ASSESSMENT REPORT

105B-04-1

LOGTUNG

PREPARED BY

DIAND TECHNICAL SERVICES

OCTOBER, 1993

105B-04-1

LOGTUNG

LOCATION

Latitude: 60° 00'19"N
Longitude: 131° 35'56"W

The exploration site is located 15km north of the Alaska Highway and less than one kilometer north of the British Columbia - Yukon border in the area of Logjam Creek. Access off the Alaska Highway near Mile 750 follows along the east side of Logjam Creek. The access road fords several small tributaries to Logjam Creek, the deepest at the time of inspection (1993/06/20) being approximately 0.3m deep. The exploration site elevation is between 1500-1550m above sea level. The lower section of the access road is rough with potholes and becomes rougher on the higher, steeper section of the road. This road can be slowly travelled with four wheel drive vehicles. Unless the road is graded travelling will be slow.

Site maps are attached as Appendix A and site photographs are included as Appendix B to supplement this report.

WORK HISTORY

September, 1976 - First claims staked as 138 Log claims by Bath Partnership which performed limited mapping and sampling. Logtung Resources Ltd. was formed to develop the property.

October, 1976 - 1981 - Amax Potash Ltd. tied on the adjoining Top claims to the northwest, optioned the Logtung property, constructed a road, and explored with mapping, geochemical sampling, 51 drill holes (11628m), 496m of decline and drifts, a 15000 tonne bulk sample and preliminary engineering, metallurgical assessments, and environmental studies.

1983 - Amax transferred its interest to Canamax Resources Incorporated.

1986 - Canamax dropped its interest and the Log claims were transferred back to Logtung Resources in September, 1986.

CLAIMS STATUS

Status of mineral claims including claim names and numbers, claim expiry dates, and current owners in the vicinity of the Logtung site have been noted as of 1993/09/23 as follows;

CLAIM NAME/NUMBERS	EXPIRY DATE	OWNER
Log 1-19, 21, 23, 25, 27-44, 46-52, 54, 56-72, 81-89, 91, 93-130	31 January, 1994	Logtung Resources Inc.
Log 20, 22, 24, 26, 45, 53, 55, 90, 92, 133	08 October, 1994	A.M.P. Exploration & Mining Co. Ltd.

The major commodities identified at this site are silver and gold with minor commodities of lead, zinc, and tin.

CURRENT SITE CONDITIONS

The Logtung exploration site is located in the Dorsey Range of the Cassiar Mountains less than one kilometer north of the of the British Columbia-Yukon border near the headwaters of Logjam Creek. Logjam Creek flows south draining into the Swift River.

The site is made up of two areas;

- the exploration area, and
- the abandoned camp.

Exploration Area

The exploration site near the top of the mountain and has been developed with;

- drill sites,
- an adit,
- a waste rock area,
- a barrel site,
- a sample storage area, and
- a barrel loading area.

Trails interconnect all of these areas.

The drill sites are generally situated on the steep slopes above the adit location and had been constructed by means of a "cut and fill" operation. This type of construction requires material to be removed from the slope and mass wasted downslope to provide a level driving surface wide enough for equipment to use. This results in obvious scarring of the

surrounding mountain slopes and depending on the soil and water (surface and groundwater) conditions, can lead to slope instability and erosion problems. Because of the steep terrain in the area the exploration trails are seen from some distance away.

An exploration adit is situated near the base of the steep mountain slope. The entrance of the adit has been covered with a wire screen and a pile of rock has been dumped at the adit entrance to block any access. The wire screen is loosening from the weight of the seasonal snow pack and one corner of the adit is now accessible.Waste rock has been placed around the entrance to the adit and used as a working platform during the exploration phase. This waste rock covers an area approximately 50x100m. In excess of 100 bulk samples are also placed in four rows. Each row is two samples wide and measures approximately 10m wide and 60m long.

