

GEOCHEMICAL REPORT

on the

PROSERPINE PROPERTY

(Warspite & Kumangetit Groups)

53°04', 121°30', 93H/3W, Barkerville Area

Cariboo Mining District

Owner: R.J. Barclay, B. Price

by

J.T. SHEARER, M.Sc.

for

McINTYRE MINES LIMITED

Vancouver, B.C.

December 29, 1978

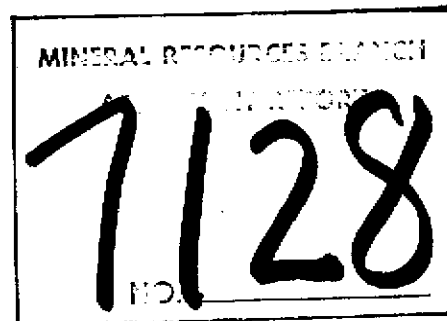


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SUMMARY

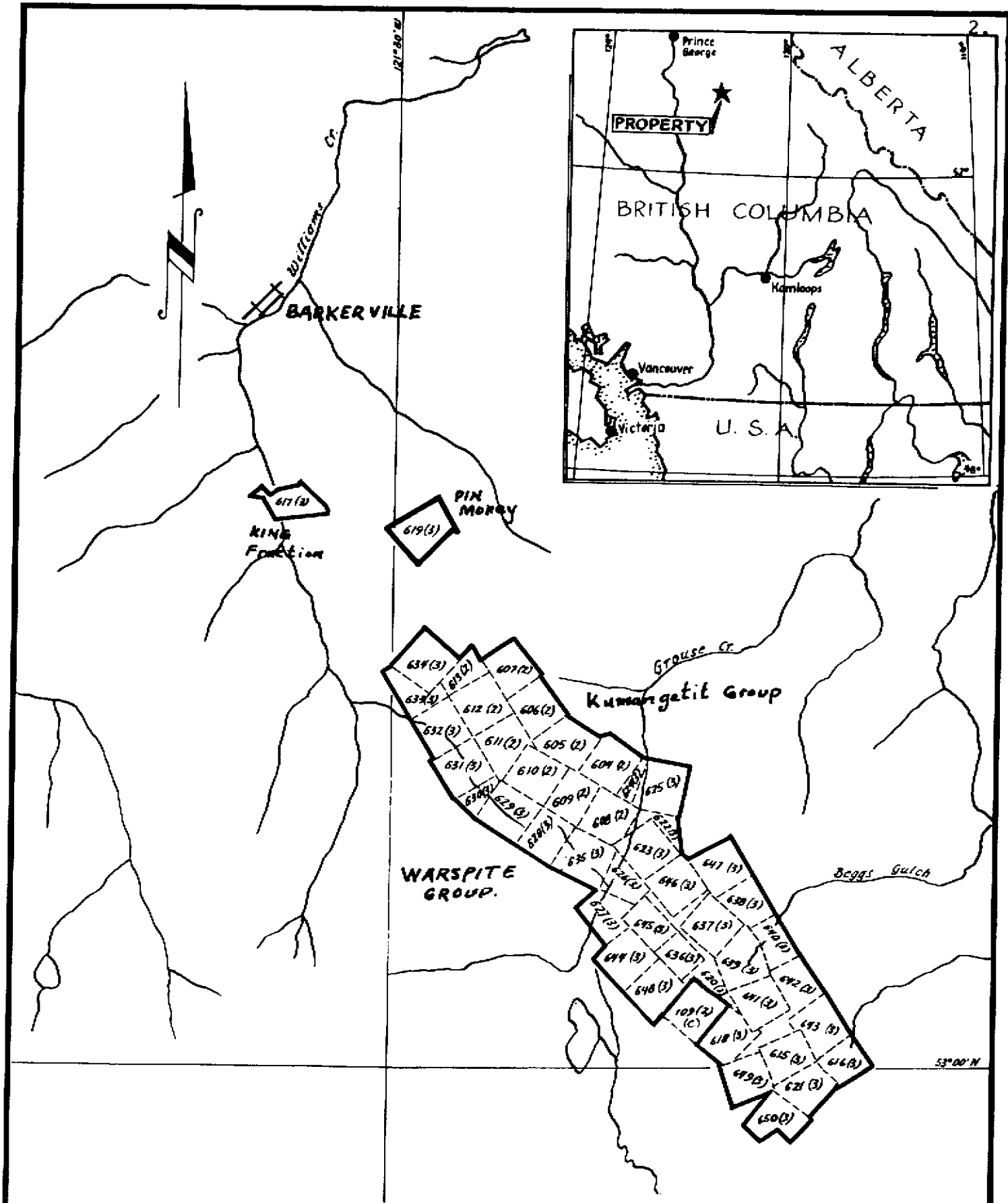
- 1) Interest on the property is focussed on the Warspite Shaft area where a low grade gold zone is reported to have been defined by drifting and underground drilling for a 12 m width and 121 m length. Original records have apparently been lost.
- 2) The claims are underlain by Snowshoe Formation metamorphosed quartzites, siltstones and shale. Petrographic examination of 39 representative specimens reveal substantial cataclastic deformation.
- 3) A 59 sample orientation soil grid, limited rock geochemistry and soil profiles were completed near the Warspite Shaft. Gold and lead values correlate closely with the apparent location of the low grade gold zone.
- 4) Systematic soil sampling was completed over most of the claims for a total of 25.8 line km. Several anomalies require follow-up work.
- 5) A minimum of 364 m of diamond drilling is recommended to test the reported low grade gold in regard to bulk tonnage potential.

INTRODUCTION

The Proserpine Property is drained by the richest placer creeks in the Cariboo. Lode prospecting began in the 1860's and intensive surface and underground work was carried out between 1933 to 1946. The claim group is situated along a major regional structure referred to as the Island Mountain anticlinorium which contains the Cariboo Gold Quartz and Island Mountain mines.

An intriguing, fragmentary report of disseminated, low grade gold mineralization with bulk tonnage possibilities attracted the interest of McIntyre Mines Limited. In 1945-56 a program by Barkerville Gold Mines Ltd. (affiliate of Pioneer Mines) on the Warspite claim consisted of about 273 m of drifting and 515 m of underground drilling. This work traced a 12.1 m thick bed of altered quartzite for a length of 121 m. Unfortunately, the only concrete reference to this program is a short summary in the 1946 B.C. Minister of Mines Annual Report. A "selected" quartzite sample ran 0.10 ounces of gold per ton. Prior to 1945, efforts were largely directed toward gold bearing quartz veins which occur in abundance throughout the claims.

Essentially, gold content, orientation and composition of the altered quartzite unit is unknown. Underground workings are inaccessible due to cave at the portal and Warspite Shaft. Specimens of likely looking material on the dump assayed from trace to 7.6 ppm Au.



MCINTYRE MINES LIMITED

PROSERPINE CLAIMS

Scale: 1:50000

Date: Nov., 1978

FIGURE 1

Subsequent to a field examination and orientation studies an exploration proposal (J. Shearer, June 20, 1978) was formulated calling for geochemistry and limited diamond drilling. However, due to other priorities and allowing for a comprehensive search of the Pioneer records, the drilling phase was postponed until 1979. The tenure requirements of reverted Crown Grants necessitate filing only actual work in the first year. After contacting officers of Bralorne Resources and discussions with former Pioneer employees connected with the Warspite program, it became apparent that records of the work in question have been lost.

A detail analysis of McIntyre's exploration rational incorporating preliminary results of the present sampling is given in a compilation and progress report (J. Shearer, August 30, 1978).

LOCATION AND ACCESS

The claims are mainly located in the southwest corner of 93H/3W bounded in the north by Cronklin and McCallum gulches as shown in Figures 1 and 2. Parts of 5 claims extend into 93H/14W. The isolated King Fraction is in the southeast corner of 93H/4E.

The main access is by a 4.0 km road turning off at Cronklin Gulch which is 1.6 km from Barkerville Historic Park. Old roads are present within a few feet of the proposed drill sites at the Warspite shaft. Several long, strike trenches facilitate movement throughout the northern half of the claims. A road up Grouse Creek provides access to the middle of the group.

The claims are characterized by open forest and gentle topography mainly around 1667 m elevation.

CLAIM STATUS

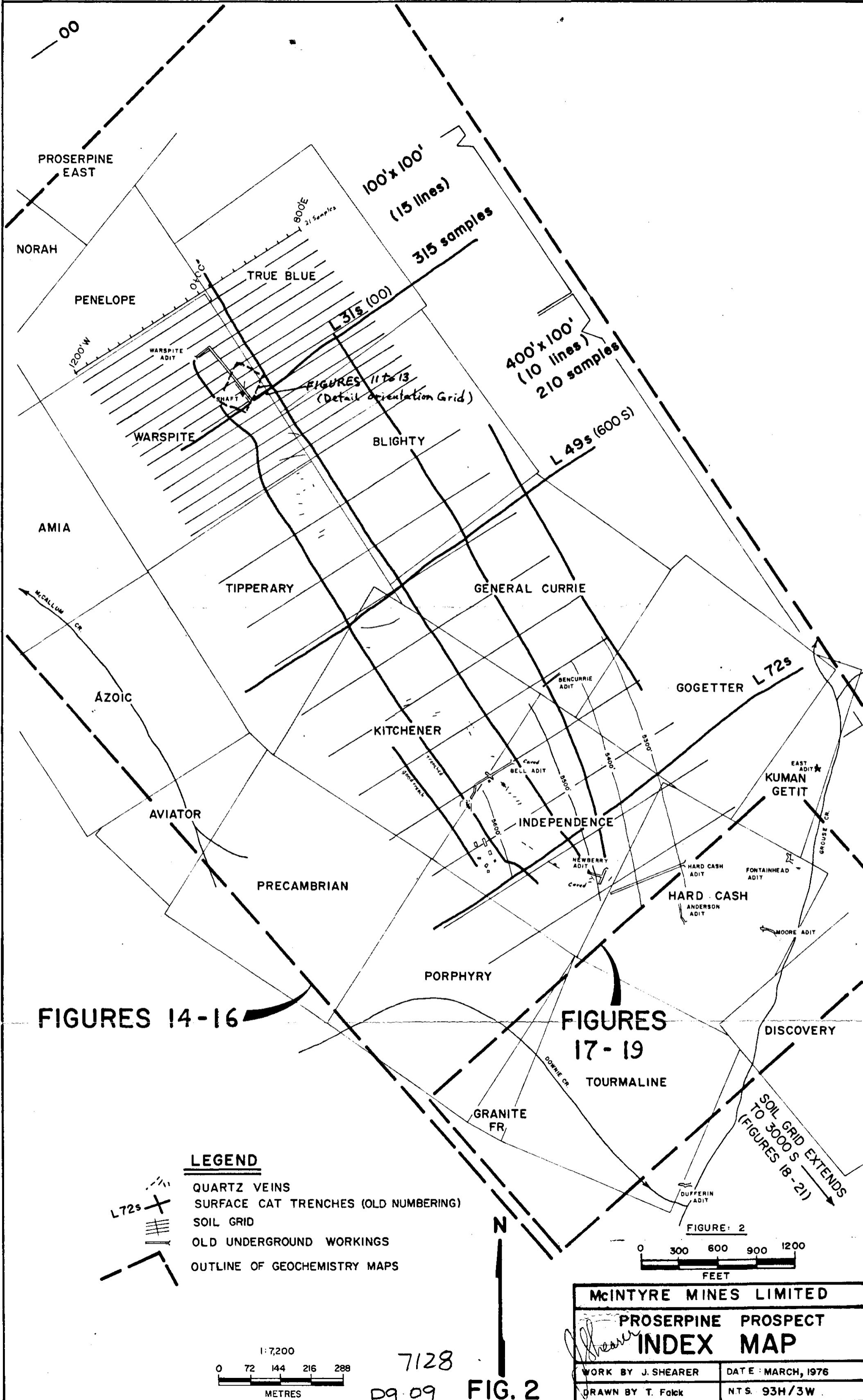
The property is composed of 48 reverted Crown Grants as listed in Table I and shown on Figure 1. Two small fractions are included with larger adjacent claims making a total of 46 "Modified Grid System" units. The Warspite claim was originally staked by F.J. Tregillus and associates in September 1916. The original posts were found using the Land Surveyor notes obtained in Quesnel. The present owner, Petra-Gem Explorations of Canada, acquired the property through the efforts of R.J. Barclay and B.J. Price.

For applying assessment credit the claims are grouped into:
a) Warspite Group (40 units) and b) Kumangetit Group (4 units).
Two isolated units; Pin Money and King Fraction are considered separately.

FIELD PROCEDURES

The orientation soil sampling was completed by A.E. Angus and J. Shearer on June 18, 1978. A method of compass and "Hipchain" measurements was used to locate sample sites. Because of the close spacing of this grid a greater accuracy was not needed.

A base line was established along the middle strike trench with stations marked every 30 m by 1 m wooden pickets. A 0.5 m picket was placed between basestations (15 m) to further mark the line. The location of the baseline trench is accurately known from basemaps obtained from W.V. Smitheringale, constructed by a transit survey throughout the property in the 1930's. The occasional wooden and metal pins are still visible. Soil sampling was conducted by T. Brown and D. Blake of Amex Exploration Services under contract to McIntyre Mines Limited. Samples were taken at 30 m intervals on lines 30 m apart down to 300 S. From 420S to 3000S



PROSERPINE EAST

NORAH

PENELOPE

TRUE BLUE

WARSPITE

BLIGHTY

AMIA

TIPPERARY

GENERAL CURRIE

AZOIC

KITCHENER

GOGETTER

AVIATOR

PRECAMBRIAN

INDEPENDENCE

KUMAN GETIT

HARD CASH ANDERSON ADIT

PORPHYRY

FIGURES 14-16

FIGURES 17-19

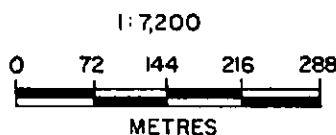
DISCOVERY

GRANITE FR

TOURMALINE

LEGEND

- QUARTZ VEINS
- SURFACE CAT TRENCHES (OLD NUMBERING)
- SOIL GRID
- OLD UNDERGROUND WORKINGS
- OUTLINE OF GEOCHEMISTRY MAPS



McINTYRE MINES LIMITED	
PROSERPINE PROSPECT	
INDEX MAP	
WORK BY J. SHEARER	DATE: MARCH, 1976
DRAWN BY T. Falck	NTS. 93H/3W

7128
p9.09 FIG. 2

FIGURE 2

SOIL GRID EXTENDS TO 3000 S (FIGURES 18-21)

FIGURES 11 to 13 (Detail Orientation Grid)

100'x100' (15 lines) 315 samples

400'x100' (10 lines) 210 samples

L 49s (600s)

L 72s

EAST ADIT

BENCURRIE ADIT

Covered BELL ADIT

NEWBERRY ADIT

FOUNTAINHEAD ADIT

MOORE ADIT

DUFFERIN ADIT

DOWNIE CR

GROUSE CR

1200' W

800' E 21 Samples

0100'

00

N

lines are 120 m apart. Slope corrections were made in the field but were only severe around 1500 S. A tie line was run along 300W with negligible overall corrections. Lines were run with compass and chain and marked by blazes. Sample sites are marked by tyvek tags.

All samples, with a few exceptions were taken from the B horizon with a grubhoe. A set of 5 soil profiles, Figures 6 to 10, indicate the typical soil development. Standard forms listing soil characteristics and topography were completed in the field. Analytical techniques used by Chemex Labs Ltd. are contained in Appendix IV.

TABLE I
 REVERTED CROWN GRANTED MINERAL CLAIMS
 CARIBOO MINING DIVISION - PROSERPINE AREA (GROUSE CREEK)

WARSPITE GROUP

<u>NAME OF CLAIM</u>	<u>LOT NO.</u>	<u>RECORD NO.</u>	<u>RECORD DATE</u>
Hard Cash	9564	608	20 February, 1978
Independence	9563	609	20 February, 1978
Kitchener	10558	610	20 February, 1978
Tipperary	9561	611	20 February, 1978
Warspite	9560	612	20 February, 1978
Penelope	11045	613	20 February, 1978
Mars	10982	615	16 March, 1978
AM No. 6	11236	616	16 March, 1978
Antler No. 2	11032	618	16 March, 1978
Star Fraction	11035	620	16 March, 1978
Luna	10983	621	16 March, 1978
Discovery	9565	623	16 March, 1978
Luft	11047	626	16 March, 1978
Tor	11050	627	16 March, 1978
Porphyry	10555	628	16 March, 1978
Pre Cambrian	10554	629	16 March, 1978
Aviator	10553	630	16 March, 1978
Axoic	10552	631	16 March, 1978
Amos	10551	632	16 March, 1978
Andy	10550	633	16 March, 1978
Norah	11046	634	16 March, 1978
Granite Faction	11038	635	16 March, 1978
Tourmaline	10556		
Antler	11030	636	16 March, 1978
Venus	10979	637	16 March, 1978
AM No. 2	11232	638	16 March, 1978
Mercury	10980	639	16 March, 1978
AM No. 3	11233	640	16 March, 1978
Saturn	10981	641	16 March, 1978
AM No. 4	11234	642	16 March, 1978
Nut Fr.	11036		

continued

<u>NAME OF CLAIM</u>	<u>LOT NO.</u>	<u>RECORD NO.</u>	<u>RECORD DATE</u>
AM No. 5	11235	643	16 March, 1978
Tweedsmuir	11222	644	16 March, 1978
Grouse	11029	645	16 March, 1978
Jubitor	10978	646	16 March, 1978
AM No. 1	11231	647	16 March, 1978
Triumph	11223	648	16 March, 1978
Antler No. 3	11033	650	20 March, 1978
True Blue	10557	607	20 February, 1978
Antler No. 4	11034	650	20 March, 1978

KUMANGETIT GROUP

<u>NAME OF CLAIM</u>	<u>LOT NO.</u>	<u>RECORD NO.</u>	<u>RECORD DATE</u>
Gogetter	10559	604	20 February, 1978
General Currie	9570	605	20 February, 1978
Blighty	9569	606	20 February, 1978
Kumangetit	10560	624	16 March, 1978
Ptarmigan Fraction	11049	622	16 March, 1978
Hackle	11048	625	16 March, 1978

ISOLATED CLAIMS

<u>NAME OF CLAIM</u>	<u>LOT NO.</u>	<u>RECORD NO.</u>	<u>RECORD DATE</u>
KING Fraction	11241	617	16 March, 1978
Pin Money	10420	619	16 March, 1978

GEOLOGY

1) General

As a result of the large gold production, both lode and placer, the Barkerville-Wells area has been the subject of five full scale government mapping programs culminating in the work by Sutherland-Brown(1957). Several detail investigations on mining properties have been published (Benedict (1945), Skerl (1948).

The geology of the area is not simple. Sutherland-Brown summarizes the problem:

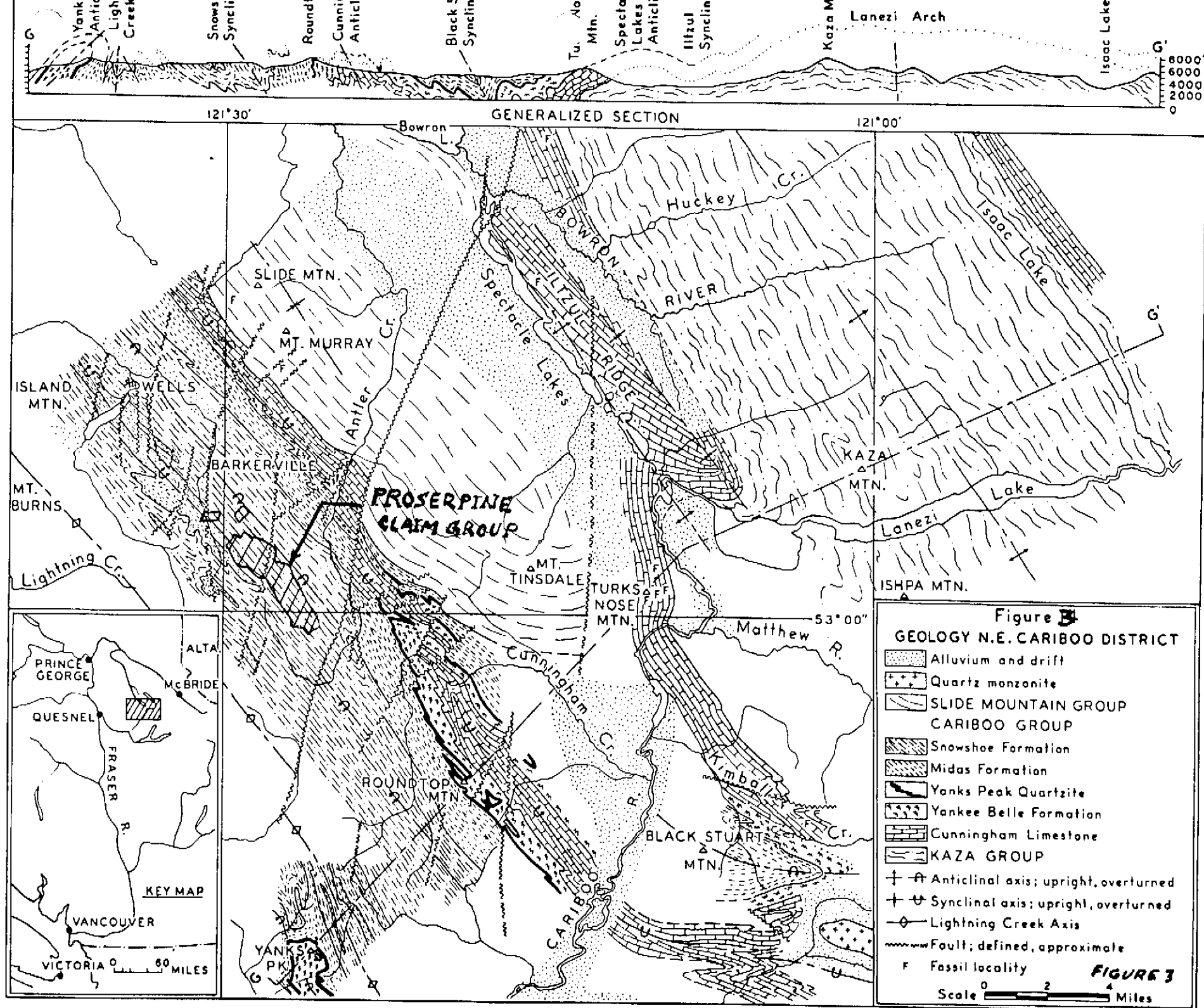
"Multiple deformation has rendered most of the rocks schistose and tightly compressed in complex repetitive folds. A subtlety of rock differences, an obscurity of bedding, facies changes in some formations, and a variation in intensity of hydrothermal alteration all combine to make a complex relationship which poor rock exposure further compounds."

