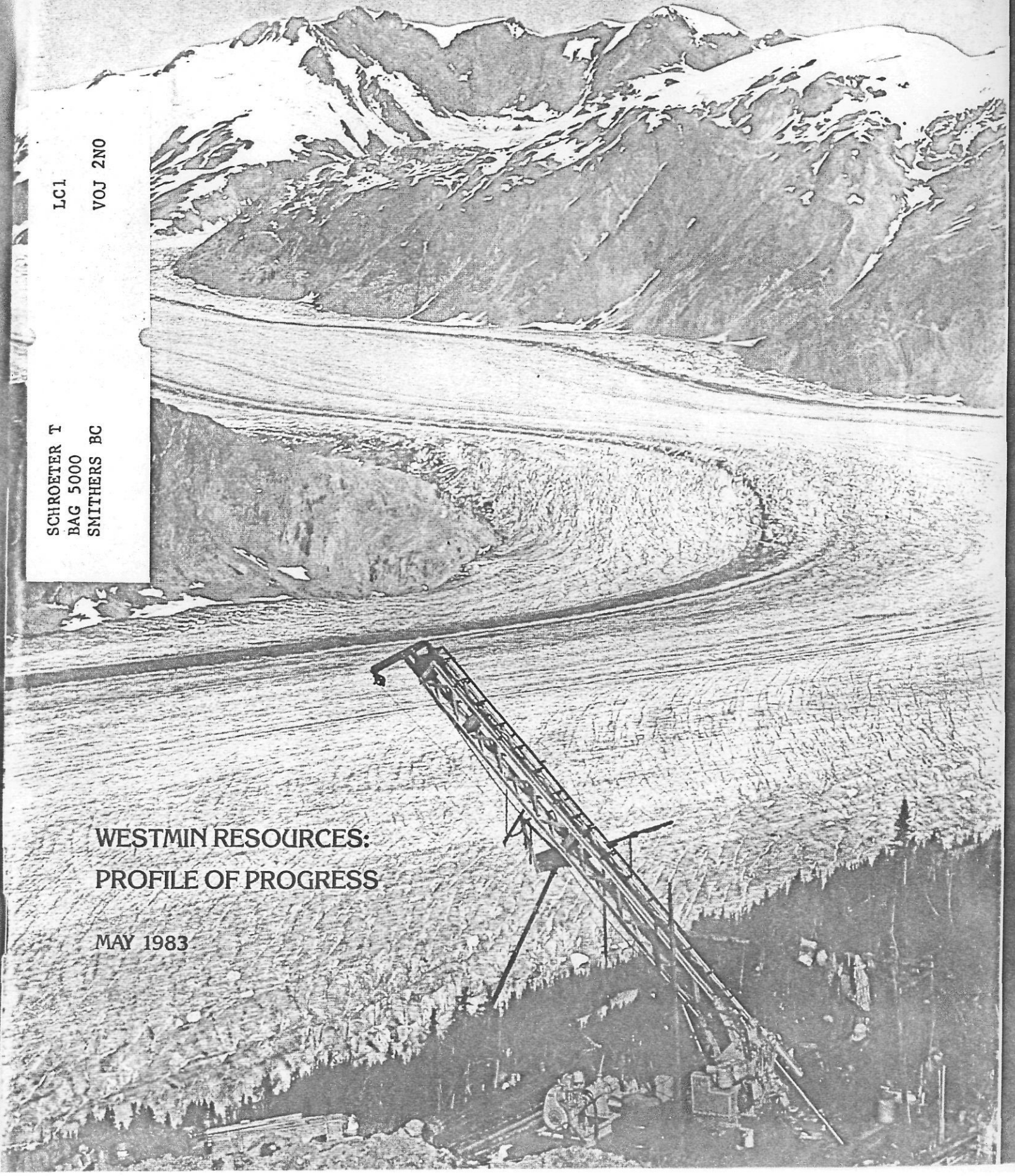
Western Miner

COVERING THE CANADIAN MINING SCENE FROM COAST TO COAST



WESTMIN RESOURCES:
PROFILE OF PROGRESS

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Ore deposits at the Myra Falls minesite

Westmin Resources Ltd is currently conducting mining and milling operations at their Myra Falls mine site located near the south end of Buttle Lake in the center of Vancouver Island. A 56 mile paved highway provides access from Campbell River.

