

**ASSESSMENT REPORT**

**105B-07-2**

**SILVERHART**

**PREPARED BY**

**DIAND TECHNICAL SERVICES**

**OCTOBER, 1993**

**105B-07-2**

**SILVERHART**

**LOCATION**

Latitude: 60° 19'30"N

Longitude: 130° 43'54"W

The site is located 40km by road north of the Alaska Highway. The access road leaves the Alaska Highway approximately 2.3 km east of the Rancheria River bridge and follows the east side of the Rancheria River, past the south side of the Northwind Lakes, along the north shore of Roy Lake, up a steep creek valley to the site. The elevation of the site is between 1400-1500m above sea level. Three bailey bridges have been constructed on this road. Access is still possible to the site by two wheel drive vehicles although the use of four wheel drive vehicles is recommended.

Refer to Appendix A for location maps and airphotos of the site.

**WORK HISTORY**

August, 1947 - Area first staked as Bastille by Great Northern Exploration Co. Ltd.

September, 1971 - Restaked as Mid by Wolf Lake Joint Venture which conducted grid soil sampling and detailed mapping in 1972.

September, 1980 - Restaked as CMC by A.W. Hyde who trenched later in the year and optioned the claims to BRX Mining & Petroleum Corporation, which performed mapping and geochemical sampling and drilled 2 holes (197m) in 1982.

May, 1982 - BRX Mining & Petroleum Corporation, Eldorado Minerals & Petroleum Corporation, and Highmark Resources Ltd performed mapping and geochemical sampling later in the year.

1983/1984 - Hyde performed more trenching and optioned the property to United Greenwood Exploration Ltd. and Consolidated Montclerg Mining Ltd. late in 1983. When the options lapsed the owners trenched again and optioned the property to Silver Hart Mining Ltd. and Shakwak Exploration Company Ltd. This joint venture added about 500 claims (SH, SAB, BEA) between October, 1984 and February, 1985.

1985/1986 - Trenching, 50 drill holes (3658m), a 673 m adit with 2 raises, and a 40km road were added.

1987 - Silver Hart drilled 4 holes (609.6m) on the main showing and dozer trenched on the surrounding claims.

## CLAIMS STATUS

Status of mineral claims including claim names and numbers, claim expiry dates, and current owners in the vicinity of the Silver Hart site have been noted as of 1992/05/15 as follows;

| <u>CLAIM NAME/NUMBERS</u> | <u>EXPIRY DATE</u>      | <u>OWNER</u>   |
|---------------------------|-------------------------|--|
| - CMC 1 - 41, 43 - 104    | 11, 30 September, 1992. | A.W. Hyde 60%,<br>T. McCrory 20%,<br>B. Preston 20%. |
| - NITE 6, 8 - 10          | 18 November, 1992.      | B.A. Copper Mines Ltd./<br>B.A. Resources Ltd.       |
| - BLUE                    | 11 September, 1992.     | Archer Cathro & Associates<br>(1981) Ltd.            |

Major commodities identified at this site includes silver, lead, and zinc.

## CURRENT SITE CONDITIONS

The Silverhart exploration site is located in the Cassiar Mountains. This site is on an eroded peak that consists of weathered bedrock at the surface. The surface material is silty and extensively oxidized overlying the bedrock. Vegetation at the camp site consists of black spruce, willows, and a variety of alpine vegetation. The tree line is just above the camp location. Short grasses and alpine vegetation cover the area above the camp location. There are no streams at the site and consequently no fish habitat.

Disturbance from exploration at this site covers an area approximately 1.5x1.5km on the top of an unnamed peak. The site has been extensively developed with roads crossing the exploration area and a gridwork of exploration trenching to a depth of 6m, all above the camp location. The vegetation has been removed wherever the road or trenching operations took place. The exploration adit is located below the camp site with waste material piled below the adit entrance.

A significant amount of infrastructure has been installed and left behind since the last work was undertaken at the camp site. Infrastructure is scattered over essentially four locations, named for the purposes of this report as;

- 1) exploration tent camp and core storage site,
- 2) exploration trailer camp site,
- 3) maintenance area, and
- 4) the adit area.

