

COMINCO LTD.

EXPLORATION

NTS: 82 K 15, 16  
82 N 2

WESTERN DISTRICT  
**GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**

**13,290**

ASSESSMENT REPORT

GEOCHEMISTRY, GEOLOGY, TRENCHING, CHANNEL SAMPLING

MITTEN AND LUCK PROPERTIES

GOLDEN MINING DIVISION

LATITUDE: 50°54' TO 51°01'; LONGITUDE: 116°24' TO 116°37'

MITTEN AND MIT CLAIMS  
100% OWNED BY  
COMINCO LTD.  
2300-200 GRANVILLE STREET  
VANCOUVER, B.C. V6C 2R2

LUCK CLAIMS OWNED BY  
P. KLAUI  
R.R. #2  
GALLIANO ISLAND, B.C. VON 1P0

OPERATOR: COMINCO LTD.

FEBRUARY 1985

D. RHODES

84-1368-13290



Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S) Geological & Geochemical TOTAL COST \$ 40,613.95

AUTHOR(S) D. Rhodes SIGNATURE(S) [Signature]

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED Nov. 30/84 YEAR OF WORK 1984

PROPERTY NAME(S) Lead Mountain

COMMODITIES PRESENT Pb, Zn, Ag

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION Golden NTS 82 K 115

LATITUDE 50° 59' LONGITUDE 116° 34'

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

Mitten, Mit 1-20, Luck 1-12 (287 units)

OWNER(S) (1) Cominco Ltd. (2) Peter Klaui

MAILING ADDRESS 700-409 Granville St. Vancouver RR 2 Galliano Is, B.C.

OPERATOR(S) (that is, Company paying for the work) (1) Cominco Ltd. (2)

MAILING ADDRESS Same

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude): Property is underlain by upper Proterozoic (Hadrynian) to Silurian carbonate, sandstone and shale units... Mineralization on the southern claims consists of pockets & pods of barite with minor galena, chalcocite, & chalcopyrite in Middle Cambrian Jubilee Fm dolomites. Mineralization on the northern claims consists of barite/chalcopyrite/sphalerite, salena developed in carbonates of the Jubilee Fm. The most significant mineralization occurs on Lead Mt. where a number of sub economic zones of mineralization are encountered in 3 adits & surface trenching.

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area) Ground		① Luck 1-12, Mit 1, 3-11, 14-20, Mitten ↳ 253 units @ 29.94	7603.88
GEOPHYSICAL (line-kilometres) Ground Magnetic Electromagnetic Induced Polarization Radiometric Seismic Other Airborne		② Mitten (9 units)	12,046.36
GEOCHEMICAL (number of samples analysed for ....) Soil Silt Rock Other		Luck 1-4, 6-12, Mitten, Mit 1, 3-10, Mit 14-20 - 40 samples @ \$10.41 / 1 sample @ 9.53 - 1005 samples @ \$9.51 / 1 sample @ 8.53	4277.63 9566.08
DRILLING (total metres; number of holes, size) Core Non-core			
RELATED TECHNICAL Sampling/assaying Petrographic Mineralogic Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL Legal surveys (scale, area) Topographic (scale, area) Photogrammetric (scale, area) Line/grid (kilometres) Road, local access (kilometres) Trench (metres) Underground (metres)		Mit 5, 6, 9, 10, 14 7600 metres @ .9368 m.	7120.00
<b>TOTAL COST</b>			<b>40,613.95</b>

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report)				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted . . . . . Date	Rept. No. . . . .			Information Class . . . . .

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PLATES (Within pouches at back of report)

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- PLATE 2- " " " " " " " "
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06 February 1985

ASSESSMENT REPORTLEAD MOUNTAINI. INTRODUCTIONA. Location

The Mitten, Mit 1 to 20 and Luck 1 to 12 claims comprise a contiguous group of claims approximately 16 km long and 5 km wide. This north westerly trending group of claims is situated over and about the steep sided but round topped Jubilee and Lead Mountains. These "mountains" stand out 700 to 500 metres respectively, above the flat to gently undulating terrain of the Rocky Mountain Trench and Columbia River valley just north of Spillimacheen (Figure 1) (about 40 km north of Radium Hot Springs).

Access to the various claims is by gravel road departing west from the two lane, paved, Highway 95 at Spillimacheen. This gravel road connects with two roads that respectively: i) flank the west side of Jubilee Mt. passing the old Silver Giant mine and extending north to Lead Mt., ii) climb up the east side of Jubilee Mt. to the fire tower at the mountain's peak (Plates 1,2,3). Within this report these two roads are hereafter referred to as the Silver Giant and Fire Tower Roads, respectively. The Silver Giant road is navigable by two wheel drive vehicle as far as Lead Mt., while the Fire Tower Road is best navigated by 4X4 vehicle.

Each of these two roads extends northward to connect with a relatively recent (post 1976) network of lumber (Crestbrook Forest Product Ltd) roads that lead to Highway 95 at Parsons. The Silver Giant Road connects with this network from Lead Mt. by a north trending, 1 km long, 4X4 bush road. The Fire Tower Road connects to this road network by 8.5 km of road navigable only by 4X4 vehicles. This northward extension of the Fire Tower Road was established in 1984, by a cat clearing old, over-grown, bush roads, and in part clearing new road. (See Road Building).

B. History

The 9 unit Mitten claim was staked by Cominco Ltd. in August 1975. This claim covers a zone of lead/zinc mineralization whose first documented exploration occurred in 1904, when the ground was staked as the IXL and Condor claims. In 1919 these claims were restaked as the Rose and Daisy when the 4230 adit was driven at the top of the mountain. In 1925 the 4130 adit was driven. In 1954 Giant Mascot Mines staked the ground and in 1956 drove the 3930 adit on which development and underground diamond drilling was continued in 1956 jointly by Cominco and Giant Mascot. Following negative results in 1956, no subsequent work was undertaken until 1975 when Giant Mascot's ownership lapsed and the 9 unit Mitten claim was staked by Cominco. Work on the Mitten claim up to 1984 by Cominco included geological mapping, sampling of the 4130 adit and a limited soil geochemistry program.



The twelve Luck claims were staked for Peter Klaui (Senior) in 1972 because of the ground's proximity to known mineralization. The claims abut to the east against eight old Crown grants (now owned by DeKalb Mining Co.) and to the west against the Silver Giant Mine property. The crown grants were originally staked in the late 1800's and contain a number of scattered galena, chalcocite, barite occurrences which have had some pits and trenches sunk on them and saw some very minor production of copper-silver ore in the late 1890's. Drilling by DeKalb Mining Co. on the Crown grants, in 1974, produced a number of Pb-Cu-Ag intersections, although subsequent drilling failed to define sufficient tons and/or grade to make ore.

The Silver Giant Mine produced small quantities of ore during the first half of this century, finally going into production in 1947. From 1951 to 1957 the Silver Giant Mine, operated by Giant Mascot Ltd., produced about 950,000 tons of ore grading 0.65 oz/T Ag, .04% Cu, 3.3% Pb and .37% Zn from an open pit and nine underground levels. Since 1957 the mine has been owned by the Baroid Company of Canada Ltd. producing barite from the Silver Giant mine tailings.

In 1984, Cominco Ltd. staked Mit 1 to 20 (266 units) and optioned the Luck claims.

### C. Objectives

The objective of the 1984 program was to: i) conduct broad scale geological mapping and soil geochemistry over the entire claim group to search for undiscovered mineralization, ii) to further examine the economic potential of known mineralization. In particular, a zinc-rich zone toward the top of Lead Mt. was examined by detailed surface mapping and trenching and by further mapping and sampling of the old adits.

## II. EXPLORATION AND DEVELOPMENT

### A. Road Building and Surveying

In order to provide access to the eastern side of Jubilee Mt., a D6 cat was contracted from Val Winser of Wilmer, B.C. This Cat cleared off alders and brush from overgrown bush roads north of the Fire Tower Road and also cleared approximately 4.5 km of new road. The old bush road cleared and new road cut is indicated on Plates 2 and 3. Both the Silver Giant and Fire Tower Roads were subsequently used as base lines from which to conduct geological and soil geochemical traverses. To utilize these roads as base lines they were chained and picketed at 50 metre intervals. These stations are indicated on Plates 1 to 6.

A detailed (1:1000) scale mapping of Lead Mt was also undertaken. To provide a measure of control for this mapping, a 1 km base line was chained and blazed with stations established at 25 metre intervals along the base line (See Plate 7).

### B. Soil Geochemistry

Hip chain and compass soil geochemistry lines were run off both the Fire Tower Road and Silver Giant Road. In general, the traverses were restricted to areas where the mineralization hosting, carbonate, stratigraphy (Jubilee Fm. and Basal



McKay Fm.) was known or suspected to be, or where little was known about the geology. For the most part, traverses were run at half kilometre spacings though in some instances the spacing was reduced to 250 m (See Plate 1, 2, 3). One soil contour line was run about the southeast flank of Jubilee Mt. at approximately 1000 m (3300 ft.) elevation.

Sampling was undertaken with a narrow bladed shovel at 50 metre intervals along the lines. In all instances it was attempted to get below the organic layer and sample B horizon material. Soil development was however very variable and in many instances, good B horizon was not present. Most samples taken resembled a sandy till although they were probably C horizon derived from the underlying carbonate bedrock. Sampling depth varied considerably depending upon the amount of outcrop. In some areas of extensive outcrop, soil cover was very thin and sampled depths were only 15 cm to 30 cm. In areas of more soil cover, sample depths averaged 30 to 60 cm.

Fourteen hundred twenty-five samples were taken, a few of which fell off the claims. All of the samples were shipped to Cominco's Exploration Research Laboratory in Vancouver, B.C. for analysis. The samples were dried and screened. The -80 mesh size fraction was then digested by a 20% nitric acid solution and the lead, zinc and copper contents were determined by atomic absorption. Silver determinations were also done for the first 411 samples, however when most results showed silver content below the 0.4 ppm detection limit, silver analyses were discontinued.

### C. Geological Mapping

Three phases of geological mapping were undertaken in 1984. They were:-

- a) a program of broad spaced hip chain and compass traversing of the whole claim group at a scale of 1:10,000,
- b) a detailed mapping of the immediate Lead Mt. zone at a scale of 1:1000,
- c) a very detailed mapping of the Lead Mt. adits and an area of surface trenching at the top of the mountain at scales of 1:100. Each of these phases is discussed separately below.