The Myra Falls deposits occur as many individual ore bodies grouped into several major zones (figure 1). These ore zones are currently being mined underground from two mines — Lynx and Myra — at a rate of 930 short tons/day. These two mines have provided all production since start-up at the end of 1966. Production to the end of 1982 totalled 5,204,300 short tons which averaged 0.06 oz Au/ton, 3.32oz Ag/ton, 1.5% Cu, 1.1% Pb, 7.6% Zn.

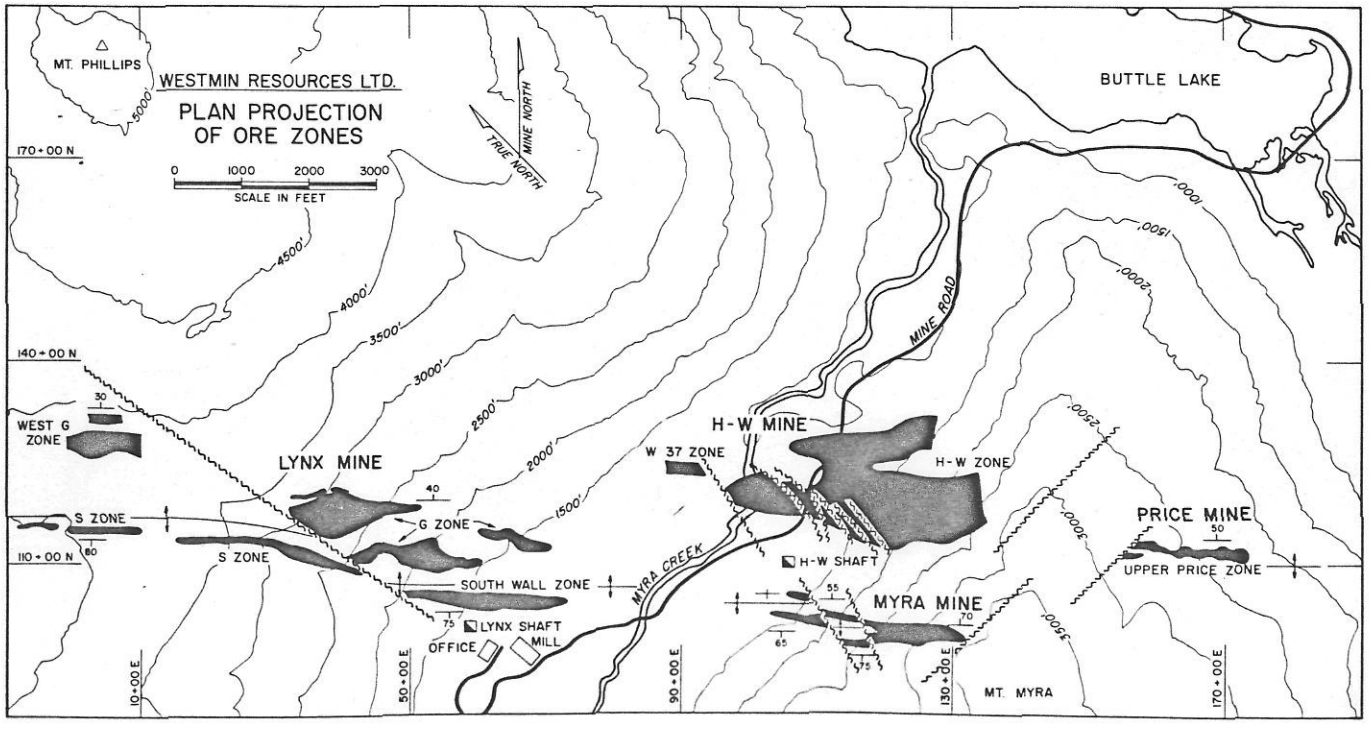
The Price zone, discovered in 1979, represents a modest but significant extension of reserves for the existing mining operations and has been subject to underground development and definition drilling. Proven mining reserves in Lynx, Myra and Price at the end of 1982 totalled 1,021,000 short tons averaging 0.06 oz Au/ton, 2.6oz Ag/ton, 1.0% Cu, 0.9% Pb, 7.4% Zn.