Regional geology is shown on Figure 3. A schematic stratigraphic column is shown as Figure 4.

2) Stratigraphy and Lithology

The thick predominately coarse clastics of the Kaza Group (Hadrynian, Windermere equivalents) are the oldest rocks and conformably underlie the Cunningham Formation. The Cunningham Formation consists primarily of massive limestone with lesser dolostone, shale, and sandstone thickening westward away from the Rocky Mountain Trench.

The Yankee Belle Formation is composed of shales and siltstones together with minor quartzite and limestone in the eastern Cariboo Mountains but becomes thicker and more calcareous toward the west.



(from Sutherland-Brown 1967)

The Yanks Peak Formation is dominated by distinctive clean quartzites. Regional correlation of the Yanks Peak Formation with the basal Gog Group and the Hamill Group 150 miles southeast in the Big Bend area by Young et al (1973) has been generally accepted. A rough correlation of the underlying rock units can also be made. Facies changes within the clastic units suggests a more distal part of the shelf environment to the west. The Midas Formation is composed mostly of black, quartzose fine grained rocks.

The Snowshow Formation is the youngest formation of the Cariboo Group, although Campbell et al (1973) consider the Snowshoe Formation as Kaza Group equivalent. It is the most intensely studied because the majority of productive vein and replacement systems are found along favourable structural settings within the Lower Snowshoe Formation.

Sutherland-Brown describes the Snowshoe Formation as follows:

"The Snowshoe Formation is composed predominantly of clastic rocks. In general the amount of coarse detrital particles decreases eastward and probably upward. In the west the formation is composed dominantly of coarse clastic rocks, but in the east only the lower 200 to 300 feet is dominantly coarse. The clastic rocks are subgreywackes which are characteristically poorly sorted, schistose, and deposited in very lenticular beds. The proportion of clastic to carbonate rocks in the sections exposed in the mines averages about 15 to 1. The limestones are characteristically thin, lenticular and impure.

The arenaceous rocks are mostly micaceous quartzites which are normally a middle to dark grey, but can be light brown or greenish-grey. The typical rock is a dark-grey coarse - to medium-grained micaceous quartzite in which the large quartz eyes are black or opalescent. "

The Slide Mountain Group unconformably overlies the Snowshoe Formation. It contains a typical "Cache Creek" Assemblage of ribbon cherts, limestone and basic volcanics.

Idealized Regional Stratigraphy

<u>Thickness</u>	<u>Unit and Thickness</u>	<u>Lithology</u>
	TILL, river gravels	
4500'+	Slide Mountain Group	Chert, argillite
		Unconformity
1000'+	Snowshoe Formation (see note below)	Grey to brown, micaceous quartzite; brown, grey or green phyllite, metasilstone; black to white limestone, granule conglomerate.
1000'+	Midas Formation	Black to dark grey, quartzose phyllite, and metasilstone; black to grey limestone.
0-200'	Yanks Peak quartzite	Grey to white, massive medium-grained quartzite.
300-500'	Yankee Bell Formation	Brown phyllite, metasilstone, fine grained quartzite.
2000'+	Cunningham limestone	Thinly bedded to massive, grey finely crystalline limestone, buff, coarsely crystalline ferroan dolomite; minor limy phyllite.
6000'+	Kaza group (Hadrynian)	1000' white cross bedded quartzite. 5000'+ green schist, schistose greywacke, micaceous quartzite.

CARIBOO GROUP (L. Paleo)

base not seen

note: according to interpretations by Campbell et al 1973 the Snowshoe Formation is considered equivalent to the Kaza Group.

The only intrusives with any relationship to the Cariboo Group are the Proserpine dykes. The Proserpine dykes are quartz porphyries that are commonly very altered. Most dykes are 1 to 4 feet wide.

c) Structure

The Cariboo Group has been closely compressed into northwesterly trending complex folds which are overturned toward the southwest. All folds plunge at low angles to the northwest. Most folds are asymmetrical and vary in cross-section along strike. The original stratigraphic succession is disrupted throughout many folds by shearing, rupture and flowage.

The most important major structure in the Warspite area is the Island Mountain anticlinorium which can be traced from Grouse Creek to Island Mountain and contains the gold ore bodies mined by Cariboo Gold Quartz and Newmont.

Because of the spatial association of economic gold vein mineralization and northerly striking faults coupled with the presence of readily fractured host rocks, an emphasis on defining major faults characterizes all previous investigations. A major fault follows the trace of Grouse Creek with a dextral separation of about 240 m.

Smitheringale (1940) recognizes at least three 005° to 345° trending faults. Two of these faults occur near the Warspite showings and have apparent displacements of around 100 m.

Smitheringale (1940) describes the main rock units as follows:

"The rock units observed consist of two zone of dark to grey quartzites with interbedded argillaceous members; a thinly bedded very fissile group of argillites; a sericite schist with both finely quartzitic and argillaceous members; and a brownish to buff weathering sericitic quartzite with some argillite. Closely associated with the latter are quartzites and argillites with a greenish base. A few scattered dikes of quartz porphyry were observed."

From limited observations, check sampling and the data presented by Smitheringale, an approximate stratigraphic sequence is shown in Figure 5. A complex hinge line of a subsidiary antiform appears to trend just north of the Warspite shaft. Detail mapping for at least 1500 feet north of the shaft is recommended to define this possible important structure.

Geological interpretation is complicated by intricate interlacing of lenticular beds. Individual lenses often have gradational contacts and vary in composition along strike. Smitheringale notes that more work is needed to define the smaller scale folding that he has indentified in the sericite schist unit.

3) Proserpine Geology & Petrology

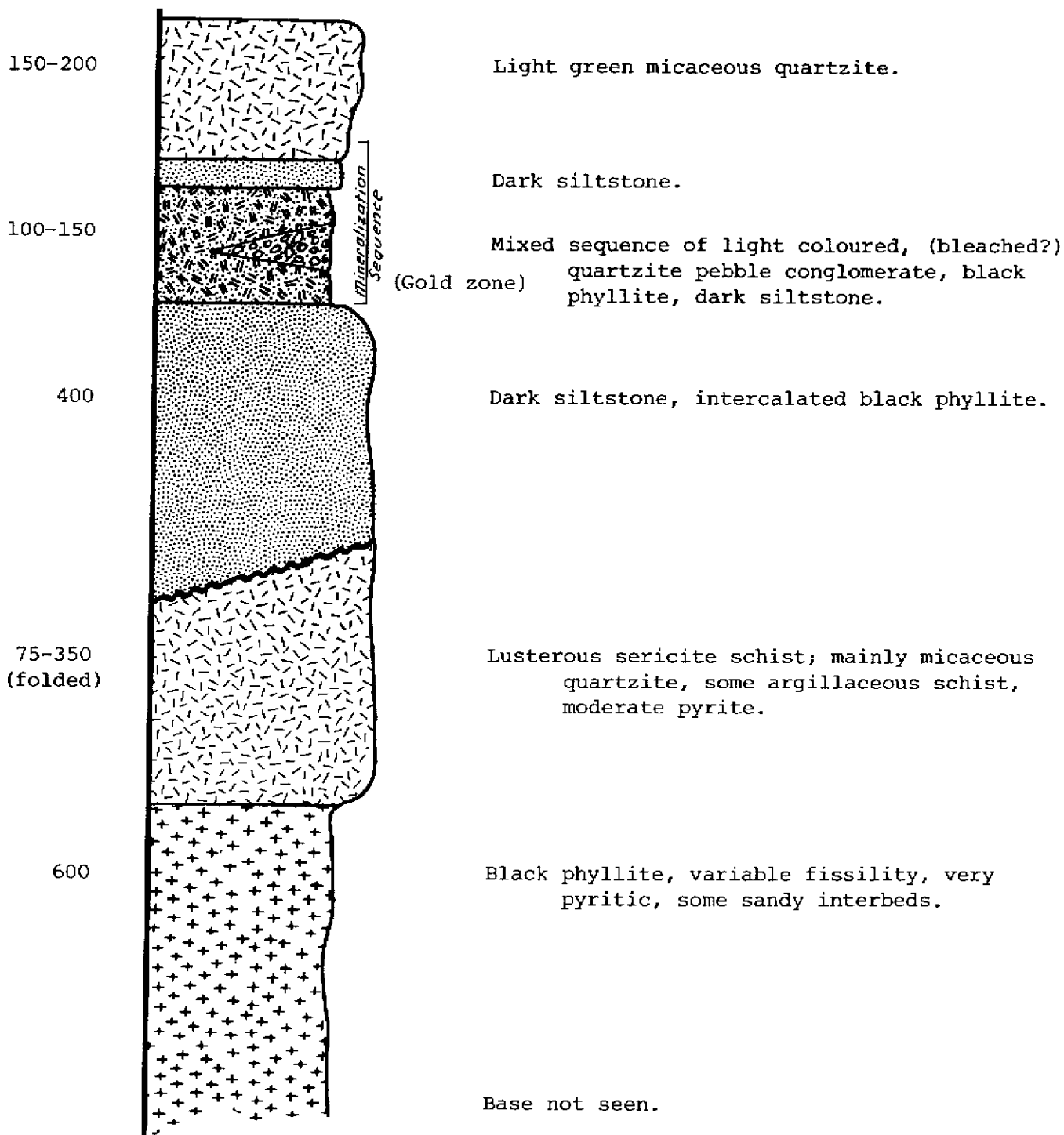
Natural outcrop is scarce on the Proserpine Prospect, however the extensive hand and Dozer trenches completed during the 1930's and 40's allows a reasonable geological picture to be constructed. Much of the trenched area is now sluffed but when the trenches were fresh, Dr. Wm. V. Smitheringlae produced an overall interpretation at 1:2400 based on detail mapping at 1:600. Beds generally strike 295° and dip 60° to 80° NE.

FIGURE 5

SCHEMATIC STRATIGRAPHIC COLUMN
WARSPITE GROUP

REPETITION OF SECTION
+ thin carbonate horizons

THICKNESS



A detail examination was made of 39 thin sections cut from representative lithologies. The petrographic suite consists of 25 surface and 14 Warspite dump specimens. A summary description of each specimen is included in Appendix VI and locations are shown on Figure 14.

As discussed by Sutherland Brown (1957) on pages 22, 29-31 and 94-96, the rocks underlying the claim group have undergone substantial mechanical deformation. This deformation and much of the attendant chemical metamorphism is not readily apparent on a macroscopic scale.

Evidently the principle stress exceeded the breaking strength of the rock constituents resulting in extensive rupture. All thin sections are characterized, to differing degrees, by cataclastic features such as microfracture of individual grains, large grains broken into mosaic granules and lattice displacements. In addition the chemical processes of solution, recrystallization and formation of layer silicates are well developed.

In spite of the intense metamorphism many primary fabric relicts are fairly conspicuous. A "porphyroclastic" (Turner and Verhoogen 1960) texture is common. Relict framework grains usually exhibit undulatory extinction, marginal granulation, bending of cleavage cracks and microinclusion streaks suggesting intracrystalline gliding. True augen development was only noted in a few examples. Original sorting is highly variable when sufficiently well preserved for determination. Based on this sample suite, no general statement can be made on the probable degree of primary sorting where granulation is intense.

The term micaceous quartzite (Sutherland Brown 1957) may not be acceptable if detail property mapping is warranted. An accurate scheme of rock nomenclature should recognize a deformation component. The most common rock type in the coarser grained clastics is a phyllonite or phyllonitic quartzite-siltstone where the fine-grained structure of a phyllonite is the reduction of grain during deformation of originally coarser rocks.

Consideration should be given to collecting geographically oriented specimens for comparison of data determined microscopically and in the field. The target gold mineralization within the altered quartzite could be some function of granulation intensity in relation to fold pattern or faulting. The degree of leaching whereby carbonaceous matter is removed, grain size increased and a mosaic texture produced maybe another important factor.

4) Mineralization

With the exception of the Pioneer Mines Ltd. program in 1945-46, all previous exploration has been for quartz veins or bedded pyritic replacements. Not having the Pioneer records precludes commenting on their exploration strategy. Previous reports, Dolmage (1939), 1940), Wilson et al (1933), Woods-Smith (1939) and Smitheringale (1940) indicate quartz veins were the only target.

However, the unique qualities of the zone outlined by Pioneer was not totally unrecognized by earlier workers. Hanson (1935) notes:

"At the time of the writer's visit, the adit had penetrated a light coloured rock full of irregular quartz veinlets. The rock is too much altered for identification but is believed to be a quartz-porphyry."

Dolmage (1940) comments:

"Still farther back in the tunnel is a closely spaced group of well mineralized crossed veins which occur in a very favorable bed of coarse quartzite which is itself intensely altered and impregnated with pyrite. Richmond got some fairly good samples from these veins, and the writer took three additional ones, one of which ran 0.41 ounces of gold per ton. If the main vein should be found to extend to this quartzite, some highly favorable conditions might be encountered. The bed itself contains so many veins and is so intensely mineralized that it warrants some testing. It is exposed at two places on the surface to the southeast of the tunnel and is not here noticeably mineralized. nevertheless it looks so promising in the tunnel that it should not be passed by without some further investigation."

The two exposures mentioned by Dolmage were not positively identified in the present examination, but all likely looking outcrops were sampled with poor results.

A large amount of pyritic, silicified quartzite is present on the dump. Samples of this rock ran from 10 ppb to 7600 ppb gold.

There is a possibility that the quartzite bed is actually irregularly mineralized only within the small tranverse quartz veinlets and does not have a regular pervasive gold content. If this is the case then representative samples will be difficult to obtain.

GEOCHEMISTRY

1) Soil Survey

a) Warspite Orientation Grid

On June 16, 1978, a detail orientation soil grid of 50 close spaced samples was completed over the assumed position of the pervasive gold zone. The results are shown on Figure 11, 12 and 13 (in pocket).

Extrapolating the positional information from old plans to Figure 13, the soil samples directly over the pervasively mineralized quartzite bed have a definite anomalous response for Au and Pb with weaker, threshold values in Cu and Zn. Arsenic exhibits a somewhat erratic but contourable pattern. Gold in soils is elongated in the general strike direction and gives the most distinctive indication of the zone. The other elements are elongated to the north which is actually slightly up-slope but could indicate dispersion from a down dip extension.

Lead, zinc, copper and arsenic have anomalous values in the extreme western corner of the grid but gold is not represented.

There is a wide, prominent gold anomaly to the west of the projected underground workings. This probably indicates the extension of the gold bearing quartz vein that was intersected in the shaft. Some minor downslope contamination from the shaft dump is likely.

It is evident that soil geochemistry, in particular Pb and Au, will be a useful guide to this disseminated-type mineralization

b) Soil Profiles

Five soil profiles were taken throughout the grid area. Locations are shown on Figure 14. Profiles are surprisingly difficult to obtain due to dense roots and pebbles. Although natural outcrop is not abundant, solid bedrock is commonly encountered only a few inches below surface. Samples were analysed for Cu, Zn, Pb, Ag and Au plus cold extractable Cu, Zn, Pb, and Ag. Figures 6 to 10 show results for Cu, Zn and Pb for both cold (Cx) and total (Tx) extractions. Analytical technique is outlined in Appendix IV.