#### i) Claim Group mapping

The claim group was mapped by conducting traverses using a hip chain and compass at about one half kilometre spacings off of the Fire Tower and Silver Giant roads. In some instances precipitous cliffs forced traverses to be wider and follow natural routes down the cliffs. In addition to the traverses all of the outcrops along or adjacent to the roads were mapped. Plates 4, 5 and 6 document this mapping at a scale of 1:10,000.

#### ii) Lead Mountain Showing Area

Detailed mapping of Lead Mt. was undertaken by running hip chain and compass traverse at 50 metre intervals off a 1 km long base line. This mapping is documented on Plate 7 at 1:1000 scale.

### iii) Adit/Surface Trench Mapping/Sampling

All of the underground workings at Lead Mt. were mapped and sampled to some degree in 1984. The upper 4230 foot elevation adit was channel sampled along the entire left wall and for a short distance at the back right wall. Results of the mapping and sampling of this adit at 1:100 scale are presented on Plate 9. The middle or 4130 foot elevation adit was mapped and an extensive lithological suite sampled. This adit had been previously channel sampled in 1979. The data from the 4130 adit is presented on Plate 10 at 1:100 scale.

The lower 3930' elevation adit and the 3955' cross drifts extending off it were also mapped and extensively sampled for a lithological suite. The results of this mapping are shown on Plates 11 and 12 for the adit and cross drifts respectively. It should be noted that thin coatings of travertine and oxides covered much of the 3930 adit (though not the cross drifts). An extensive lithologic suite sampled from this adit does permit a look at the fresh lithologies.

At the top of the mountain an old pit was channel sampled, while eight channel samples were taken from surface rocks exposed by a combination of outcrop, old trenching, and 1984 pick and shovel trenching. These trenches are referred to as trenches A to E, Upper Adit Trench, Upper Portal Right Trench and Upper Portal Left Trench. These trenches (and the upper adit wall) were continuously channel sampled with hammer and mawl over one metre intervals. The samples were subsequently shipped to Cominco's Vancouver Exploration Laboratory where they were all analyzed by atomic absorption for copper, lead, zinc and silver. All samples above 5000 ppm lead, zinc or copper or 10 ppm silver, were subsequently assayed by wet chemical and/or fire assay techniques. In total, 115 samples were analyzed by atomic absorption with 69 of these subsequently being assayed. The location and results of this sampling along with geological descriptions are shown on Plate 8.

## III. GEOLOGY

### A. General

The Jubilee/Lead Mt. area is underlain by late Proterozoic to Silurian sediments that are a structurally preserved remnant of a generally shallow marine platform succession. These rocks were deposited east of the Purcell Anticlinorium - a long lived structural high, and west of a narrow intracratonic shale basin that developed in Mid-Cambrian to Ordovician time. Figures 2, 3 and 4 illustrate the general geological features of the area and the rock associations.

### B. Mit, Mitten and Luck Claims Geology

#### i) Rock Types and Stratigraphy

The geology of the property is displayed on Plates 4, 5 and 6. Mapping has shown that a major stratigraphic and/or structural break occurs about midway up the present claim block (station 132 on Fire Tower Road and Plate 5). The stratigraphy south of this "break" is substantially different than that to the north. Figure 5 details the stratigraphy observed. To the south the section conforms to that described by Reesor (1973). To the north substantial changes in stratigraphy are evident which are not well documented in published litera-

FIGURE 2

Figure 2 shows major geologic subdivisions of southeast B.C. Jubilee Mt. falls within Hughes Block and is highlighted in orange.

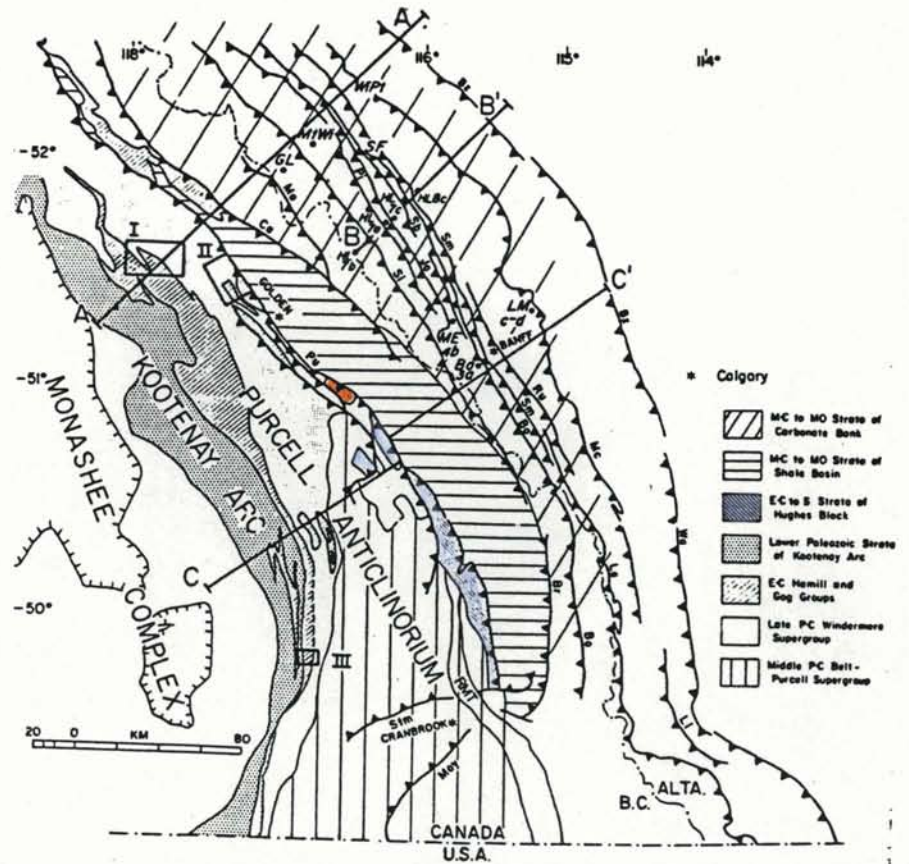
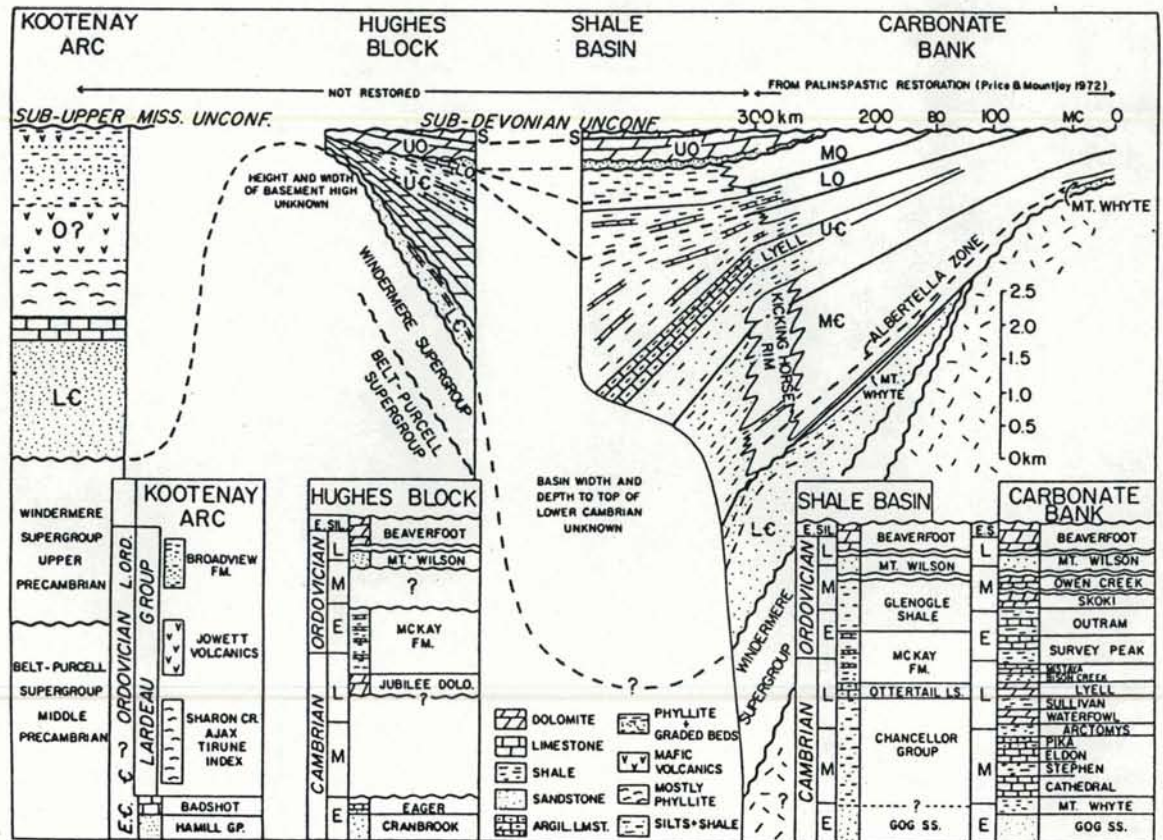


Figure 3 shows section through southeast B.C. and relation of Jubilee Mt. strata (Hughes Block) to other stratigraphy.

FIGURE 3





ture. In particular a distinct succession of grey to dark grey limestone turbidites and debris flows is evident (Unit 4B). In general, the colour and limestone character of these rocks most matches the McKay Fm., however, the usual McKay shales and limestone horizons are typical of a much lower energy environment. The planar bedded limestone turbidites are recessive, however some of the debris flows are massive poorly bedded strata that stand out as quite resistant 30 to 50 metre high hills. Some of these debris flows are extremely coarse and poorly sorted with clasts ranging from fine grit and pebbles to boulders greater than 1 metre in diameter.

Concomittant with the appearance of these rocks, the Jubilee Fm. dolomites pinch out or thin drastically. Figure 5 indicates these relationships with a tentative interpretation.

#### ii) Structure

The structure on the southern part of the Mitten group is dominated by a syncline whose axis corresponds to the crest of Jubilee Mt. On the west limb of the syncline, close to the base of Jubilee Mt., a major thrust fault has moved Hadrynian Horsethief Creek Group slates and sandstones against and over the Palaeozoic rocks.

North of the major structural/stratigraphic break splitting the property, the southern syncline is truncated and the structure is less well defined due to much poorer outcrop. In general the Cranbrook, Unit 4B and McKay Formations, all show relatively consistent east to east-southeast strikes with small scale folding being evident. The cleavages are consistent at about  $100^\circ$  strike and near vertical dips, while the attitudes of the few recorded small scale fold axes are also about  $100^\circ$  with gentle 10 to  $30^\circ$  plunges. This suggests that abundant open, to somewhat tight, concentric folding is common throughout this area.

