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12/84

REPORT ON THE DENNY CLAIMS

SLOCAN / REVELSTOKE MINING DIVISIONS

NTS 82K/14, Latitude 50° 45' 25"

Longitude 117° 24' 45"

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,979**

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per: Inverhuron Mining and Petroleum Resources  
Limited

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## 1. INTRODUCTION

From 19 September to 23 September, 1983, inclusive the author was engaged by Messers E.W. and J.N. Denny to investigate a claim group, hereinafter referred to as the Denny Claims, in the Lardeau area of southeastern British Columbia (figure 1). The purpose of the examination was to define the environment of deposition of the known lead-silver-zinc (Pb-Ag-Zn) mineralization and indicate the exploration potential of the property in general (sections 7.5,9,& 2).

Field examination centered on two mineralized zones known as the Horne Ledge (Horne Group), and the Ellsmere (Ellsmere Group), (figure 2). A third mineralized area known as the Black Warrior (Black Warrior Group) was not examined in the field, however, a brief summary of the area is included in the various sections of this report and is based entirely on previously published data and analysis of samples taken by others.

Limited grid controlled geologic mapping (figures 3&4) and soil sampling (figure 5) was completed over the Ellsmere / Horne groups and Horne groups respectively.

## 2. CONCLUSIONS AND RECOMMENDATIONS

Conclusions reached on the basis of work completed on the Denny Claims may be summarized as follows:

1. The Denny Claims cover a conformable transgressive sequence of sedimentary (minor volcanic) rocks which are transected by at least two phases of isoclinal folding.
2. The Lade Peak Formation, Badshot Formation and Reeves Member are lithologically related.
3. The lead-silver-zinc mineralization at both the Ellsmere and Horne localities display an extensive continuity along the strike of a limestone / schist contact.
4. The lead-silver-zinc mineralization is likely genetically related to similar mineralization in the Salmo district and is of a replacement and/or Sedex depositional origin.
5. The lead-silver-zinc mineralization is locally structurally controlled at the Horne locality by an anticlinal structure.
6. That geochemical soil sampling is ineffective as an exploration tool at the Horne locality.
7. The possibility of locating mineralization of an economic tonnage and grade on the Denny Claims is good, as both the depositional environment and structural setting are encouraging and resemble that of the past producers in the Salmo district.

Based on these conclusions it would seem that the property warrants an extensive work program. A tentative work program is outlined below:

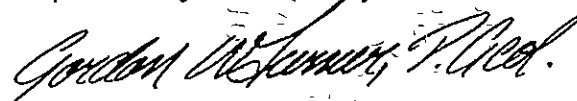
1. Road access to the Horne locality by the construction of 7.5 km of four wheel drive road from the terminus of the Ferguson Creek logging road.

2. Cut grids to IP standard over both the Horne and Ellsmere localities utilizing a baseline, azimuth 305 degrees, covering all existing workings. Tie lines should be established perpendicular to the baseline and extend 500 meters to either side. All lines should be tight chained to 25 m station intervals.
3. Detailed geologic mapping over both grids at 1:2500 scale.
4. Reconnaissance geologic mapping/prospecting along the mineralized horizons and at the Black Warrior locality.
5. Magnetometer surveys over both grids.
6. Crone E.M. shootback and/or VLF surveys over both grids.
7. 1000 meters of B.Q. surface diamond drilling.

Emphasis should be placed on the Horne locality as it appears to be both geologically and structurally favorable for extensive mineralization.

Should the above proposals conclude favorably, a rehabilitation of the existing workings should be considered.

Respectfully Submitted,



Gordon W. Turner, P. Geol.

15 November, 1983

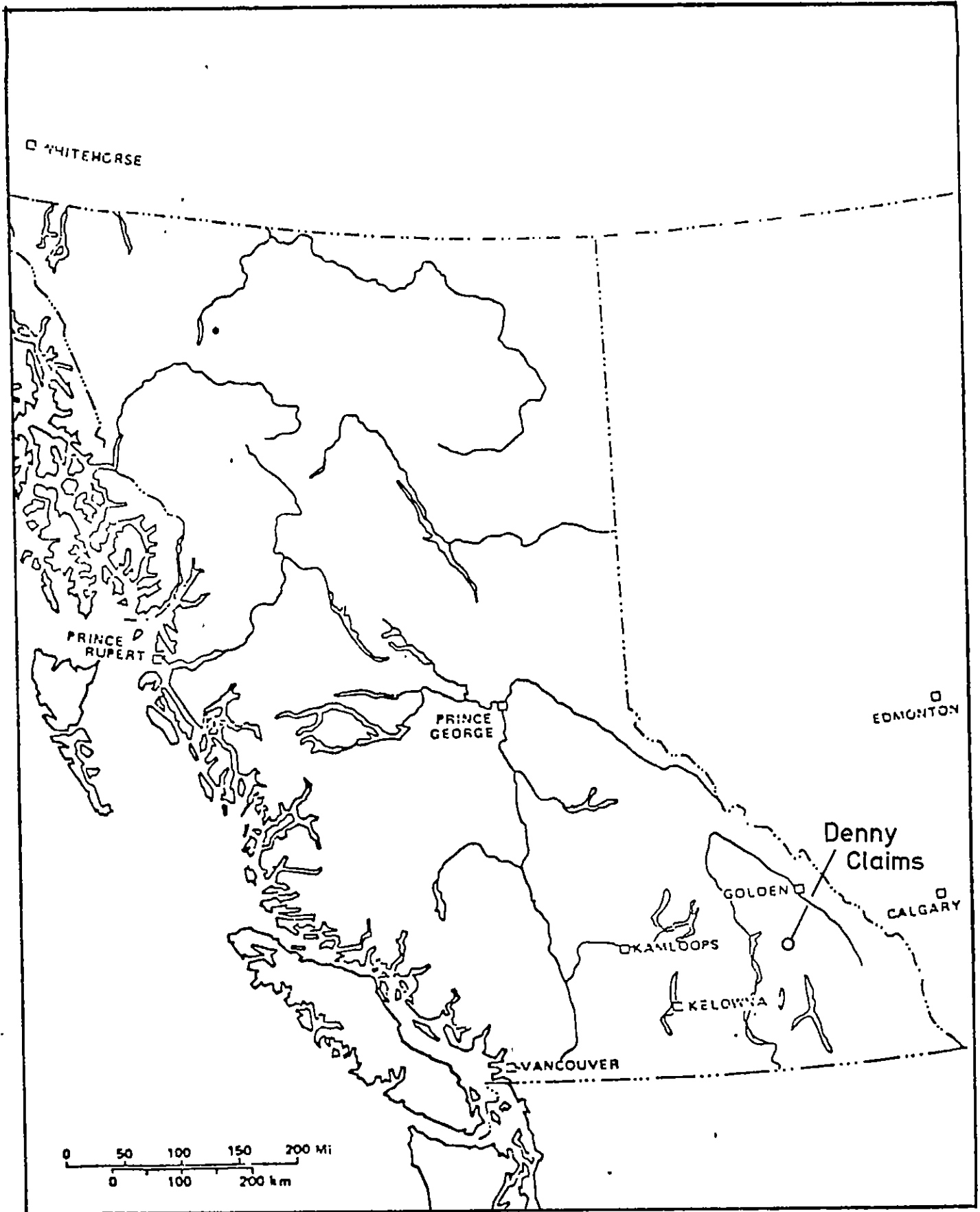


### 3. PROPERTY

The Denny Claims are jointly held by E.W. Denny and J.N. Denny R.R. # 1, Nelson, British Columbia and cover a total land area of 2600 hectares. The lands covered by this report are listed in the following table:

TABLE 1: Schedule of Lands

<u>Name</u>	<u>Recording Date</u>	<u>Units</u>	<u>Record No</u>	<u>Lot No</u>	<u>Assessment Credit</u>
Black Warrior #1	83-03-01	20	1562	-	1984
Ellsmere #1	83-03-01	18	1563	-	1984
Silver Leaf #1	83-03-01	20	3564	-	1984
Morgan	83-07-08	20	1598	-	1984
Galena	83-07-08	9	1597	-	1984
Celtic	83-07-07	3	3927	-	1984
Circle City	83-09-15	8	1640	-	1984
Horne	83-09-15	6	1639	-	1984
Ellsmere	81-09-08	1	1286	-	1984
Morgan	81-09-29	1	1301	-	1984
<u>Crown Grants and Reverted Crown Grants</u>					
Black Warrior	Crown 1913	1	-	10646	-
Eva May	Crown 1913	1	-	10647	-
Silver Leaf	Crown 1901	1	-	4699	-
Edna No 2	79-03-02	1	1114	5698	1984
White Star	79-03-02	1	1115	11330	1988
Copper Glance	80-01-17	1	1681	13483	1987
Victoria	80-01-17	1	1678	13479	1987
Gladstone	80-01-17	1	1679	13480	1987
Snowstorm	82-01-18	1	2833	13481	1987
Canadian Girl	83-01-24	<u>1</u>	3439	4705	1984
Total		116			



INDEX MAP: FIGURE 1

#### 4. LOCATION AND ACCESS

The Denny Claims are located 15.5 air kilometers (km) north, northeast of the town of Trout Lake at the headwaters of Galena Creek, NTS 82K/14, latitude  $50^{\circ} 45' 25''$  and longitude  $117^{\circ} 24' 45''$ .