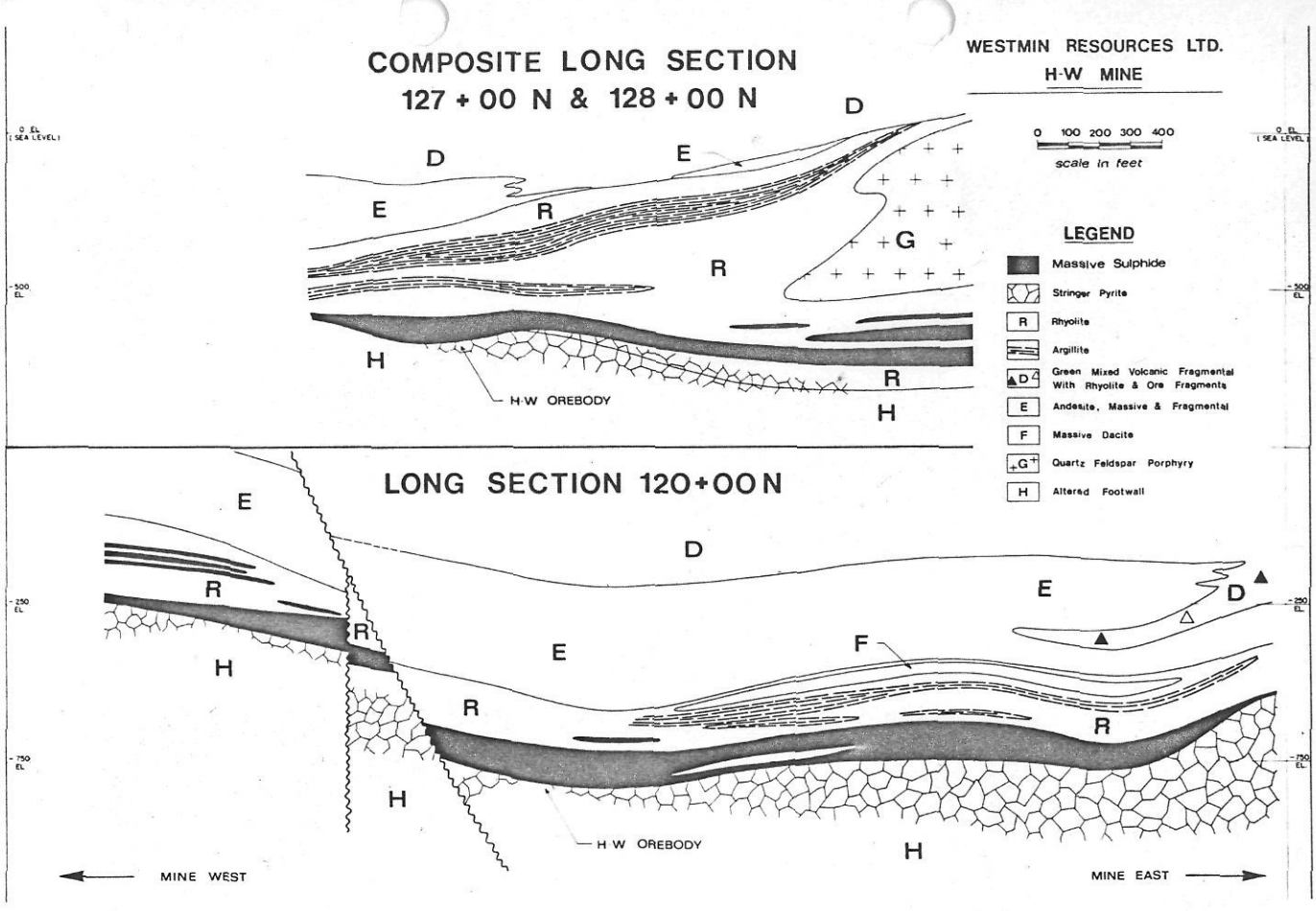
The H-W Mine represents a major new ore zone, which will substantially transform the mining operations at Myra Falls. Geological reserves in the H-W Mine total 15,232,000 short tons, probable plus possible, with a combined average grade of 0.07oz Au/ton, 1.1oz Ag/ton, 2.2% Cu, 0.3% Pb, 5.3% Zn. In conjunction with development of the H-W Mine, the company is engaged in expanding production to 3000 short tons/day. This expansion will include a new 2350ft shaft (nearly completed) as well as a new mill, mine offices, shop, surface tailings disposal system and hydroelectric power plant. H-W was also discovered in 1979.