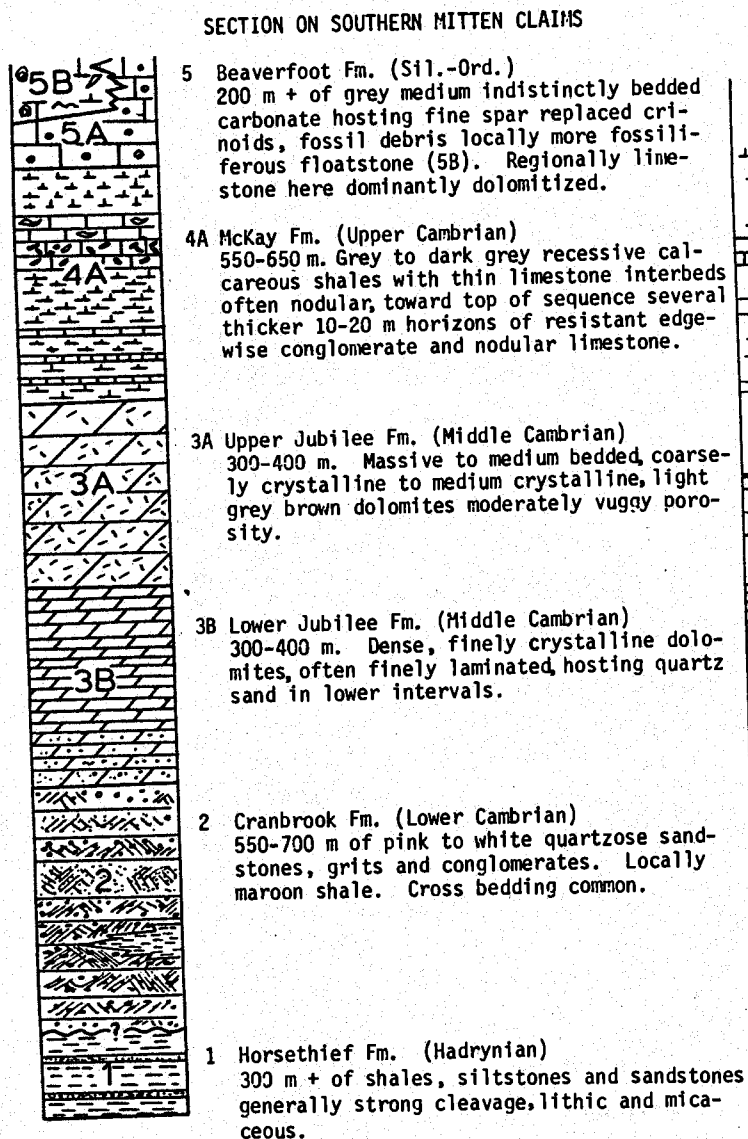
The major thrust documented at the base of Jubilee Mt. has been inferred to extend northward east of Lead Mt. This seems likely based on linear topographic lows but is not defined by outcrop. West of this inferred thrust northeast - southwest striking strips of McKay, Cranbrook and Horsethief strata dip steeply ( $75-90^\circ$ ) to both east and west. McKay Fm. limestones in this area structurally overlie Cranbrook Fm. grits. While the attitude of both units is conformable, it is possible that a thrust fault separates them.

#### iii) Dolomitization

The Jubilee Formation in the map area, and regionally, is typically composed of dense fine-grained dolomites in its lower portion and medium to coarse grained dolomites in its upper half.

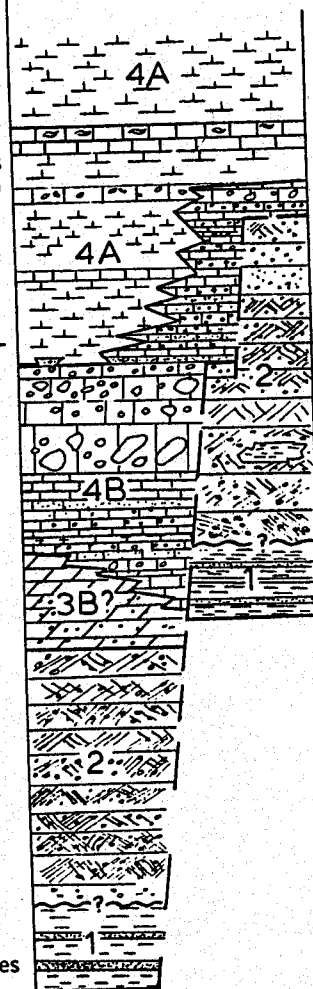
Several other units however, are typically limestone but locally dolomitized on the Mitten claims. Much of the Beaverfoot Fm. is dolomitized to finely crystalline dolomite with only isolated areas being preserved as limestone. Of particular interest are the Unit 4B turbidites and debris flows which are locally dolomitized to finely crystalline dolomites and more occasionally to spectacularly coarse dolomites, with development of white dolomite spar and "zebra/pseudo-breccia" textures. The mineralization encountered in 4B lithologies is invariably associated with this dolomitization (see below).

FIGURE 5



SECTION ON NORTHERN MITTEN CLAIMS AND LEAD MT.

(More interpretive and schematic than to south where syncline and exposure provides distinct sections.)



Units are as on left section with exception of units 4B, 3B?

4B McKay Fm.? (M. to U. Cambrian?)  
Unit not previously described for area. Generally limestones whose colour resembles McKay Fm. but which texturally are distinct. Unit is characterized by high energy beds either fine to coarse (pebble to boulder) debris flows or planar laminated mudstones and fine to coarse grainstones exhibiting grading, ripples and features typical of turbidites. Locally this unit is fine to very coarsely dolomitized. Unit apparently rests commonly on Cranbrook, except locally ie. Lead Mt., where it rests on rocks resembling Lower Jubilee dolomites (3B?). Tentative interpretation above suggests horsts of Cranbrook with Unit 4B being in part correlative with Jubilee Fm. and in part with McKay Fm.

FIGURE 5 Stratigraphic Sections on Mitten Claims  
(Partly Schematic)

#### iv) Mineralization

Apart from the Lead Mt. mineralization described below, a number of other showings occur on the claim group.

In the Upper Jubilee, medium to coarse dolomite, small pockets and patches (0.3 to 1 metre) of coarse sheaf-like barite with minor amounts (<.5 volume percent) of galena, chalcocite and chalcopyrite occur. These are similar to but of significantly less size and grade than occurrences described on the crown grants owned by DeKalb Mining. The distribution of copper, lead and zinc anomalies along the strike of the Upper Jubilee suggests that other showings are fairly widespread.

Barite and/or minor chalcopyrite (<.5 volume percent) occurs in dolomitized Unit 4B. The chalcopyrite occurs either as fine grains disseminated sporadically in the interstices of coarse dolomite, or in barite, that occurs as patches and masses within the coarse dolomite either in fractures and more brecciated dolomite or as more distinctly distributed pockets (open space filling?). The areas of dolomitized 4B and the shows of barite and copper are indicated on Plates 5 and 6. A trace amount of sphalerite and galena in a vug in a coarsely dolomitized debris flow was evident at station 136 on the Fire Tower Road.

#### C. Geology of the Showing Area at Lead Mountain

##### i) Rock Types/Stratigraphy

Plate 7 portrays the results of detailed mapping at Lead Mt. while Plates 8, 9, 10, 11 and 12 detail the trench and underground mapping and sampling.

The units present at Lead Mt. are the Cranbrook Fm, possible Lower Jubilee Fm., Unit 4B, and the McKay Fm. as described previously and in Figure 5.

##### ii) Structure

The Cranbrook, possible Lower Jubilee and Unit 4B lithologies exposed on the east and south sides of Lead Mt. are folded in relatively tight folds. The dominant fold is a syncline which strikes north-west just to the north of the 42+30 adit area. McKay Fm. calcareous shales and limestones are juxtaposed against Lower Jubilee and Unit 4B lithologies and must be in fault contact. This fault cuts across the saddle between two high points of Lead Mt. and strikes in a NNE direction.

##### iii) Mineralization

Mineralization at Lead Mt. occurs in a 150 to 200 metre long zone which extends from the top of the mountain to the 39+30 adit with a rake to the north across strike. A distinct vertical change is evident from barite with trace chalcopyrite mineralization at the top to sphalerite with lesser galena and minor barite mineralization at the 42+30 adit to lead with minor zinc at the 39+30 adit. The barite/copper mineralization at the top seems localized in breccias and open tensional fractures at the axis of the syncline.

Mineralization at Lead Mt. appears to reflect tectonic, stratigraphic, permeability and karstic controls. There appears to be a distinct association with the axis of a syncline while the factors controlling the "pinchout" of the Lower Jubilee dolomites may also have influenced the spread of mineralizing fluids. The vertical zonation and diminution of grade with depth may suggest that mineralizing fluids migrated downward from an area now eroded.

#### IV. GEOCHEMISTRY RESULTS

A statistical evaluation of the copper, lead zinc and silver values was undertaken. Appendix D presents this data. From this evaluation, anomalous thresholds of 50 ppm, 50 ppm and 200 ppm were determined for copper lead and zinc respectively. Those values exceeding these thresholds are indicated on the geochemical soil maps (Plates 1, 2 and 3) and the geological maps (Plates 4, 5 and 6) by a circle, triangle and square for copper, lead and zinc respectively.

Anomalies occur in three areas associated with specific bedrock geology. They are:

- a) a linear trend of copper, lead and lesser zinc anomalies that follows the outcrop of the Upper Jubilee medium to coarse dolomites. In some instances these anomalies occur adjacent to known showings of chalcocite, chalcopyrite and galena in pockets and pods of barite. In others they are probably indicating further mineralization of similar character.
- b) a number of copper anomalies with some lead/zinc anomalies occur in an area where Unit 4B (McKay Fm?) debris flows and turbidites exhibit fine to very coarse dolomitization. Again, most of these anomalies can be related to known mineralization specifically pods and pockets of barite with minor chalcopyrite that are indicated on Plate 4.
- c) very distinct and strong copper, lead, zinc anomalies are associated with the mineralization on Lead Mt. The regional geochemistry failed to show any other anomalies of this magnitude. Southeast of Lead Mt., lead zinc anomalies occur on the same ridge, but in an area of Cranbrook Fm. outcrop. To the northwest one copper and one anomalous zinc reading occur that are probably associated with dolomitized Unit 4B rocks.