The only direct access to the property is by helicopter from either Revelstoke (65 air km) or Nelson (150 air km) or by pack trail 7.5 km from Ferguson. It should be noted that the Ferguson Creek drainage affords an excellent possibility for road construction to the southeast portion of the property.

An excellent series of pack trails connect most portions of the property. However, as most workings are directly accessible by helicopter, any exploration program would be facilitated by use of a helicopter.

## 5. PHYSIOGRAPHY

The Denny Claims occupy the height of land which divides the Lardeau and Westfall drainages, also the division between the Slocan and Revelstoke Mining Division, at the headwaters of Ferguson Creek (Galena) and McDonald Creek. Five drainages originate on the property: Galena, Dave Morgan and Surprise Creeks which flow south-westerly to Ferguson Creek; and McDonald and the north tributary of Marsh-Adams Creek which flow northeasterly to the Westfall River. All creeks appear to crosscut the stratigraphy at random.

All streams are characterized by steep gradients giving rise to a coarse, heavy sedimentary load thus making stream sediment sampling impossible until after spring runoff.

The highest elevation effected by glaciation as evidenced by striae, is reported by Fyles and Eastwood (1962) at 2500 meters (m). The glaciation is evidenced by a rugged topography, including arretes, cirques, spectacular headwalls and slide swept, U shaped valleys such as the Ferguson Creek valley.

Two small alpine glaciers are located on the property situated at the divide between McDonald Creek and an unnamed drainage in the central portion of the property. The glaciers cover approximately 50 hectares (ha) and are situated above 2100 m.

Elevations on the property vary from 1150 m at Ferguson Creek to 2700 m at the divide between Dave Morgan and Marsh-Adams Creeks. Most of the workings are located between 2300 m and 1700 m elevation and it is assumed that the areas examined in the field have been effected by glaciation.

Mean annual precipitation at Revelstoke is reported as 107 cm, of which 76 cm falls as snow, between mid October and mid May. The mean annual temperature is reported as seven degrees celcius (c) by Fyles and Eastwood (1962).

Cover in the area ranges from large hemlock/cedar in the Ferguson Creek drainage to spruce with a moderate second story growth of willow at 1500 m. This gradually opens to free standing spruce and fir at 1700 m and gives way to open alpine meadow at 2000 m. Above 2500 m the terrain changes to rugged peaks.

Bedrock exposure is restricted in the vicinity of the workings to less than 10 percent (%) but increases with increasing elevation to 100% above 2500 m.

## 6. PREVIOUS HISTORY

The Denny Claims cover several old crown granted mineral surveys and include those listed in table 2. To avoid confusion, lists of these surveys are included in three groupings according to the mineralized structures encountered.

TABLE 2: Expired / Active Crown Granted Mineral Surveys

<u>Horne Group</u>	<u>Ellsmere Group</u>	<u>Black Warrior</u>
Josie	Nickel Plate	Black Warrior
Vera	I. X. L.	Eva May
Alberta	Ellsmere	White Star
Rob Roy	Ellsmere No 1	Snowstorm
Highland Chief	Ellsmere No 2	Copper Glance
Highland Chief Fraction	Silver Slipper	Gladstone
Sir Charles	Truro	Frisco
Centre Star	Daisy	Viola
St. Ives	Anaconda	Victoria
Horne Silver King	St. Louis	Crackshot
Horne Silver King Fraction	Tyes	Crackshot No 2
Morgan	Marmot	Black Scott
Celtic	Peterson	Black Scott No 2
Celtic Fraction	Independence	Mountain Lion
Morning Sun	Maggie M	Cresswell
Canadian Girl	Dora	Cresswell No 2
Champion	Grace C	Keystone Fraction
	Grace C Fraction	Silver King
	Edna No 2	Silver King Fraction
		Silvery Moon
		Silvery Moon Fraction
		Silver Leaf
		Silver Leaf Fraction

### 6.1 Horne Group

The Horne group is first mentioned in 1893 in conjunction with the Blackburn, Poole, Rainy and Matheson crown grants as containing more "oreless gold". In 1894 interest was directed to the discovery of a large lead which yielded an assay of 80 ounces to the ton (oz/ton) Ag and 80% Pb. By 1895, 13 locations were reported as established on the lead and an assay of 75 oz/ton Ag and 70% Pb recorded.

A Brandon company, in 1897, developed two leads on the Glenside and Vera. However, no widths or values were reported.

In 1898, three mineralized (Pb-Ag) leads are reported to have been traced for 320 m where they unite to form a strong lead with iron capping (MMR, 1898). Development on the leads included two crosscuts that were being driven to intersect the leads at depth.

The Rob Roy and Highland Chief were acquired by the Scottish Mining and Development Company of London, Ontario in 1899, and 3.6 m of mineralization encountered with heavy iron capping, at a contact of limestone with slate. Two smaller leads are mentioned, separated by 15 m. Ninety meters of drifting was planned, of which 21 m was complete at the time of the report. In the same year, the Commonwealth Mining and Development Corporation applied for the crown grants Glenside and Vera.

The last recorded work was in 1900, when 100 m of drifting was completed and "concentrating ore" encountered.

## 6.2 Elismere Group

This group is first mentioned in the 1899 Minister of Mines report as, "being on the Blackburn Ledge and containing good gold values" (MMR, 1899), and then only noted in the 1900 report.

The next mention of the group is in 1916 when 0.91 m of clean Pb-Ag "ore" was encountered in a drift. The property was then owned by Hillman, Kennedy and Fraser.

In 1917 the property was optioned by Circle City Mines Limited and is quoted as to occur on the "Lime Dyke Belt" (Badshot Formation) at the contact between a limestone and chloritic schist "striking at north 75° west and dipping 56° north". (MMR 1917). The mineralization is described as streaks and irregular shaped patches replacing or impregnating the limestone. Two drifts were developed for 15 m and

53 m and concentrating ore encountered over widths of 1.1 m in both. Mineralization was traced on surface for 300 m and assays of 68% Pb, 2.0% Zn, 2.4 oz/ton Ag, 0.08 oz/ton gold (Au) from the lower tunnel and 31.9% Pb, 1.3% Zn, 1.9 oz/ton Ag and 0.02 oz/ton Au over 0.38 m at the northwest extension of the surface mineralization.

### 6.3 Black Warrior Group

The Black Warrior crown grant is first mentioned in 1898 in conjunction with the Eva May and White Star crown grants. At this time 20 m of drifting had been completed along a 30 cm lead of quartz and a lower tunnel driven 10 m along the same lead. This lower tunnel was extended to 60 m the following year and the mineralization was expected to be encountered at 67 m.

The next mention of the group is in 1913 when the Black Warrior (10646), Eva May (10647) and White Star (11330) were crown granted to Bella Coursier, Janet Edith Morris, James McMahon and George Smith McCarter.

In 1924, total development on the property consisted of a deep open cut terminating in 10 m of drifting, and three tunnels along a 60 cm wide lead of quartz containing sparse disseminations of galena. The upper two tunnels are driven along the hanging wall of the vein for distances of 26.5 m and 67 m respectively. The lower, or No. 3 tunnel extends for 85 m along the foot wall of the vein but failed to intersect the vein or any mineralization as no crosscuts were completed.

The Blue Jay group, which adjoins the Black Warrior group to the N.E. was optioned by Cominco in 1952 from Silver Standard Ltd. A program involving 1000 m of diamond drilling in eight holes, from a single set-up, was completed before the option was dropped in 1953.



## 7. GEOLOGY

The geological summary and detailed descriptions of units presented herein is based on field observation on both a limited detailed and reconnaissance scale. Data was collected by the author with the assistance of J.N. and E.W. Denny and is supplemented with information taken from various government publications and maps. Some assay results presented herein were supplied by a Selco geologist who had visited the property previously.

### 7.1 Regional Geology

Contained on the property are members of the Lardeau and Hamill groups, as identified by Read (1977), of Paleozoic and Proterozoic ages respectively. Both groups represent part of a transgressive geoclinal sedimentary series, known as the Kootenay Arc, and display a regional trend from oldest to youngest to the southwest (age relations appear in table 3). The sedimentary sequences form steeply dipping northwest - southeast linear "belts" slightly concave to the southwest. Regional faulting is in the form of northwest - southeast thrust faulting with some minor strike slip offset. Isoclinal folding is common and is responsible for a secondary apparent thickening of some units and the formation of a series of northwest - southeast trending anticlinal and synclinal structures.