PROSERPINE GROUP - SOIL PROFILE No. 1

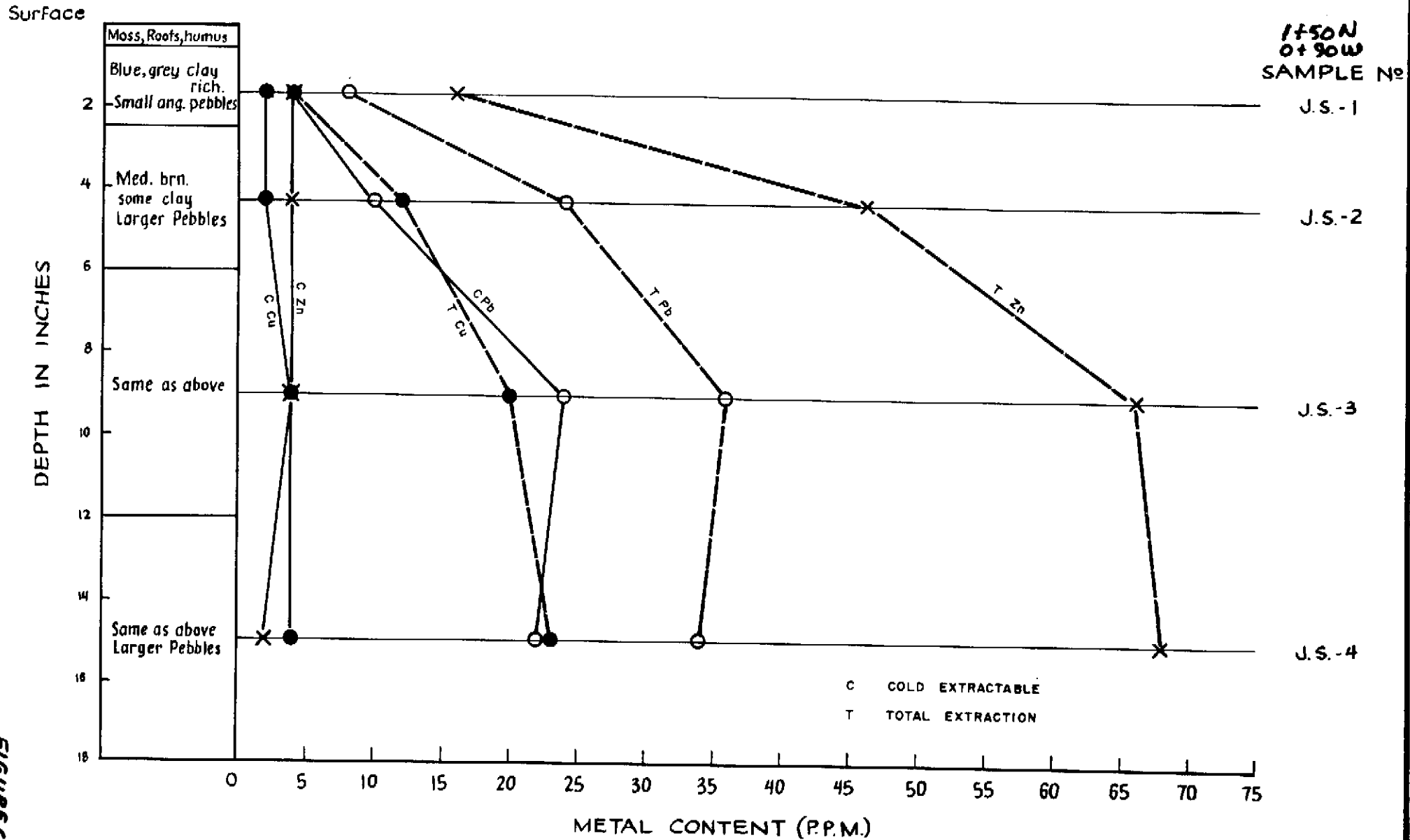


FIGURE 6

PROSERPINE GROUP - SOIL PROFILE No. 2

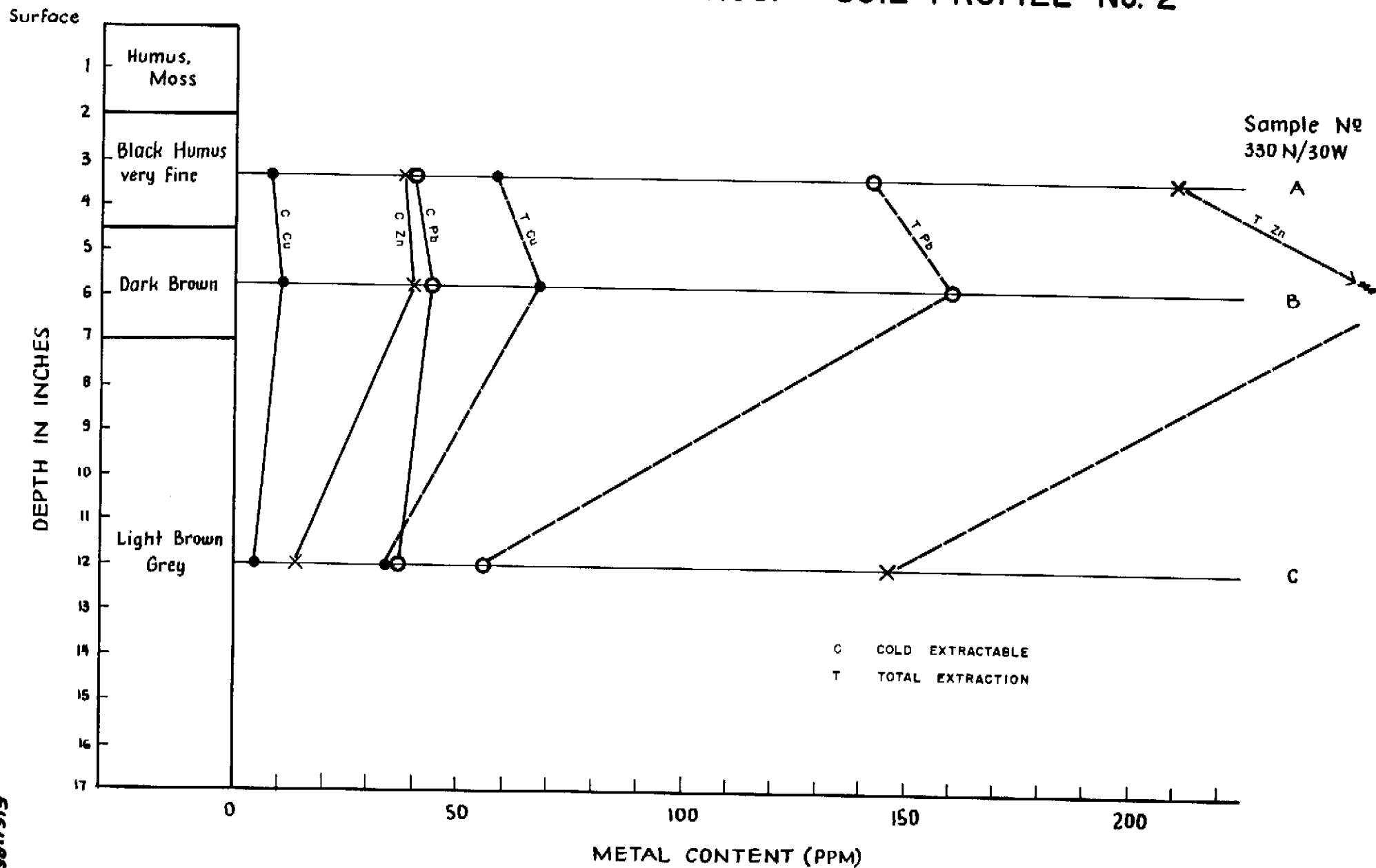


FIGURE 7

FIGURE 7

PROSERPINE GROUP - SOIL PROFILE No. 3

Sample No
30N/60W

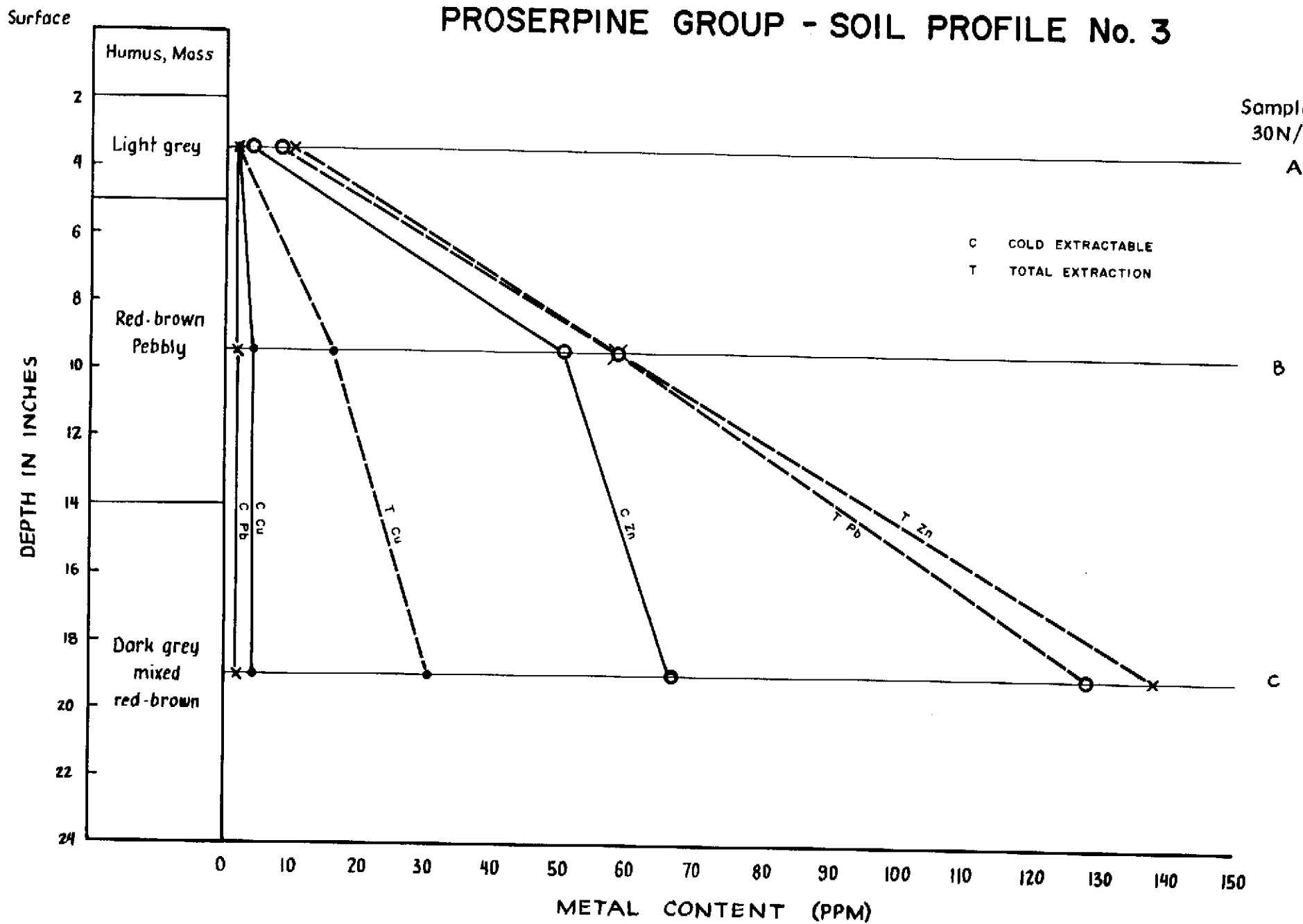


FIGURE 8

FIGURE 8

PROSERPINE GROUP - SOIL PROFILE No. 4

Sample N^o
300 S/ 50W

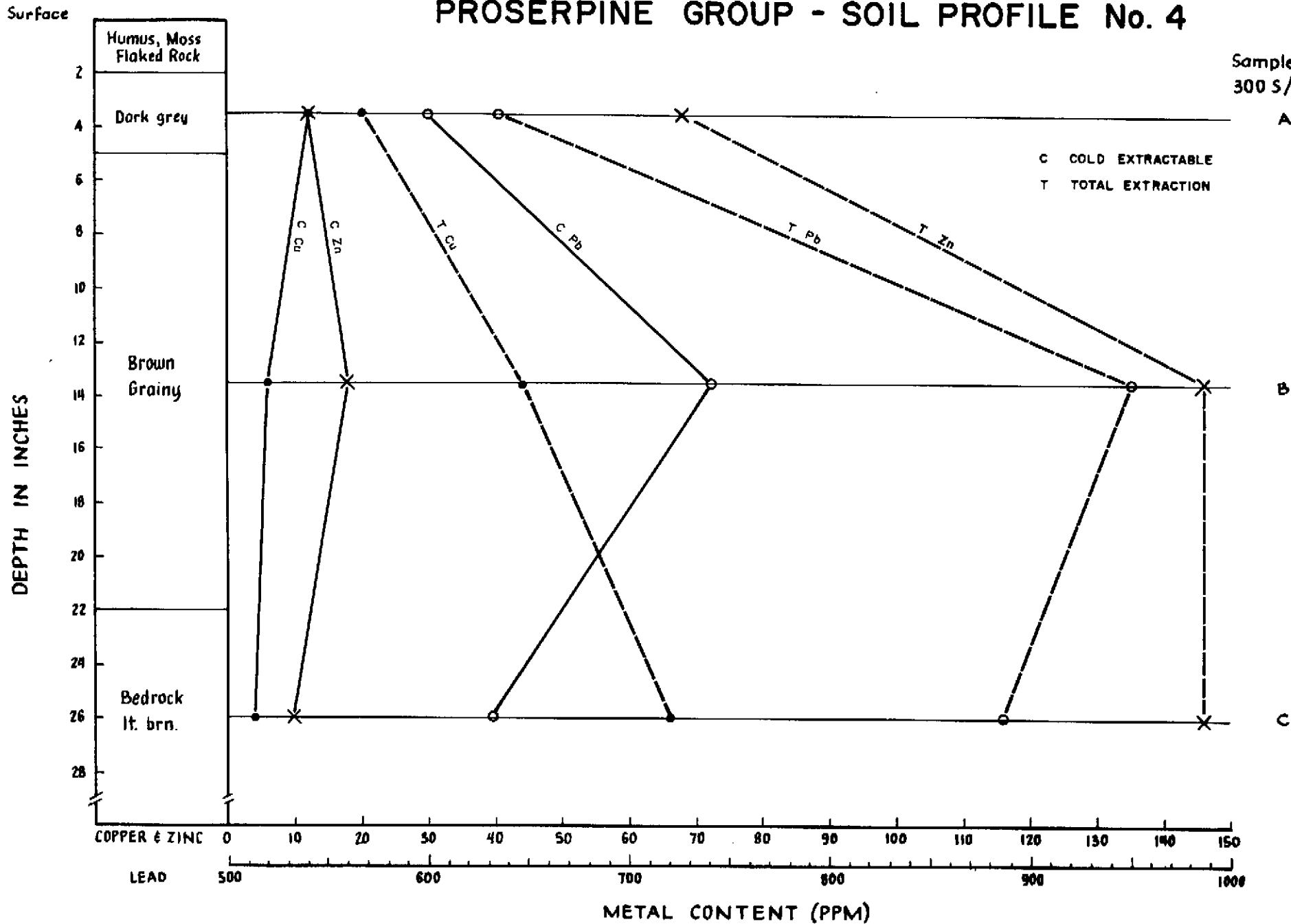


FIGURE 9

FIGURE 9

PROSERPINE GROUP - SOIL PROFILE No. 5

Sample No
9-005/0-90W

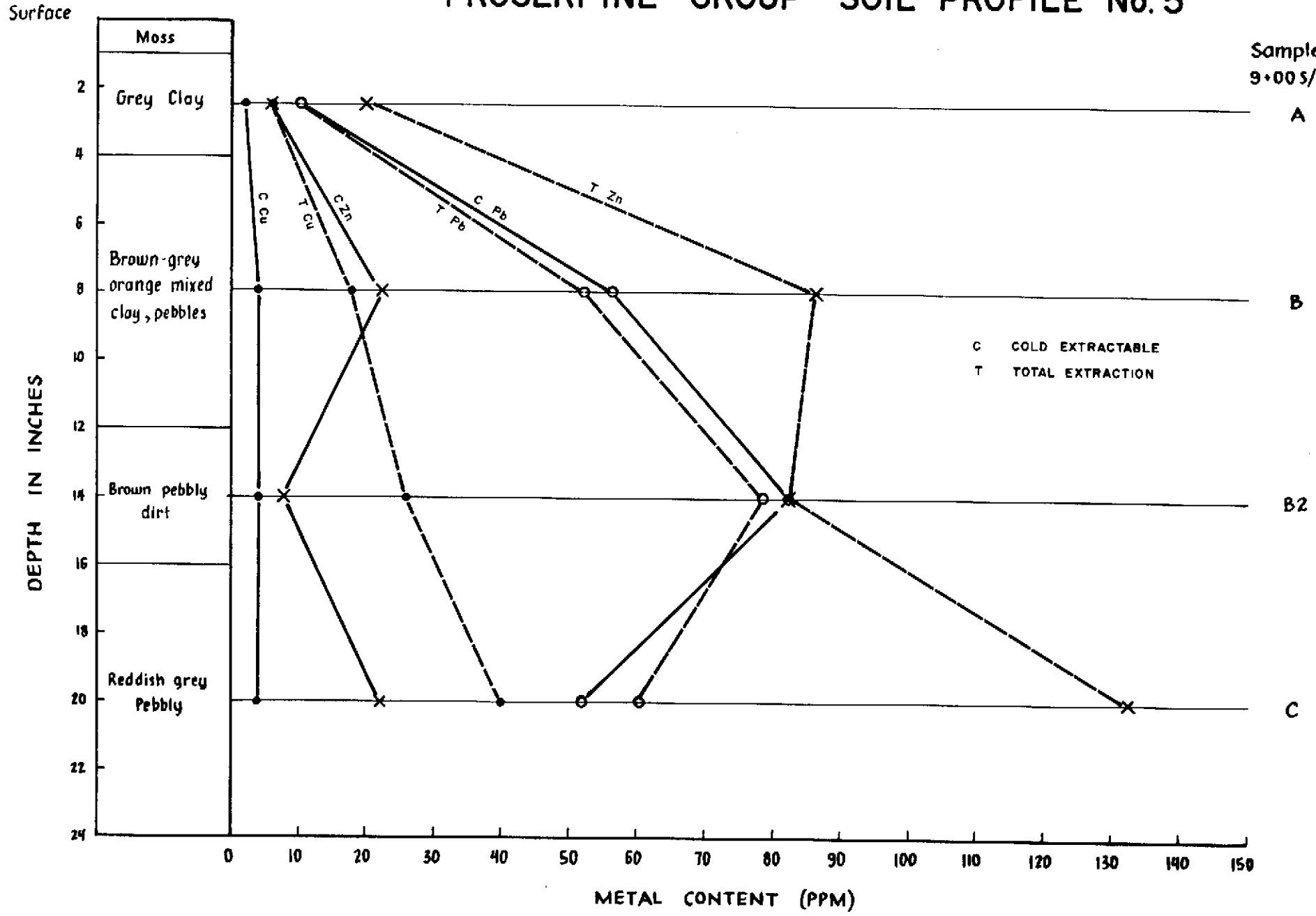


FIGURE 10

Profiles 1, 2 and 4 exhibit large Cx/Tx ratios, especially for lead. This indicates relatively weak metal bonds suggesting dominately hydromorphic accumulation. The marked decrease of all elements with increasing depth in profile 1 is probably due to substantial physical down slope creep from the source. Profile 3 is located near the Warspite shaft within a main coincident Au, Pb, and As anomaly. Metal content increases sharply with depth and cold extractable lead is very low, indicative of dominately residual origin. The general high mobility of zinc is reflected in a high Cx/Tx ratio. Cold extractable lead is actually greater than total lead in profile 5. This is caused by an insoluble Pb complex which forms during the perchloric-nitric acid leach in the presence of excess Ba or SO_4 . A variation of up to 50% of total Pb content is experienced depending on the time the leachate is allowed to stand.

Soil profiles show that some anomalous areas (profile 2) are largely hydromorphic whereas the large coincident Au,Pb-As Warspite shaft anomaly is likely dominately residual for Pb. The analytical technique should be carefully controlled in regard to lead total extraction.

c) Property Grid

A total of 942 soil samples were taken on a grid extending from the Norah claim in the north to the Antler claim in the south as shown in part on Figure 2. The results for Au, Pb and As are plotted on Figures 14 to 19 (in pocket).

Graphical analysis of the frequency distributions as cumulative percentage probability plots (Parslow 1974, Sinclair 1976) and histograms is contained in Appendix V. The curves were partitioned where necessary and a threshold value taken at an arbitrary 95% of the lower population as tabulated below:

TABLE II
THRESHOLD VALUES

(from Cumulative % Probability Plots in Appendix V)

	Cumulative percentile of lower population	
	50%	95%
GOLD	Truncated	40 ppb
LEAD	30 ppm	160 ppm
ARSENIC	4 ppm	44 ppm
COPPER	8 ppm	40 ppm
ZINC	40 ppm	150 ppm
SILVER	Truncated	1.5 ppm

A major consideration when evaluating gold significance in soils is the "censorship" of low values (10 ppb) by the analytical method. Chemex personnel (Appendix IV) advise that strict reproducibility is not possible below about 40 - 50 ppb on account of sifted sample inhomogeneities. Neutron Activation analysis will give much greater accuracy for the same costs when this method is available on a commercial basis.

An inspection of Figures 14 and 17 (Gold) reveals several east-west trending anomalous areas approximately parallel to local stratigraphy. A strongly anomalous area immediately downslope from the Warspite shaft, 30N to 150N, reflects previously known mineralization and perhaps minor contamination from the dump. High values on 180S are probably due to small transverse quartz veins exposed by trenching. Other small or isolated gold anomalies that should be checked by prospecting and limited follow up soils are; 660S - 180W, 1260S - 150W, 1650S - 120W, 1950S - 2250S and 2850S. The northeastern portion of the 30 m X 30 m grid has remarkably low gold, lead and arsenic responses.

Several strong lead anomalies are indicated by the 1000 ppm contour shown on Figures 15 and 18. The area 90N to 00 overlaps with the previously discussed gold high. In the north from 270N - 330N,

90W - 270W the complex lead pattern requires follow up work. Small galena bearing transverse veins are well defined at 660S - 150E and likewise the lead bearing mineralization exposed in the Bell and Newberry adits. Lower amplitude lead results appear on Figure 18 south of the Grouse Creek fault.

Higher arsenic values (Figures 16 and 19) generally coincide with both lead and gold most notably near the Warspite workings. Isolated anomalies occur at 2850S and 2100S to 2250S.

In summary soil geochemistry has outlined all of the old workings where old data for comparison is available. If the proposed drilling intersects a significant pervasive gold zone in the Warspite workings a systematic follow up of coincident Au-Pb anomalies and fill in of the south grid would be warranted.

2) Rock Geochemistry

A suite of 39 rock specimens containing several examples of each major lithological type was run for the following 12 elements; Ba, Cu, Pb, Zn, Ag, Au, Sr, Ca, Na, As, Sb, Hg. Petrographic descriptions of most specimens are contained in Appendix VI. Likely looking candidates for the reported gold bearing silicified, pyritic quartzite found on the Warspite dump are 57951, 57955 and 57957 with possibly 57958, 59, 61, 62 and 57964. With the exception of 57955 which ran 7600 ppb Au the other specimens are much the same as the rest of the collection. While values up to 60 ppb Au are encouraging geochemically they certainly do not have any economic significance.

The Proserpine dyke (57595) contrasts sharply in Ba, Na, Pb, Sr and Mg to the enclosing metasediments.

This limited sample suite indicates that major lithologies have similar trace element content and no systematic variations are apparent.

3) Pin Money and King Fraction

The Pin Money and King Fraction are isolated from the main Proserpine claim block as illustrated on Figure 1. One day of soil sampling and prospecting was spent on each claim. The claims were located by carefully measuring along the Cronklin Gulch- Warspite road and then traversing to the approximate claim boundary as shown on current claim maps and figures drawn by Richmond (1940). A base map was constructed from 1:50,000 topographic maps which also have the crown grants plotted.