In addition to these four sites a fuel storage tank is located 0.5km above the exploration tent camp area. A list of specific items found at this site includes;

### 1) Buildings

- \* 7 - 3.66x4.27m tent frames with plastic roof cover,
- \* 1 - 4.27x8.53m plywood office building complete with oil heater and fluorescent light ballast,
- \* 1 - 3.05x9.14m wash trailer complete with washrooms and clothes washing equipment,
- \* 1 - 3.05x 13.7m sleeping unit trailer (4 bedrooms)
- \* 1 - 3.05x12.19m kitchen trailer,
- \* 3 - 3.05x15.85m sleeper trailers complete with washrooms, beds, etc.
- \* 1 - 7.62x18.29m metal quonset shed complete with benches, metal parts, and base and ventilation equipment for electric generator.

### 2) Fuel Storage Tanks/Barrels

- \* 1 - 1.83m diameter and 5.49m long horizontal tank with 0.3 - 0.6m diesel fuel in the bottom of the tank.

**Note: Valve is leaking and remainder of fuel is leaking and seeping into ground. Tank is located 0.5 km above exploration tent camp area.**

- \* 8 - 204 litre barrels ( 7 are full of diesel, 1 is empty) at the exploration tent camp area,
- \* 1 - 2270 litre fuel storage tank (empty) in maintenance area,
- \* 1 - 22700 litre fuel storage tank (empty) in maintenance area,
- \* 1 - 4540 litre fuel storage tank (empty) in maintenance area,
- \* 2 - 4540 litre fuel storage tanks (1 is empty, 1 is 80%full of diesel) in trailer camp area,
- \* 2 - 204 litre barrels (full - diesel) in trailer camp area,
- \* 18 - 204 litre barrels (full - diesel) in maintenance area. 9 are located inside the quonset building.

### 3) Core Storage

Core is stored adjacent to the tent frames. The volume of core in core boxes measures approximately 9.14x1.52x6.10m. Core is stacked outside and exposed in the tent camp area.

### 4) Well and Sewage Disposal

One 150mm diameter drilled and cased well is situated upslope between the exploration tent camp area and the trailer camp site. The depth of the well is not known. A 2.4x2.4m plywood well house covers the well area.

Two sewage disposal areas have been installed for the two camp sites. The disposal field for the exploration tent camp area is situated downslope of the camp and away from the well location. The disposal area is covered and the type and extent of sewage disposal installation is unknown. The sewage disposal area for the trailer exploration camp is situated behind the kitchen trailer unit in very granular soil. Two pvc vent stacks protrude from this disposal area.

Speculating, it is likely that both sewage disposal areas operated as seepage pits.

#### 5) Adit

An exploration adit is situated less than 100m below the maintenance workshop area. This adit slopes down into the ground and is full of water. Excess water is overflowing out the entrance of the adit, across the surface, and downslope. It is recorded that one adit and two raises exist at this site. The other locations of the adit or raises could not be found. However it appears that the adit found was the main exploration tunnel with water and ventilation piping installed. Sample piles are marked and situated near the entrance to the adit.

#### 6) Miscellaneous

A number of pieces of drill steel are piled in the tent camp exploration area. Approximately 50 - 60m of insulated water line extends from the well to the tent camp exploration site. The quonset is filled with shelving, work benches, hoses, oil pails, and a variety of small pieces of metal waste.

### **RECOMMENDATIONS**

Exploration activity at this site has resulted in extensive disturbance to the site. Recommendations for additional site investigations and site remediation are provided for the exploration area and the camp site separately.