Adjacent to the bulk sample storage area is a loading platform with built-in rollers for handling barrels. This loading platform was used to load crushed ore samples into 204 litre barrels. The barrels were then loaded onto transport trucks and hauled from the site for additional refining and analyzing.

Below the adit between 200-300 empty barrels are randomly stockpiled in one large pile.

Abandoned Camp

The camp site is located approximately one kilometer downslope below the exploration site and the remaining infrastructure consists of the following;

- 5 collapsing core sheds measuring 2.4x6.1m. Four core sheds are full and each contains 640 trays of core. One core shed is empty.
- 270 barrels of crushed ore stored on wooden pallets at two separate locations (240 barrels at one location and 30 barrels at another location).
- 21 empty barrels.
- one partially full barrel of oil. The remainder of the oil has leaked into the ground after the barrel was punctured from what appears to be a gunshot.
- a sewage lagoon constructed of the local silt and gravel. If fluids had been pumped into this lagoon, they have since leaked out.
- an excavated garbage pit adjacent to the sewage lagoon. The garbage pit contains small volumes of metal and wood waste.

The surface material from below the adit to the drill sites on the mountain ridges consists of weathered bedrock. The camp site is located on glacial till made up of silt, sand , and gravel.

The adit location is above tree line and the vegetation consists of short grasses, stunted willows, and a variety of sub-arctic alpine vegetation. The camp site is just below the tree line and is surrounded by stunted black spruce and willows.

There are no streams or surface water in the vicinity of the adit or camp site. Snowmelt appears to be the only source of surface water in the area.

RECOMMENDATIONS

Most of the work at this site took place in 1980 and 1981 and the remaining infrastructure appears to have been left from that time period. It is apparent that when the exploration work was completed that the site was systematically cleaned up. All remaining infrastructure has been generally neatly decommissioned. Specific recommendations for the camp and exploration areas are presented below.

Exploration Site

Drill Sites and Roads - As noted the roads to the drill sites have been constructed on very steep, rocky talus slopes. These slopes are dry with very little vegetation cover. No sign of any slope instability or surface erosion was observed where the roads crossed the slope, and none would be expected to occur in future. The impact from these "road cuts" is visual, however it would not seem practical to restore the road cuts to the original surface profile in this very remote area. Doing so would be very costly, as well as additional disturbance to existing vegetation would cause additional damage.

Adit - When the exploration site was closed the adit was properly sealed with a heavy wire mesh screen placed across the adit as well as waste rock being piled in front of the adit entrance. It was observed that the wire mesh was starting to be pulled down from the weight of the annual snow pack. Repairs should be made to this screen to ensure access to the adit cannot be gained easily.

Waste Rock - Waste rock from the exploration activity was spread at the entrance to the adit. This waste rock was levelled and used as a driving surface and storage area. The material is dry and no leachate was noted. It is recommended that the waste be left undisturbed. Revegetation will be extremely slow as no organics or nutrients are present, however alternative site remediation in this very remote location is not considered practical.

Sample Storage and Barrel Loading Area - The bulk sample storage area appears as a continuation of the adjoining waste rock pile with samples piled in four rows covering an area measuring approximately 40x60m in size. Adjoining this site is a loading platform with built-in rollers for handling barrels. The only potential salvage at this site is dismantling and removing the loading platform. This is a very **LOW** priority and should only be considered if a comprehensive clean-up program is undertaken. It is recommended that this site not be disturbed as the only impact on the environment appears to be visual.

Barrel Storage Site - Between 200-300 empty barrels are piled below the adit and waste rock site and could be crushed and removed quite easily. If a metal waste recovery

program is in place, the removal of these barrels should be included in this program. Removal of these empty barrels is still considered a **LOW** priority because of the relative inertness of the metal.

Abandoned Camp

Core Sheds - An extensive inventory of core is stored in the collapsing core sheds. Proper clean-up of the core storage area would involve loading all core on trucks and hauling the core off site to a central storage facility. The collapsing sheds could then be piled and burned if all the metal core rack supports and metal roofs were removed. All metal could be removed at the same time other metal waste is being hauled from the site.