Results of sampling on Pin Money are shown on Figure 20. Geological notes are taken from Sutherland-Brown (1957). Apparently the area is somewhat "higher" stratigraphically than the Warspite Group as indicated by extensive carbonate units immediately to the southeast. A prominent Proserpine quartz porphyry dyke occurs in the center of the claim. Gold content is anomalous for several samples near a large area of trenching on quartz veins but Cu, Pb, Zn, Ag and As results are generally low.

The King Fraction (Figure 21) straddles a major normal fault (Barkerville Fault) marking the Williams Creek valley. This fault is thought to have at least 300 m of displacement and separates Midas Formation black phyllites from Snowshoe Formation micaceous quartzites. Soil samples are characterized by anomalous gold values throughout the claim although other elements are within background levels. The source of the high gold values should be investigated by soil profiles to check for alluvial concentration or contamination.

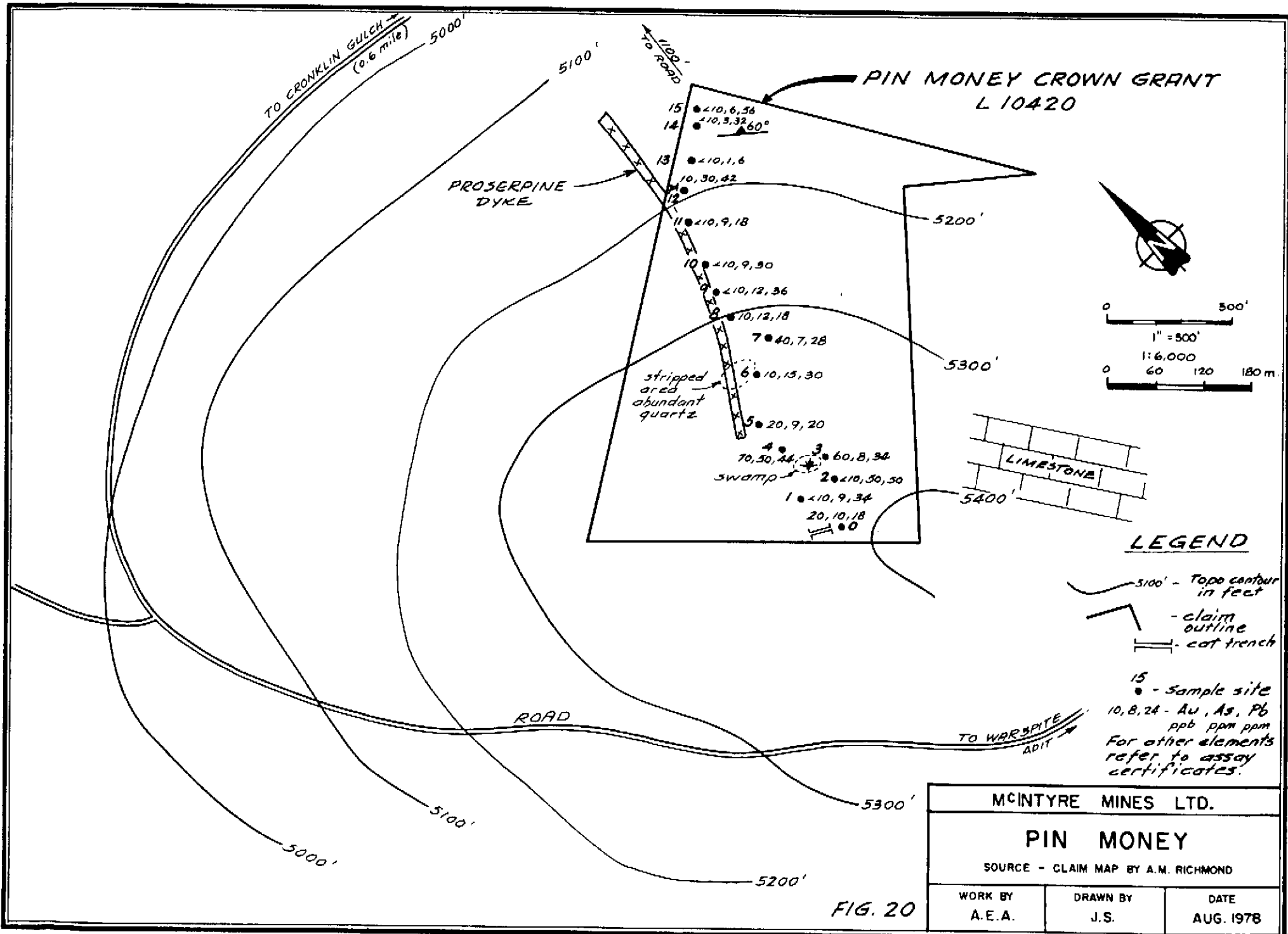
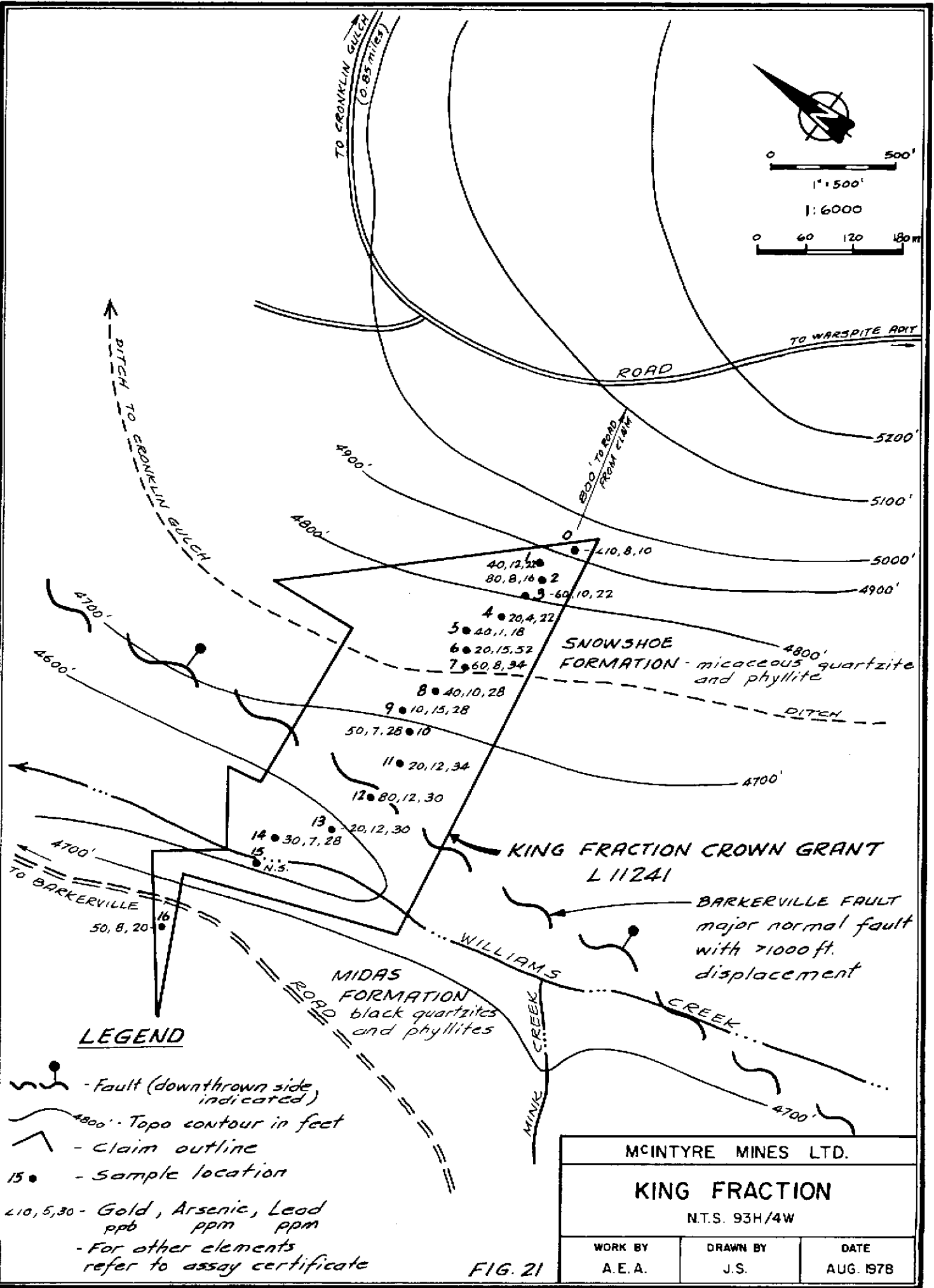
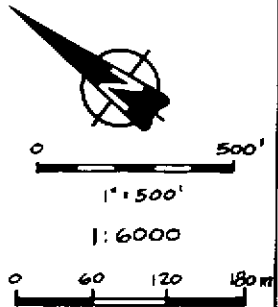


FIG. 20



LEGEND

- Fault (downthrown side indicated)
- 4800' - Topo contour in feet
- claim outline
- Sample location
- 40, 5, 30 - Gold, Arsenic, Lead
ppb ppm ppm
- For other elements refer to assay certificate

MCINTYRE MINES LTD.		
KING FRACTION		
N.T.S. 93H/4W		
WORK BY A.E.A.	DRAWN BY J.S.	DATE AUG. 1978

FIG. 21

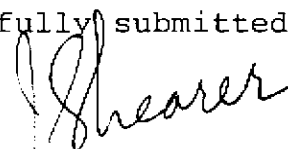
CONCLUSIONS AND RECOMMENDATIONS

Pervasive gold mineralization is reported to have been investigated by Pioneer Mines Ltd. by an extensive program of underground drifting and diamond drilling in 1945-46. The dimensions of the zone are quoted as 40 feet wide and was sampled 400 feet along strike with an indicated grade in the neighbourhood of 0.1 oz Au/ton. This grade figure is based on one sample and should be taken as only a rough guide.

McIntyre in 1978 has completed preliminary surface rock sampling and a comprehensive soil grid. The Warspite area is outlined by coincident Au, Pb, and As soil anomalies with several large subsidiary highs throughout the property. An overall geological interpretation has been obtained from Dr. Wm. V. Smitheringale supplemented by thin section examination. However, the true significance of the Pioneer work can only be properly assessed by an underground sampling program or a thorough study of the detail Pioneer reports. Unfortunately neither of these avenues can be acted upon due to badly caved workings and unavailability of records. Surface rock sampling has not proven acceptable on other properties in the district.

It is considered essential, therefore, to proceed with a short diamond drill program of 365 m minimum to fully test and verify the nature of the reported pervasive-type gold mineralization. Detail mapping around the Warspite workings should be completed to assess the possibility of additional gold zones.

Respectfully submitted,



J.T. Shearer, M.Sc., F.G.A.C.
Project Geologist

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APPENDIX I

STATEMENT OF QUALIFICATIONS

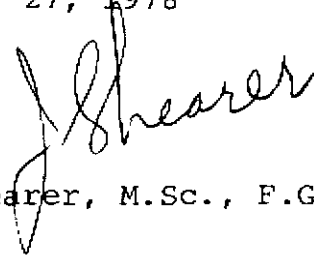
APPENDIX 1

STATEMENT OF QUALIFICATIONS

I, J.T. Shearer of the City of Port Coquitlam in the Province of British Columbia, hereby certify that:

- 1) I am a graduate of the University of British Columbia (1973) B.Sc., and University of London, Imperial College (1977) M.Sc., DIC.
- 2) I am a Fellow of the Geological Association of Canada.
- 3) I have worked continuously in Mineral Exploration since 1973 for McIntyre Mines Limited and Cities Service Minerals Corp.
- 4) I personally worked on the Warspite and Kumangetit Groups between June and August 1978. This report is based on an interpretation of data collected.

Dated at Vancouver, British Columbia
November 27, 1978



J.T. Shearer, M.Sc., F.G.A.C.

APPENDIX II

LIST OF EMPLOYEES

LIST OF EMPLOYEES

Proserpine Group

<u>DATES</u>	<u>NAME</u>	<u>TITLE</u>	<u>ADDRESS</u>
June 16-18 July 27 Aug. 18-24	J.T. Shearer	Geologist	R.R.#1, Mason Ave. Port Coquitlam, B.C.
June 16-18 July 27 Aug. 22-25	A.E. Angus	Prospector	12474 Crescent Road Surrey, B.C.
Aug. 18,19	R. Good	Field Assistant	General Delivery Quesnel, B.C.
Dec. 13-15	G. Ensor	Secretary	2812 West 10th Ave. Vancouver, B.C.
Aug. 22 - Sept. 5	Amex Services A. Abbett, R.E. Brown	Manager Soil Sampler	Kamloops, B.C. 659 Richmond Ave. Kamloops, B.C.
Aug. 22- Sept. 5	D. Blake	Soil Sampler	117 Thor Drive Kamloops, B.C.
<u>Drafting</u>			
Aug 18,19,20	R. Cawood	Draftsman	220 Front Street Quesnel, B.C.
Sept.	F. Clark	Draftsman	448 Seymour St. Vancouver, B.C.
Aug.	T. Falck	Draftsman	4609 Hoskins Road North Vancouver, B.C.
Sept.	A. Gunther	Draftsman	Ste. 5100, Commerce Court West Toronto, Ontario

APPENDIX III

STATEMENT OF COSTS

STATEMENT OF COSTS
(Dates attached)

<u>WAGES</u>	<u>TOTAL</u>	<u>WARSPITE</u>	<u>KUMANGETIT</u>
J.T. Shearer Field 10 days @ \$80/day	800.00	720.00	80.00
Office 10 days @ \$80/day	800.00	600.00	200.00
A.E. Angus Field 6 days @ \$80/day	480.00	480.00	
R. Good Field 2 days @ \$75/day	150.00	150.00	
A. Gunther Office 3 days @ \$65/day	195.00	195.00	
T. Falck Office 4 days @ \$65/day	260.00	260.00	
 <u>GEOCHEMICAL CONTRACT SERVICES</u>			
Amex Exploration Services Ltd., Box 286, Kamloops, B.C.			
Invoice 78-74, wages, supplies & transport			
20 days by T. Brown and D. Blake	3,324.40	2,851.67	472.73
 <u>ACCOMODATION AND MEALS</u>			
Amex Exploration Hubs Motel - 16 days @ \$24.15/day	386.40	331.45	54.95
McIntyre Mines Hubs Motel - 10 days @ \$18.90/day	189.00	189.00	
Meals -Total Cost 48 man days @ \$8.37/man	401.83	373.70	28.13
 <u>TRANSPORTATION</u>			
Gas bills for 2 trucks	159.22	148.07	11.15
Truck costs 156 miles @ 20¢/mile	31.20	31.20	
Sample Shipments Bus	6.90	6.90	
 <u>CONTRACT DRAFTING</u>			
R. Cawood, Circle Drafting, Quesnel 5 hrs @\$15/hr	75.00	75.00	
Versatile Industries, Vancouver 22 hrs @\$12/hr	264.00	226.46	37.54
 <u>PETROLOGY</u>			
Rock cutting (8 hrs)	40.00	30.00	10.00
Thin Sections (Vancouver Petrographics Ltd.)	256.25	192.19	64.06
 <u>GEOCHEMISTRY (CHEMEX LABS)</u>			
Invoice: 28082 628 soil samples @ \$7.82/sample	4,910.96	3,862.96	1,048.00
27978 49 rocks & soils, varied elements	828.83	663.06	165.77
33777 15 rocks @ \$2.98/sample	44.62	44.62	
27300 52 soils & 15 rocks, varied elements	544.63	544.63	
27915 294 soils @\$7/sample plus 38 rocks			
\$2,204.09 less 250.24 (charges to			
King Fraction and Pin Money)	1,953.85	1,953.85	
 <u>MISCELLANEOUS</u>			
Grid pickets	53.87	53.87	
Paint, flagging, soil bags	82.28	82.28	
 <u>REPORT PREPARATION AND REPRODUCTION</u>	 420.00	 336.00	 84.00
TOTALS	<u>\$16,658.24</u>	<u>\$14,401.91</u>	<u>\$2,256.33</u>

APPENDIX IV

ANALYTICAL TECHNIQUES AND ASSAY CERTIFICATES

Mr. J. Shearer- McIntyre Mines Ltd.,

SAMPLE PREPARATION

Soils, silts, lake bottom sediments - Samples are sorted and dried at 50°C for 12 - 16 hours. Dried material is then screened to obtain the -80 mesh component of each sample. Coarse material is discarded unless other instructions are received. Other mesh sizes are available if required.

Rock chips or pieces of core designated as rock geochem samples are dried, crushed and then pulverized to -100 mesh in a ring grinder. The sample is homogenized and packaged.

SAMPLE ANALYSES

(a) ppm Copper, Lead, Zinc, Silver: A 1.0 gm portion of sample is digested in conc. perchloric-nitric acid ($\text{HClO}_4\text{-HNO}_3$) for approx. 2 hrs. The digested sample is cooled and made up to 25 mls with distilled water. The solution is mixed and solids are allowed to settle. Copper, lead, zinc and silver are determined by atomic absorption techniques using background correction for lead and silver analysis.

(b) ppm Arsenic: Digest as above. Generate arsine using the borohydride technique and determine the arsenic concentration by atomic absorption analyses.

(c) ppb Gold: 5 gm samples ashed @ 800°C for 1 hr., digested with aqua regia - twice to dryness - taken up in 25% HCl^- , Au extracted as the bromide into MIBK and analyzed via AA.

(d) ppm Ba, Sr, Mg, Ca & Na: 0.2 - 0.5 gm samples digested with $\text{HClO}_4\text{-HNO}_3\text{-HF}$, to dryness taken up in 10% HClO_4 with an ionization suppressent added and analyzed via A.A. - acetylene-nitrous oxide for Ba, Mg, Ca & Sr.

(e) ppm Te: 1 - 5 gm digested with aqua regia, the Te extracted into MIBK as the bromide and analyzed via A.A. using background correction.

(f) Cold Extractable Metals: 1 gm sample is leached for 1 hour with 25 mls of 0.1M HCl in a hot water bath, filtered (Whatman #31) and then analyzed via standard A.A. techniques.

(g) Assay Ag & Au - Fire Assay Method: 0.5 Assay ton sub-samples are fused in litharge, carbonate and silicious fluxes. The lead button containing the precious metals is cupelled in a muffle furnace. The Ag & Au alloy is weighed on a micro balance, parted, annealed and again weighed as Au. The difference in the two weighings is Ag. Results reported in Oz/Ton.

For low grade samples and geochemical materials 10 gram samples are fused as above with the addition of 10 mg of Au-free Ag metal and cupelled as above. The silver bead is parted with dilute HNO_3 and then treated with aqua regia. The salts are dissolved in dilute HCl and analyzed for Au on an atomic absorption spectrophotometer to a detection of 5 ppb.



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 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.
 V6C 1T8

ROCKS

PROSPERINE B.C. GOLD

CERTIFICATE NO. 45547

INVOICE NO. 27978

RECEIVED August 29, 1978

ANALYSED September 8, 1978

SAMPLE NO. :	PPM Cu	PPM Mo	PPM Pb	PPM Zn	PPM Ag	PPM Ni	PPB Au
57576	6	1	1	6	0.1	330	10
57577	1	1	1	4	0.1	430	<10
57578	8	1	2	4	0.1		10
57579	2		2	16	0.1		10
57580	2		10	10	0.1		<10
57581	2		20	28	0.1		<10
57582	2		68	60	0.1		<10
57583	2		18	4	0.1		<10
57584	4		8	8	0.1		<10
57585	2		2	4	0.1		<10
57586	2		2	1	0.1		<10
57587	4		1	24	0.1		<10
57588	4		2	12	0.1		<10
57589	2		4	1	0.2		<10
57590	2		2	1	0.4		10
57591	16		2	24	0.1		<10
57592	2		12	10	0.1		<10
57593	6		2	14	0.1		<10
57594	6		2	28	0.1		<10
57595	14		160	82	0.1		<10
57596	32		194	114	0.1		<10
57597	26		62	940	0.1		<10
57598	8		78	38	0.1		<10
57599	4		10	6	0.1		<10
57600	8		12	4	0.1		<10
57951	14		8	14	0.2		<10
57952	24		44	42	0.2		<10
57953	8		10	24	0.1		<10
57954	16		54	78	0.2		<10
57955	6		4	2	1.2		7600
57956	20		34	14	0.4		<10
57957	18		46	18	0.2		10
57958	6		6	6	0.1		40
57959	4		6	4	0.1		<10
57960	16		24	66	0.2		<10
57961	4		20	22	0.1		20
57962	6		24	6	0.1		<10
57963	48		20	94	0.2		<10
57964	8		14	4	0.1		<10
NOTE;	Silver values below the detection limit of 0.2 ppm are reported as 0.1 ppm.						
STD.	72	5	16	160	0.1		



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: _____



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CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
1003 - 409 Granville St.,
Vancouver, B.C.
ATTN: V6C 1T8

ROCKS
PROSPERINE B.C. GOLD

CERTIFICATE NO. 45548

INVOICE NO. 27978

RECEIVED August 29, 1978

ANALYSED September 8, 1978

SAMPLE NO. :	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPM As	PPB Au
57976	6	68	178	0.2	35	<10
57977	46	1	96	1.2	35	<10
57978	84	1	90	1.8	35	10
57979	52	1	112	1.0	30	600
57980	176	8	64	1.2	4	<10

NOTE: Silver values below the detection limit of 0.2 ppm are reported as 0.1 ppm.