#### V. CONCLUSIONS

The following conclusions are drawn from the 1984 Mitten program:

1. Two distinct stratigraphic successions and geologic environments are mappable on Mitten separated by a major east-west trending structural break at the mid-point of the claims.
2. On the Mitten claims mineralization is hosted in three geological settings. They are: i) barite with chalcocite, chalcopyrite and galena in pockets (possibly karst and/or structurally controlled) in Upper Jubilee Fm. coarsely crystalline dolomites, ii) barite with minor chalcopyrite in pockets, breccias and fractures in coarsely dolomitized limestone debris flows and turbidites, iii) barite, minor copper and sphalerite and galena developed in




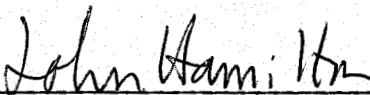
a thinned section of Lower Jubilee dolomites, sandwiched between Cranbrook Fm. grits and sandstones and Unit 4B lime grainstones, on Lead Mt. This mineralization hosted by solution breccias, primary porosity and tectonic fractures shows a spatial association with both a synclinal axis and a pinchout of thinned Jubilee Fm. dolomites.

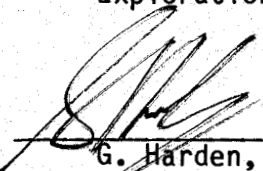
3. The Lead Mt. mineralized zone does not appear to have sufficient space and/or grade in which to develop an economically viable orebody.
4. All of the other showings observed were not of sufficient grade, extent or character to be of economic interest though several in conjunction with the geochemistry results merit brief follow up.
5. Soil geochemistry surveys failed to indicate any area with a response as good as Lead Mt. In general, even anomalous values were low. Some of the spot anomalies merit some further examination.

#### VI. RECOMMENDATIONS

A limited amount of soil geochemical work and geology is recommended to follow up some of the anomalies in Upper Jubilee Fm. dolomites and in the coarsely dolomitized Unit 4B turbidite/debris flow areas.

Reported by:   
D. Rhodes  
Senior Geologist

Endorsed by:   
John M. Hamilton  
Assistant Manager,  
Exploration, W.D.

Approved for  
Release by:   
G. Harden,  
Manager, Exploration  
Western District

DR/cgs

#### Distribution

Mining Recorder (2)  
Western District  
Dereck Rhodes  
P. Klau

VII. REFERENCES

Reesor, J.E. 1973, Geology of the Lardeau Map Area, East Half, British Columbia; Geological Survey of Canada, Memoir 369, p. 129.

APPENDIX A

STATEMENT OF EXPENDITURES

Geochemistry:

Salaries

Jim Aikman	5 days @ \$79.31	\$ 396.55	
Glen DePaoli	12 days @ \$76.56	918.72	
Rich Dean	3 days @ \$87.12	261.36	
Ralph Lunn	5 days @ \$79.31	396.55	
Carl Repp	5 days @ \$76.56	382.80	
Nancy Watson	17 days @ \$118.80	2,019.60	
		<u>\$4,375.68</u>	\$ 4,375.68

Soil Samples

411 samples @ \$5.45 for prep., A.A. analysis-Pb,Zn,Cu =	\$2,239.98	
1006 samples @ \$4.55 for prep., A.A. analysis-Pb,Zn,Cu =	\$4,577.30	
	<u>\$6,817.25</u>	6,817.25

Geology:

Salaries (Spread over claims for mapping, surveying)

Dereck Rhodes	17 days @ \$221.66	\$3,768.22	
Al Taylor	17 days @ \$139.92	\$2,378.64	
		<u>\$6,146.86</u>	6,146.86

Salaries applicable to Mitten for mapping, surveying, trenching channel sampling

Dereck Rhodes	6 days @ \$221.66	\$1,329.96	
Al Taylor	7 days @ \$139.92	\$ 979.44	
Brian Waters	21 days @ \$187.44	\$3,936.24	
Rich Dean	21 days @ \$87.12	\$1,829.52	
		<u>\$8,075.16</u>	\$8,075.16

Road Building Clearing of 7.6 km 7,120.00

Trench/Adit Channel Sample Analysis - Specifically on Mitten

115 rocks prepared, A.A. analyses for Cu,Pb,Zn,Ag @ \$7.70=	\$885.50	
69 wet chemical rock assays for Pb/Zn @ \$11.00	759.00	
2 samples for Ag @ \$8.00	16.00	
	<u>\$1,660.50</u>	1,660.50

Communication

Mobile Radio Rentals	\$171.00	
B.C. Tel	200.00	
	<u>\$371.00</u>	371.00

Transportation

1 Truck (Redhawk) July	\$909.50	
1 Truck (Budget) August	\$888.10	
Gas	400.00	
	<u>\$2,197.60</u>	2,197.60

Accomodation/Cottage (5 weeks) 600.00

Food/Expenses 90 man days @ \$25.00 2,250.00

Office Report/Map Preparation 1,000.00  
\$40,613.95

APPENDIX B

A F F I D A V I T

I, Dereck Rhodes, of the Municipality of North Vancouver District, in the Province of British Columbia, make oath and say:

1. THAT I am employed as a geologist by Cominco Ltd., and as such have a personal knowledge of the facts to which I hereinafter depose;
2. THAT I annexed hereto and marked as Appendix A to this my affidavit is a true copy of expenditures incurred in connection with a geological program carried out on the Mitten, Mit and Luck Claims;
3. THAT said expenditures were incurred between the eighteenth day of June and the twenty-eighth day of September, 1984 for the purpose of mineral exploration on the above noted claims.

Signed: \_\_\_\_\_

*Dereck Rhodes*

Dereck Rhodes

Senior Geologist

APPENDIX C

STATEMENT OF QUALIFICATIONS

I, Dereck Rhodes, of the Municipality of North Vancouver District, in the Province of British Columbia, hereby certify:

1. THAT I am a geologist residing at 2514 Bronte Road, North Vancouver, British Columbia, with a business address at 700-409 Granville Street, Vancouver, British Columbia.
2. THAT I graduated with a B.Sc., in geology from McMaster University in 1969.
3. THAT I have practiced geology with Cominco Ltd. from June 1969 to the present.

Signed: \_\_\_\_\_

*Dereck Rhodes*

Dereck Rhodes

Senior Geologist

APPENDIX D

SOIL GEOCHEMISTRY STATISTICS

STATISTICS FOR ELEMENT # 1CU

NUMBER OF SAMPLES = 1424  
 NUMBER OF MISSING VALUES(0) = 0  
 NUMBER OF MISSING VALUES(999) = 0  
 MINIMUM = 1.00  
 MAXIMUM = 7200.00  
 RANGE = 7199.00  
 MEAN = 19.53  
 MEDIAN = 6.00  
 VARIANCE = 40682.05  
 STANDARD DEVIATION = 201.70  
 STANDARD ERROR = 5.34  
 COEFFICIENT OF VARIATION = 10.33  
 KURTOSIS = 999.99  
 SKEWNESS = 1027.69

STATISTICS FOR LOG 10 TRANSFORMED DATA

MEAN = 6.47  
 VARIANCE = 1.49  
 STANDARD DEVIATION = 2.60

STATISTICS FOR ELEMENT # 2PB

NUMBER OF SAMPLES = 1424  
 NUMBER OF MISSING VALUES(0) = 0  
 NUMBER OF MISSING VALUES(999) = 0  
 MINIMUM = 4.00  
 MAXIMUM = 23400.00  
 RANGE = 23396.00  
 MEAN = 35.89  
 MEDIAN = 8.00  
 VARIANCE = 395764.81  
 STANDARD DEVIATION = 629.10  
 STANDARD ERROR = 16.67  
 COEFFICIENT OF VARIATION = 17.53  
 KURTOSIS = 999.99  
 SKEWNESS = 1304.84

STATISTICS FOR LOG 10 TRANSFORMED DATA

MEAN = 9.93  
 VARIANCE = 1.34  
 STANDARD DEVIATION = 2.26

STATISTICS FOR ELEMENT # 3ZN

NUMBER OF SAMPLES = 1424  
 NUMBER OF MISSING VALUES(0) = 0  
 NUMBER OF MISSING VALUES(999) = 0  
 MINIMUM = 2.00  
 MAXIMUM = 8500.00  
 RANGE = 8498.00  
 MEAN = 96.18  
 MEDIAN = 37.00  
 VARIANCE = 70283.06  
 STANDARD DEVIATION = 265.11  
 STANDARD ERROR = 7.03  
 COEFFICIENT OF VARIATION = 4.72  
 KURTOSIS = 756.34  
 SKEWNESS = 676.46

STATISTICS FOR LOG 10 TRANSFORMED DATA

MEAN = 37.92  
 VARIANCE = 1.18  
 STANDARD DEVIATION = 1.85

STATISTICS FOR ELEMENT # 4AG

NUMBER OF SAMPLES = 1424  
 NUMBER OF MISSING VALUES(0) = 1031  
 NUMBER OF MISSING VALUES(999) = 0  
 MINIMUM = 0.40  
 MAXIMUM = 3.80  
 RANGE = 3.40  
 MEAN = 0.42  
 MEDIAN = 0.40  
 VARIANCE = 0.04  
 STANDARD DEVIATION = 0.20  
 STANDARD ERROR = 0.01  
 COEFFICIENT OF VARIATION = 0.48  
 KURTOSIS = 13.81  
 SKEWNESS = 5.84

STATISTICS FOR LOG 10 TRANSFORMED DATA

MEAN = 0.41  
 VARIANCE = 1.01  
 STANDARD DEVIATION = 1.17

PEARSON CORRELATION COEFFICIENTS TABLE : PBMTN - LOGARITHMIC

\*\*\*\*\*

	CU	PB	ZN	AG
CU	1.000 1349	0.454 1349	0.312 1349	0.438 390
PB	0.454 1349	1.000 1424	0.584 1424	0.349 393
ZN	0.312 1349	0.584 1424	1.000 1424	0.157 393
AG	0.438 390	0.349 393	0.157 393	1.000 393

(COEFFICIENT / CASES) ( A VALUE OF 99.0 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED )

LOGGED DATA WAS USED IN THE COMPUTATIONS

HISTOGRAM FOR ELEMENT CU  
 \*\*\*\*\*

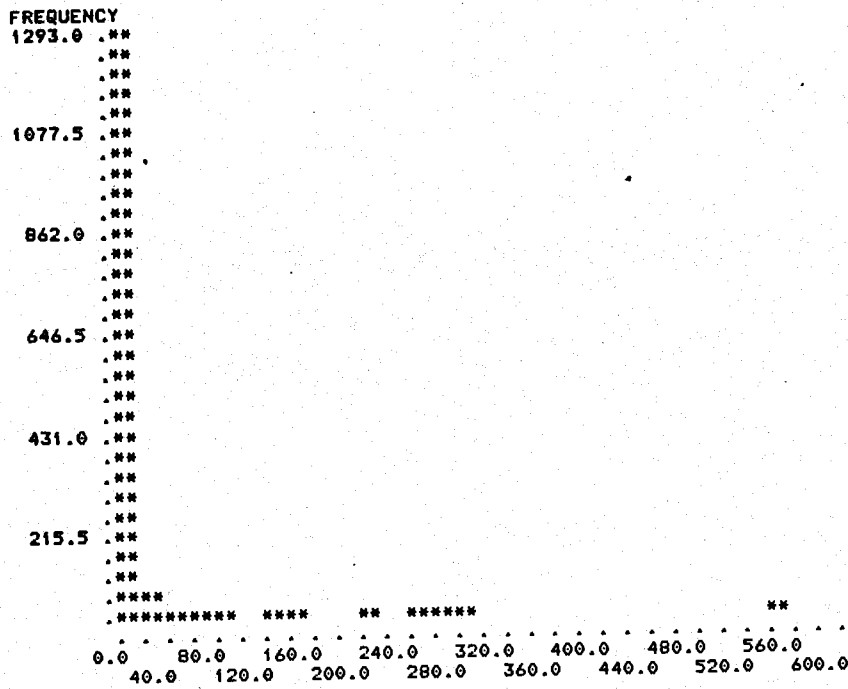


FIGURE : PBMTN

HISTOGRAM FOR ELEMENT ZN  
 \*\*\*\*\*

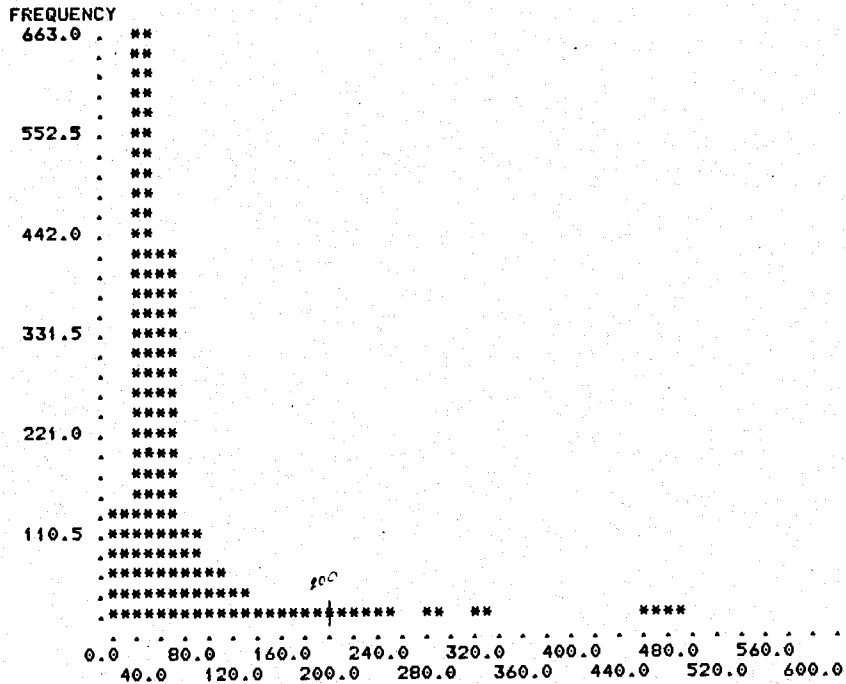


FIGURE : PBMTN



HISTOGRAM FOR ELEMENT PB

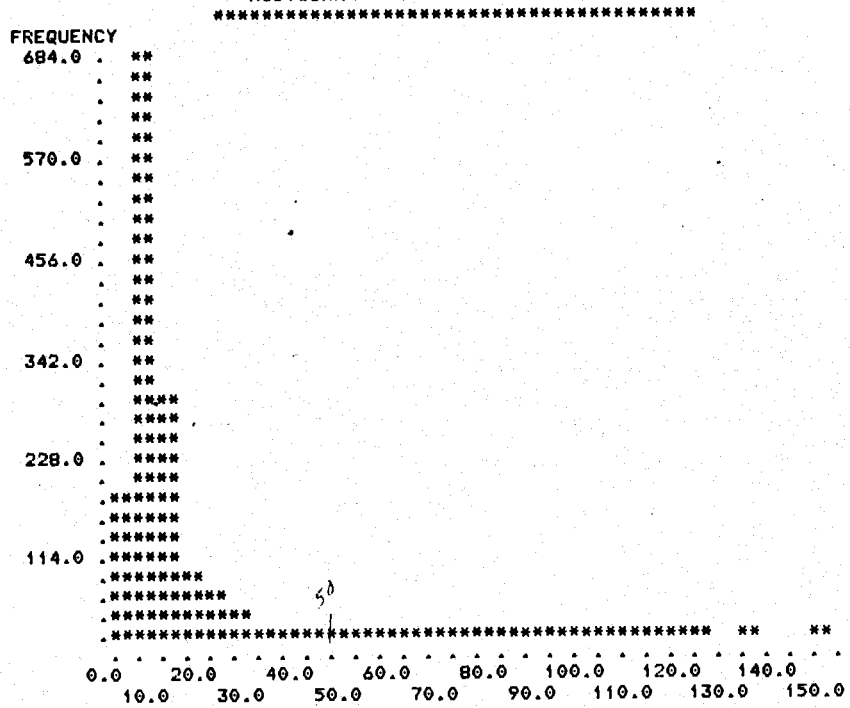


FIGURE : PBMTN



MATCHLINE SEE PLATE 2

**LEGEND**

Soil sample site, with A.A. analysis results in parts per million, for Cu,Pb,Zn,As respectively.

-, indicates metal not analyzed for.

- Cu >50 ppm
- △ Pb >50 ppm
- Zn >200 ppm

- 4000 — ELEVATION CONTOUR INTERVAL 500 METRES
- ≡ SWAMP
- LAKE
- CREEK
- CLAIM BOUNDARY (APPROXIMATE LOCATION)



TO ACCOMPANY A REPORT BY D. RHODES

*D. Rhodes*

**LEAD MOUNTAIN, JUBILEE MOUNTAIN**

Drawn by: D. R.	Traced by: A. M. B.
Revised by: _____	Revised by: _____
_____	_____
_____	_____

MITTEN PROPERTY  
Cu, Pb, Zn GEOCHEMICAL SURVEY  
GOLDEN M.D., B.C.

Scale: 1:10,000 Date: JAN, 1985 Plate: 1

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**13,290**

N.T.S.  
82 K-15,16  
82 K-1, 2



**LEGEND**

Soil sample site, with A.A. analysis results in parts per million, for Cu, Pb, Zn, As respectively. -, indicates metal not analyzed for.

- Cu >50 ppm
- △ Pb >50 ppm
- Zn >200 ppm

- 4000 ELEVATION CONTOUR INTERVAL 500 METERS
- ≡ SWAMP
- LAKE
- CREEK
- - - CLAIM BOUNDARY (APPROXIMATE LOCATION)
- OLD ROAD CLEARED
- - - NEW ROAD

0 METRES 500

TO ACCOMPANY A REPORT BY D. RHODES *Daryl Rhodes*

13,290

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

LEAD MOUNTAIN, JUBILEE MOUNTAIN

MITTEN PROPERTY  
Cu, Pb, Zn GEOCHEMICAL SURVEY  
GOLDEN M.D., B.C.

Drawn by: D. R.		Traced by: A. M.B.	
Revised by	Date	Revised by	Date

Scale: 1:10,000 Date: JAN., 1985 Plate: 2

3053



**LEGEND**

- 5, 10, 15, 20+ Soil sample site, with A. A. analysis results in parts per million, for Cu, Pb, Zn, As respectively
- , indicates metal not analyzed for.
- Cu >50 ppm
- △ Pb >50 ppm
- Zn >200 ppm

- 4000 ELEVATION CONTOUR INTERVAL 500 METERS
- SWAMP
- LAKE
- CREEK
- CLAIM BOUNDARY (APPROXIMATE LOCATION)
- OLD ROAD CLEARED
- NEW ROAD



TO ACCOMPANY A REPORT BY D. RHODES

13,290

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

N.T.S.  
82 K-15,16  
82 N-1,2

MITTEN PROPERTY  
Cu, Pb, Zn GEOCHEMICAL SURVEY  
GOLDEN M.D., B. C.

Drawn by: D. R.	Traced by: A. M.B.	Scale: 1:10,000		Date: JAN, 1985	Plate: 3
Revised by: _____	Revised by: _____				
Revised by: _____	Revised by: _____				
Revised by: _____	Revised by: _____				

*Deed Note*



- STRATIGRAPHIC LEGEND**
- 5 BEAVERFOOT FORMATION (Sturlian-Droevician)
    - A Light grey weathering, medium to thick bedded lime mudstones, scattered fine fossiliferous (often crinoidal) some chert nodules.
    - B Massive indistinctly bedded fossiliferous flatstone/boulders with corals, brachiopods, algal laminae.
  - 4 MCKAY FORMATION (Upper Cambrian)
    - A Rocks exhibiting features compatible with relatively quiet depositional environment (marine basin/platform).
      - I Calcareous shale
      - II As above with 10-50% thin (1.1 to 2cm) limestone interbeds
      - III As above, >50% limestone interbeds
      - IV Intraformational, edgewise conglomerates
      - V Modular bedded lime mudstone fine grainstones
      - VI Medium to thick bedded to massive lime mudstones, fine grainstones, faint nodular texture some skeletal debris
    - B Middle Cambrian to Upper Cambrian? (Possibly in part correlative with Jubilee Formation). Carbonates exhibiting features indicative of high energy deposition on basin slopes (e.g. debris flow, turbidite character).
      - I Flaggy, planar bedded fine lime grainstones
      - II As above but with 10-40% lime mudstone interbeds
      - III Medium to coarse grainstone flaggy planar bedded with graded bedding and cross laminations
      - IV Debris flows - Poorly sorted conglomerates with rounded to slabby clasts very variable in character
        - a fine <2cm average clast size
        - b medium <5cm average clast size
        - c coarse >5cm average clast size
  - 3 JUBILEE FORMATION (Middle Cambrian)
    - A Upper Jubilee, generally massive medium to coarsely crystalline dolomites medium to thick bedded.
      - I Buff to white, massive medium crystalline moderately vuggy
      - II Light grey, medium crystalline, vuggy mottled fragmental textures sometimes biturbated, sometimes looking like breccia
      - III Dark grey, medium crystalline dolomite with shaly dolomite patches
    - B Lower Jubilee, finely crystalline dolomites commonly thinly bedded often finely laminated.
      - I Finely laminated
      - II Finely laminated, interbeds of narrow mudstone
      - III Light grey finely crystalline dolomite with fine quartz sand content
      - IV Dark grey, finely crystalline dolomite sometimes with quartz sand component
      - V Medium to massive bedded light grey, finely crystalline, tentacle dolomite
      - VI Vague fragmental textures looking like breccia
      - VII Mottled textures thought to be biturbated
  - 2 CRANBROOK FORMATION (Lower Cambrian)
    - A Quartzite sandstones and grits, often cross bedded, commonly pink to white
      - I Quartz grits to fine conglomerates
      - II Medium to coarse quartz sandstones
      - III Fine quartz sandstones
      - IV Siltstone to shale (often maroon in colour)
  - 1 HORSFIELD FORMATION (Upper Proterozoic-Maryland)
    - A Slates
    - B Sandstones, grits
    - C Siltstones