Ore Barrels - The 270 barrels of ore if left on-site are not expected to cause any additional site problems. Eventual deterioration will occur with rotting of the wooden pallets the barrels are stacked on, rusting of the barrels, and spillage of the ore product if the stored barrels upset. One option for clean-up of these barrels would involve;

- unstacking all barrels,
- hauling the barrels to the area where the bulk samples are stored,
- emptying all the barrels,
- crushing the barrels when the other empty barrels are crushed,
- loading all crushed barrels on trucks, and
- hauling all metal waste off-site.

The one barrel containing hydrocarbon product would need to be removed from the site and the product properly disposed by incineration or alternative recycling methods.

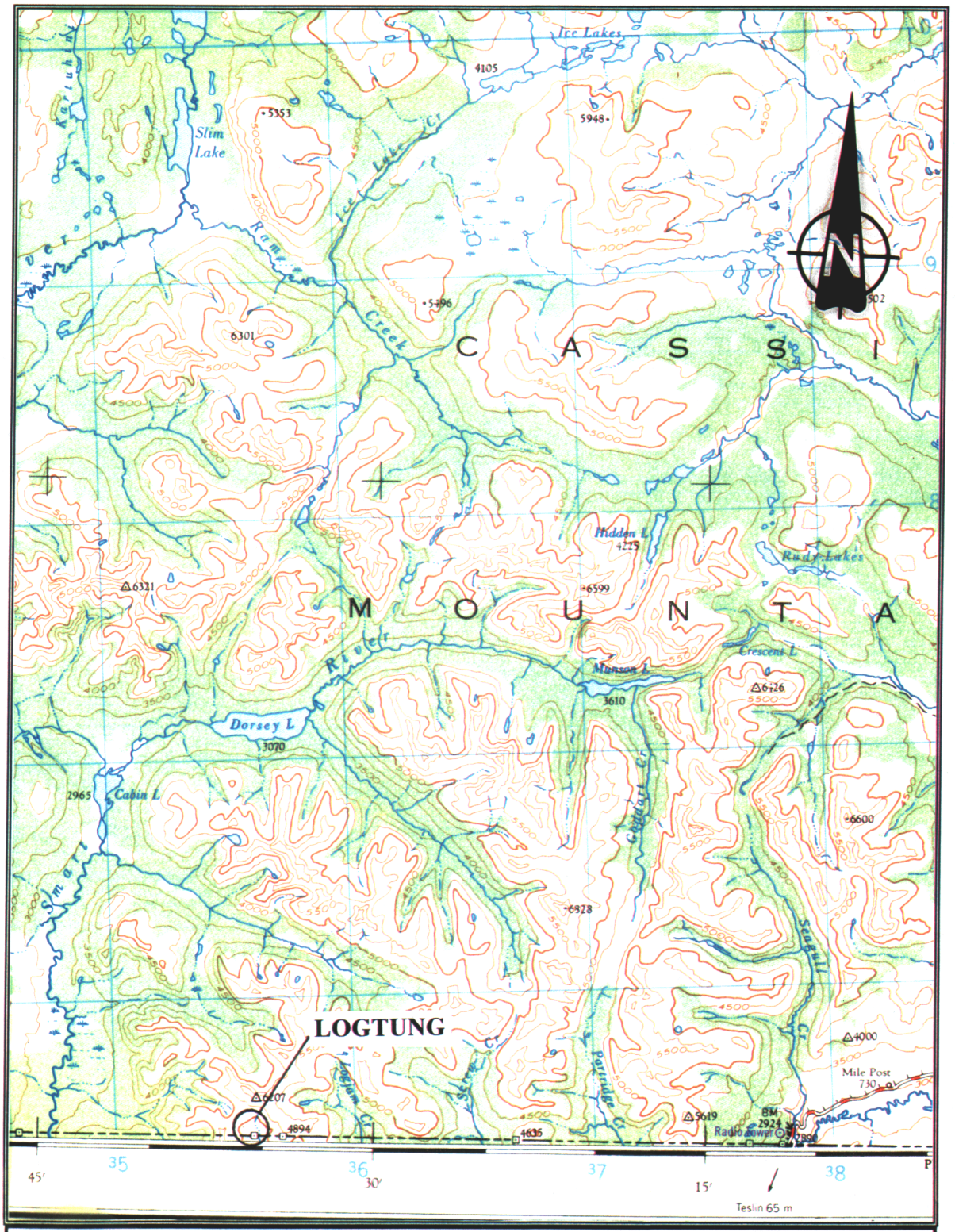
Sewage Disposal Lagoon and Garbage Pit - Metal waste should be recovered from the garbage pit and removed with any other metal waste. These containment facilities are revegetating and no additional site remediation is recommended.