#### Exploration Area

Extensive trenching and stripping across this area has resulted in significant damage to the vegetation. The damage to the surface is significant from the activity during the exploration activity. However, there is no evidence that additional problems such as erosion, slope failures, contamination of water courses, etc. have been caused from the original activity. Site remediation, if it was undertaken, would consist of reshaping cut slopes to blend with the natural slopes and revegetating the site. This method of remediation would be very costly and also result in additional disturbance to the site. Instead, it is recommended that leaving the site to recover naturally is the most suitable solution for this site. Recovery of the site will be slow in an area that is extremely remote and sensitive to disturbance. Revegetation of the site is likely best left to natural reseeding due to the remoteness of the site and the inability to promote growth.

One item of site remediation of this area should include the removal of the 1.83x5.49m leaking tank from the area. All spilled fuel cannot be recovered, however the extent of the damage appears to be reasonably small. Confirmation of the extent of soil contamination, if necessary, will require a soils investigation to collect samples, define the extent of contamination, and analyze the samples for type and levels of contamination.

## Camp Site

The camp site area has six trailers, one large quonset shed, and seven temporary tent frames with groundwater supply and sewage disposal facilities. An extensive supply of fuel storage tanks and barrels have also been left on site, some with fuel.

In summary, the following conditions were noted;

- The trailers and tent frames are beginning to deteriorate.
- The remaining fuel on site risks being spilled as long as it remains unprotected .
- The risk of contamination from groundwater seepage from the adit is not known without additional analysis.
- The unsecured entrance to the adit is a safety hazard.

Cleaning up the site completely would require significant effort. The following steps provide an example of complete site clean up.

- Repair the road adequately to drive trucks into site.
- Unhook all connections to the 6 trailers, load, and haul trailers off the site for disposal.
- Empty all fuel storage tanks and either incinerate or remove all hydrocarbon products from the site using acceptable methods.
- Dismantle and remove all tanks and barrels from the site.
- Load and remove any additional metal waste from the site such as pipe, rail, stoves, equipment, etc.
- Dismantle metal quonset building, pile and load all pieces and remove from site.
- Dismantle all wooden tent frames, wood blocking, wood buildings, etc., and burn materials in a suitable area.
- Catalogue, remove, and store rock core in an approved location.
- Sample and analyze any water seepage from the exploration adit for any contamination potential.
- Properly seal the adit.
- Regrade any unsightly or unsafe slopes after all material has been disposed and removed from the site.

## SUMMARY

In summary, disturbance at this site is extensive along with significant infrastructure left behind. The need to remove and properly dispose remaining hydrocarbon products should be considered a **HIGH** priority. Clean-up of remaining buildings should be considered a **lower** priority than clean-up of the hydrocarbons, however the longer these facilities are left, recovery will become more difficult and any residual value will diminish.