- SYMBOL LEGEND**
- Geologic Contact (well defined)
  - Geologic Contact (moderately well defined)
  - Geologic Contact - poorly defined and of uncertain character (could be structural and/or lithological contact)
  - Outcrop
  - Strike/dip of bedding
  - Strike/dip of cleavage/foliation
  - Thrust Fault
  - Fault (of uncertain character)
  - Synclinal Fold Axis
  - Anticlinal Fold Axis
  - Prefix indicating fine dolomitization where rock is commonly limestone
  - Prefix indicating coarse dolomitization where rock is commonly limestone
  - Area of dolomitization in rock commonly limestone (ie. Unit 4B)
  - Projection of underground workings to surface
  - Surface trenches
  - Road Symbols
  - Soil Geochem. Lead Anomaly >50 ppm
  - Soil Geochem. Copper Anomaly >50 ppm
  - Soil Geochem. Zinc Anomaly >700 ppm
  - Swamp
  - Lake
  - Creek
  - Clim Boundary (Approximate location)

**GEOLOGICAL BRANCH ASSESSMENT REPORT**

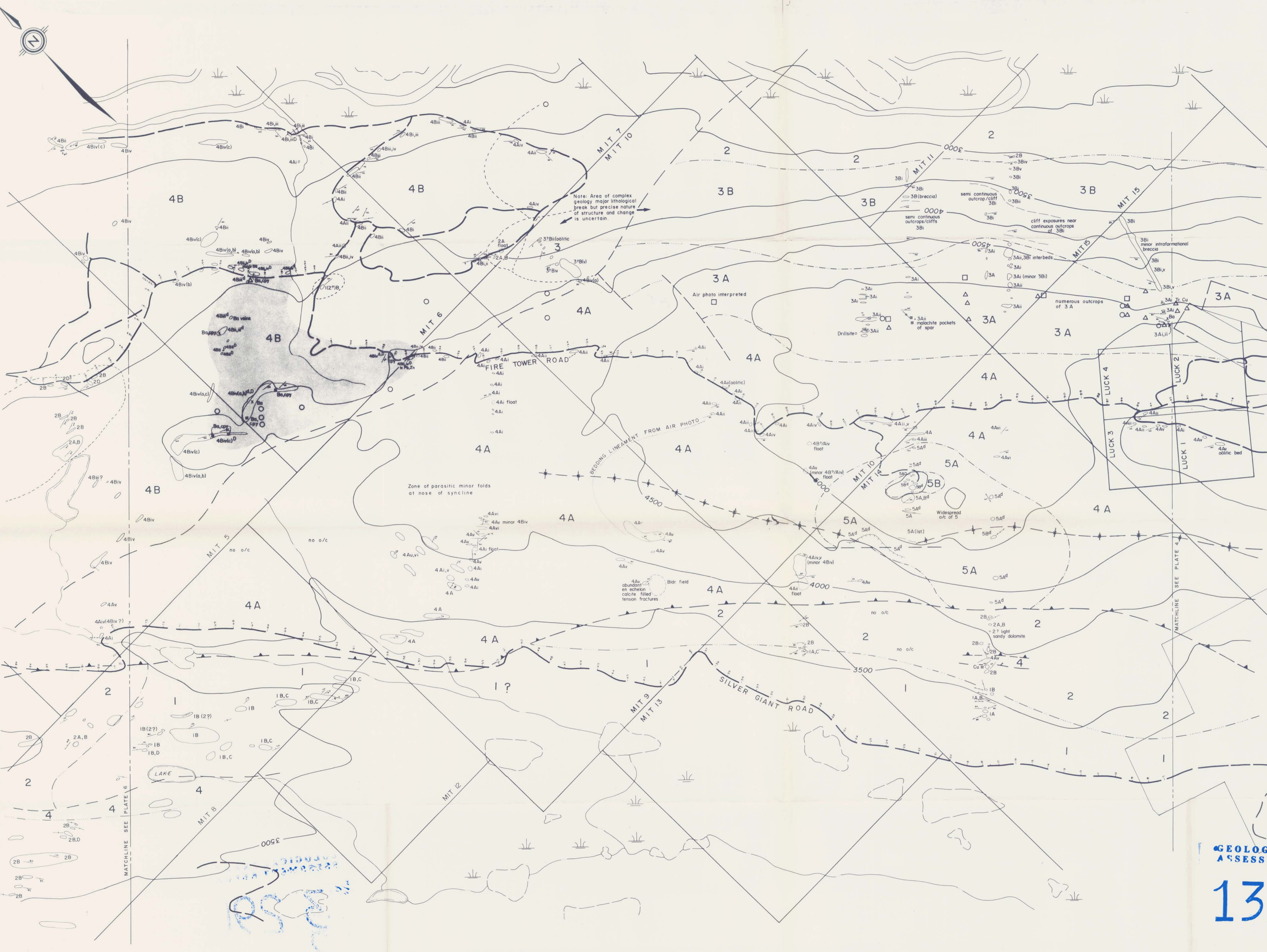
**13,290**

TO ACCOMPANY A REPORT BY D. RHODES *David Rhodes*

**LEAD MOUNTAIN, JUBILEE MOUNTAIN**

Drawn by: D. R. Traced by: J. P. S.  
 Printed by: Date: Revised by: Date:  
**MITTEN PROPERTY GEOLOGY**  
**GOLDEN M.D., B.C.**  
 Scale: 1:10,000 Date: JAN, 1985 Plate: 4

URS 2



- STRATIGRAPHIC LEGEND**
- 5 BEAVERFOOT FORMATION (Silurian-Ordovician)
    - A Light grey weathering, medium to thick bedded lime mudstones scattered fine fossil debris (often crinoidal) some chert nodules.
    - B Massive indistinctly bedded fossiliferous floatstones/boundstones with corals, brachiopods algal laminae.
  - 4 MCKAY FORMATION (Upper Cambrian)
    - A Rocks exhibiting features compatible with relatively quiet depositional environment (marine basin/platform).
      - i Calcareous shale
      - ii As above with 10-500 thin (.1 to 2cm) limestone interbeds
      - iii As above, >50% limestone interbeds
      - iv Intraformational, edgewise conglomerates
      - v Modular bedded lime mudstone fine grainstones
      - vi Medium to thick bedded to massive lime mudstones, fine grainstones, faint nodular texture some skeletal debris
    - B Middle Cambrian to Upper Cambrian? (Possibly in part correlative with Jubilee Formation). Carbonates exhibiting features indicative of high energy deposition on basin slopes (i.e. debris flow, turbidite character).
      - i Flaggy, planar bedded fine lime grainstones
      - ii As above but with 10-40% lime mudstone interbeds
      - iii Medium to coarse grainstone flaggy planar bedded with graded bedding and cross laminations
      - iv Debris flows - Poorly sorted conglomerates with rounded to slabby clasts very variable in character
        - a fine <2cm average clast size
        - b medium <5cm average clast size
        - c coarse >5cm average clast size
  - 3 JUBILEE FORMATION (Middle Cambrian)
    - A Upper Jubilee, generally massive medium to coarse crystalline dolomites medium to thick bedded.
      - i Buff to white, massive medium crystalline
      - ii Light grey, coarsely crystalline dolomite moderate texture
      - iii Light grey, medium crystalline, vague mottled fragmental textures sometimes disturbed, sometimes looking like breccia
      - iv Dark grey, medium crystalline dolomite with sparry dolomite patches
    - B Lower Jubilee, finely crystalline dolomites commonly finely bedded often finely laminated.
      - i Finely laminated
      - ii Finely laminated, interbeds of maroon mudstone
      - iii Light grey finely crystalline dolomite with fine quartz sand content
      - iv Dark grey, finely crystalline dolomite sometimes with quartz sand component
      - v Medium to massive bedded light grey, finely crystalline, textureless dolomite
      - vi Vague fragmental textures looking like breccia
      - vii Mottled textures thought to be disturbed
  - 2 CRAMBOOK FORMATION (Lower Cambrian)
    - A Quartzite sandstones and grits, often cross bedded, commonly pink to white.
      - i Quartz grits to fine conglomerates
      - ii Medium to coarse quartz sandstones
      - iii Fine quartz sandstones
      - iv Siltstone to shale (often maroon in colour)
  - 1 ROSETHIEP FORMATION (Upper Proterozoic-Mesozoic)
    - A Highly clayey, generally micaceous clays, siltstones and grits. Generally greywacke character.
      - i Slates
      - ii Sandstones, grits
      - iii Siltstones

- SYMBOL LEGEND**
- Geologic Contact (well defined)
  - Geologic Contact (moderately well defined)
  - Geologic Contact - poorly defined and of uncertain character (could be structural and/or lithological contact)
  - Outcrop
  - Strike/dip of bedding
  - Strike/dip of cleavage/foliation
  - Thrust fault
  - Fault (of uncertain character)
  - Synclinal Fold Axis
  - Anticlinal Fold Axis
  - Prefix 'd' indicating fine dolomitization where rock is commonly limestone
  - Prefix 'D' indicating coarse dolomitization where rock is commonly limestone (i.e. Unit 4B)
  - Area of dolomitization in rock commonly limestone (i.e. Unit 4B)
  - Projection of underground workings to surface
  - Surface trenches
  - Road Symbols
    - Soil Geochem. Lead Anomaly >50 ppm
    - Soil Geochem. Copper Anomaly >50 ppm
    - Soil Geochem. Zinc Anomaly >200 ppm
  - Swamp
  - Lake
  - Creek
  - Claim Boundary (Approximate location)

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

# 13,290

0 500 METRES

TO ACCOMPANY A REPORT BY D. RHODES *D. Rhodes*

LEAD MOUNTAIN, JUBILEE MOUNTAIN		NTS 82K-15,16 82N-1,2
Drawn by: D. R.	Traced by: J. P. S.	
Revised by: _____	Revised by: _____	
MITTEN PROPERTY GEOLOGY		
GOLDEN M. D., B. C.		
Scale: 1:10,000	Date: JAN, 1985	Plate: 5



**STRATIGRAPHIC LEGEND**

**5 BEAVERFOOT FORMATION (Silurian-Ordovician)**

- A Light grey weathering, medium to thick bedded lime mudstones scattered fine fossiliferous (Fossils: *Leptaena*) some chert nodules.
- B Massive horizontally bedded fossiliferous floatstone/boundstones with corals, brachiopods, algal laminae.