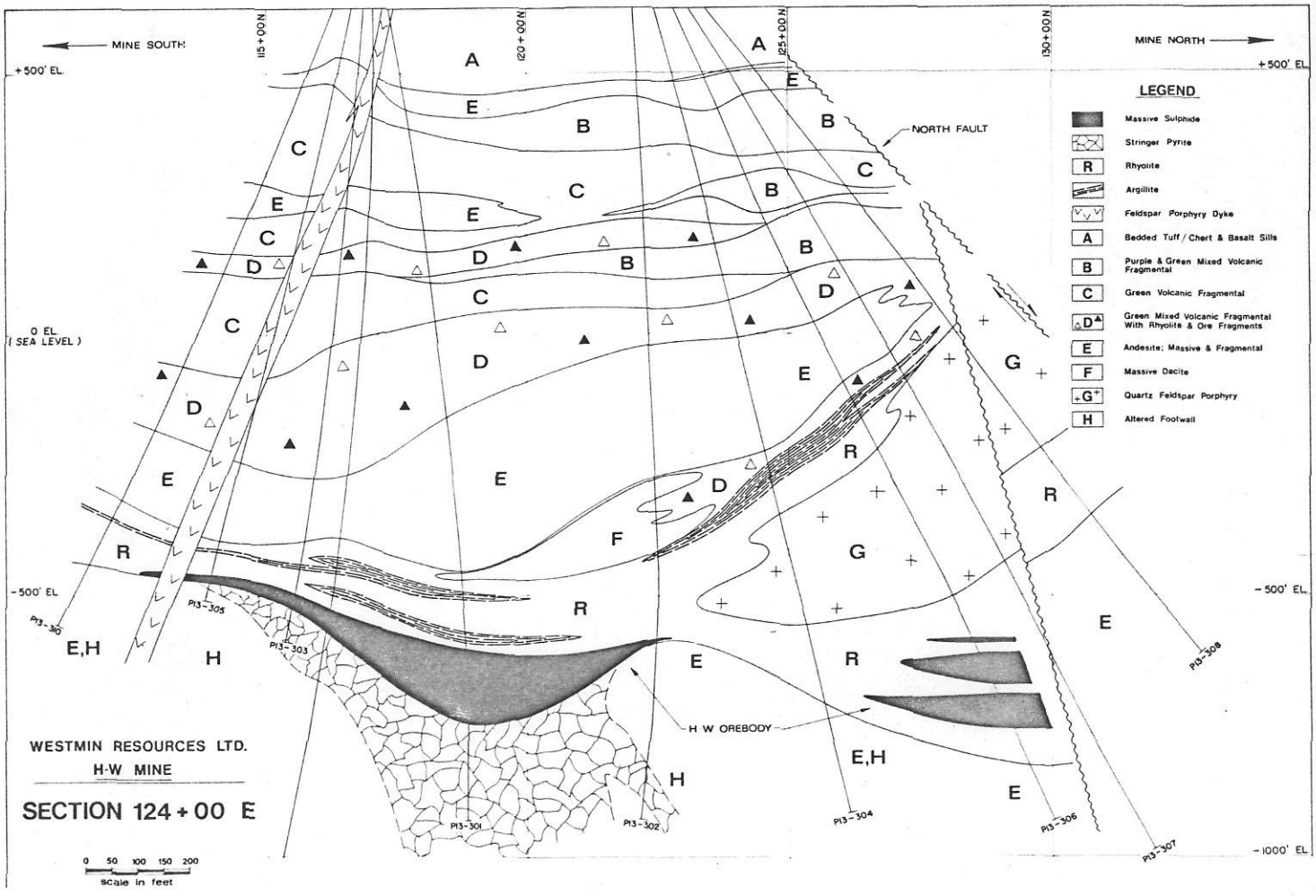
GENERAL GEOLOGY

The Myra Falls ores are polymetallic, massive sulphide deposits associated with felsic volcanic rocks. The ore formed as sedimentary lenses on the sea floor, precipitated from metal bearing hot springs contemporaneous with the felsic volcanic host rocks. Hot spring activity produced widespread hydrothermal alteration of wallrocks, particularly below the ore lenses. Major centres of hydrothermal discharge are marked by zones of stringer and disseminated pyrite. For the most part, these pyrite stringer zones are not ore bearing. Hydrothermal alteration appears to be primarily