Site Summary

As noted, this site appears to have been systematically cleaned up. No serious environmental problems were evident from the inspection, however a large number of metal barrels have been left on site. Site remediation, if undertaken would focus on removing the barrels, core, and sealing off the entrance to the adit. Overall, site remediation work for this site would be considered a **LOW** priority as the remaining environmental hazards do not appear to be causing additional or long term damage to the area.

APPENDIX A

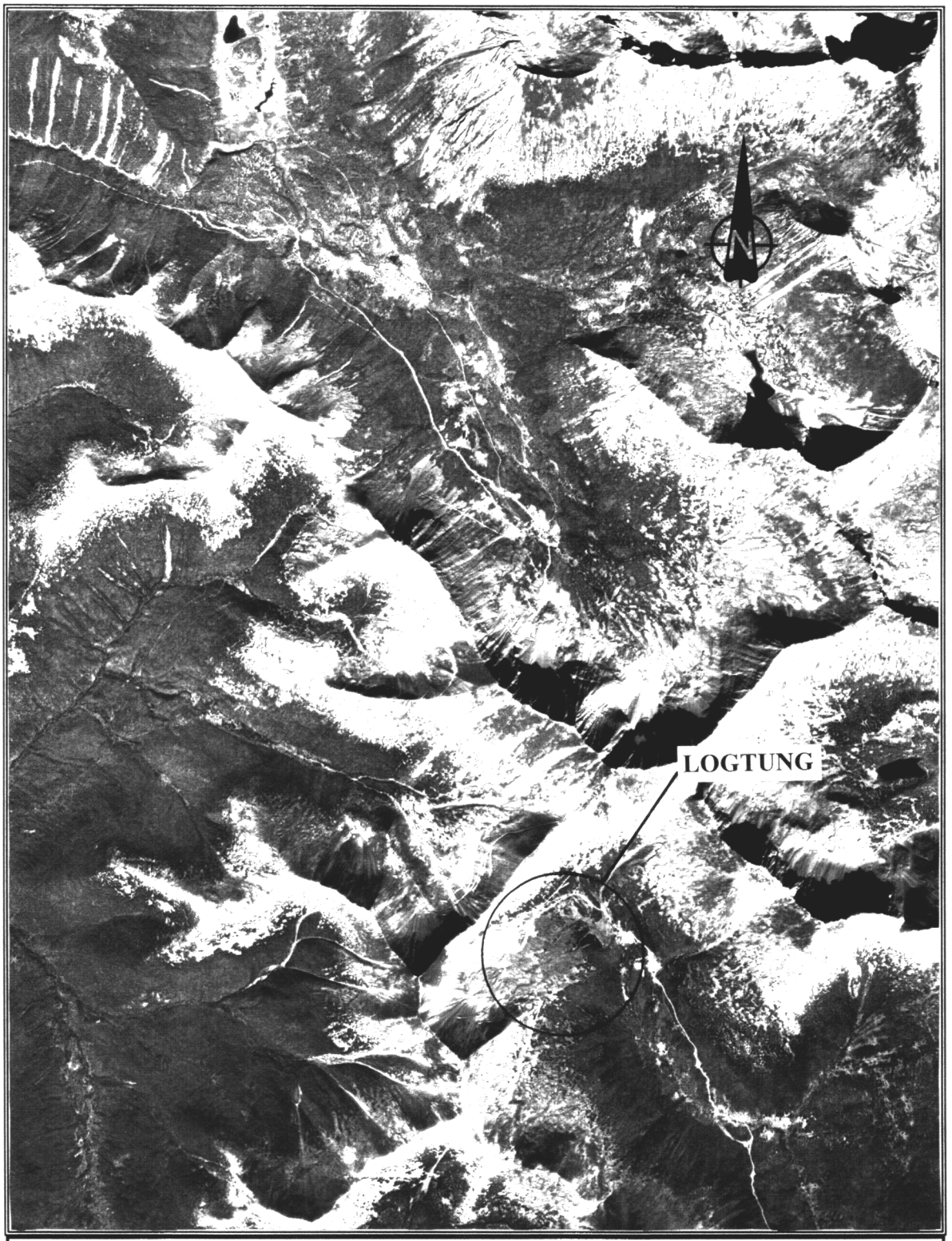
SITE LOCATION MAPS



SITE NAME: **LOGTUNG** SITE NUMBER: **105B-04-1**

MAP NUMBER: **105B** MAP NAME: **WOLF LAKE** MAP SCALE: **1:250000**

SITE LOCATION: LATITUDE: **60° 00'19"** LONGITUDE: **131° 35'56"**