**4 MCKAY FORMATION (Upper Cambrian)**

- A Rocks exhibiting features compatible with relatively quiet depositional environment (marine basin/platform).
  - i Calcareous shale
  - ii As above with 10-50% thin (.1 to 2cm) limestone interbeds
  - iii As above, >50% limestone interbeds
  - iv Intraformational, edgewise conglomerates
  - v Nodular bedded lime mudstone fine grainstones
  - vi Medium to thick bedded to massive lime mudstones, fine grainstones, faint nodular texture some skeletal debris
- B Middle Cambrian to Upper Cambrian? (Possibly in part correlative with Jubilee Formation).
  - i Carbonates exhibiting features indicative of high energy deposition on basin slopes (e.g. debris flow, turbidite character).
    - ii Flaggy, planar bedded fine lime grainstones
    - iii As above but with 10-40% lime mudstone interbeds
    - iv Medium to coarse grainstone flaggy planar bedded with graded bedding and cross laminations
    - v Debris flows - Poorly sorted conglomerates with rounded to slabby clasts very variable in character.
      - a fine <2cm average clast size
      - b medium <5cm average clast size
      - c coarse >5cm average clast size

**3 JUBILEE FORMATION (Middle Cambrian)**

- A Upper Jubilee, generally massive medium to coarsely crystalline dolomites medium to thick bedded.
  - i Buff to white, massive medium crystalline
  - ii Light grey, coarsely crystalline dolomite moderately wavy
  - iii Light grey, medium crystalline, vague mottled fragmental textures sometimes bioturbated, sometimes looking like breccia
  - iv Dark grey, medium crystalline dolomite with sparry dolomite patches
- B Lower Jubilee, finely crystalline dolomites commonly thinly bedded often finely laminated.
  - i Finely laminated
  - ii Finely laminated, interbeds of maroon mudstone
  - iii Light grey finely crystalline dolomite with fine quartz sand content
  - iv Dark grey, finely crystalline dolomite sometimes with quartz sand component
  - v Medium to massive bedded light grey, finely crystalline, textureless dolomite
  - vi Vague fragmental textures looking like breccia
  - vii Mottled textures thought to be bioturbated

**2 CHAMBERLAIN FORMATION (Lower Cambrian)**

- A Quartzite sandstones and grits, often cross bedded, commonly pink to white.
  - i Quartz grits to fine conglomerates
  - ii Medium to coarse quartz sandstones
  - iii Fine quartz sandstones
  - iv Siltstone to shale (often maroon in colour)

**1 HORSESHOE FORMATION (Upper Proterozoic-Neoproterozoic)**

- A Highly cleaved, generally micaceous slates, siltstones sandstones and grits. Generally greyish character.
  - i Slates
  - ii Sandstones, grits
  - iii Siltstones

**SYMBOL LEGEND**

- Geologic Contact (well defined)
- Geologic Contact (moderately well defined)
- Geologic Contact - poorly defined and of uncertain character (could be structural and/or lithological contact)
- Outcrop
- Strike/dip of bedding
- Strike/dip of cleavage/foliation
- Thrust fault
- Fault (of uncertain character)
- Synclinal Fold Axis
- Anticlinal Fold Axis
- Prefix indicating fine dolomitization where rock is commonly limestone (d)
- Prefix indicating coarse dolomitization where rock is commonly limestone (D)
- Area of dolomitization in rock commonly limestone (ie. Unit 4B)
- Projection of underground workings to surface
- Surface trenches
- Road Spools
- Soil Geochem. Lead Anomaly >50 ppm (triangle)
- Soil Geochem. Copper Anomaly >50 ppm (circle)
- Soil Geochem. Zinc Anomaly >200 ppm (square)
- Swamp
- Lake
- Creek
- Claim Boundary (Approximate location)

**TO PARSONS**

**GEOLOGICAL BRANCH ASSESSMENT REPORT**

**13,290**

0 500 METRES

TO ACCOMPANY A REPORT BY D. RHODES *D. Rhodes*

**LEAD MOUNTAIN, JUBILEE MOUNTAIN**

Drawn By: D. R. Traced By: J. P. S.

Revised By: Date Revised By: Date

**MITTEN PROPERTY GEOLOGY**

**GOLDEN M.D., B.C.**

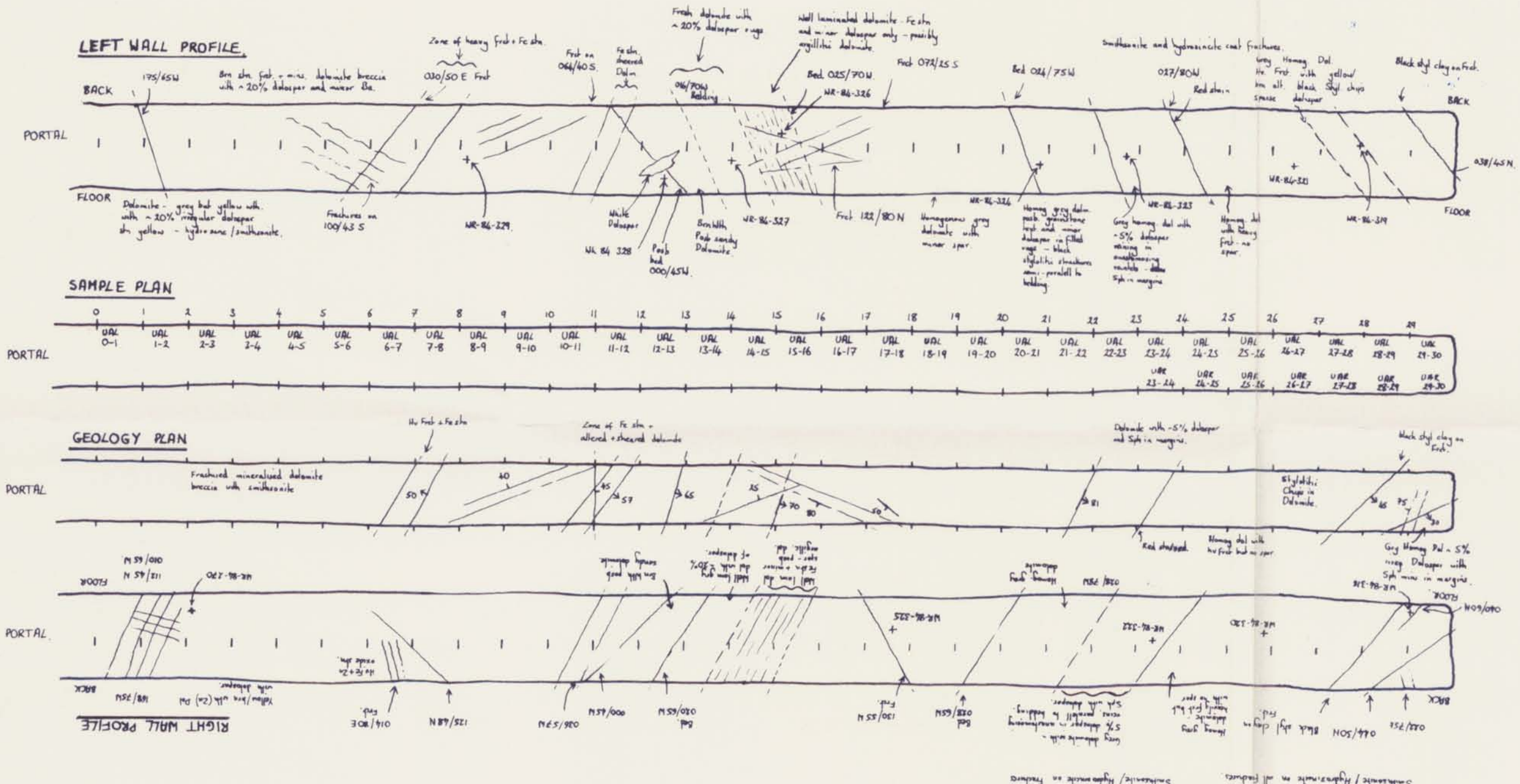
Scale: 1:10,000 Date: JAN, 1985 Plate: 6