Myra Falls Mine orebodies




COMPOSITE LONG SECTION
127 + 00 N & 128 + 00 N
WESTMIN RESOURCES LTD.
H-W MINE
0 100 200 300 400
scale in feet
LEGEND
Massive Sulphide
Stringer Pyrite
R Rhyolite
Argillite
D Green Mixed Volcanic Fragmental With Rhyolite & Ore Fragments
E Andesite, Massive & Fragmental
F Massive Dacite
+G Quartz Feldspar Porphyry
H Altered Footwall
H-W OREBODY
LONG SECTION 120+00N
MINE WEST
MINE EAST
H-W OREBODY


MINE SOUTH
MINE NORTH
115+00N
120+00N
125+00N
130+00N
+500' EL
0 EL (SEA LEVEL)
-500' EL
-1000' EL
NORTH FAULT
LEGEND
Massive Sulphide
Stringer Pyrite
R Rhyolite
Argillite
Feldspar Porphyry Dyke
A Bedded Tuff / Chert & Basalt Sills
B Purple & Green Mixed Volcanic Fragmental
C Green Volcanic Fragmental
D Green Mixed Volcanic Fragmental With Rhyolite & Ore Fragments
E Andesite; Massive & Fragmental
F Massive Dacite
+G Quartz Feldspar Porphyry
H Altered Footwall
H W OREBODY
P13-301
P13-302
P13-303
P13-304
P13-305
P13-306
P13-307
P13-308
WESTMIN RESOURCES LTD.
H-W MINE
SECTION 124 + 00 E
0 50 100 150 200
scale in feet

represented by sericitization, silicification and pyritization.

The major minerals comprising ore are pyrite, sphalerite, chalcopyrite, galena and barite which vary widely in their proportions. Minor minerals include tennantite, bornite and pyrrhotite. Ore textures are primarily fine grained and massive or banded.

Occurrences of rhyolite, sulphides and altered rocks are distributed vertically and laterally within a stratigraphic zone approximately 1200 to 1500 feet thick.

This mine sequence lies within the Myra Formation of the Paleozoic Sicker Group (Muller, 1980). The mine sequence is composed of massive volcanic and coarse to fine volcaniclastic rocks which include basalt, andesite, dacite and rhyolite as well as subordinate sedimentary rocks which include chert, carbonaceous argillite, sulphides and barite. Chert includes black, green, gray and red varieties. The mine sequence is internally bedded and is predominantly mafic and volcaniclastic. Lithologic units are laterally discontinuous with a distinct northwest trend parallel to the trend of ore zones.

The H-W orebody and associated ore lenses occur at the base of, and within, the H-W rhyolite unit which lies at the bottom of the mine sequence. The Lynx, Myra and Price ore zones are correlated as a single, elongate zone of rhyolite, ore and altered rocks which lies near the middle of the mine sequence. The Lynx-Myra-Price ore zones have been documented over a strike length of 19,000ft along the northwest trend. The H-W ore zone has been traced over 4500ft along a parallel trend located 2000ft northeast. In both cases, the plunge of ore lenses and broader zones is near horizontal.

The mine sequence has been folded and metamorphosed in the lower greenschist facies. Deformational rock fabrics are variably developed with the widespread occurence of schistose and lineated rocks. Schistosity is most intense in sericitic rhyolites and altered rocks. Schistosity strikes northwest and dips steeply northeast. Lineations, as well as fold hinges, trend northwest with flat to very shallow plunge.
Post-metamorphic faults of many attitudes offset the ore zones. Zones of gouge and broken ground are common along major faults and ore contacts.

LYNX-MYRA-PRICE

The rhyolitic ore horizon in Lynx, Myra and Price mines appears to be folded over a major anticline with ore lenses lying on both limbs. The hinge of this fold trends northwest with a flat plunge.

In Lynx mine the southwest limb dips generally 50 degrees southwest to 70 degrees northeast (overturned) but averages near vertical over an elevation range of more than 1500 feet. The north limb dips, on average, about 40 degrees northeast and has been traced over more than 1500 feet of dip length. Smaller scale folds and faults considerably complicate ore geometry on a stope scale.