### 7.2 Local Geology

The Denny Claims cover members of the Lardeau Group including the Index and Badshot (Lade Peak) formations along with members of the Hamill Group, including the Marsh-Adams and Mohican formations (see figure 2). All units are conformable.

Local structure is complicated, containing local antiformal and synformal structures (section 7.3). Local faulting appears to be absent.

TABLE 3: Table of Formations

Eon	Era	Period	Group	Formation	Lithology
PHANEROZOIC	PALEOZOIC	DEVONIAN Middle Devonian	Lardeau	Broadview	-gray and green phyllitic grit -phyllite
				Sharon	-dark gray to black siliceous phyllite
				Ajax	-massive gray quartzite
				Index	-phyllite -arenaceous limestone -minor gray phyllite -gray and light green phyllite -limestone and quartz grit -minor phyllitic limestone
----- CONFORMABLE CONTACT -----					
PRECAMBRIAN	PROTEROZOIC	CAMBRIAN Lower Cambrian		Badshot (Lade Peak)	-gray and white limestone
		HAYDRYNIAN	Hamill	Mohican	-green phyllite -minor gray phyllite -limestone
				Marsh-Adams	-white, gray, green quartzite -phyllitic quartzite -minor gray and black phyllite

(after Read, 1976)

All units and structures appear to follow a regional northwest - southeast trend.

In order to facilitate a limited geological mapping, two baselines were established over the Ellsmere and part of the Horne localities at azimuths of  $305^{\circ}$  and  $302^{\circ}$  respectively.

#### 7.2.1 Lardeau Group

The Lardeau Group was first defined by Walker and Bancroft (1929) from the Lardeau District, where it outcrops extensively and includes both volcanic and sedimentary strata. The base of the group is located at the top of the Badshot Formation (for the purposes of this report the Badshot (Lade Peak) Formation is tentatively correlated with the Lardeau Group) and extends to the erosional unconformity at the base of the Milford Group.

##### 7.2.1.1 Index Formation

The Index Formation represents the oldest units in the Lardeau Group and forms a thick sequence of gray and green phyllite with dark gray argillite. A developed dark to light green chloritic schist (section 7.2.1.1.1) occurs between the Horne and Ellsmere localities and is believed to represent an original andesitic tuffaceous horizon approximately 700 m in thickness. It is likely an extension of the volcanic sequence overlying the Molly Mac limestone (Fyles and Eastwood, 1962) to the southeast. Thin, continuous inliers of Lade Peak limestone occupy the cores of the local Silver Chief and Lade Peak anticlines.

##### 7.2.1.1.1 Chlorite Schist

This unit is in direct contact with two units of Lade Peak limestone and was found to consist principally of quartz chlorite and sericite. It is intensively sheared

where it is in contact with the limestone and grades to a pyritized sericite schist in places (see figures 3 & 4). Contained within the schist are elongated quartz stringers and knotted quartz segregations which trend subparallel to the regional schistosity. The stringers (segregations) contain, in places, fine disseminations of pyrite and appear to have been deformed at the same time as the schist, as they display tight crenulations consistent with the schistosity. Toward the central portion of the unit (sample MA 0920-1b) a relatively undeformed exposure of andesitic tuff was identified. The exposure appeared as a finely laminated (bedded?) volcanic rock containing andesitic matrix. This would imply a volcanic origin for the entire schist.

#### 7.2.1.1.2 Sericite Schist

This unit forms a gradational contact with the chloritic schist (section 7.2.1.1.1) and appears as a tightly crenulated, bleached equivalent of the chlorite schist. Where it is in contact with a heavily oxidized zone (section 7.2.1.1.3), it contains a leached limonitized boxwork (comprises 2% of composition) which increases in intensity with proximity to the oxidized zone. Thickness of the unit varies from one to ten meters.

#### 7.2.1.1.3 Oxidized Zone

A zone of oxidized material occurs along the contact of the sericite schist / chlorite schist (sections 7.2.1.1.1 & 2) and an inlier of Lade Peak limestone (section 7.2.1.2.1). The zone is heavily leached (oxidized) and so the mineralogy is impossible to identify. However, galena, sphalerite, pyrite and pyrrhotite mineralization

was identified at several localities. The zone was found to be continuous for the entire length of the baseline (2200 m) and continues beyond the limited mapping done on the area. It is frequently referred to in the Minister of Mines Reports as the Horne Ledge "a zone of clean concentrating 'ore' overlain by a heavy oxidized iron cap" (MMR, 1898). Secondary carbonate stringers (veinlets) form thin randomly oriented web-like structures throughout sections of the leached capping (skarnified?) and irregular segregations of sericite were found at certain locations (sample MA 0920-2).

#### 7.2.1.2 Badshot Formation (Lade Peak Formation)

A tentative correlation has been made between the Lade Peak Formation and the Badshot (Lime Dyke) Formation (Fyles and Eastwood, 1962) with the lithological changes being attributed to a variance in the argillaceous content of the limestone. The Badshot Formation lies at the base of the Index Formation and conformably overlies the Mohican Formation of the Hamill Group. It consists of a light gray, thick bedded to massive, finely crystalline limestone. At its contacts, thin lenses of cream to white marble occur which contain in places irregular segregations of argillaceous material. Correlation of this formation with the Reeves Member of the mine belt in the Salmo lead-zinc district has been postulated by Fyles (1964)(table 4). Thickness of this unit is variable from 300 to 350 meters.

Thin inlyers of limestone occur within the Index Formation forming long, continuous bands representing the crests of a series of anticlinal structures known as the silver chief and lade peak anticlines (Fyles and Eastwood, 1962).

TABLE 4: Lithological Correlations - Ferguson Area (Denny Claims) and Salmo Area

FERGUSON AREA (DENNY CLAIMS)		SALMO AREA		
Name	Lithology	Name	Mine Belt	Sheep Creek Anticline
Index Formation	-green-gray phyllite -dark gray argillite -chloritic schist	Emerald Member	-black phyllite -gray calcareous argillite	-brown weathering gray siliceous argillite
Badshot	-fine grained gray limestone	Reeves Member	-gray and white crystalline limestone -local dolomite	-gray, fine grained limestone
Mohican	-dark gray and green phyllite -local dark gray limestone  -gray to buff weathering white limestone	Truman Member	-gray-brown mica schist, phyllite and argillite  -buff, weathering white argillaceous limestone	-gray-green and brown phyllite with carbonaceous lenses  -lenses of impure white limestone
Marsh-Adams	-brown argillaceous quartzite -gray locally calcareous quartzite and grit  -thin bedded gray to brownish micaceous quartzite  -interbedded white and gray or brown micaceous quartzite	Reno Member	-blocky gray quartzite -lenses of calcareous quartzite and micaceous quartzite  -gray-brown to gray micaceous quartzite  -brown micaceous quartzite with grayish white interbeds -local greenish phyllite and white micaceous limestone	-blocky gray quartzite -coarse quartz grains in calcareous cement in upper part  -gray micaceous quartzite -dark gray-black phyllite  -thin bedded grayish white quartzite -gray-brown micaceous quartzite -greenish gray phyllite

#### 7.2.1.2.1 Limestone

This unit is expressed at both the Horne and Ellsmere localities as a white to gray limestone depending on the concentration of carbonaceous material present. At its contacts it appears to be slightly dolomitized. Overall, the unit appears to grade from a clean lime at its contact with the chlorite schist / oxidized zone to an argillaceous limestone to a limy slate. At the limestone / oxidized zone contact, the limestone is transected by small carbonate stringers similar to those located in the oxidized material (section 7.2.1.1.3).

#### 7.2.2 Hamill Group

The Hamill Group is represented on the property by the Mohican and Marsh-Adams Formations, a series of quartzites, phyllites and limestones, and is named for a lower tributary of the Duncan River (Walker and Bancroft, 1929). The group is contained by the overlying Badshot Formation and underlain by the coarse clastics of the Horse Thief Creek Group. The only exposures of this group found on the property outcrop in the northeast corner of the Black Warrior # 1 claims.

##### 7.2.2.1 Mohican Formation

The Mohican Formation consists of phyllite and limestone and conformably underlies the Badshot Formation. A finely crystalline, white to light gray limestone member lies at the base of the formation and rarely exceeds 15 m in thickness. This is conformably overlain by gray and green phyllite, black argillite and gray to black argillaceous limestone.

#### 7.2.2.2 Marsh-Adams Formation

Only the upper portion of the Marsh-Adams Formation is exposed on the property and it consists of thin bedded gray and greenish brown quartzite with minor gray phyllite (Fyles and Eastwood, 1962). The phyllite is locally calcareous.

### 7.3 Structure

As previously stated, the general strike of the units on the property is northwest - southeast (azimuth between  $100^{\circ}$  to  $135^{\circ}$ ) with a near vertical dip. The only noted exception was at the Horne locality where dips at certain locations are extremely variable owing to a localized fold structure (plate 1,2 & 3).