NTS 82 K-15, 16 82 N-1, 2









ASSAYS AQUA REGIA DECOMPOSITION / AAS

LAB NO	FIELD NUMBER	Cu PPM	Pb PPM	Zn PPM	Ag PPM
RB416423	UAL 0-1	160	1340	E1/8000	10.0
RB416424	UAL 1-2	53	1139	E61900	2.6
RB416425	UAL 2-3	13	145	2300	0.4
RB416426	UAL 3-4	11	104	2130	0.4
RB416427	UAL 4-5	61	36	1466	0.4
RB416428	UAL 5-6	24	899	4260	1.6
RB416429	UAL 6-7	3	198	807	0.4
RB416430	UAL 7-8	11	155	2180	0.4
RB416431	UAL 8-9	13	288	4280	0.8
RB416432	UAL 9-10	7	33	734	0.4
RB416433	UAL 10-11	15	93	888	0.4
RB416434	UAL 11-12	22	130	1078	0.4
RB416435	UAL 12-13	12	520	3210	0.7
RB416436	UAL 13-14	10	115	2320	0.5
RB416437	UAL 14-15	11	312	1980	0.5
RB416438	UAL 15-16	27	829	3760	1.0
RB416439	UAL 16-17	15	154	1230	0.6
RB416440	UAL 17-18	8	88	3560	0.5
RB416441	UAL 18-19	8	72	1850	0.4
RB416442	UAL 19-20	10	268	2740	0.6
RB416443	UAL 20-21	9	228	4240	0.5
RB416444	UAL 21-22	12	319	5360	0.7
RB416445	UAL 22-23	12	604	6660	0.9
RB416446	UAL 23-24	21	854	7990	0.7
RB416447	UAL 24-25	31	1166	7490	1.2
RB416448	UAL 25-26	10	101	4230	0.4
RB416449	UAL 26-27	5	65	4090	0.5
RB416450	UAL 27-28	20	480	7140	0.8
RB416451	UAL 28-29	22	850	E16200	0.7
RB416452	UAL 29-30	44	1830	E25100	1.4
RB416453	UAR 28-29	63	2590	E35400	1.8
RB416454	UAR 29-30	12	380	5140	0.5
RB416423	UAL 0-1	17.93	1.43	0.37	
RB416424	UAL 1-2	6.20	0.14		
RB416444	UAL 21-22	0.63	0.04		
RB416445	UAL 22-23	0.82	0.08		
RB416446	UAL 23-24	1.02	0.11		
RB416447	UAL 24-25	0.98	0.16		
RB416450	UAL 27-28	0.95	0.05		
RB416451	UAL 28-29	1.43	0.09		
RB416452	UAL 29-30	2.35	0.19		
RB416453	UAR 28-29	3.40	0.26		
RB416454	UAR 29-30	0.54	0.05		

**GEOLOGICAL BRANCH ASSESSMENT REPORT**

**13,290**  
*Keith Rhodes*

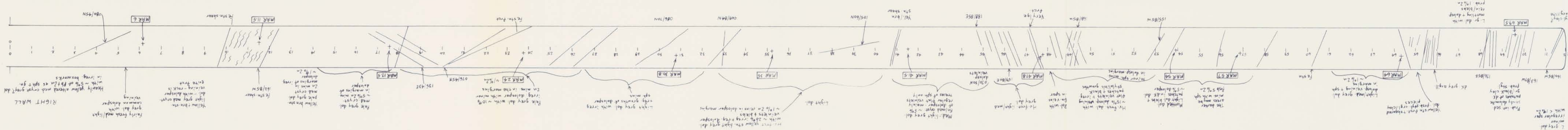
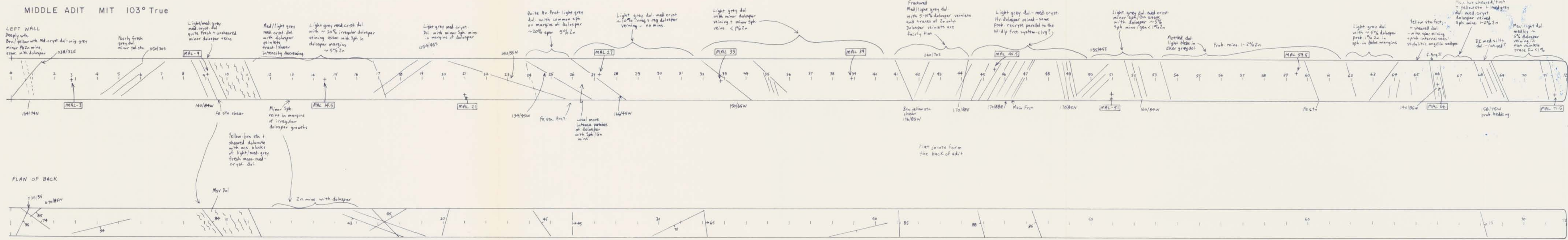


TO ACCOMPANY A REPORT BY D. RHODES

**LEAD MOUNTAIN**

Drawn by: <b>B.C.W.</b>	Traced by:
Revised by: _____ Date: _____	Revised by: _____ Date: _____
PLANS AND SECTIONS OF GEOLOGY AND SAMPLE LOCATIONS 4230' ADIT LEAD MNT. (MIT) (Bearing of Adit 086°)	
Scale: 1:100	Date: 7 <sup>th</sup> AUG. 1984. Plate: 9

← Rocks in adit are all light coloured dolomites of Jubilee Fm. (Unit 3B?) varying from fragmental and mottled to denser, finely crystalline dolomites →



1979 CHANNEL SAMPLE RESULTS

MITTEN SAMPLING SHEET	Tag No.	Combined	Pb%	Zn%	Ag.oz.	Distance
4130 Adit Sample No. 1	28851	4.38%	3.3	0.85	0.23	6m (19.68')
" 2	28852	0.7%	0.41	0.19	0.10	5m (16.25')
" 3	28853	6.12%	5.2	0.65	0.27	5m (16.25')
" 4	28854	1.66%	1.4	0.12	0.14	5m (16.25')
" 5	28855	2.01%	1.6	0.27	0.14	7m (22.9')
" Duplicate Sample No. 6	28856					
" 7	28857	0.88%	0.71	0.08	0.09	5m (16.25')
" 8	28858	1.57%	0.95	0.50	0.12	5m (16.25')
" 9	28859	1.92%	1.4	0.36	0.16	5m (16.25')
" 10	28860	0.76%	0.48	0.16	0.12	5m (16.25')
" 11	28861	0.5%	0.32	0.08	0.10	5m (16.25')
" 12	28862	0.66%	0.15	0.39	0.12	5m (16.25')
" 13	28863	0.94%	0.10	0.52	0.32	5m (16.25')
" 14	28864	0.56%	0.15	0.32	0.11	5m (16.25')
" 15	28865	0.57%	0.06	0.42	0.09	4m (13.1')



TO ACCOMPANY A REPORT BY D. RHODES *Derek Rhodes*

**GEOLOGICAL BRANCH ASSESSMENT REPORT**

**LEAD MOUNTAIN**

82 K/15

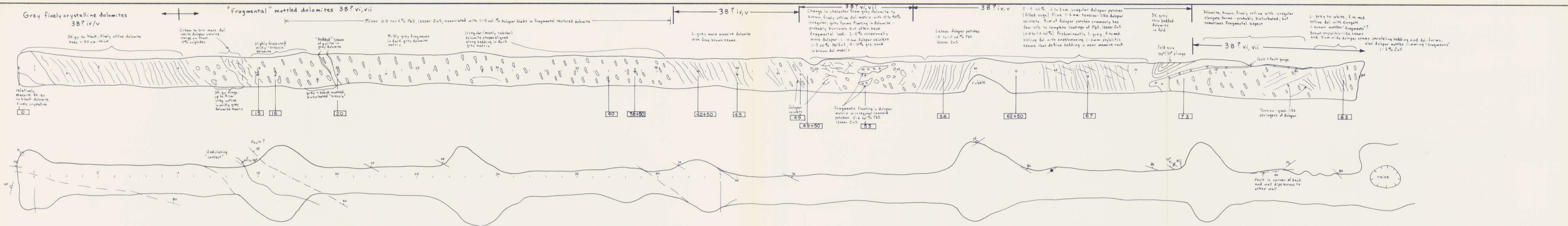
**13,290**

Drawn by: BCW	Traced by: APR
Revised by: _____	Revised by: _____
Date: _____	Date: _____

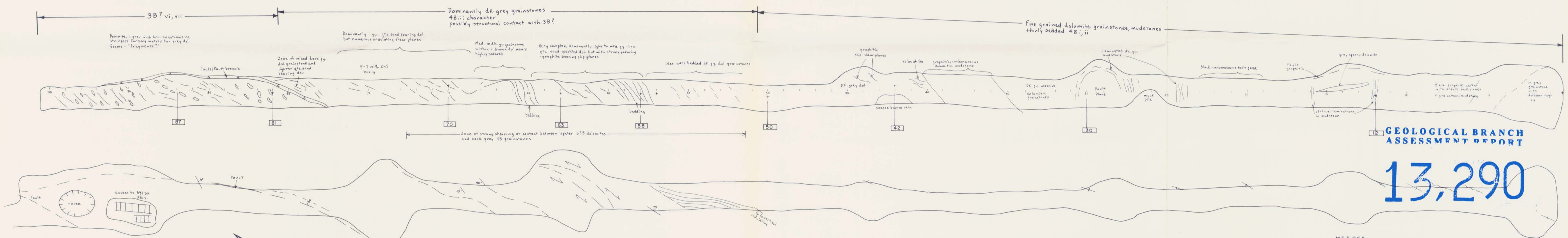
PLANS & SECTIONS OF GEOLOGY AND SAMPLE LOCATIONS MIDDLE ADIT 4130 ELEVATION

Scale: 1:100 Date: 21-7-1985 Plate: 10





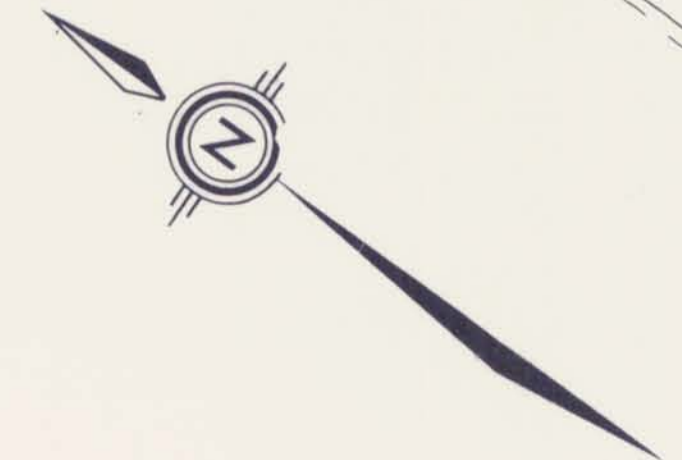
39 + 55 DRIFT SOUTH-EAST  
(Only west wall mapped and plotted)



39 + 55 DRIFT NORTH-WEST  
(Only west wall mapped and plotted)


GEOLOGICAL BRANCH  
ASSESSMENT REPORT

13,290



METRES  
0 1 2 3 4 5 6 7 8 9 10

TO ACCOMPANY A REPORT BY D. RHODES *David Rhodes*

**LEAD MOUNTAIN**  82 K/15

MITTEN PROPERTY  
PLANS AND SECTIONS OF GEOLOGY  
AND SAMPLE LOCATIONS - 39+55 CROSS-DRIFTS  
GOLDEN M. D., B. C.

Scale: 1:100 Date: 24-1-1985 Plate: 12

Drawn by: DR	Traced by: APR
Revised by: Date	Revised by: Date

**[83] ROCK SAMPLE TAKEN**