**APPENDIX A**

**SITE LOCATION MAP  
AND  
AIR PHOTOGRAPH**



SITE NAME: **SILVERHART**

SITE NUMBER: **105B-07-2**

MAP NUMBER: **105B**

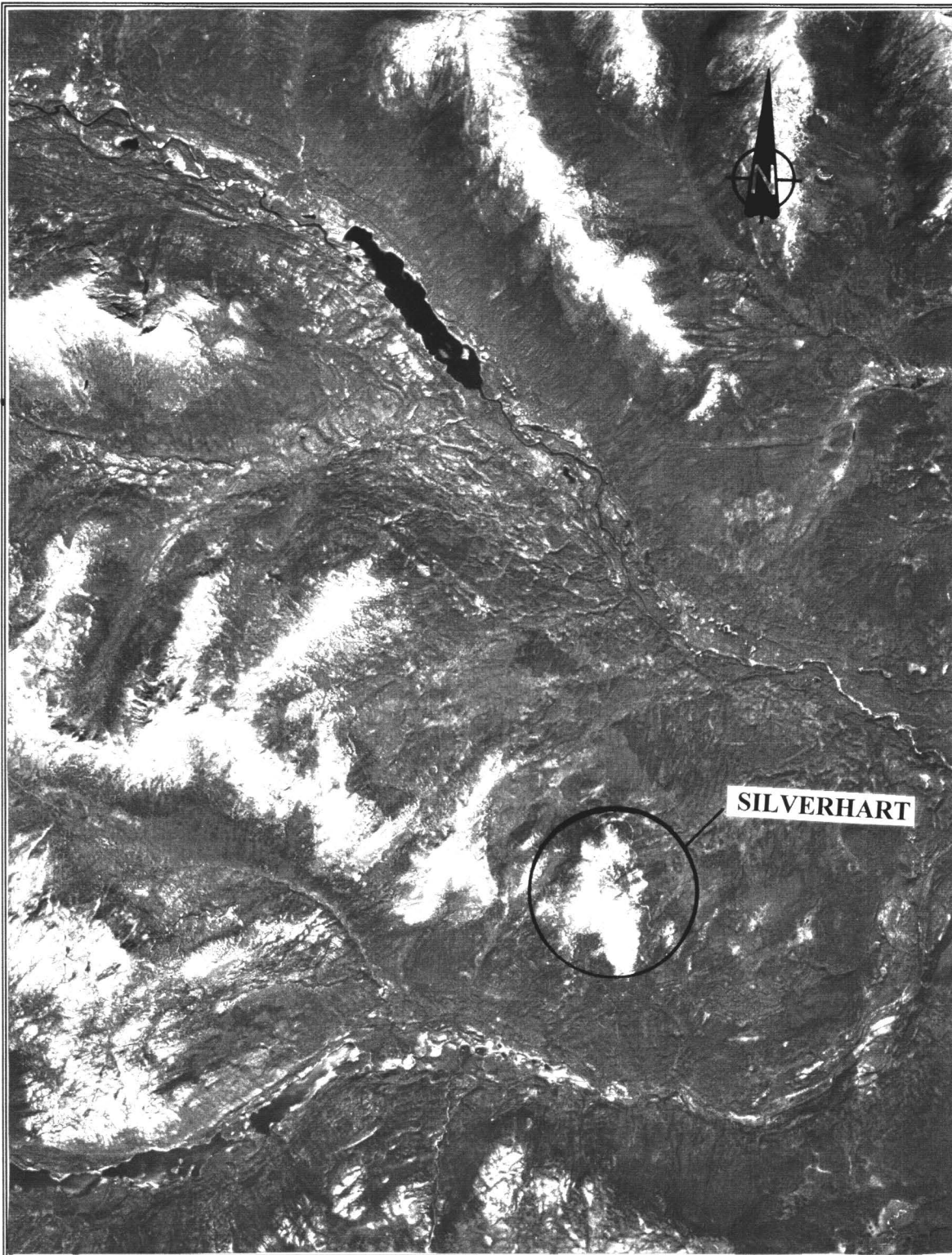
MAP NAME: **WOLF LAKE**

MAP SCALE: **1:250000**

SITE LOCATION:

LATITUDE: **60° 19'30"**

LONGITUDE: **130° 43'54"**



SITE NAME: SILVERHART

SITE NUMBER: 105B-07-2

AIRPHOTO NUMBER: A24795-93      YEAR: 1977

AIRPHOTO SCALE: 1:64000

SITE LOCATION:              LATITUDE: 60° 19'30"

LONGITUDE: 130° 43'54"

**APPENDIX B**

**SITE PHOTOGRAPHS**



1. TRENCHING AND CAMP SITE IN DISTANCE



2. LEAKING FUEL STORAGE TANK



3. DIESEL FUEL SPILL



4. WELL AND TENT FRAME CAMP IN DISTANCE



5. TRAILERS AT TENT FRAME CAMP



6. CORE STORAGE AND BARRELS OF DIESEL FUEL



7. 2-4540 LITRE FUEL STORAGE TANKS AT TRAILER CAMP



8. 4540 & 22700 LITRE FUEL STORAGE TANKS AND  
QUONSET SHED AT MAINTENANCE AREA



9. TRAILER CAMP



10. 2270, 4540, & 22700 LITRE FUEL STORAGE TANKS AT MAINTENANCE AREA



11. INTERIOR OF QUONSET SHED



12. INTERIOR OF ADIT



13. EXTERIOR OF ADIT