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 TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 45547

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

INVOICE NO. 27978

RECEIVED August 29, 1978

ATTN: V6C 1T8

ROCKS
 PROSPERINE B.C. GOLD

ANALYSED September 8, 1978

SAMPLE NO. :	PPM As	PPM Ba	PPM Sr	PPM Ca	PPM Mg	PPM Na
57576						
57577						
57578						
57579	1	700	65	400	1240	0.90
57580	3	300	20	350	500	1.75
57581	5	275	10	750	700	0.28
57582	4	175	15	225	200	0.60
57583	2	275	20	175	370	0.15
57584	1	400	20	550	500	0.28
57585	1	75	20	1400	145	1.17
57586	5	400	10	125	110	0.05
57587	5	500	45	150	810	0.80
57588	1	425	40	100	590	0.83
57589	1	25	30	6800	110	1.40
57590	3	250	25	275	340	0.43
57591	1	550	20	425	680	0.35
57592	1	425	15	100	390	0.45
57593	2	500	15	75	440	0.28
57594	4	500	40	50	440	0.50
57595	8	1300	720	>10,000	>5,000	2.50
57596	35	600	35	125	930	0.28
57597	25	450	25	300	620	0.23
57598	4	200	20	150	300	0.50
57599	6	550	25	150	210	0.13
57600	6	1050	30	2500	350	0.10
57951	10	1550	20	775	220	0.10
57952	15	375	105	>10,000	2000	0.18
57953	18	175	20	350	125	0.08
57954	18	450	80	7700	2600	0.20
57955	300	650	30	250	175	0.08
57956	18	450	60	4200	750	0.15
57957	35	600	35	1000	780	0.08
57958	35	1600	30	3000	430	0.10
57959	3	900	15	1600	290	0.10
57960	12	450	50	5300	2000	0.15
57961	12	1100	110	>10,000	1700	0.08
57962	3	1600	30	2200	385	0.10
57963	2	600	135	10,000	3300	0.23
57964	3	1400	20	2300	350	0.08
STD.	5					



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: 



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AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 45548

TO: McIntyre Mines Ltd.,
1003 - 409 Granville St.,
Vancouver, B.C.
V6C 1T8

INVOICE NO. 27978

RECEIVED August 29, 1978

ATTN:

ROCKS
PROSPERINE B.C. GOLD

ANALYSED September 8, 1978

SAMPLE NO. :	PPM Ba	PPM Sr	PPM Ca	PPM Mg	PPM Na
57976	500	20		640	1.10
57977	200	170	>10,000	>5,000	0.60
57978	275	200	>10,000	5,00	0.40
57979	200	240	>10,000	>5,000	1.60
57980	150	730	>10,000	>5,000	0.10



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 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.,
 V6C 1T8

ATTN: J. Shearer

COLD EXTRACTABLE

CERTIFICATE NO. 46382
 INVOICE NO. 29100
 RECEIVED Oct. 30/78
 ANALYSED Nov. 24/78

SAMPLE NO. :	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPM As
0+30N 0+60W A	2	4	2	0.1	45713
0+30N 0+60W B	4	50	2	0.2	
0+30N 0+60W C	4	66	2	0.2	
3+00S 0+90W A	12	600	12	1.6	45718
3+00S 0+90W B	6	740	18	1.0	
3+00S 0+90W C	4	630	10	1.0	
3+30N 3+30W A	8	40	38	0.6	
3+30N 3+30W B	10	44	40	1.4	
3+30N 3+30W C	4	36	14	0.6	
9+00S 0+90W A	2	10	6	0.2	45720
9+00S 0+90W B	4	56	22	0.6	
9+00S 0+90W B2	4	82	8	0.2	
9+00S 0+90W C	4	52	22	0.2	
JS-1	2	4	4	0.1	45543
2	2	10	4	0.2	
3	4	24	4	0.1	
JS-4	4	22	2	0.1	
0+30S 0+60W A	missing				

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville Street,
 Vancouver, B.C.

CERTIFICATE NO. 45542

INVOICE NO. 27915

RECEIVED August 29, 1978

ATTN: Prosperine B.C. GOLD

ANALYSED September 6, 1978

SAMPLE NO. :	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPM As	PPB Au
KG - 0	14	10	44	0.1	8	<10
1	16	22	14	0.6	12	40
2	16	16	52	0.2	8	80
3	18	22	56	0.2	10	60
4	12	22	86	0.2	4	20
5	2	18	18	0.1	1	40
6	30	52	72	0.4	15	20
7	28	34	64	0.2	8	60
8	26	28	60	0.2	10	40
9	32	28	68	0.1	15	10
10	15	28	54	0.1	7	50
11	32	34	80	0.2	12	20
12	22	30	60	0.1	12	80
13	30	30	74	0.1	12	20
14 ¹⁷⁼¹⁵	48	28	82	0.2	7	30
KG - 16 ¹⁵	66	20	96	0.4	8	50
PIN -0	18	28	82	0.4	10	20
1	18	34	56	0.2	9	<10
2	32	50	130	0.6	50	<10
3	26	34	128	0.4	8	60
4	44	18	88	0.4	50	70
5	10	20	52	0.1	9	20
6	20	30	58	0.2	15	10
7	12	28	50	0.1	7	40
8	10	18	46	0.1	12	10
9	20	36	62	0.2	12	<10
10	16	34	50	0.2	9	<10
11	14	18	58	0.1	9	<10
12	18	42	58	0.1	30	10
13	2	6	18	0.1	1	<10
14	4	32	25	0.1	3	<10
PIN -15 ¹⁴	24	56	84	0.4	6	<10
PR - 53	38	640	102	1.6	100	<10
54	24	42	54	0.1	45	240
55	32	200	104	0.6	30	40
56	20	78	68	0.2	18	<10
57	18	92	90	0.2	20	<10
PR - 58 ⁶	14	22	60	0.4	8	<10

Note: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines,
 #1003 - 409 Granville Street,
 Vancouver, B.C.

CERTIFICATE NO. 45543

INVOICE NO. 27915

RECEIVED August 29, 1978

ATTN: Prosperine B.C. Gold

ANALYSED September 6, 1978

SAMPLE NO. :	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPM As	PPB Au	PPB Hg
JS-1	4	8	16	0.1	2	< 10	20
2	12	24	46	0.2	7	< 10	60
3	20	36	66	0.1	18	< 10	60
JS-4	22	34	68	0.1	7	< 10	70

Note: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.

	PPM Sb
JS-1	1
2	1
3	1
JS-4	1

STD. NO. 70 18 160 0.1



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 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043152597

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CERTIFICATE OF ANALYSIS

TO: McIntyre Mines
 1003 - 409 Granville Street
 Vancouver, B.C.

45534

27915

RECEIVED

Aug. 29/78

ANALYSED

Sept. 6/78

ATTN: PROSPERINE B. C. GOLD

SAMPLE NO. :	PPM Pb	PPM As	PPB Au
0+00N 0+00E	16	7	< 10
0 30	96	10	< 10
0 60	20	7	< 10
0 90	14	5	< 10
1 20	22	10	< 10
1 50	20	10	< 10
1 80	36	12	10
2 10	12	8	40
2 40	12	5	< 10
2 70	28	7	180
3 00	30	12	40
3 30	32	12	< 10
3 60	32	7	< 10
3 90	24	6	< 10
4 20	18	12	< 10
4 50	16	25	< 10
4 80	14	18	10
5 10	12	40	< 10
5 40	4	8	< 10
5 70	4	12	< 10
0+00N 6 00E	116	85	< 10
0+00N 0 30W	8	20	800
0 60	8	6	30
0 90	138	100	840
1 20	12	7	40
1 50	1200	400	20
1 80	1400	100	< 10
2 10	98	30	< 10
2 40	192	8	< 10
2 70	38	8	< 10
3 00	180	20	< 10
3 30	94	35	< 10
0+00N 3 60W	200	18	20
0+30N 0 00E	38	7	< 10
0 30	16	8	20
0 60	22	60	10
0 90	12	4	< 10
1 20	22	7	< 10
1 50	40	8	< 10
0+30N 1 80	28	10	< 10
STD.	18	7	



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 TELEPHONE: 985-0648
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 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 45535

TO: McIntyre Mines,
 #1003 - 409 Granville Street,
 Vancouver, British Columbia

INVOICE NO. 27915

RECEIVED August 29, 1978

ATTN: Prosperine B.C. Gold

ANALYSED September 6, 1978

SAMPLE NO. :	PPM Pb	PPM As	PPB Au
0+30N 2+10E	36	8	<10
2+40	16	6	<10
2+70	34	15	<10
3+00	14	6	<10
3+30	30	15	<10
3+60	24	8	20
3+90	12	4	<10
4+20	96	125	<10
4+50	34	250	10
4+80	190	80	<10
5+00	32	30	40
5+40	36	45	<10
5+70	48	18	<10
0+30N 6+00E	52	35	20
0+30N 0+30W	44	18	10
0+60	28	6	20
0+90	64	200	90
1+20	10	7	120
1+40	12	10	40
1+80	84	45	<10
2+10	275	50	10
2+40	46	7	30
2+70	28	10	<10
3+00	50	5	<10
3+30	290	35	<10
0+30N 3+60W	36	8	10
0+60N 0+00E	34	18	<10
0+30	28	80	10
0+60	20	8	10
0+90	18	7	<10
1+20	40	5	10
1+50	20	7	<10
1+80	42	12	<10
2+10	20	7	<10
2+40	24	6	10
2+70	28	20	20
3+00	34	6	10
3+30	38	12	<10
3+60	18	6	80
0+60N 3+90E	196	10	20
STD. NO.	18	7	



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 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines
 1003 - 409 Granville Street
 Vancouver, B.C.

CERTIFICATE NO. 45336
 INVOICE NO. 27915
 RECEIVED Aug. 29/78
 ANALYSED Sept. 7/78

ATTN: PROSPERINE B. C. GOLD

SAMPLE NO. :	PPM Pb	PPM As	PPB Au
0+60N 4+20E	136	100	50
4+50	22	18	40
4+80	20	150	< 10
5+10	100	15	< 10
5+40	26	175	< 10
5+70	80	500	< 10
0+60N 6+00E	118	6	10
0+60N 0+30W	62	30	< 10
0+60	270	100	< 10
0+90	14	18	180
1+20	38	75	80
1+50	84	20	200
1+80	870	20	40
2+10	54	20	10
2+40	34	10	10
2+70	270	45	20
3+00	20	3	NSS
3+30	34	4	< 10
0+60N 3+60W	26	6	< 10
0+90N 0+00E	48	12	10
0+30	86	18	600
0+60	46	4	< 10
0+90	46	8	< 10
1+20	18	6	10
1+50	20	4	10
1+80	38	150	260
2+10	58	18	10
2+40	24	15	< 10
2+70	26	10	10
3+00	52	10	< 10
3+30	40	18	20
3+60	54	15	20
3+90	80	150	20
4+20	170	200	240
4+50	840	125	< 10
4+80	114	125	< 10
5+10	46	60	20
5+40	80	25	< 10
5+70	54	15	10
6+00E	26	18	< 10
0+90N 0+30W	62	15	< 10
STD.	16	7	



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CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville Street.,
 Vancouver, B.C.

CERTIFICATE NO. 45537

INVOICE NO. 27915

RECEIVED August 29, 1978

ATTN: Prosperine B.C. GOLD

ANALYSED September 6, 1978

SAMPLE NO. :	PPM	PPM	PPB
	Pb	As	Au
0+90 N 0+60 W	44	18	70
0+90	460	200	580
1+20	94	200	20
1+50	14	7	300
1+80	950	60	70
2+10	1500	60	10
2+40	58	12	40
2+70	580	30	10
3+00	46	85	NSS
3+30	360	125	<10
0+90 N 3+60 W	38	15	<10
1+20 N 0+00 E	20	6	10
0+30	40	8	<10
0+60	26	9	<10
0+90	18	8	<10
1+20	22	5	<10
1+50	32	7	<10
1+80	24	4	<10
2+10	20	4	<10
1+20 N 2+40 E	24	8	<10
1+20 N 0+30 W	26	3	<10
0+60	60	18	<10
0+90	40	30	40
1+20	46	35	20
1+50	54	15	40
1+80	72	45	180
2+10	760	60	40
2+40	660	45	20
2+70	345	30	<10
3+00	900	30	<10
3+30	300	20	<10
1+20 N 3+60 W	215	25	<10
1+50 N 0+00 E	50	12	<10
0+30	30	2	<10
0+60	34	12	<10
0+90	34	7	<10
1+20	19	7	<10
1+50	20	12	10
1+80	28	15	<10
1+50 N 2+10 E	42	15	<10
STD.	18	8	



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CERTIFIED BY:

Hart Bielle



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville Street,
 Vancouver, B.C.

CERTIFICATE NO. 45538

INVOICE NO. 27915

RECEIVED August 29, 1978

ATTN: Prosperine B.C. GOLD

ANALYSED September 6, 1978

SAMPLE NO. :	PPM Pb	PPM As	PPB Au
1+50 N 2+40 E	20	15	10
1+50 N 0+30 W	42	8	10
0+60	16	10	<10
0+90	36	18	30
1+20	54	100	580
1+50	830	125	20
2+10	260	125	3250
2+40	134	45	60
2+70	196	45	10
3+00	94	8	20
3+30	194	20	<10
1+50 N 3+60 W	205	25	<10
1+80 N 0+00 E	20	4	20
0+30	14	7	<10
0+60	10	3	NSS
0+90	32	6	<10
1+20	14	7	<10
1+50	28	30	40
1+80	26	6	20
2+10	42	12	<10
1+80 N 2+40 E	44	10	<10
1+80 N 0+30 W	14	8	20
0+60	38	12	30
0+90	20	8	20
1+20	32	15	<10
1+50	160	45	<10
1+80	750	60	10
2+10	156	90	<10
2+40	64	10	20
2+70	22	6	<10
3+00	54	18	<10
3+30	62	6	10
1+80 N 3+60 W	50	8	10
2+10 N 0+00 E	34	3	<10
0+30	30	8	<10
0+60	32	15	<10
0+90	28	3	<10
1+20	52	12	<10
2+10 N 1+50 E	40	10	<10
STD.	18	7	



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CERTIFIED BY: *Hart Bielle*



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 AREA CODE: 604
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CERTIFICATE OF ANALYSIS

TO: McIntyre Mines
 1003 - 409 Granville Street,
 Vancouver, B.C.

CERTIFICATE NO. 45539

INVOICE NO. 27915

RECEIVED August 29, 1978

ATTN: Prosperine B.C. Gold

ANALYSED September 6, 1978

SAMPLE NO. :	PPM Pb	PPM As	PPB Au
2+10N 1+80E	38	8	260
2+10	12	7	20
2+10N 2+40E	38	15	<10
2+10N 0+30W	22	7	20
0+60	8	45	140
0+90	52	15	200
1+20	126	30	10
1+50	320	18	<10
1+80	300	8	<10
2+10	160	7	<10
2+40	88	10	<10
2+70	66	18	10
3+00	38	8	<10
3+30	106	3	NSS
2+10N 3+60W	255	50	<10
2+40N 0+00E	54	8	<10
0+30	44	8	<10
0+60	28	7	<10
0+90	20	7	<10
1+20	34	10	<10
1+50	14	10	<10
1+80	26	15	20
2+10	20	15	30
2+40N 2+40E	28	9	<10
2+40N 0+30W	16	5	<10
0+60	44	10	20
0+90	6	6	<10
1+20	330	18	<10
1+50	76	10	<10
1+80	200	20	<10
2+10	350	30	<10
2+40	300	20	<10
2+70	68	10	60
3+00	36	15	80
3+30	120	20	NSS
2+40N 3+60W	500	15	10
2+70N 0+00E	78	4	10
0+30	30	7	<10
0+60	38	8	<10
2+70N 0+90E	40	8	10
STD. NO.	16	7	



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CERTIFIED BY:

Hart Bielle



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 TELEPHONE: 985-0648
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• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines,
 1003 - 409 Granville Street,
 Vancouver, B.C.

ATTN: Prosperine

B.C. Gold

CERTIFICATE NO. 45540

INVOICE NO. 27915

RECEIVED August 29, 1978

ANALYSED September 5, 1978

SAMPLE NO. :	PPM Pb	PPM As	PPB Au
2+70N 1+20E	32	6	10
1+50	50	10	10
1+80	14	7	< 10
2+10	28	6	60
2+70N 2+40E	62	10	< 10
2+70N 0+30W	20	10	< 10
0+60	4	2	< 10
0+90	84	5	< 10
1+20	122	25	< 10
1+50	1000	12	< 10
1+80	2050	80	< 10
2+10	32	7	< 10
2+40	455	25	< 10
2+70	270	10	< 10
3+00	136	15	100
3+30	104	8	60
2+70N 3+60W	64	20	20
3+00N 0+00E	10	1	< 10
0+30	8	3	70
0+60	78	5	10
0+90	48	7	< 10
1+20	54	8	< 10
1+50	32	7	< 10
1+80	24	4	< 10
2+10	12	3	10
3+00N 2+40E	28	7	20
3+00N 0+30W	18	8	20
0+60	66	10	20
0+90	92	12	30
1+20	120	7	20
1+50	250	30	10
1+80	430	45	< 10
2+10	146	12	40
2+40	4400	50	40
2+70	1350	40	20
3+00	560	20	< 10
3+30	114	18	10
3+00N 3+60W	38	6	20
3+30N 0+00E	12	6	< 10
3+30N 0+30E	6	3	20
STD. NO.	16	4	



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY:

Hart Biddle



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE 985-0648
 AREA CODE 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 45541

TO: McIntyre Mines,
 1003 - 409 Granville Street,
 Vancouver, B.C.

