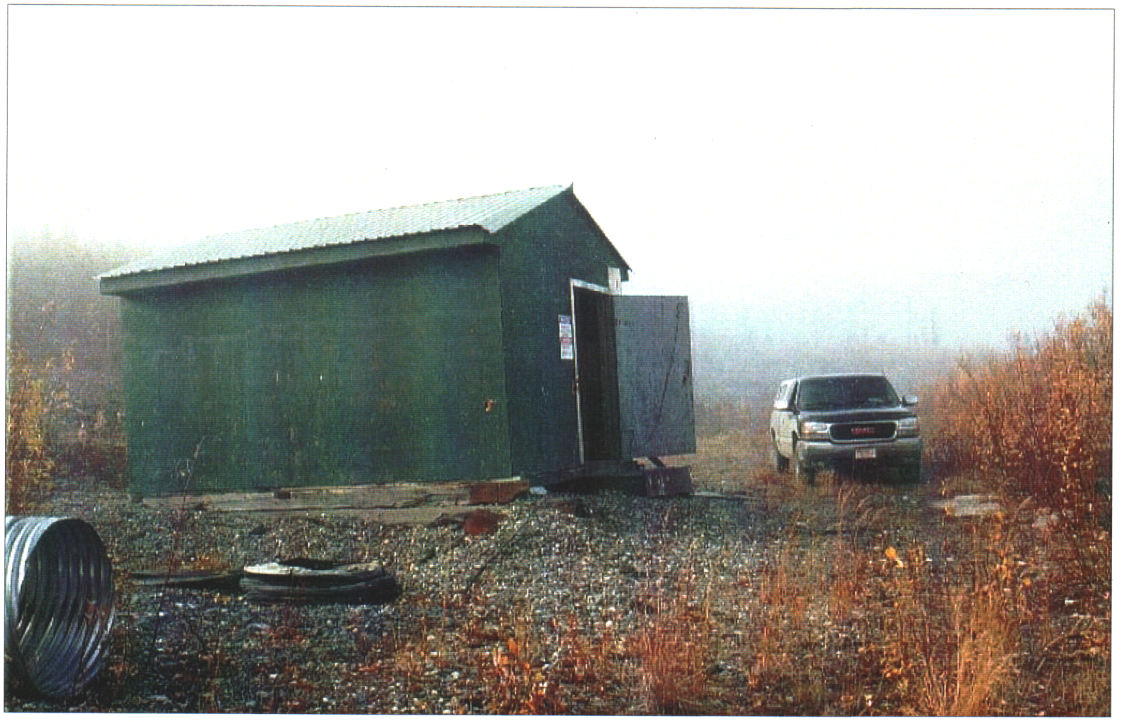


Photo 1-2 : Silver King. Ventilation Raise Building. Looking west, about 100m southeast of the open pit.

Photo 1-3 : Silver King. Timbers and pipe identify a filled-in raise or shaft (Shaft 1). Looking northwest at the bottom northwest corner of the Silver King pit.

Photo 1-4 : Silver King. Backfill pipe, 100m south of the open pit. Looking northwest. Note hydrocarbon stain at base of pipe (likely drill lubricant or hydraulic fluid).

Photo 1-5 : Silver King. Silver King Pit, looking east-northeast. Note moderate pit wall slope, abundance of overburden versus outcrop, and natural revegetation.

Photo 1-6 : Silver King. Concrete shaft hoist foundations. Looking northwest, northwest of the open pit.

Photo 1-7 : Silver King. Large, collapsed storage shed. Looking south, near transformer station south of highway, west of Galena Creek.