SITE NAME: **LOGTUNG** SITE NUMBER: **105B-04-1**

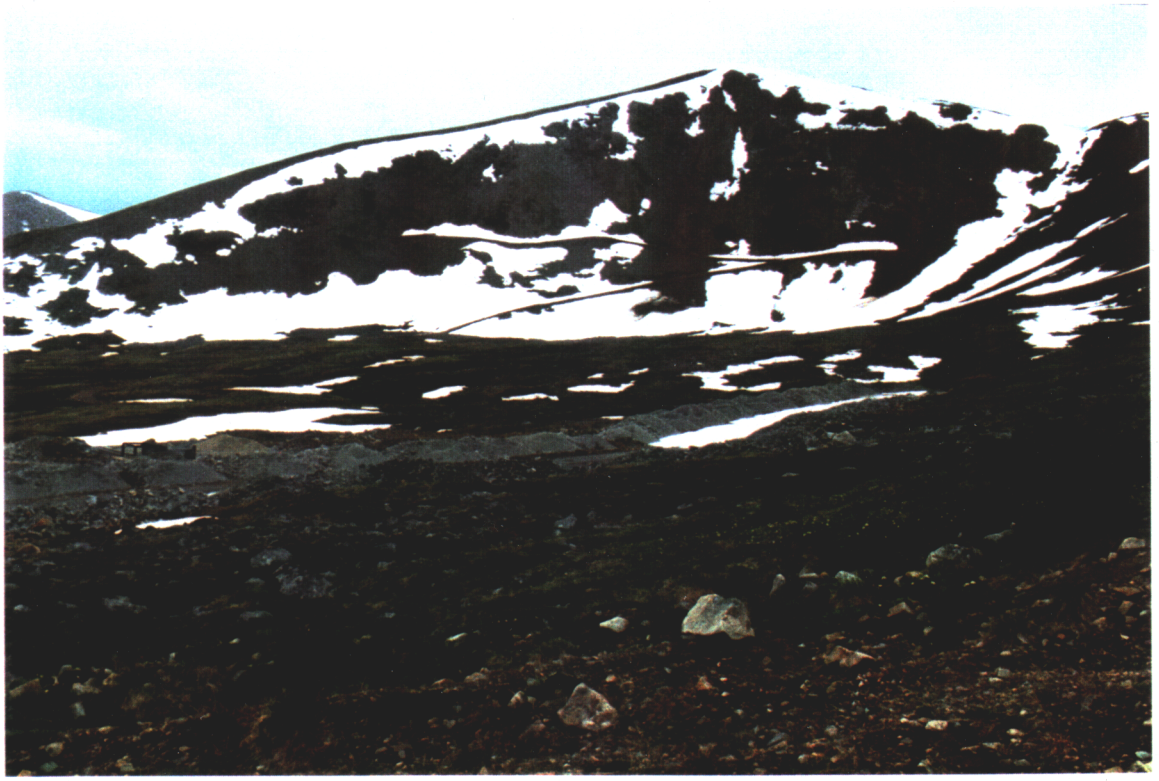
AIRPHOTO NUMBER: **A27521-209** YEAR: **1989** AIRPHOTO SCALE: **1:40000**

SITE LOCATION: LATITUDE: **60° 00'19"** LONGITUDE: **131° 35'56"**

APPENDIX B

SITE PHOTOGRAPHS

1. EXPLORATION AREA (RIGHT SIDE), CAMP SITE (LEFT SIDE), AND ACCESS ROAD