Regionally the structural disturbance of the area in question is intense, involving at least two phases of deformation resulting in the superimposition of two phases of isoclinal folding in the same plane. The parallelism of the axial planes for both phases would indicate a single protracted period of deformation is responsible for both. This deformation is likely related to the emplacement of the Kuskanax and Battle Range / Bugaboo batholiths to the southwest and north/northeast respectively. These granite bodies were emplaced sequentially during the Laramide compression of the structural province known as the Kootenay Arc (section 7.1) with the Kuskanax preceding the Battle Range / Bugaboo intrusion from late Jurassic to Cretaceous respectively (Read, 1977).

The initial deformation, or phase I folding, resulted in an isoclinal repetition of units along a horizontally plunging fold axis along a northwest - southeast axial plane. This caused a parallel sequence of antiformal and synformal structures throughout the region (ie the Silvercup, Silver Chief and Lade Peak anticlines) and is responsible for the vertical dip of the units. The second



PLATE # 1: HORNE LOCALITY: Canadian Girl: Looking Southeast



PLATE # 2: HORNE LOCALITY: Morgan: Looking Southeast



PLATE # 3: HORNE LOCALITY: Centre Star: Looking Southeast



PLATE # 4: HORNE LOCALITY: Sample Location H 0921-2



phase, or phase II folding, resulted in isoclinal folding in the same axial plane, however, with a vertically plunging fold axis. This caused an apparent fold thickening of some units and some shearing along formational contacts (ie the Badshot / Index Formational contact) (Fyles, 1962).

Locally, the structure observed on the Denny Claims is represented by a local thickening of the chloritic schist and a series of tight anticlines, an extension of the Lade Peak and Silver Chief anticlines to the southeast, as described by Fyles and Eastwood (1962).

At the Horne locality an anticlinal structure is evidenced by an apparent repetition of units (figure 3) and by observation at certain locations (plates 1,2,3 & 4). At sample location H 0921-1 (plate 4) a measure of the axial plane was made at  $145^{\circ} 55$  degrees northeast and a second measurement at location H 0921-5 was  $117^{\circ} 55$  degrees northeast (plate 3). At both locations the fold axis was found to plunge at approximately 5 degrees southeast. It would appear that the oxidized zone occurs at or very close to the crest of this structure.

At the Ellsmere locality the only evident structural deformation is a contact shearing and local kinking along the contact of the limestone and chlorite schist.(figure 4). The shearing is evidenced by the brecciation of the host limestone in the sulphide mineralization and the apparent disruption of the sulphide banding, at its contact with the limestone. Local "mimicing" of the contact structure by the sulphide mineralization is common (EL 0922-2).

#### 7.4 Mineralization

Mineralization on the property is predominantly massive lead-silver-zinc with trace amounts of copper and gold. The character of

this mineralization is variable according to locality. However, a similar source is suspected and is discussed in section 9.

At both the Horne and Ellsmere localities the mineralization occurs at a chlorite - sericite schist limestone contact and appears to be hosted entirely within the limestone. Previous authors however, (MMR, 1913) report some crushed mineralization within the chlorite schist at the Ellsmere locality. This could be due to incorporation during post depositional shearing along the contact.

At the Horne locality, the character of the mineralization is almost impossible to discern owing to the heavy oxidation and extensive leaching of the mineralized zone. Only at certain localities (ie sample H 0921-1 and H 0921-6, figure 3, table 5) were samples taken that contained any visible mineralization. These samples were taken at existing workings where they were able to intersect the mineralization below the oxidized capping. Even these samples appear slightly oxidized. All assay values appear in table 5.

Where observed, the mineralization appeared as massive galena with sphalerite and minor pyrite, pyrrhotite and trace amounts of chalcopyrite. Most textural characteristics of the mineralization are totally masked by the oxidation. However, some general characteristics were noted. The mineralization occurs as predominantly fine to medium grained segregations of galena and sphalerite, idiomorphic to allitrimorphic in character with minor segregations of pyrite and pyrrhotite and trace blebs of chalcopyrite. No apparent zonation of the various minerals was noted. Samples of the oxidized material revealed anomalous values for Pb, Zn and Ag, thus indicating the possibility of developed mineralization below the oxidized zone. All samples were slightly reactive with hydrochloric acid (HCl).

At the Ellsmere locality, the mineralization appears as massive fine grained galena, sphalerite and pyrite locally displaying crude

TABLE 5: Assay Results - Horne Ledge

<u>Sample No</u>	<u>Sample location / description</u>	<u>Assay Results</u>				
		<u>Pb(%)</u>	<u>Zn(%)</u>	<u>Ag(oz/ton)</u>	<u>Au(oz/ton)</u>	<u>Cu(%)</u>
MA 0920-2	-grab sample, oxidized material, ridge below Canadian Girl	0.18	0.22	0.17	0.019	-
H 0920-6	-grab sample, open cut, oxidized zone, Dave Morgan Creek, 5+70W 0+73S	0.02	0.87	0.20	0.017	0.35
H 0920-7	-grab sample, open cut, oxidized zone, Dave Morgan Creek, 6+05W 0+34S	0.40	0.15	0.09	0.003	-
H 0921-1	-grab sample, open cut, visible Pb mineralization, slightly oxidized Morgan claim, 1240W 0+75S	10.8	0.05	2.26	0.002	-
H 0921-4	-grab sample, open cut, oxidized zone, Morgan claim, 1403W 0+00	1.12	0.07	0.17	0.001	-
H 0921-6	-grab sample, open cut, visible galena sphalerite, trace chalcopryrite mineralization, Centre Star, 2193W 50+00S	10.4	8.86	5.02	0.007	-
<u>Selco Samples</u>						
18759	Centre Star section	80.5	0.49	57.88	0.008	-
18760	Dave Morgan Creek, oxidized zone	1.80	0.01	0.58	0.003	-
18766	chip sample, Canadian Girl, approx. 16 m wide at schist limestone contact, oxidized zone	0.10	0.09	0.04	0.006	-
18767	grab sample, Dave Morgan Creek, oxidized zone, 2 m wide	32.30	0.02	3.56	0.003	-
18768	chip sample, 3 m zone, oxidized material, Morgan Claim	2.87	1.59	1.68	0.003	-

banding / zonation (locality EL 0922-3 & 4, plate 5). The mineralization is exposed in several open cuts and workings along the limestone / chlorite schist contact (figure 4) and where observed, appears to be entirely restricted to the limestone.

Although the mineralization appears continuous along the strike, some small podiform bodies were noted to the northwest of the upper workings and in some instances brecciated limestone / dolomite was observed surrounded by a massive sulphide matrix.

The mineralization appears to be concordant with and mimicks all deformation characteristics of the limestone (re 325W, 0+15S).

A sample taken from the St. Louis workings (SL 0921-1) approximately 1.25 km southeast of the Ellsmere locality, displays a similar style of mineralization along the same schist / limestone contact. Trace amounts of sphalerite and galena were located at the head of Marsh-Adams Creek, 3.5 km southeast of the Ellsmere locality, along the same contact (sample MA 0920-1A). This contact, for the most part, is covered by overburden except where exposed by existing workings. All assay values appear in table 6.

As the Black Warrior locality was not examined, no mention of mineralization is made here. However, some assay values are presented in table 7.

### 7.5 Discussion

The rocks on the Denny Claims represent a transgressive marine sequence with a minor volcanic interbed. These units appear relatively unmetamorphosised, however, the metamorphic grade is slightly higher at the Horne locality as evidenced by the partial recrystallization of the mineralization; the presence of pyrrhotite and iron (Fe) rich sphalerite (H 0921-6) and the slight calcification of the oxidized zone. A possible explanation for the increased metamorphism may be

PLATE # 5: ELLSMERE LOCALITY: Sample Location EL 0922-3 & 4



TABLE 6: Assay Results - Ellsmere Locality

<u>Sample</u>	<u>Sample Location / Description</u>	<u>Assay Results</u>			
		<u>Pb(%)</u>	<u>Zn(%)</u>	<u>Ag(oz/ton)</u>	<u>Au(oz/ton)</u>
SL 0921-1	St Louis workings 1.25 km S.E. of Ellsmere claim, grab sample mineralization	18.2	0.14	0.87	-
EL 0922-1	North cut, Ellsmere Claim, small part of massive sulphide mineralization, 380W 0+59N	40.4	8.56	1.31	0.006
EL 0922-3	Open cut, Ellsmere Claim, grab sample, 5 m width, massive sulphide mineralization	4.24	10.6	0.32	0.032
EL 0922-5	Upper tunnel, grab sample, sulphide mineralization, 2+35W 0+10N	15.1	3.28	0.41	0.001
EL 0922-7	Lower tunnel, grab sample, sulphide mineralization, dump material 0+90W 0+20S	0.05	11.7	0.06	0.001
<u>Selco Samples</u>					
18763	Ellsmere Claim, dump sample, lower tunnel	24.50	13.50	3.26	0.008
18764	Ellsmere Claim, grab sample, limestone, foot wall southwest sulphides	23.80	2.77	1.18	0.003
18765	Ellsmere Claim, dolomitized limestone host to sulphides, quartz veined limestone to northeast of zone, 5 m width	7.82	11.50	0.45	0.006



TABLE 7: Assay Results - Black Warrior Locality

<u>Sample No</u>	<u>Sample Location / Description</u>	<u>Assay Results</u>			
		<u>Pb(%)</u>	<u>Zn(%)</u>	<u>Ag(oz/ton)</u>	<u>Au(oz/ton)</u>
18761	Black Warrior Claim, flat lying veins	77.0	1.32	141.22	0.070
18762	Black Warrior Claim, main showing	61.6	0.12	83.40	0.098

the location of the mineralization at the crest of a local anticline.