The distribution of major ore zones in Lynx mine is illustrated in figure 1. The southwall zone and S zone lie in the steeply dipping, southwest limb of the anticline. G-zone orebodies lie in the moderately dipping northeast limb. The west G-zone was discovered in 1982 as the result of a major drifting and drilling program designed to test the northeast limb 3000ft northwest of the previously known G-zone. This new ore lens is currently known to extend over 1000ft of strike length and is open on both ends. It appears similar to currently mined G-zone orebodies.

The basic geometry of Lynx mine has led to extensive lateral and vertical development. Mining on the property began with an open pit at the southeast end of Lynx, where the ore structure was eroded through by Myra Valley producing the geographic separation of Lynx and Myra Mines. In total, 1.7-million tons of ore were taken from the Lynx pit. Underground development is by five adit levels and seven levels off an internal shaft which is 1125ft deep. Levels are tracked and spaced approximately 150 feet apart.

Myra Mine is a smaller, but higher grade, extension of Lynx, preserved where the ore zone extended into Mount Myra on the opposite side of Myra Valley. The dip length of the ore horizon diminishes towards the southeast and in Myra mine both limbs total about 1000ft. The rhyolitic host rock (sericite schist) appears compressed in the hinge of the anticline with a form varying from nearly isoclinal to asymetric. Again, ore bodies lie on both limbs. Myra mine is mainly trackless with three adit levels and two levels off a 2080ft, 14.8% ramp. Level spacing is 150ft. Production from Myra mine began in 1972.

The Price zone is an offset extension of the Myra zone. It was displaced from Myra by an inclined cross-fault with a 2800ft net slip. The vertical component of this displacement is about 1000ft with the Price block up. Initial exploration development of the Price zone has been by two adits with access by road up the east side of Mount Myra from the valley floor 1300ft below.

In the Lynx, Myra and Price mines, lateral development (8x8ft) totals 180,000ft, vertical development totals 72,000ft and underground diamond drill footage totals close to 1.2-million ft with an additional quarter million feet drilled from surface. Ore thickness is typically in the range of 5 to 15ft (maximum 40ft) and most production has been by cut and fill with a small amount of blast hole and room and pillar mining. Ore definition diamond drill hole spacing is generally 50x50ft on the plane of the ore.

H-W

The H-W deposit was discovered in December 1979, by surface drilling, at a depth of 1400ft below the floor of Myra Valley. Faced with declining reserves in the producing mines, a decision was made at the end of January 1980 to proceed with a new shaft.

Surface drilling of the deposit continued until mid 1981 and was then replaced by underground drilling from an exploration heading driven from the bottom level of Myra Mine as the deposit was followed under Mount Myra. Both the surface and underground holes ranged to depths of 2000ft or more in this initial exploration phase. Hole spacing began at about 250x100ft and was soon widened to 500x150 to 350ft. This first phase exploration was completed by the end of 1982. By mid 1982 a level had been driven from the new shaft to gain early access to ore for bulk sampling and to provide drill position for a second phase of drilling. This second phase drilling filled in a portion of the deposit at 100x100ft spacing to provide sufficient data for current mine planning of an initial production area.

The ores of the H-W mine occur principally within a single, large, thick body of very pyrite-rich, massive sulphide (figures 2 & 3).

The ore grade portion averages 70 weight percent pyrite and the remaining massive sulphide is base metal-poor, fine grained pyrite. In contrast the Lynx-Myra-Price ores average about 15 weight percent pyrite. The H-W massive sulphide body ranges in thickness from over 100ft in an axial zone to thin tapering margins. The average massive sulphide thickness is in the order of 60ft. The orebody exhibits strong lateral zoning from a very massive, pyrite core with high copper: zinc ratios, to zinc and barite-rich margins with low copper: zinc ratios. The marginal phase contains significant silver and lead in contrast to the core zone. Gold is fairly uniformly distributed. The relatively smaller tonnage, marginal ore phase represents higher grade ore.

Mechanized, trackless mining utilizing ramps between levels is planned for the H-W mine. Multiple stoping methods are anticipated.

REFERENCES

Muller, J E (1980) The Paleozoic Sicker Group of Vancouver Island, British Columbia; Geological Survey of Canada, Paper 79-30, 23-.