INVOICE NO. 27915

RECEIVED August 29, 1978

ATTN: Prosperine B.C. Gold

ANALYSED Sept. 6, 1978

SAMPLE NO. :	PPM	PPM	PPB
	Pb	As	Au
3+30N 0+60E	20	3	10
0+90	16	7	10
1+20	22	5	< 10
1+50	28	6	< 10
1+80	18	8	< 10
2+10	20	9	60
3+30N 2+40E	24	9	10
3+30N 0+30W	78	10	< 10
0+60	44	15	20
0+90	94	20	10
1+20	400	10	< 10
1+50	146	15	< 10
1+80	745	40	20
2+10	430	50	< 10
2+40	400	20	30
2+70	88	20	< 10
3+00	480	40	380
3+30	360	35	80
3+30N 3+60W	84	7	200

STD. NO. 18



MEMBER
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CERTIFIED BY:

Hart Bielle



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
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 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: Mr. J. Shearer

CERTIFICATE NO. 45713
 INVOICE NO. 28082
 RECEIVED Sept. 7/78
 ANALYSED Sept. 15/78

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
0+30N 0+60WA	2	8	10	0.1	<10	1
0+60B	16	58	58	0.2	10	10
0+30N 0+60C	30	128	138	0.1	40	35
0+300S0+00E	44	114	132	3.2	<10	55
0+30	6	4	28	0.1	<10	4
0+60	8	16	28	0.1	20	12
0+90	12	12	32	0.1	<10	20
1+20	20	38	56	0.1	<10	20
1+50 1	22	34	62	0.1	20	7
1+50 2	16	18	36	0.1	40	5
1+80	14	24	44	0.1	<10	5
2+10	10	16	34	0.1	<10	7
2+40E	12	34	46	0.1	<10	12
0+30W	28	14	18	0.1	<10	1
0+60	20	10	22	0.1	<10	2
0+90	10	18	32	0.1	20	8
1+20	20	48	58	0.1	20	20
1+50	28	38	94	0.1	<10	25
1+80	30	325	116	1.0	<10	30
2+10	8	120	90	0.1	<10	4
2+40	28	26	54	0.1	<10	5
2+70	48	815	240	2.0	<10	30
3+00	20	92	70	0.8	10	6
3+30	34	265	72	0.4	10	12
0+30S 3+60W	14	90	54	2.0	<10	3
0+60S 0+00E	18	44	70	0.1	<10	9
0+30	18	36	52	0.1	<10	35
0+60	20	40	64	0.6	<10	40
0+90	14	8	42	0.1	20	6
1+20	12	4	44	0.1	<10	2
1+80	18	82	50	0.1	<10	7
2+10	10	14	42	0.1	<10	7
2+40E	12	28	52	0.1	<10	5
0+30W	6	4	18	0.1	220	9
0+60	16	24	46	0.1	20	25
0+90	12	28	38	0.1	<10	5
1+20	32	152	146	0.1	<10	35
1+50	28	280	128	0.1	<10	20
1+80	62	340	290	0.1	20	80
50S 2+10W	58	2600	305	3.2	20	40
Std.	72	18	158	0.1		6

Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

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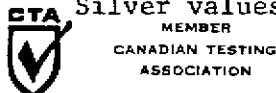
TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: Mr. J. Shearer

CERTIFICATE NO. 45714
 INVOICE NO. 28082
 RECEIVED Sept. 7/78
 ANALYSED Sept. 15/78

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
0+60S 2+40	44	1500	515	1.4	<10	45
2+70	12	184	48	0.1	10	18
3+00	8	10	18	0.1	<10	1
3+30	20	295	70	0.1	<10	8
0+60S 3+60W	36	182	132	0.1	<10	20
0+90S 0+00E	26	120	84	0.1	<10	20
0+30	10	30	38	0.1	<10	4
0+60	26	28	46	0.1	10	8
0+90	8	12	22	0.1	<10	3
1+20	22	10	48	0.1	<10	6
1+50	20	18	52	0.1	20	9
1+80	22	36	50	0.1	20	10
2+10	14	32	48	0.1	10	7
2+40E	20	24	48	0.1	<10	1
0+30W	42	50	116	0.1	50	75
0+60	22	30	54	0.1	10	25
0+90	20	48	50	1.0	190	25
1+20	6	8	20	0.1	50	3
1+50	22	38	42	0.1	20	20
1+80	54	1950	260	2.0	20	40
2+10	56	595	192	8.0	30	30
2+40	24	24	52	0.1	10	4
2+70	18	26	96	0.1	10	7
3+00	14	88	58	0.1	20	4
0+90S 3+30W	26	50	68	0.1	<10	18
0+90S 3+60W	26	128	98	0.4	20	18
0+120S 0+00E	18	32	54	0.1	<10	18
0+30	32	58	80	0.1	<10	8
0+60	8	12	24	0.1	<10	2
0+90	12	16	34	0.1	<10	5
1+20	18	64	54	0.1	250	150
1+50	8	12	22	0.1	30	6
1+80	18	58	100	0.4	20	35
2+10	20	34	54	0.1	<10	5
2+40E	18	26	52	0.1	10	10
0+30W	10	80	36	3.2	10500	80
0+60	16	88	52	0.6	20	20
0+90	32	126	80	0.4	180	25
1+20	24	64	80	0.1	20	25
1+50	22	250	84	0.2	60	20
1+20S 1+80W	36	385	162	0.6	20	20
Std.	70	18	160	0.1		5

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: Mr. J. Shearer

CERTIFICATE NO. 45715

INVOICE NO. 28082

RECEIVED Sept. 7/78

ANALYSED Sept. 14/78

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
1+20S 2+10W	14	74	44	0.1	<10	8
2+40	6	78	30	0.6	<10	7
2+70	26	265	150	1.2	<10	40
3+00	20	144	90	0.1	<10	10
3+30	6	20	26	0.1	<10	2
1+20S 3+60W	12	54	38	0.1	<10	5
1+50S 0+00E	12	18	38	0.1	<10	5
0+30	14	14	42	0.1	<10	4
0+60	10	6	24	0.1	<10	1
0+90	22	32	54	0.1	<10	10
1+20	16	16	36	0.1	<10	8
1+50	16	22	40	0.1	<10	5
1+80	8	18	28	0.1	20	3
2+10	10	18	24	0.1	<10	3
2+40E	24	48	128	0.1	<10	1
0+30W	18	40	64	0.1	<10	15
0+60	24	66	116	4.0	<10	35
0+90	20	52	52	0.6	40	12
1+20	28	48	82	0.1	50	20
1+50	52	3000	194	8.2	10	70
1+80	38	470	124	1.4	10	30
2+10	16	76	56	0.1	<10	8
2+40	16	38	54	0.1	<10	10
2+70	18	365	154	2.2	10	55
3+00	18	28	54	0.1	10	10
3+30	34	330	110	1.2	10	30
1+50S 3+60W	14	116	68	0.1	<10	12
1+80S 0+00E	10	28	28	0.1	<10	7
0+30	12	12	30	0.1	<10	6
0+60	18	18	38	0.1	<10	7
0+90	10	14	32	0.1	10	7
1+20	10	36	32	0.1	20	7
1+50	8	12	24	0.1	<10	4
1+80	16	16	42	0.1	<10	8
2+10	8	22	24	0.1	<10	7
2+40E	18	80	72	0.1	10	25
0+30W	18	40	48	0.1	<10	55
0+60	66	275	132	5.8	10	25
0+90	16	335	48	0.1	80	30
1+80S 1+20W	22	28	42	0.6	50	20
Std.	70	18	154	0.1		5

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 45716

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

INVOICE NO. 28082

RECEIVED Sept. 7/78

ATTN: Mr. J. Shearer

ANALYSED Sept. 14/78

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
1+80S 1+50W	34	770	124	1.2	20	40
1+80	12	36	36	0.1	< 10	22
2+10	12	120	44	0.4	10	7
2+40	4	22	16	0.1	< 10	3
2+70	46	885	176	7.2	< 10	80
3+00	28	156	90	0.1	40	25
3+30	16	124	74	0.1	260	7
1+80S 3+60W	18	235	112	0.1	< 10	18
2+10S 0+00E	12	26	28	0.1	< 10	10
0+30	8	24	26	0.1	< 10	6
0+60	14	16	44	0.1	< 10	6
0+90	14	14	36	0.1	< 10	5
1+20	26	48	58	0.1	< 10	8
1+50	12	14	76	0.1	< 10	9
1+80	14	70	48	0.1	< 10	12
2+10	14	36	34	0.1	< 10	10
2+40E	8	106	42	0.1	< 10	18
0+30W	8	58	58	0.4	< 10	18
0+60	8	96	26	0.1	100	85
0+90	22	4750	128	> 20	1680	200
1+20	18	54	52	1.0	10	18
1+50	12	40	46	0.1	20	15
1+80	20	1100	100	1.2	< 10	10
2+10	10	340	36	1.0	< 10	15
2+40	10	50	58	0.4	< 10	35
2+70	70	710	90	9.2	< 10	18
3+00	60	66	96	3.4	< 10	6
3+30	28	128	200	2.6	20	25
2+10S 3+60W	16	40	84	0.1	< 10	8
2+40S 0+00E	8	34	16	0.4	< 10	25
0+30	26	28	56	0.1	< 10	8
0+60	10	10	20	0.1	< 10	6
0+90	10	18	24	0.1	< 10	7
1+20	8	10	22	0.1	< 10	4
1+50	18	46	66	0.6	< 10	30
1+80	10	18	30	1.2	< 10	15
2+10	18	130	60	0.2	< 10	125
2+40E	10	18	30	0.1	< 10	4
0+30W	14	118	46	0.2	20	40
2+40S0+60W	6	32	28	0.2	60	100
Std.	72	18	162	0.1		7

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: Mr. J. Shearer

CERTIFICATE NO. 45717

INVOICE NO. 28082

RECEIVED Sept. 7/78

ANALYSED Sept. 15/78

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
2+40S 0+90W	14	106	88	0.1	< 10	50
1+20	16	46	50	0.6	40	7
1+50	26	44	86	0.2	20	5
1+80	18	285	150	0.4	< 10	10
2+10	24	44	72	0.8	< 10	8
2+40	14	70	50	0.2	< 10	35
2+70	72	162	32	3.8	< 10	4
3+00	22	340	102	1.0	< 10	10
3+30	34	138	295	1.6	< 10	30
2+40S 3+60W	22	250	140	1.8	< 10	25
2+70S 0+00E	12	56	44	0.1	10	25
0+30	4	10	8	0.1	10	6
0+60	20	14	32	0.1	< 10	10
0+90	14	20	40	0.1	10	35
1+20	12	12	28	0.1	< 10	5
1+50	8	10	22	0.1	< 10	2
1+80	8	18	32	0.1	< 10	5
2+10	14	28	64	0.1	10	9
2+40E	16	18	52	0.1	20	12
0+30W	10	44	38	0.2	10	20
0+60	10	16	32	0.1	20	8
0+90	10	26	38	0.1	< 10	7
1+20	22	410	98	1.6	340	40
1+50	8	78	66	1.0	40	15
1+80	18	86	98	1.4	10	15
2+10	22	38	122	0.1	< 10	15
2+40	10	28	36	0.2	< 10	1
2+70	34	610	200	7.2	20	50
3+00	38	320	148	2.6	10	40
3+30	30	675	168	2.2	90	65
2+70S 3+60W	10	26	42	0.2	< 10	10
3+00S 0+00E	10	22	32	0.1	< 10	7
0+30	6	26	20	0.1	< 10	40
0+60	18	18	36	0.8	< 10	40
0+90	24	40	46	0.1	10	8
1+20	16	18	58	0.1	< 10	12
1+50	32	40	112	0.1	< 10	7
1+80	12	28	58	0.1	< 10	15
2+10	30	48	76	0.1	10	5
3+00S 2+40E	6	10	18	0.1	< 10	5
Std.	72	18	164	0.1		6

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 45718
 INVOICE NO. 28082
 RECEIVED Sept. 7/78
 ANALYSED Sept. 15/78

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: Mr. J. Shearer

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
3+00S 0+30W	10	34	30	0.1	< 10	10
0+60	24	10	40	0.1	< 10	50
0+90	36	1150	94	2.0	20	50
0+90A	20	635	68	1.4	20	35
0+90B	44	950	146	1.2	150	65
0+90C	66	885	146	1.2	10	100
1+20	8	32	38	0.2	< 10	7
1+30	6	420	32	0.8	60	7
1+80	10	24	28	0.1	< 10	12
2+10	8	44	28	0.1	100	4
2+40	8	56	26	0.1	< 10	8
2+70	20	405	88	1.6	< 10	15
3+00	24	275	108	2.6	< 10	18
3+30	16	38	68	0.1	< 10	5
3+00S 3+60W	24	34	66	0.1	< 10	8
3+30N 0+30AW	58	142	210	1.4	10	15
0+30B	68	160	260	1.8	< 10	15
3+30N 0+30CW	34	56	146	0.2	< 10	12
4+20S 0+00E	18	102	70	0.1	< 10	10
0+30	8	14	28	0.1	< 10	5
0+60	8	166	48	0.4	10	18
0+90	16	26	44	0.1	< 10	5
1+20	24	40	48	0.1	< 10	40
1+50	16	28	52	0.1	< 10	18
1+80	14	28	56	0.1	< 10	7
2+10	12	16	36	0.1	< 10	3
2+40E	10	12	28	0.1	< 10	2
0+30W	10	16	36	0.1	< 10	2
0+60	8	6	18	0.1	10	2
0+90	8	4	20	0.1	< 10	1
1+20	30	164	78	0.1	20	20
1+50	16	50	60	0.1	< 10	10
1+80	50	42	76	0.6	20	25
2+10	10	32	14	0.1	20	18
2+40	8	10	22	0.1	< 10	2
2+70	6	16	22	0.1	< 10	3
3+00	10	28	20	0.4	< 10	1
3+30	14	16	38	0.1	< 10	2
4+20S 3+60W	44	40	112	1.0	< 10	5
5+40S 0+00E	8	64	24	0.1	< 10	3
Std.	74	18	160	0.1		5

Note: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 45719
 INVOICE NO. 28082
 RECEIVED Sept. 7/78
 ANALYSED Sept. 15/78

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: Mr. J. Shearer

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
5+40S 0+30E	14	116	62	0.8	< 10	8
0+60	14	154	72	0.1	< 10	15
0+90	12	108	36	0.1	< 10	50
1+20	4	28	14	0.1	80	6
1+50	8	20	22	0.1	< 10	7
1+80	14	54	26	0.1	< 10	15
2+10	6	42	12	0.1	10	4
2+40E	34	124	80	2.8	10	18
0+30W	8	200	20	0.1	< 10	2
0+60	24	28	34	0.1	< 10	3
0+90	4	8	10	0.1	< 10	1
1+20	2	4	6	0.1	< 10	1
1+50	20	445	196	0.1	< 10	30
1+80	20	78	68	0.1	20	40
2+10	16	26	44	0.1	< 10	6
2+40	10	32	36	0.1	< 10	7
2+70	18	24	58	0.1	10	4
3+00	14	18	34	0.1	20	3
3+30	4	6	12	0.1	< 10	1
5+40S 3+60W	20	24	54	0.1	< 10	4
6+60S 0+00E	22	78	70	0.1	10	5
0+30	10	365	36	0.1	< 10	5
0+60	16	66	56	0.4	< 10	6
0+90	30	1400	144	4.6	< 10	12
1+20	32	1000	130	3.8	20	35
1+50	44	2050	138	5.4	20	55
1+80	10	88	28	1.6	< 10	8
2+10	4	18	16	0.1	< 10	3
2+40E	18	72	60	1.6	< 10	8
0+30W	22	34	58	0.8	< 10	6
0+60	10	66	28	0.1	< 10	4
0+90	14	148	54	0.6	< 10	7
1+20	4	30	12	0.1	110	3
1+50	8	12	22	0.1	< 10	2
1+80	70	475	84	3.4	280	7
2+10	10	16	22	0.1	< 10	4
2+40	48	26	98	0.1	10	15
2+70	18	20	50	0.1	< 10	8
3+00	18	20	36	1.0	< 10	4
6+60S 3+30W	20	18	72	0.4	< 10	7
Std.	74	18	160	0.1		5

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: Mr. J. Shearer

CERTIFICATE NO. 45720
 INVOICE NO. 28082
 RECEIVED Sept. 7/78
 ANALYSED Sept. 15/78

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
6+60S 3+60W	16	16	40	0.1	< 10	5
7+80S 0+00E	6	48	14	0.1	20	3
0+30	32	850	138	3.4	20	15
0+60	12	30	42	0.1	< 10	3
0+90	20	68	82	0.1	< 10	15
1+20	8	36	24	0.1	< 10	2
1+50	12	34	52	0.1	< 10	5
1+80	10	52	36	0.1	< 10	18
2+10	12	380	76	1.4	< 10	35
2+40E	40	96	130	2.2	< 10	18
0+30W	16	42	52	0.2	< 10	12
0+60	24	340	172	0.6	20	4
0+90	6	32	16	0.4	10	3
1+20	8	36	24	0.1	< 10	3
1+50	48	34	62	0.1	< 10	18
1+80	10	505	50	1.6	< 10	35
2+10	10	18	36	0.2	20	4
2+40	86	20	86	0.1	20	35
2+70	22	22	62	0.1	20	4
3+00	6	12	12	0.1	< 10	2
3+30	10	16	34	0.1	< 10	3
7+80S 3+60W	22	12	8	0.8	< 10	12
9+00S 0+00E	28	118	126	0.1	< 10	40
0+30	22	400	134	0.1	10	25
0+60	12	44	40	0.1	< 10	9
0+90	10	18	28	0.1	20	4
1+20	16	90	60	3.2	10	4
1+50	8	36	32	0.6	20	7
1+80	14	330	78	1.4	20	20
2+10	14	250	74	0.2	10	8
2+40E	10	98	46	0.6	< 10	6
0+30W	16	46	76	0.1	< 10	18
0+60	22	330	92	0.1	< 10	20
0+90	8	20	22	0.1	10	5
0+90A	6	10	20	0.1	10	2
0+90B	18	52	86	0.1	10	2
0+90B2	26	78	82	0.1	< 10	8
0+90C	40	60	132	0.1	< 10	4
1+20	24	46	56	0.1	< 10	60
9+00S 1+50W	18	20	38	0.1	< 10	7
Std.	72	20	160	0.1		5

Note: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



MEMBER
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 ASSOCIATION

CERTIFIED BY:

Harry Biddle



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

CERTIFICATE NO. 45721
 INVOICE NO. 28082
 RECEIVED Sept. 7/78
 ANALYSED Sept. 15/78

ATTN: Mr. J. Shearer

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
9+00S 1+80W	8	66	22	0.1	< 10	4
2+10	14	14	30	0.1	< 10	4
2+40	16	18	64	0.1	< 10	8
2+70	6	6	12	0.1	< 10	4
3+00	8	18	10	0.4	< 10	4
3+30	10	10	16	0.1	< 10	5
9+00S 3+60W	12	14	16	0.1	< 10	4
10+20S 0+00E	N.S.S.					
10+20S 0+30		370	134	1.0	20	18
0+60	14	34	50	0.4	< 10	10
0+90	28	500	196	3.2	< 10	20
1+20	34	440	142	2.2	< 10	45
1+50	14	196	66	2.2	< 10	8
1+80	18	188	96	1.2	< 10	10
2+10	10	190	54	0.6	< 10	15
2+40E	12	98	38	1.4	20	35
0+30W	20	2200	114	2.4	10	80
0+60	12	168	66	0.2	< 10	12
0+90	4	22	16	0.4	< 10	1
1+20	22	38	60	0.2	< 10	12
1+50	10	28	26	0.1	< 10	1
1+80	24	144	78	0.6	< 10	7
2+10	10	16	38	0.1	< 10	5
2+40	16	34	60	0.1	< 10	5
2+70	12	14	52	0.1	< 10	7
3+00	12	16	42	0.1	< 10	10
3+30	12	14	26	0.1	< 10	3
10+20S 3+60W	4	10	14	0.1	40	2
11+40S 0+00E	16	72	56	0.1	20	12
0+30	28	420	76	3.2	50	18
0+60	24	230	130	3.0	40	20
0+90	12	215	82	0.6	< 10	15
1+20	4	22	24	0.1	< 10	8
1+50	4	36	28	0.1	20	7
1+80	32	545	132	2.4	< 10	3
2+10	18	184	102	1.6	< 10	20
2+40E	8	56	46	0.4	< 10	8
0+30W	16	42	60	0.2	10	3
0+60	8	20	28	0.6	< 10	1
11+40S 0+90W	10	18	32	0.1	< 10	2
Std.	72	18	158	0.1		6

Note: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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CERTIFIED BY:

Hart Biddle



CHEMEX LABS LTD.

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 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 45722

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

INVOICE NO. 28082

RECEIVED Sept. 7/78

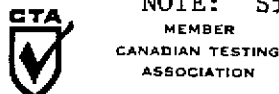
ATTN: Mr. J. Shearer

ANALYSED Sept. 15/78

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
1+20	4	8	22	0.1	< 10	2
1+30	18	164	50	0.4	< 10	7
1+80	22	1000	62	1.8	< 10	15
2+10	24	168	66	0.4	< 10	8
2+40	38	56	78	2.0	< 10	4
2+70	4	16	20	0.1	< 10	4
3+00	6	10	28	0.1	< 10	4
3+30	14	46	52	0.1	< 10	6
11+40S 3+60W	8	16	26	0.1	< 10	7
12+60S 0+00E	8	16	34	0.1	20	12
0+30	N.S.S.					
0+60	16	1200	92	0.6	10	18
0+90	10	32	58	0.1	10	10
1+20	38	4950	230	4.4	10	75
1+50	24	695	156	1.4	20	40
1+80	10	178	66	0.6	10	15
2+10	26	600	106	1.0	10	20
12+60S 2+40E	14	152	84	0.6	10	12
12+60S 0+30W	24	555	86	1.0	10	12
0+60	18	48	50	0.1	10	12
0+90	12	30	40	0.1	10	8
1+20	38	400	86	5.6	190	85
1+50	12	34	32	0.1	10	10
1+80	12	20	28	0.1	10	6
2+10	10	38	30	0.1	10	3
2+40	20	58	92	0.1	10	8
2+70	40	52	78	0.1	10	10
3+00	20	38	52	0.1	10	3
3+30	6	50	30	0.1	10	2
12+60S 3+60W	10	8	30	0.1	10	1
13+80S 0+00E	24	78	54	0.1	10	8
0+30	14	24	30	0.1	10	8
0+60	4	18	14	0.1	10	6
0+90	8	28	32	0.1	10	9
1+20	24	74	66	0.1	10	10
1+50	26	180	88	0.6	10	40
1+80	16	54	56	0.1	10	12
2+10	18	76	66	0.1	10	15
2+40E	8	22	26	0.1	60	18
13+80S 0+30W	58	114	54	2.2	40	1
Std.	68	18	144	0.1		5

N.S.S. stands for not sufficient sample.

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1ppm.



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CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.-
 Vancouver, B.C.