It would also appear that the limestone and possibly the mineralization located at the Ellsmere and Horne localities may be fold repetitions of one another and that it is related to the Badshot Formation.

Fyles (1964) has proposed a correlation of units in the Ferguson area (table 4) with those in the Salmo area. If this is true, it may be possible to draw a parallel between the mineralization in both areas.

It would also appear that the mineralization is restricted to the contact between the chlorite schist and limestone contact and that it extends over considerable strike lengths.

## 8. GEOCHEMISTRY

Limited soil sampling was completed over crosslines on the Horne locality at line 700W and line 1300 west and 14 samples analysed for Cu, Pb, Zn and Ag by atomic absorption. The samples were sieved to -80 mesh and the metals extracted by a hot HCl -  $H_2NO_3$  solution.

Results from the sampling are not encouraging. Reasons for this can only be speculated, however, they are likely due to the poor soil development following glaciation and/or an impermeable clay layer at the C horizon which would effectively contain a secondary geochemical halo.

It would seem that further preliminary studies, such as test pitting and profile sampling, should be completed prior to any extensive soil geochemical sampling.

Results are presented as figure 5.

## 9. GENETIC DISCUSSION

The Kootenay Arc has long been recognized as a metallogenic province for stratabound lead-zinc-silver deposits and has actually been used by some authors (Fyles, 1966; Hoy, 1982) as a separate classification for such deposits. The best recognized and documented portion of this province is the Salmo Lead-Zinc area as described by Fyles and Hewlett (1959). This area includes the Reeves-MacDonald, Jersey and H.B. deposits. Also included in the classification are the Bluebell, Duncan, Wigwam and Mastodon deposits / prospects (table 8). All of these deposits / prospects occur in transgressive platformal carbonate rocks of Lower Cambrian age.

From section 7.5, it would seem that there is a definite lithological correlation between the Reeves Member of the mine belt and the Badshot Formation. Further, it would seem that the Lade Peak limestone is a fold repetition of the Badshot Formation. Because of these relationships, it would appear that the overall depositional environment of the units exposed on the Denny Claims and those found in the mine belt of the Salmo district was the same and that subsequently the mineralization in both areas may be similarly related. Table 9 outlines the similarities and differences between the two areas.

It appears that the general character of the mineralization found in the two areas is similar, however, there is a major discrepancy in the Pb:Zn ratio and Ag content. From table 9 it can be seen that, for the Kootenay Arc deposits, the average Pb:Zn ratio is from 0.82 to 0.19 and the average Ag content is 0.39 oz/ton. From the assays performed on the samples taken from the Denny Claims, the Pb:Zn ratio is 2.6 and the average Ag content is 2.26 oz/ton.

It would seem that a paradox exists where the mineralization depositional environment and age are closely related to that of the Kootenay Arc deposits but the metal ratio (Pb:Zn) and Ag content

TABLE 8: SUMMARY KOOTENAY ARC DEPOSITS

Name	Status	Past Production* (Reserves)	Type	Host
Bluebell	past producer	4.82; 5.2% Pb, 6.3% Zn 1.39 oz/ton Ag	vein, replacement	Badshot Formation
Duncan	prospect	2.76; 3.3% Pb, 3.1% Zn	stratiform	Badshot Formation
H.B.	past producer	6.45; 0.77% Pb, 4.1% Zn 0.15 oz/ton Ag	well banded, layer parallel lenses	Reeves Formation
Jersey	past producer	7.68; 1.65% Pb, 3.49% Zn 0.10 oz/ton Ag	well banded, layer parallel lenses	Reeves Formation
Reeves- MacDonald	past producer	5.8; 0.98% Pb, 3.42% Zn 0.10 oz/ton Ag	well banded, layer parallel lenses	Reeves Formation
Wigwam	prospect		strata bound lenses	Badshot Formation
Mastodon	past producer	0.029; 0.28% Pb, 9.25% 0.20 oz/ton Ag Zn	lenses, disseminated	Limestone

\* (in millions of tonnes)  
(after Hoy, 1982)

TABLE 9: Mineralization Comparison - Denny Claims / Salmo Area

Type	DENNY CLAIMS		SALMO AREA
	Ellsmere	Horne	
Host	Lade Peak Formation (limestone)	Lade Peak Formation (limestone, locally dolomite)	Reeves Member (dolomite, locally limestone)
Mineralization	galena, sphalerite, pyrite  -fine grained -some banding  -not skarnified -no oxidation -high lead to zinc ?	galena sphalerite, pyrite, pyrrhotite  -fine to medium grained -crude banding, segrega- tions -locally skarnified -deeply oxidized -high lead to zinc ?	galena, sphalerite, pyrite, pyrrhotite  -fine to medium grained -segregations, crude banding  -locally skarnified -deeply oxidized -high zinc to lead -replacement
Deposition	-located at vertically dipping contact	-located at crest of anticline	-emplacement controlled by localized folding
Geometry	-continuous minerali- zation along strike, some small podiform bodies, undetermined widths	-continuous oxidized zone along strike, undeter- mined widths	-continuous mineralization along strike -irregular in outline

more approximates those of the Purcell Supergroup, (ie higher Pb:Zn, higher Ag content), for example the Sullivan deposit (Pb:Zn 1.92 and Ag 1.92 oz/ton; Hoy, 1982).

Carne (et. al., 1982) suggests an environment for the deposits located in the Selwyn Basin of northern British Columbia and the Yukon Territories in which metalliferous brines are introduced into a basinal environment from deep seated faults. He has classified these deposits as sedimentary exhalative of sedex type and suggests a similar environment for the Sullivan deposit.

Hoy (1982) suggests a similar mechanism of emplacement for the lead-zinc deposits of southeastern B.C. stating "discharge of metalliferous brines onto the sea floor led to the formation of stratiform sulphide accumulation in both clastic and carbonate rocks" (Hoy, 1982, p.114).

It is suggested that perhaps a combination of replacement and sedex deposition is responsible for the deposits found within the Kootenay Arc and more locally on the Denny Claims.

In the Salmo district, Hoy (1982) has suggested that sulphide mineralization could be syngenetic with sedimentation but also accumulating in collapsed breccia zones and cavities in the carbonate horizons.

This may also be true for the mineralization on the Denny Claims, the mineralization being syngenetic with the sedimentation, possibly being classified as sedex at the Ellsmere locality. A secondary replacement and co-incident sedimentation by the mineralization at the Horne locality and subsequent remobilization (concentration) at the crest of a local anticline is suggested. This would explain the direct similarities between the Salmo district mineralization and that found on the Denny Claims, as well as local discrepancies between the Ellsmere and Horne localities.

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36

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Bulletin 60, B.C.D.M.

Walker, J.F. and Bancroft, M.F. (1929): Lardeau Map - area British  
Columbia, General Geology, Geol. survey, Canada, MEM 161, pp. 1-16

11. STATEMENT OF QUALIFICATIONS

I, Gordon W. Turner, of 838 - 17th Avenue N.W., Calgary, Alberta, state that:

1. I received an Honors B.Sc. degree in Geology from Lakehead University, Thunder Bay, Ontario, on May 2, 1978.
2. I am a registered geologist in the province of Alberta.
3. That I have practised my profession since graduation.
4. That I have no interest in the property described herein, nor do I expect to receive any future interests.

Respectfully submitted,



Gordon W. Turner, P. Geol.

APPENDIX I

ASSAY RESULTS

SOIL SAMPLE ANALYSIS



# KAMLOOPS RESEARCH & ASSAY LABORATORY LTD.

912 - 1 LAVAL CRESCENT — KAMLOOPS, B.C.