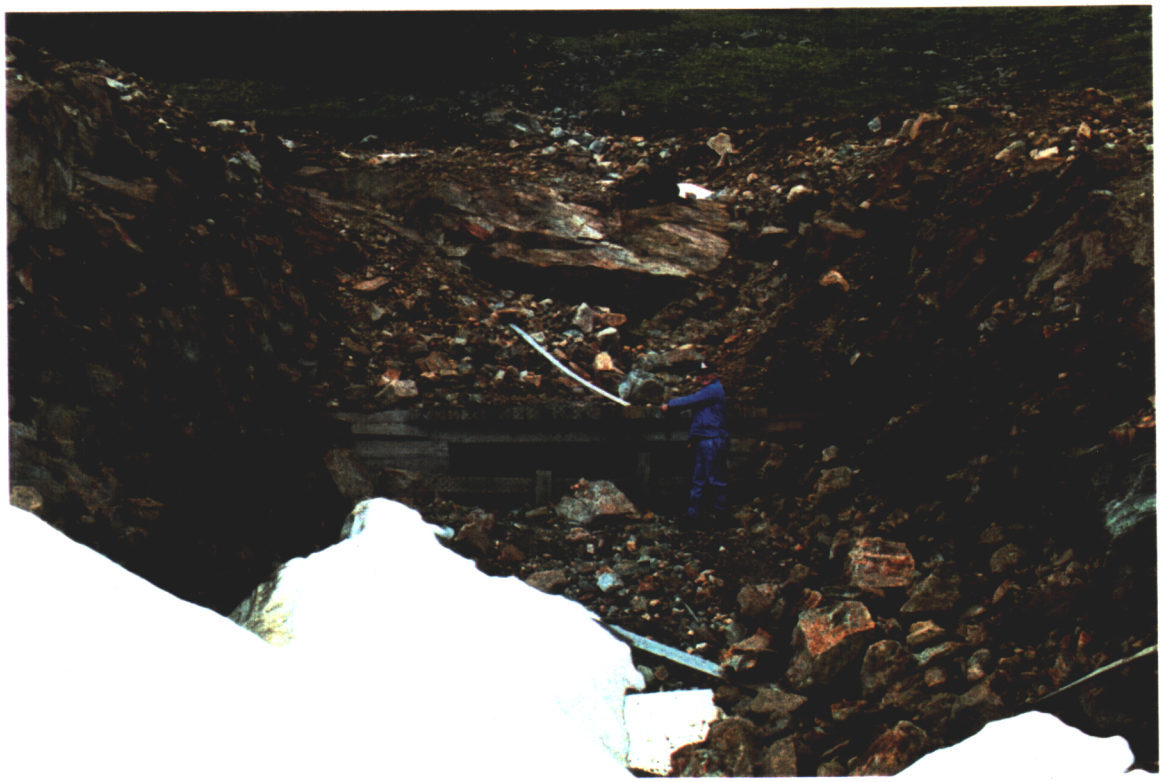


2. EXPLORATION ROADS AND SAMPLE PILES

3. CAMP LOCATION AND ORE STORAGE SITE

4. BULK SAMPLE PILES

5. INTERIOR OF ADIT ENTRANCE

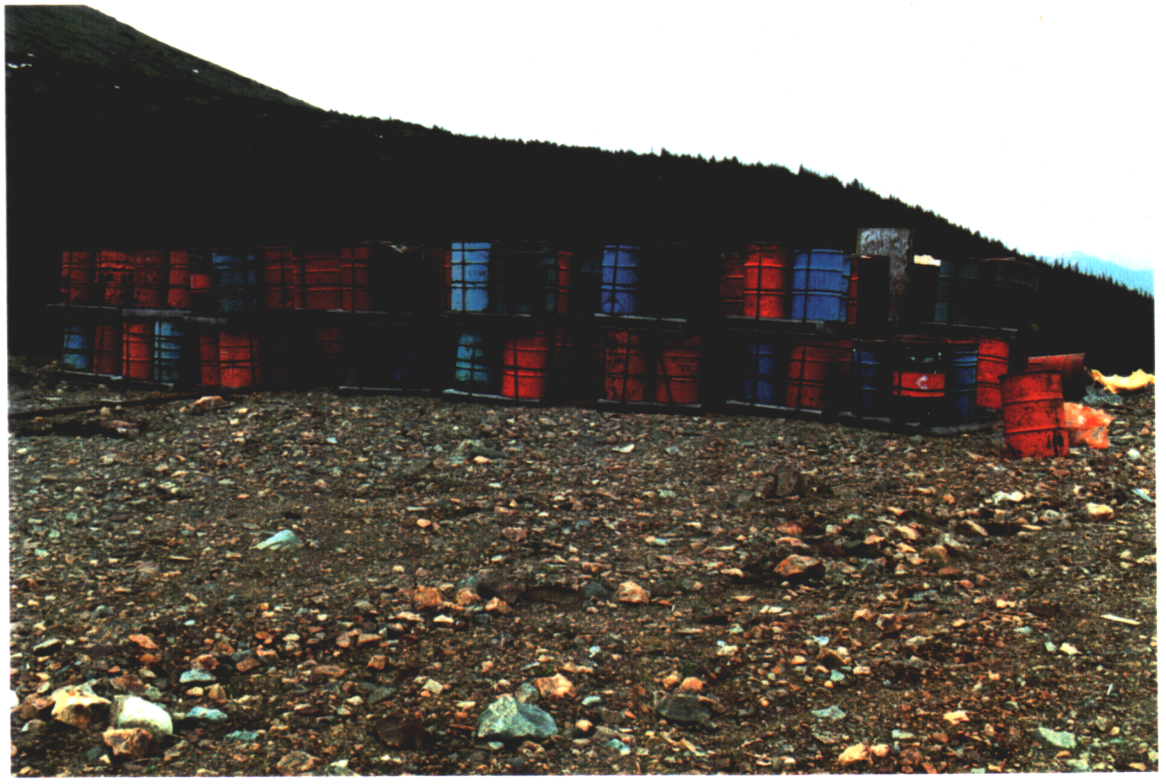


6. ADIT ENTRANCE

7. BARREL SITE

8. CLOSE-UP OF BARREL SITE

9. LOADING PLATFORM



10. LOADED SAMPLE BARRELS

11. SPILLED SAMPLE

12. CORE STORAGE SHEDS

13. COLLAPSING CORE STORAGE SHED