ATTN: Mr. J. Shearer

CERTIFICATE NO. 45723
 INVOICE NO. 28082
 RECEIVED Sept. 7/78
 ANALYSED Sept. 15/78

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenci
0+60	28	26	58	0.1	<10	5
0+90	26	52	60	0.1	<10	7
1+20	20	62	58	0.1	10	50
1+50	30	108	84	0.1	<10	15
1+80	14	48	58	0.1	<10	5
2+10	18	114	82	0.1	20	4
2+40	12	50	42	0.4	<10	3
2+70	8	34	24	0.1	<10	2
3+00	8	58	22	0.1	<10	2
3+30	6	56	28	0.1	<10	2
13+80S 3+60W	18	765	114	1.0	20	18
15+00S 0+30E	20	36	54	0.1	10	10
0+60	16	40	44	0.1	80	15
0+90	22	112	62	0.1	40	18
1+20	36	122	80	0.1	10	25
1+50	24	66	42	0.1	70	30
1+80	16	16	42	0.1	10	12
2+10	14	20	46	0.1	10	4
2+40	12	28	52	0.1	<10	8
2+70	12	56	54	0.1	20	15
3+00	22	395	130	0.1	10	45
3+30	26	104	88	0.1	40	18
3+60E	16	36	46	0.1	30	2
0+00W	6	10	16	0.1	40	2
0+30	18	16	32	0.1	20	4
0+60	54	122	98	0.1	<10	10
0+90	16	12	40	0.1	<10	4
1+20	12	12	34	0.1	<10	3
1+50	12	20	46	0.2	<10	12
1+80	14	34	20	0.1	40	3
2+10	18	20	32	0.1	<10	18
15+00S 2+40W	34	300	28	2.4	<10	4
16+50S 0+00E	16	42	38	0.1	<10	6
0+30	12	42	44	0.1	<10	3
0+60	42	100	82	0.8	<10	35
0+90	30	108	64	1.0	<10	4
1+20	16	60	52	0.1	<10	4
1+50	2	6	8	0.1	30	1
1+80	2	6	10	0.1	<10	2
16+50S 2+10E	14	4	28	0.1	<10	5
NOTE: Std.	74	13	16	0.1		5

Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 45724

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

INVOICE NO. 28082

RECEIVED Sept. 7/78

ATTN: Mr. J. Shearer

ANALYSED Sept. 15/78

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
2+40	6	8	16	0.1	<10	2
2+70	8	16	24	1.0	<10	4
3+00	N.S.S.					
3+30	N.S.S.					
3+60E	N.S.S.					
0+30W	14	26	44	0.4	<10	5
0+60	36	54	70	0.6	20	8
0+90	24	48	52	0.4	160	15
1+20	20	58	60	0.6	<10	12
1+50	36	310	96	1.4	<10	30
1+80	32	136	90	0.1	<10	12
16+50S 2+10W	22	30	52	0.1	20	7
16+50S 2+40W	26	52	74	0.1	<10	12
18+00S 0+00E	28	110	76	0.1	10	7
0+30	8	8	28	0.1	20	2
0+60	70	34	108	0.1	20	8
0+90	34	52	66	0.1	<10	8
1+20	44	146	98	0.6	<10	15
1+50	18	34	58	0.1	<10	8
1+80	38	420	118	0.8	100	75
2+10	N.S.S.					
2+40	N.S.S.					
2+70	N.S.S.					
3+00	N.S.S.					
3+30	N.S.S.					
3+60E	N.S.S.					
0+30W	16	20	46	0.1	<10	4
0+60	18	34	50	0.1	10	4
0+90	20	24	48	0.1	10	4
1+20	12	18	42	0.1	<10	4
1+50	10	10	28	0.1	<10	2
1+80	2	4	8	0.1	<10	2
2+10	18	12	56	0.1	<10	1
18+00S 2+40W	12	14	26	0.2	10	4
19+50S 0+00E	6	28	34	0.1	<10	6
0+30	30	230	104	0.1	1580	60
0+60	14	58	78	0.1	<10	80
0+90	10	12	32	0.1	<10	4
1+20	4	16	16	0.1	30	5
1+50	8	50	52	0.1	<10	10
19+50S 1+80E	12	78	50	0.1	10	40
Std.	70	18	158	0.1		5

NOTE: N.S.S. = Not Sufficient Sample.



MEMBER
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CERTIFIED BY: *Hart Biddle*

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



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 AREA CODE: 604
 TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 45725
 INVOICE NO. 28082
 RECEIVED Sept. 7/78
 ANALYSED Sept. 15/78

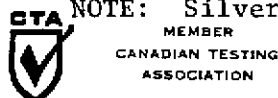
TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: Mr. J. Shearer

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
2+10	14	56	68	0.1	40	18
2+40	10	34	32	0.1	20	12
3+00	10	52	66	0.1	40	18
3+30	8	36	28	0.4	70	15
3+60E	18	48	48	1.0	< 10	35
0+30W	38	146	122	0.8	160	40
0+60	16	18	44	0.1	10	5
0+90	8	10	24	0.1	10	2
1+20	10	6	20	0.1	20	4
1+50	12	106	52	0.1	< 10	8
1+80	6	18	30	0.1	< 10	3
2+10	2	4	14	0.1	10	2
19+50S 2+40W	14	14	54	0.1	20	3
21+00S 0+00E	14	186	180	0.8	60	55
0+30	14	72	90	0.6	130	65
0+60	2	8	26	0.1	< 10	5
0+90	2	16	18	0.4	30	7
1+20	4	30	32	0.1	20	30
1+50	18	76	68	0.2	40	65
1+80	12	36	64	0.2	< 10	50
2+10	18	194	56	2.4	20	60
2+40	8	38	18	0.1	< 10	15
2+70	12	20	36	0.6	< 10	20
3+00	4	26	10	0.8	< 10	12
3+30	4	26	22	0.1	< 10	7
3+60E	16	68	92	0.6	< 10	18
0+30W	18	84	104	0.1	10	100
0+60	4	14	18	0.1	< 10	5
0+90	12	26	36	0.1	< 10	10
1+20	22	16	54	0.1	< 10	4
1+50	14	20	32	0.1	< 10	7
1+80	8	6	26	0.1	110	9
2+10	N.S.S.					
21+00S 2+40W	N.S.S.					
22+50S 0+00E	6	44	28	1.0	50	30
0+30	16	116	54	1.8	60	70
0+60	22	275	68	2.0	140	200
0+90	12	100	38	0.4	40	70
1+20	10	68	44	0.8	50	45
22+50S 1+50E	36	72	106	1.6	< 10	75
Std.	70	20	160	0.1		5

N.S.S. = Not sufficient sample.

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



CERTIFIED BY: *Hart Biddle*



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212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 45726
 INVOICE NO. 28082
 RECEIVED Sept. 7/78
 ANALYSED Sept. 15/78

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: Mr. J. Shearer

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
1+80	30	98	124	0.1	<10	55
2+10	32	64	80	0.6	<10	18
2+40	22	36	56	0.4	<10	20
2+70	12	48	42	0.1	<10	35
3+00	10	10	40	0.4	10	40
3+30	2	16	10	0.2	30	10
3+60E	4	18	22	0.1	10	10
0+30W	8	90	50	0.6	50	175
0+60	20	32	56	0.4	<10	12
0+90	12	58	64	0.6	<10	12
1+20	12	28	34	0.1	<10	8
1+50	12	54	54	0.2	<10	15
1+80	16	18	28	0.1	<10	4
2+10	10	965	545	1.4	<10	55
22+50S 2+40W	28	52	60	0.2	10	18
24+00S 0+00E	14	78	10	0.8	10	2
0+30	12	18	30	0.1	30	15
0+60	6	10	12	0.1	<10	1
0+90	4	2	8	0.1	<10	1
1+20	4	6	4	0.1	<10	2
1+50	6	22	16	0.4	<10	18
1+80	8	40	20	0.6	<10	20
2+10	6	24	16	0.1	<10	12
2+40	14	18	36	0.1	<10	8
2+70	4	10	4	0.1	<10	5
3+00	10	18	30	0.1	20	5
3+30	6	24	14	0.1	<10	12
3+60E	10	14	28	0.1	<10	8
0+30W	4	26	12	0.1	20	12
0+60	20	270	58	1.4	40	30
0+90	10	18	30	0.1	10	1
1+20	6	18	16	0.1	<10	6
1+50	12	72	54	0.1	<10	20
1+80	6	28	26	0.1	<10	4
2+10	10	8	24	0.1	<10	5
24+00S 2+40W	4	4	6	0.1	<10	2
25+50S 0+00E	8	24	24	0.1	40	18
0+30	10	36	28	0.1	<10	25
0+60	4	12	10	0.2	<10	3
25+50S 0+90E	10	18	24	0.1	<10	25
Std.	68	18	156	0.1		5

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



MEMBER
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CERTIFIED BY:

Hart Biddle



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212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
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 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

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CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: Mr. J. Shearer

CERTIFICATE NO. 45727
 INVOICE NO. 28082
 RECEIVED Sept. 7/78
 ANALYSED Sept. 15/78

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
1+20	4	6	12	0.1	<10	9
1+50	4	4	10	0.1	<10	8
1+80	8	4	24	0.1	<10	9
2+10	6	8	12	0.1	<10	7
2+40	8	16	24	0.1	70	8
2+70	4	6	10	0.1	<10	3
3+00	12	12	28	0.1	<10	12
3+30	6	14	14	0.1	<10	4
25+50S 3+60E	8	12	18	0.1	20	5
25+50S 0+30W	8	275	38	0.1	<10	15
0+60	10	20	42	0.1	<10	6
0+90	12	46	34	0.1	<10	6
1+20	8	24	54	0.1	<10	1
1+50	6	12	22	0.1	<10	8
1+80	16	420	60	1.8	<10	15
2+10W	14	24	52	0.2	20	18
25+50S 2+40W	26	615	138	3.8	30	20
27+00S 0+00E	6	18	24	0.1	10	12
0+30	6	24	30	0.1	90	40
0+60	8	10	14	0.1	<10	15
0+90	4	6	10	0.1	10	3
1+20	6	10	16	0.1	<10	8
1+50	14	22	36	0.1	<10	18
1+80	4	8	12	0.1	<10	10
2+10	8	12	20	0.1	20	15
2+40	10	18	30	0.1	<10	20
2+70	10	8	20	0.2	<10	8
3+00	8	16	16	0.2	20	4
3+30	6	10	18	0.1	10	5
27+00S 3+60E	18	24	42	0.1	10	10
27+00S 0+30W	6	2	14	0.1	10	5
0+60	38	186	106	1.2	<10	12
0+90	16	160	52	0.4	<10	8
1+20	8	60	28	0.2	<10	7
1+50	14	150	94	0.1	40	80
1+80	6	14	24	0.1	<10	8
2+10	10	18	34	0.1	<10	15
27+00S 2+40W	42	845	106	1.8	<10	40
28+50S 0+00E	10	18	32	0.1	<10	6
28+50S 0+30E	4	12	10	0.2	<10	4
Std.	70	18	156	0.1		6

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



MEMBER
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CERTIFIED BY:

Hart Biddle



CHEMEX LABS LTD.

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 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: Mr. J. Shearer

CERTIFICATE NO. 45728

INVOICE NO. 28082

RECEIVED Sept. 7/78

ANALYSED Sept. 15/78

SAMPLE NO. :	PPM Copper	PPM Lead	PPM Zinc	PPM Silver	PPB Gold	PPM Arsenic
0+60	10	18	18	0.1	<10	3
0+90	10	8	24	0.1	<10	1
1+20	16	14	42	0.1	10	5
1+50	10	8	26	0.1	<10	5
1+80	10	88	32	0.1	<10	55
2+10	4	18	12	0.2	<10	7
2+40	4	20	14	0.1	10	12
2+70	18	102	46	0.4	<10	25
3+00	22	170	54	0.8	<10	20
3+30	14	18	34	0.6	<10	15
3+60E	8	18	24	0.2	10	8
0+30W	20	46	54	0.1	10	6
0+60	18	44	40	0.1	30	8
0+90	16	126	56	0.1	<10	18
1+20	12	48	54	0.2	<10	20
1+50	10	158	54	0.1	200	>500
1+80	12	435	48	0.4	20	40
2+10	26	84	72	0.1	<10	50
28+50S 2+40W	38	50	74	0.8	<10	18
30+00S 0+00E	14	450	54	1.0	<10	60
0+30	6	14	20	0.1	<10	15
0+60	8	14	26	0.1	<10	5
0+90	12	16	28	0.2	10	8
1+20	4	8	20	0.1	<10	5
1+50	18	24	38	0.1	<10	5
1+80	18	30	50	0.2	100	18
2+10	2	6	60	0.2	<10	3
2+40	10	14	22	0.2	<10	1
2+70	16	14	40	0.1	<10	15
3+00	8	14	24	0.8	<10	3
3+30	8	12	24	0.1	<10	5
3+60E	2	6	6	0.1	10	3
0+30W	10	66	24	0.6	20	20
0+60	8	18	32	0.1	<10	8
0+90	6	36	36	0.1	10	7
1+20	14	174	74	0.1	<10	15
1+50	24	124	112	0.1	<10	15
1+80	18	14	54	0.1	<10	5
2+10	38	100	72	0.6	<10	12
30+00S 2+40W	40	50	94	0.2	20	8
Std.	72	18	160	0.1		2

NOTE: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



CERTIFIED BY: *Hart Biddle*



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7L 2G1
TELEPHONE 989-0648
ARLINGTON COLLEGE
TELEX: 604

FILE

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

TO: McIntyre Mines Ltd.,
1003 - 409 Granville St.,
Vancouver, B.C.
V6C 1T8

ATTN: c.c. Quessnel

CERTIFICATE NO. 33777

INVOICE NO. 27318

RECEIVED June 20, 1978

ANALYSED June 28, 1978

SAMPLE NO. :	oz/ton Gold
57026	<0.003
57027	<0.003
57028	<0.003
57029	<0.003
57030	<0.003
57031	<0.003
57032	<0.003
57033	<0.003
57034	<0.003
57035	0.096
57036	<0.003
57037	<0.003
57038	<0.003
57041	<0.003
57042	<0.003

Also on Geochem Certificate 43585



MEMBER
CANADIAN TESTING
ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

Proprietary

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.
 1003 - 409 Granville Street
 Vancouver, B.C.

ROCKS

CERTIFICATE NO. 44540
 INVOICE NO. 26935
 RECEIVED July 25/78
 ANALYSED August 2/78

ATTN: J. Shearer B.C. GOLD

SAMPLE NO. :	PPM Cu	PPM Mo	PPM Pb	PPM Zn	PPM Ag	PPM Ba	PPM Sr	PPM Ca
57039	10	1	20	30	0.4	350	15	900
57457	38	2	1800	6	8.4	500	370	800
	PPM As	PPB Hg						
57039	4							
57457	400	1400						

Note: Te analysis not available at present.

Note: Silver values below detection limit of 0.2 ppm reported as 0.1 ppm.



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: *Hart Biele*



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville
 Vancouver, B.C.

CERTIFICATE NO. 43585
 INVOICE NO. 27300
 RECEIVED June 20/78
 ANALYSED June 29/78

ATTN: J. Shearer Quesnel "Rocks"

SAMPLE NO. :	PPM Cu	PPM Pb	PPM Zn	PPM Ag	PPM As	PPM Sr	PPM Ca	PPM Ba
57026	8	54	55	0.1		70	5000	500
57027	22	12	85	0.1	4	45	700	550
57028	8	14	20	0.1	24	25	600	350
57029	8	34	70	0.1		25	650	450
57030	8	14	20	0.1		25	600	425
67031	34	108	110	0.4		55	650	775
57032	38	102	90	0.2	75	45	650	550
57033	34	154	85	0.8	120	40	700	450
57034		96						
57035	30	>4000	20	>20	390	25	1200	50
57036	14	116	110	0.4	35	50	850	500
57037	10	64	50	0.1	8	40	850	225
57038	36	26	90	0.1	18	70	1200	650
57041	6	152	30	0.1	19	20	800	175
57042	8	86	10	0.2	75			

Note: Silver values below detection limit of 0.2 ppm - reported as 0.1 ppm



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: *Hartfield*



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville Street,
 Vancouver, B.C.
 V6C 1T8
 ATTN: J. Shearer

CERTIFICATE NO. 43583
 INVOICE NO. 27300
 RECEIVED June 20, 1978
 ANALYSED June 29, 1978

SAMPLE NO. :	PPM Cu	PPM Pb	PPM Zn	PPM As	PPB Au	PPM Te
PR - 1	4	10	10	3	<10	
2	22	120	58	120	40	
3	18	106	40	40	20	
4	14	38	38	27	70	
5	14	28	30	14	80	
6	18	285	68	40	100	SORRY, Te analysis not available at this time - only in off season due to work load and complicated Te procedure.
7	12	620	108	18	10	
8	22	450	106	40	40	
9	6	12	24	4	<10	
10	6	14	22	6	40	
11	2	4	14	2	20	
12	14	24	36	45	90	
13	4	2	12	3	140	
14	16	104	52	60	20	
15	12	28	28	17	30	
16	24	172	72	400	140	
17	36	200	144	220	30	
18	30	365	96	60	40	
19	28	122	122	80	40	
20	30	64	118	27	<10	
21	14	38	44	2	<10	
22	12	30	42	6	20	
23	16	84	50	28	50	
24	20	90	72	25	<10	
25	4	14	18	6	60	
26	4	10	10	2	20	
27	6	20	14	11	120	
28	8	20	20	10	140	
29	10	16	10	23	130	
30	4	36	22	5	220	
31	6	16	22	9	110	
32	10	114	38	20	20	
33	60	210	200	190	50	
34	10	42	30	22	40	
35	16	32	42	30	10	
36	2	12	14	2	10	
37	26	46	58	60	190	
38	16	154	26	23	40	
39	8	50	18	45	10	
PR - 40	14	70	32	70	3400	
STD.	92	40	126	8		



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: *Hartford*



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 985-0648
 AREA CODE: 604
 TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: McIntyre Mines Ltd.,
 1003 - 409 Granville St.,
 Vancouver, B.C.

ATTN: J. Shearer

CERTIFICATE NO. 43584
 INVOICE NO. 27300
 RECEIVED June 20/78
 ANALYSED June 29/78

SAMPLE NO. :	PPM Cu	PPM Pb	PPM Zn	PPM As	PPB Au	PPM Te
PR 41	6	4	12	3	10	
42	30	58	24	80	180	
43	8	46	28	24	<10	
44	16	114	54	23	<10	
45	16	118	70	75	<10	
46	18	96	88	42	10	
47	22	52	82	30	<10	
48	16	90	56	26	10	
49	26	255	98	85	10	
50	28	400	106	55	60	
PR 51	22	140	64	45	10	
PR 52	14	16	24	60	40	

SORRY, Te analysis not available at this time - only in off season due to work load and complicated Te procedure.