V2C 5P5

PHONE: (604) 372-2784 — TELEX: 048-8320

## CERTIFICATE OF ASSAY

**B.C. LICENSED ASSAYERS  
GEOCHEMICAL ANALYSTS  
METALLURGISTS**

TO Inverhuron Mining & Petroleum  
1124 Stanley St.,  
Nelson, B.C. V1L 1P5

Certificate No. K 5944

Date October 5, 1983

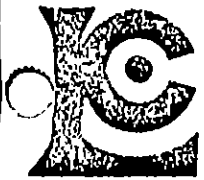
**I hereby certify** that the following are the results of assays made by us upon the herein described \_\_\_\_\_ samples

Kral No	Marked	Au	Ag	Pb	Zn	Cu				
		ozs/ton	ozs/ton	percent	percent	percent				
1	5051 MA-0920-2	.019	.17	.18	.22	-				
2	5052 H-0920-6	.017	.20	.02	.87	.35				
3	5053 H-0920-7	.003	.09	.40	.15	-				
4	5054 SL-0921-1	-	.87	18.2	.14	-				
5	5055 H-0921-1	.002	2.62	10.8	.05	-				
6	5056 H-0921-4	L.001	.17	1.12	.07	-				
7	5057 H-0921-6	.007	5.02	10.4	8.86	-				
8	5058 EL-0922-1	.006	1.31	40.4	8.56	-				
9	5059 EL-0922-3	.032	.32	4.24	10.6	-				
10	5060 EL-0922-5	L.001	.41	15.1	3.28	-				
11	5061 EL-0922-7	L.001	.06	.05	11.7	-				

L means "less than"

**NOTE:**  
Rejects retained three weeks  
Pulps retained three months  
unless otherwise arranged

\_\_\_\_\_  
Registered Assayer, Province of British Columbia



# CHEMEX LABS LTD.

212 BROOKSBANK AV  
NORTH VANCOUVER, B  
CANADA V7J 2  
TELEPHONE. (604) 984-02  
TELEX: 043-526

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ASSAY

TO : SELCO MINING CORPORATION LTD.,

STE. 402-535 THURLOW STREET  
VANCOUVER, B.C.  
V6E 3L2

AUG 30 1983

CERT. # : A8313878-00  
INVOICE # : I8313878  
DATE : 29-AUG-83  
P.O. # : NONE  
10137

CC: BRIAN GRANT CASTLEGAR

BLACK WARRIOR PROPERTY  
DUNCAN.

Sample description	Prep code	Pb %	Zn %	Sn %	Ag FA oz/T	Au FA oz/T	Bi %
18759	207	80.50	0.49	<0.01	57.88	0.008	0.003
18760	207	1.80	0.01	<0.01	0.58	<0.003	0.004
18761	207	77.00	1.32	<0.01	141.44	0.070	0.003
18762	207	61.60	0.12	<0.01	83.40	0.098	0.003
18763	207	24.50	13.50	<0.01	3.26	0.008	0.003

## CERTIFICATE OF ASSAY

TO : SELCO MINING CORPORATION LTD.,

STE. 402-535 THURLOW STREET  
VANCOUVER, B.C.  
V6E 3L2

Box 3488  
CASTLEGAR BC  
VIN 3W3

CERT. # : A8314924-00  
INVOICE # : I8314924  
DATE : 29-SEP-83  
P.O. # : NONE  
10137

CC: SELCO, CASTLEGAR

BLACK WARRIOR PROPERTY

Sample description	Prep code	Pb %	Zn %	Sn %	Ag FA g/tonne	Au FA g/tonne	
18764	207	23.80	2.77	<0.01	40.4 118	0.1	--
18765	207	7.82	11.50	<0.01	15.8 6.46	0.2	--
18766	207	0.10	0.09	<0.01	1.4 0.04	0.2	--
18767	207	32.30	0.02	<0.01	122.0 358	0.1	--
18768	207	2.87	1.59	<0.01	57.6 1.67	0.1	--

Registered Assayer, Province of British Columbia



To Inverhuron Mining & Petroleum Ltd.  
1124 Stanley St.,  
Nelson, B.C.  
V1L 1P5

Date: October 28, 1983

File No.: K 5944

**SEMI-QUANTITATIVE SPECTROGRAPHIC ANALYSIS CERTIFICATE**

Fe, Mg, Ca, Ti, Na, K, Si, Al and P reported in %: all other elements reported in ppm.

Element	Average for Earth's Crust	Lower Detection Limit	Sample # 5053	Sample # 5054	Element	Average for Earth's Crust	Lower Detection Limit	Sample # 5053	Sample # 5054
Au	.004	10	N	N	Zr	102	10	N	N
Ag	.08	.5	N	20	B	9	10	N	N
Cu	68	5	50	700	Ba	390	10	N	N
Pb	13	10	1500	G20000	Be	2	1	N	N
Zn	76	200	1500	1500	La	34.6	20	N	N
Mo	1.2	5	N	N	Nb	20	10	N	N
Fe	5.08%	0.05%	5.0	1.0	Sc	25	5	N	N
W	1.2	50	N	N	Sr	384	100	100	100
Ni	99	5	7	10	Y	31	10	N	N
Co	29	10	N	N	Ca	4.66%	0.05%	3.0	3.0
Cr	122	20	N	20	Mg	2.34%	0.02%	0.2	0.2
Cd	.16	20	N	N	Ti	6320	.001%	0.001	0.001
As	1.8	200	N	N	Na	2.1%	.02%	N	N
Sb	.2	100	N	N	K	1.8%	.5%	N	N
Mn	1060	10	5000	1000	Si	27.3%	1%	30.0	G 30.0
V	136	10	N	N	Al	8.36%	.5%	N	N
Bi	.0082	10	N	N	P	1120	.1%	N	N
Sn	2.1	10	N	N					

N — Not detected

G — Greater than value shown

L — Detected but below limit of determination

This certificate refers to analysis performed by Specomp Services.

Values expressed in these analyses may be considered accurate to within plus or minus 35 to 50% of the amount present.

Signed \_\_\_\_\_

APPENDIX II

STATEMENT OF COSTS

TABLE OF COSTS

Field Costs

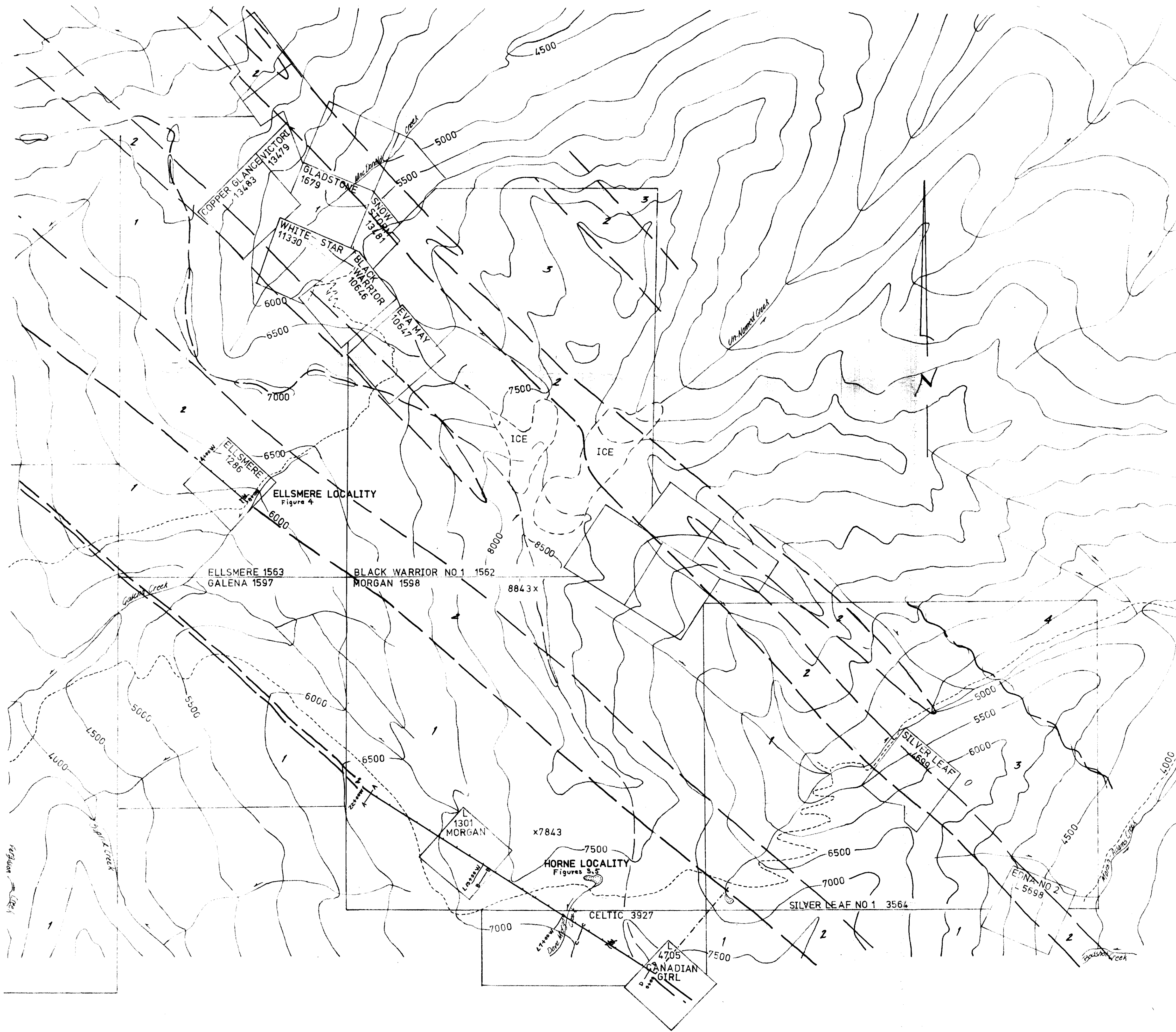
<u>Item</u>	<u>Units</u>	<u>Cost/Unit (\$)</u>	<u>Total (\$)</u>
Geologist	4 days	300.00/day	1200.00
Assistant	4 days	150.00/day	600.00
Prospector	4 days	150.00/day	600.00
Prospector	4 days	150.00/day	600.00
Board	16 days (acc)	30.00/day	480.00
Helicopter	2.6 hrs	475.00/hr (+ fuel)	1271.06
Chain saw	4 days	18.00/day	72.00
Vehicle (4X4)	4 days	40.00/day	160.00

Report Preparation

Research	5 days	300.00/day	1500.00
Map Prep.	5 days	300.00/day	1500.00
Written Text	10 days	300.00/day	3000.00
Analysis: Assay	11 smps	Variable	294.50
Spec	3 smps	30.00/smp	90.00
Soil	14 smps	5.30/smp	74.20
Map Repro.	5 maps	-	60.17
	5 maps	-	42.01
Typing	13 hrs	10.00/hr	130.00
Report Repro.	6 copies	20.00/copy	<u>120.00</u>

Total      11793.94





- LEGEND**
- LARSEN Group**
1. Inverse Formation
    - a) Chlorite Schist
      - dark to light green
      - lustrous in part
      - intensively sheared
      - contains quartz segregations
    - b) Serpentine Schist
      - bleached equivalent of 1a
      - contains limonitized barrow
    - c) Oxidized zone
      - 1) - leached
        - contains galena-siderite
        - pyrite-sulphuric mineralization
        - silicified in part
      - 2) - massive galena-siderite
        - pyrite mineralization
        - fine grained
        - sparsely leached
  2. Basalt (Late Tertiary) Formation
    - a) Limestone
      - white to grey
      - schistose in part
      - variable carbonaceous content
- HAMIL Group**
3. Melnikov Formation
    - phyllite, impure
    - dark greyish
    - crystalline limestone
  4. Makasik Adams Formation
    - grey to greenish brown quartzite
    - thin grey phyllite

- Geological contact known, assumed
- Trench
- Aulic, caved
- Widge
- Synclinal, anticlinal axis
- SL 0921-1 --- Sample location
- Base line, traverse line
- Limit of overburden
- Trail
- Ridge

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

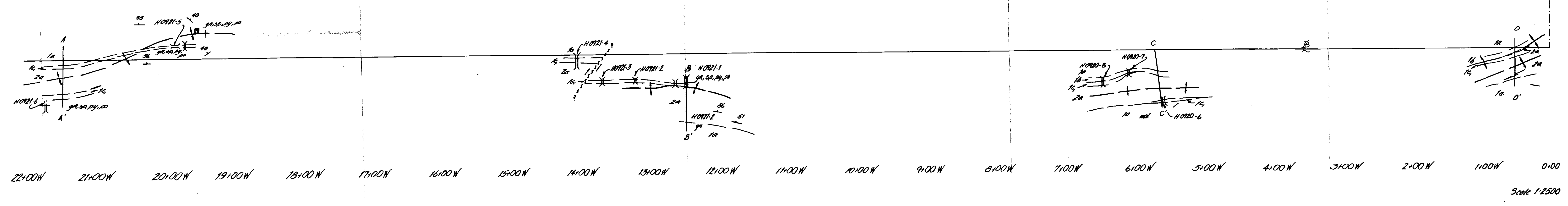
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**INVERHURON MINING AND PETROLEUM  
RESOURCES LIMITED**

**DENNY CLAIMS  
GENERAL GEOLOGY &  
CLAIM LOCATION**

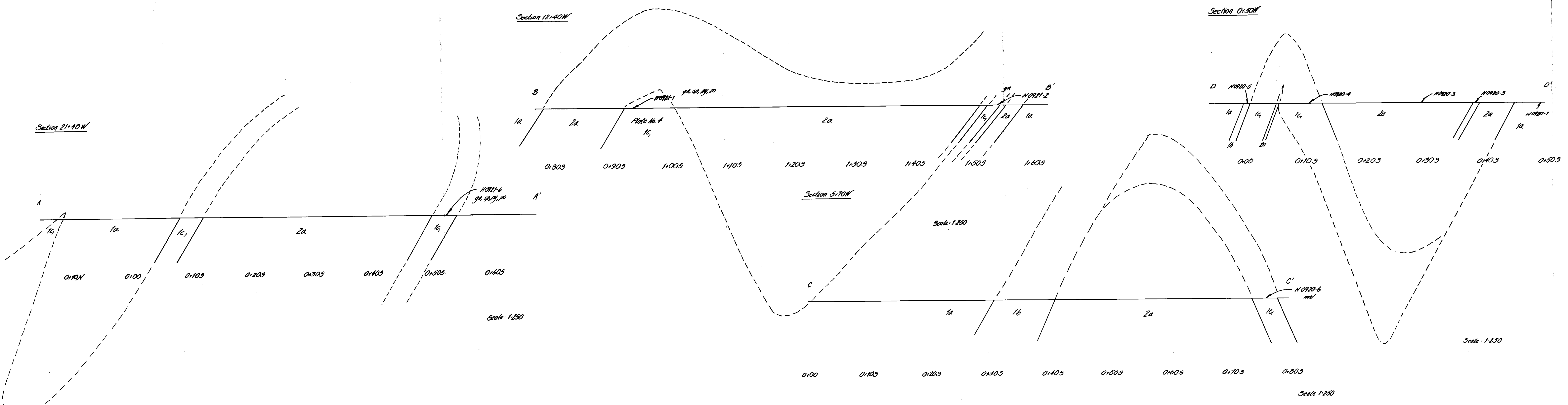
Author: G.W. TURNER Date: 83-11-15  
Scale: 1:12,500 Figure: 2

G.W. Turner, P. Eng.



- LEGEND**
- LARDER GROUP**
- INDEX FORMATION
    - Chertic Schist
      - dirty to light green
      - micaceous in part
      - abundant shales
      - contains quartz segregations
    - Schistic Schist
      - bluish grey to grey
      - contains mineralized network
  - Overthrust Zone
    - 1) - leached
      - contains garnet, schistose
      - garnet, schistose, micaceous
      - schistose in part
    - 2) - massive garnet, schistose
      - fine grained
      - locally banded
- 2. BRUSHY (LAKE PENA) FORMATION**
- Limestone
    - white to grey
    - schistose in part
    - variable carbonaceous content
- HAMIL GROUP**
- Melchior Formation
    - phyllite, limestone
    - dark argillite
    - crystalline limestone
  - Melchior-Ananas Formation
    - grey to greenish brown quartzite
    - minor grey phyllite

- Geological contact drawn, assumed
- Trench
- Adit, caved
- Winze
- Synclinal, antichinal axis
- Sample location
- Base line, traverse line
- Limit of overburden
- Trail
- Ridge



INVERHURON MINING AND PETROLEUM RESOURCES LIMITED

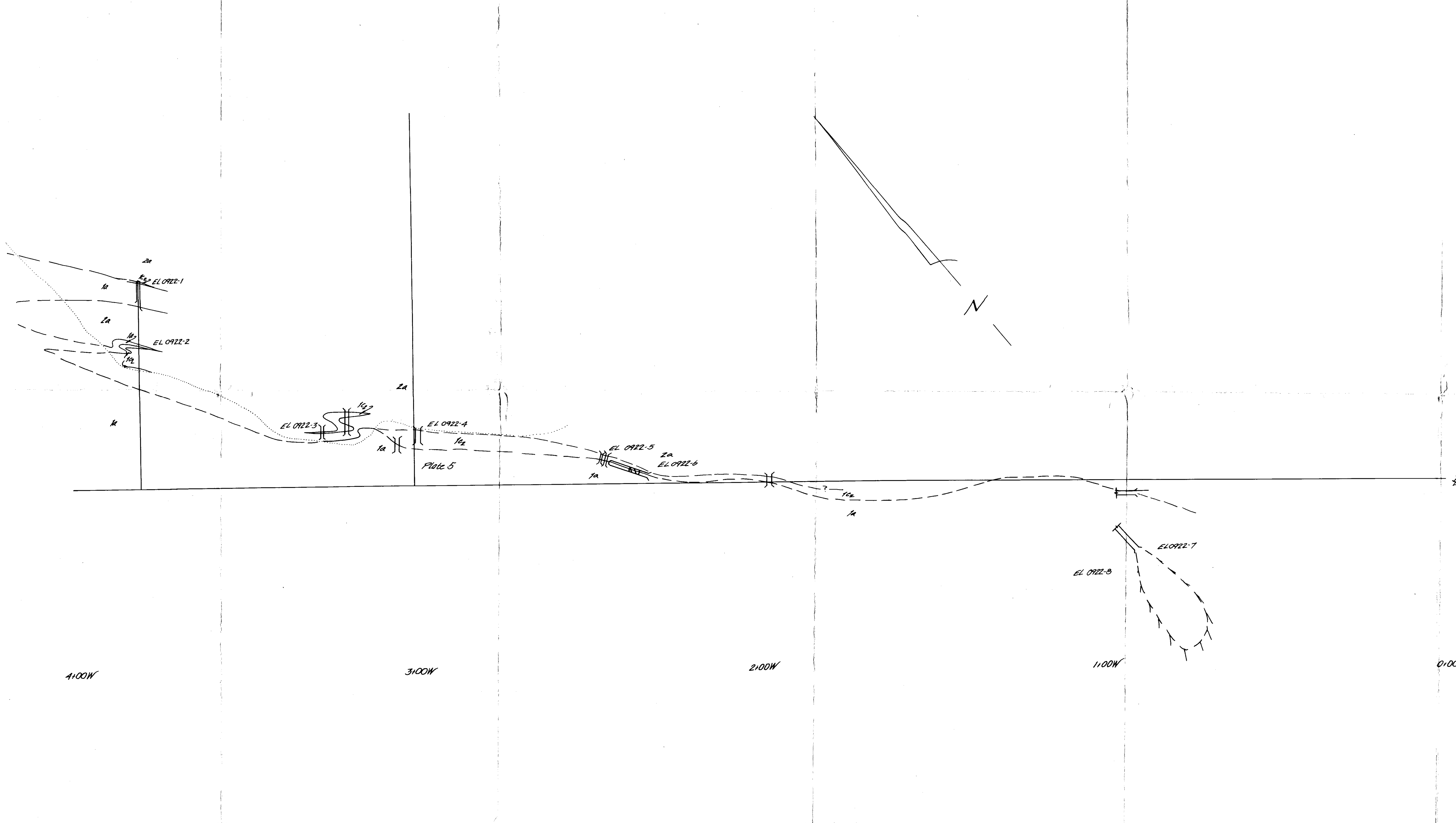
DENNY CLAIMS  
LOCAL GEOLOGY:  
HORNE LOCALITY

Author: G.W. Turner    Date: 83-11-15  
Scale: 1:2500    Figure: 3

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**11,979**

G.W. Turner, P. Beck



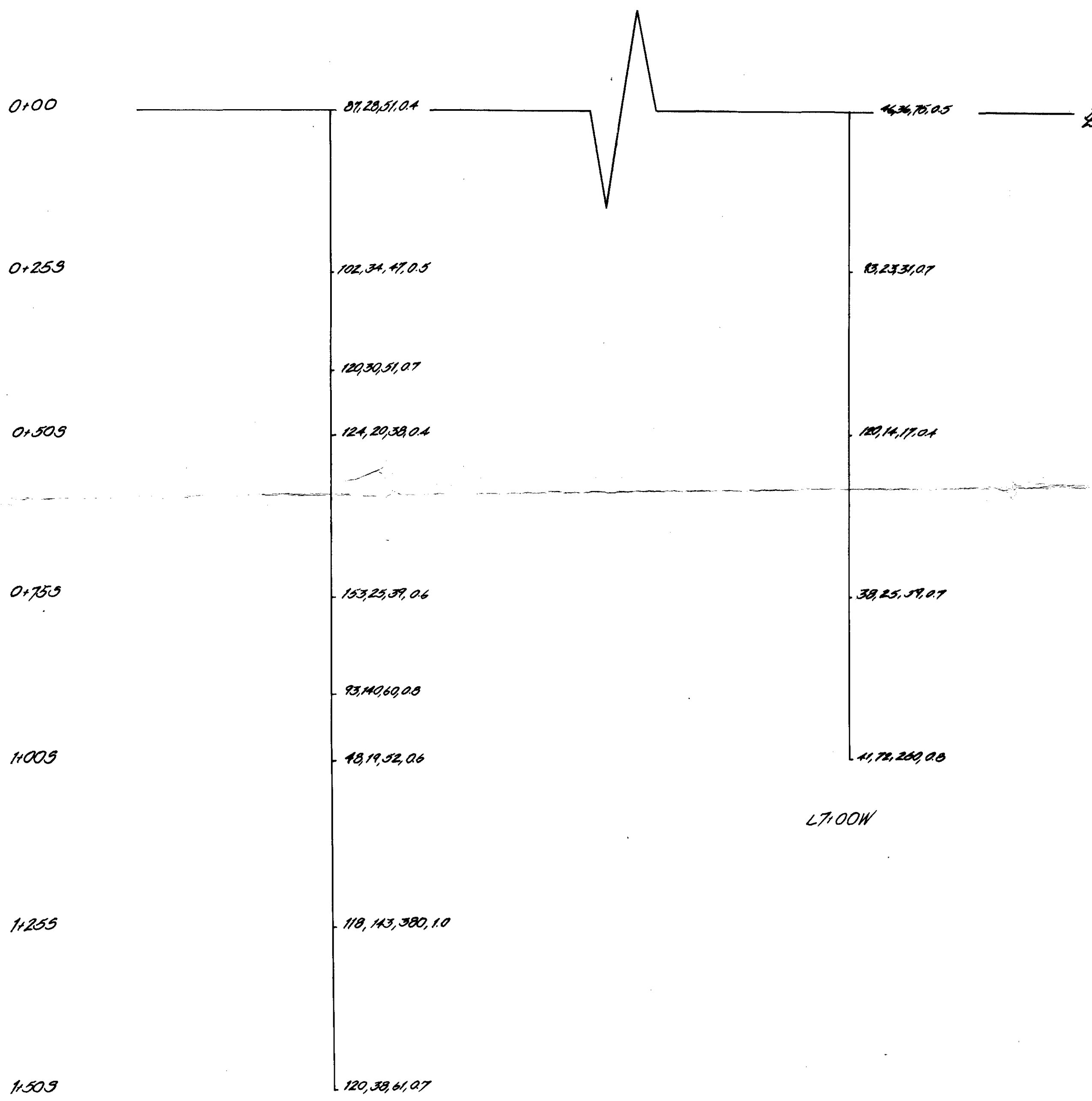
- LEGEND**
- LARDENI Group**
1. INDEX FORMATION
- a) Chloritic Schist
    - dark to light green
    - to fibrous in part
    - intensively altered
    - contains quartz segregations
  - b) Serpentine Schist
    - contains segregations of 1a
    - contains laminated bedrock
  - c) Chert zone
    - 1) Lenses
      - contains quartz, sericite, pyrite, chlorite, mineralization
      - laminated in part
    - 2) massive quartz sericite - pyrite mineralization
    - fine grained
    - crudely banded
2. BUSHIER (LAKE PEAK) FORMATION
- a) Limestone
    - white to grey
    - schistose in part
    - variable carbonaceous content
- HAMIL Group**
3. MURCHISON FORMATION
- phyllite, limestone
  - chert, argillite
  - argillaceous limestone
4. MARSH-ABNATIS FORMATION
- grey to greenish brown quartzite
  - inter grey phyllite

- Geographical context shown, assumed
  - Trench
  - Asht, road
  - Wings
  - Synclinal, anticlinal axis
  - EL 0922-4 Sample Location
  - Base line, traverse line
  - Limit of overburden
  - Trail
- GEOLOGICAL BRANCH ASSESSMENT REPORT**

11,979

<b>INVERMURON MINING AND PETROLEUM RESOURCES LIMITED</b>	
<b>DENNY CLAIMS LOCAL GEOLOGY ELLSMERE LOCALITY</b>	
Author: G.W. Turner	Date: 83-11-15
Scale: 1:500	Figure: 4

G.W. Turner, P.Eng.



LEGEND

- Soil Sample Tie Line
- Sample Station
- 120, 14, 17, 0.4 Analysis Results Cu, Pb, Zn, Ag in ppm

GEOLOGICAL BRANCH  
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INVERHURON MINING AND PETROLEUM RESOURCES LIMITED	
DENNY CLAIMS SOIL SAMPLE RESULTS: HORNE LOCALITY	
Author: G.W. Turner	Date: 83 11 23
Scale: 1:500	Figure: 5

*G.W. Turner*