MEMBER
 CANADIAN TESTING
 ASSOCIATION

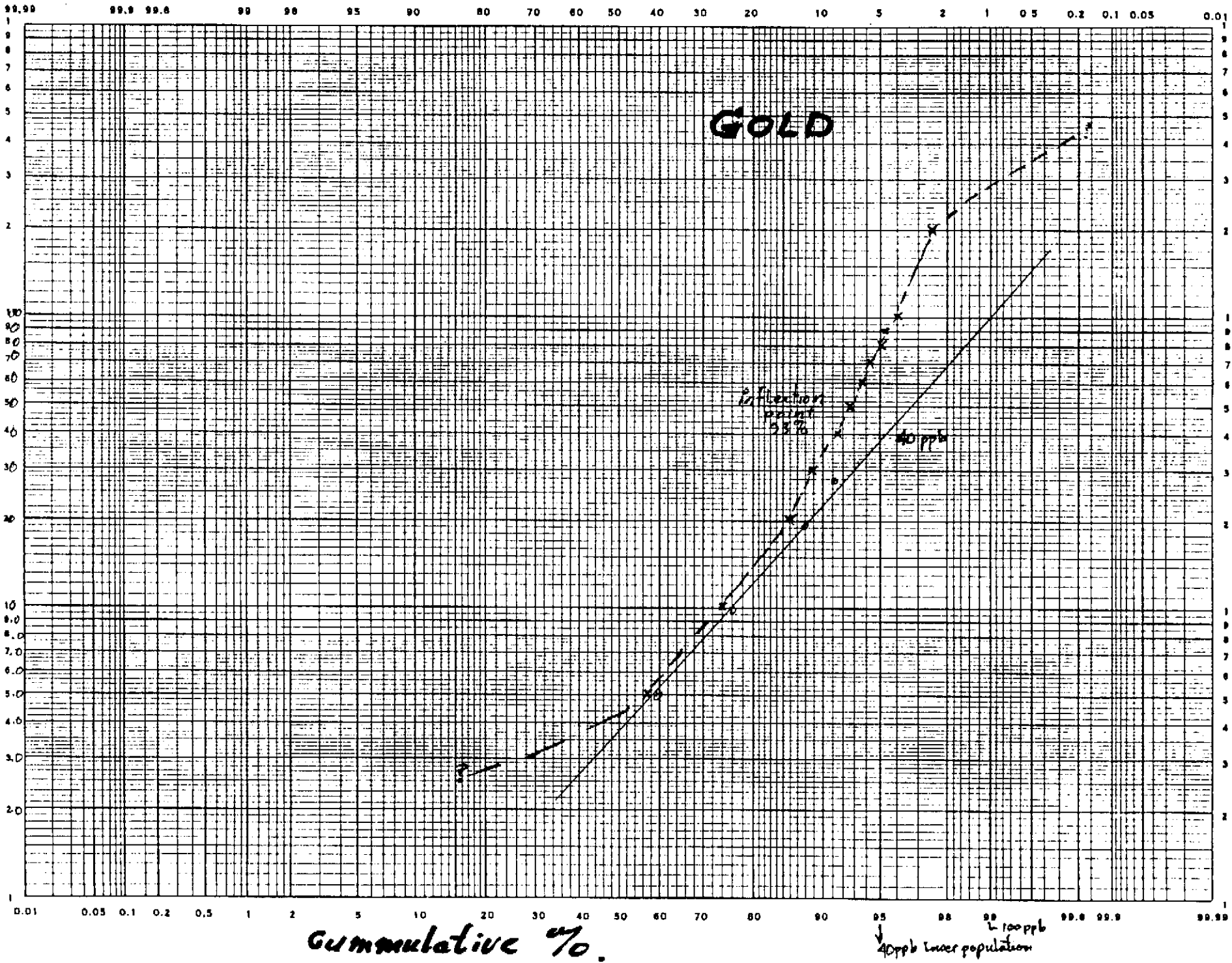
CERTIFIED BY: *1 Hart Biele*

APPENDIX V

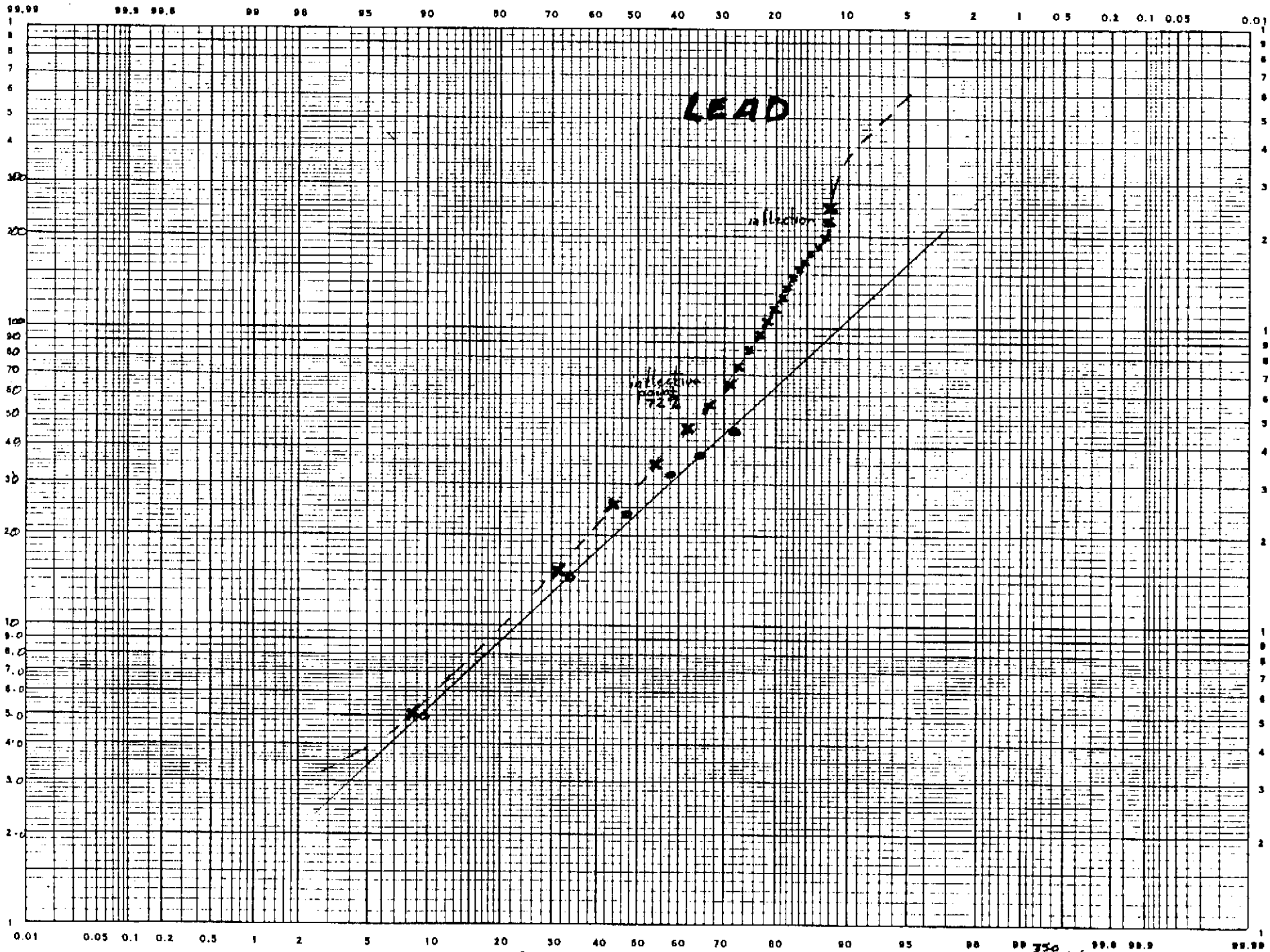
PROBABILITY DISTRIBUTION GRAPHS

ppb Au

GOLD



ppm Pb

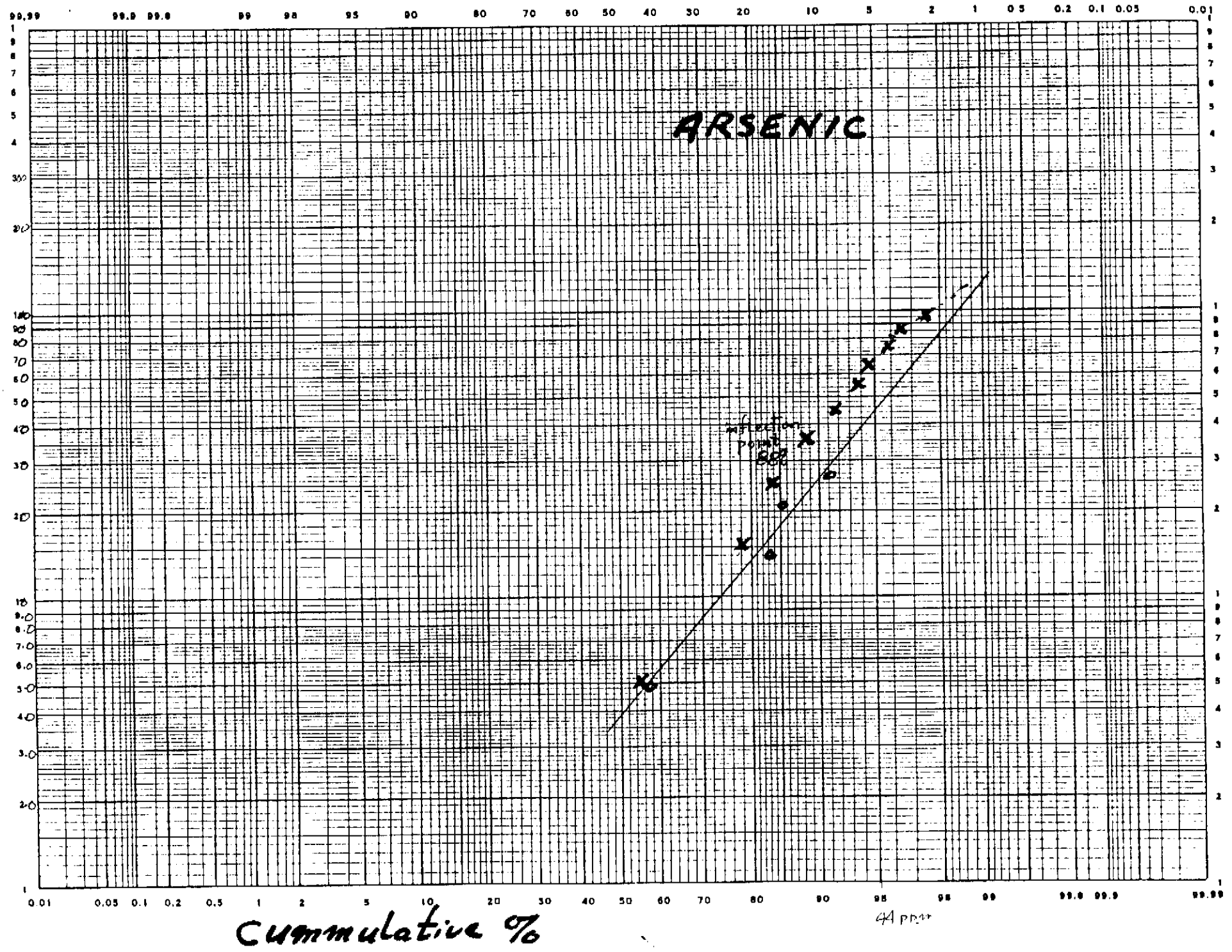


Cumulative %

160 ppm of lower population

ppm As

ARSENIC



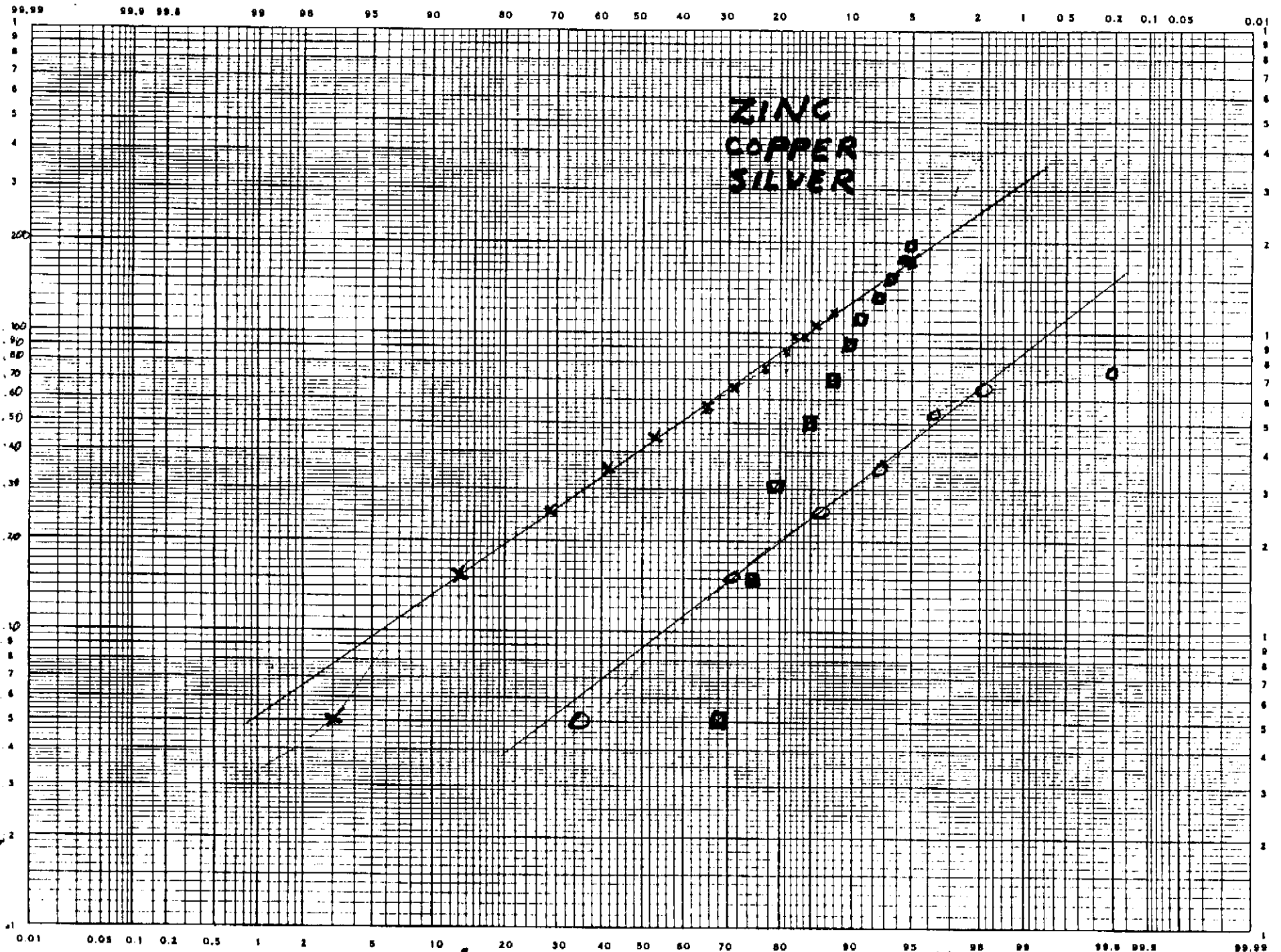
Cumulative %

44 ppm

PPM Ag - □
PPM Cu - x

Flow

ZINC
COPPER
SILVER

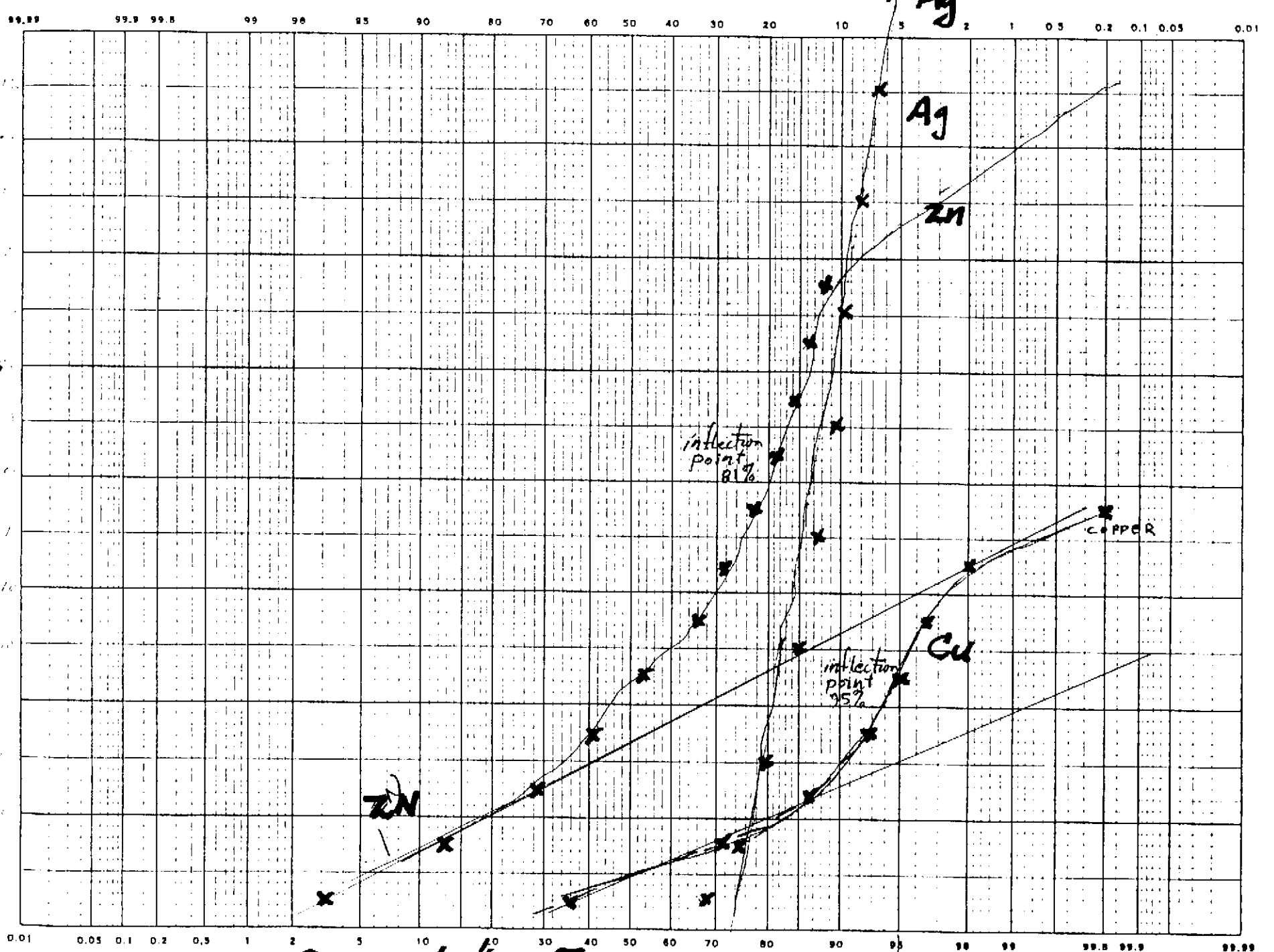


Cumulative %.

150 PPM
40 PPM
10 PPM

1g

ppm Zn, ppm Ag, ppm Cu

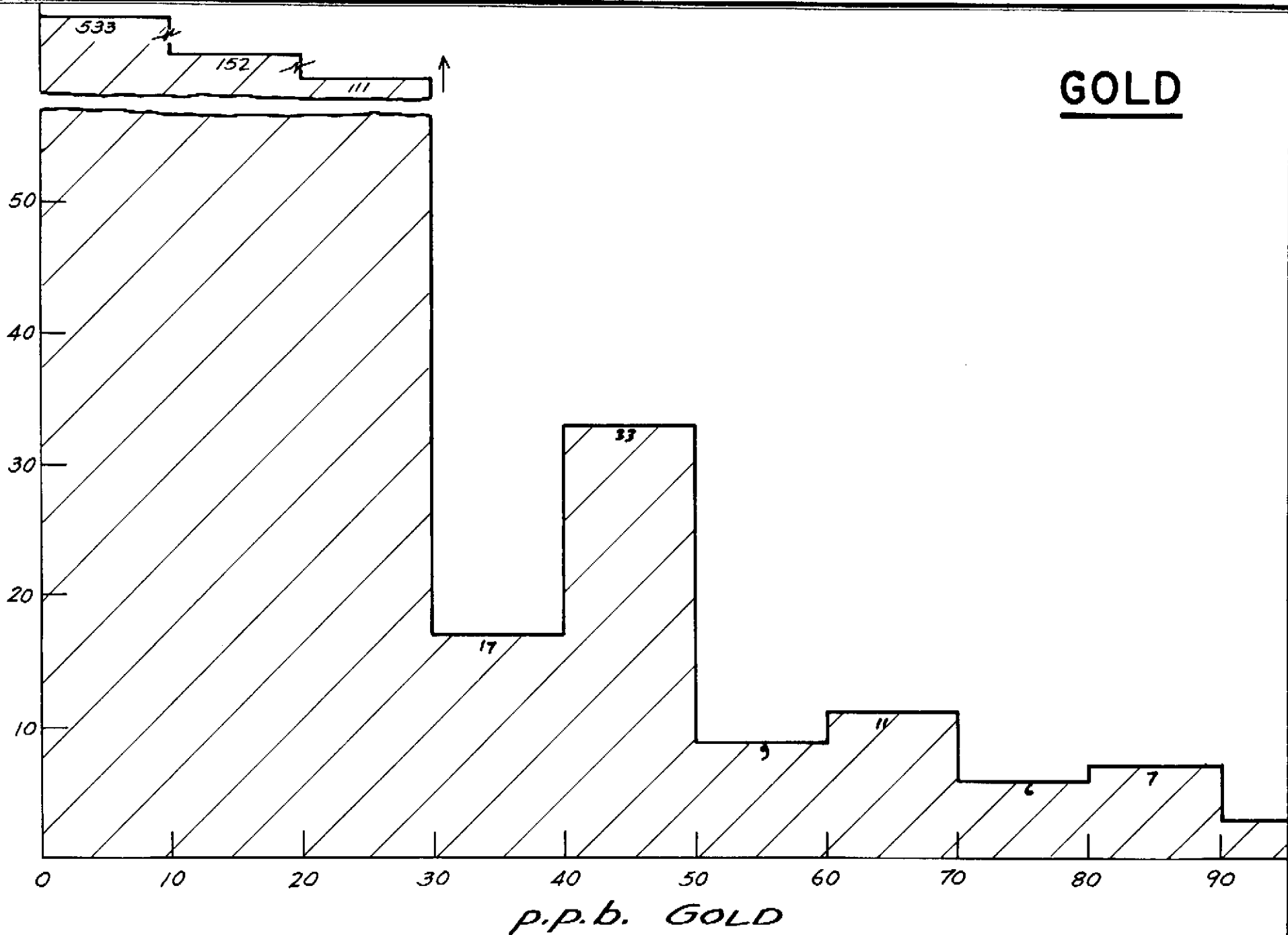


Cumulative %

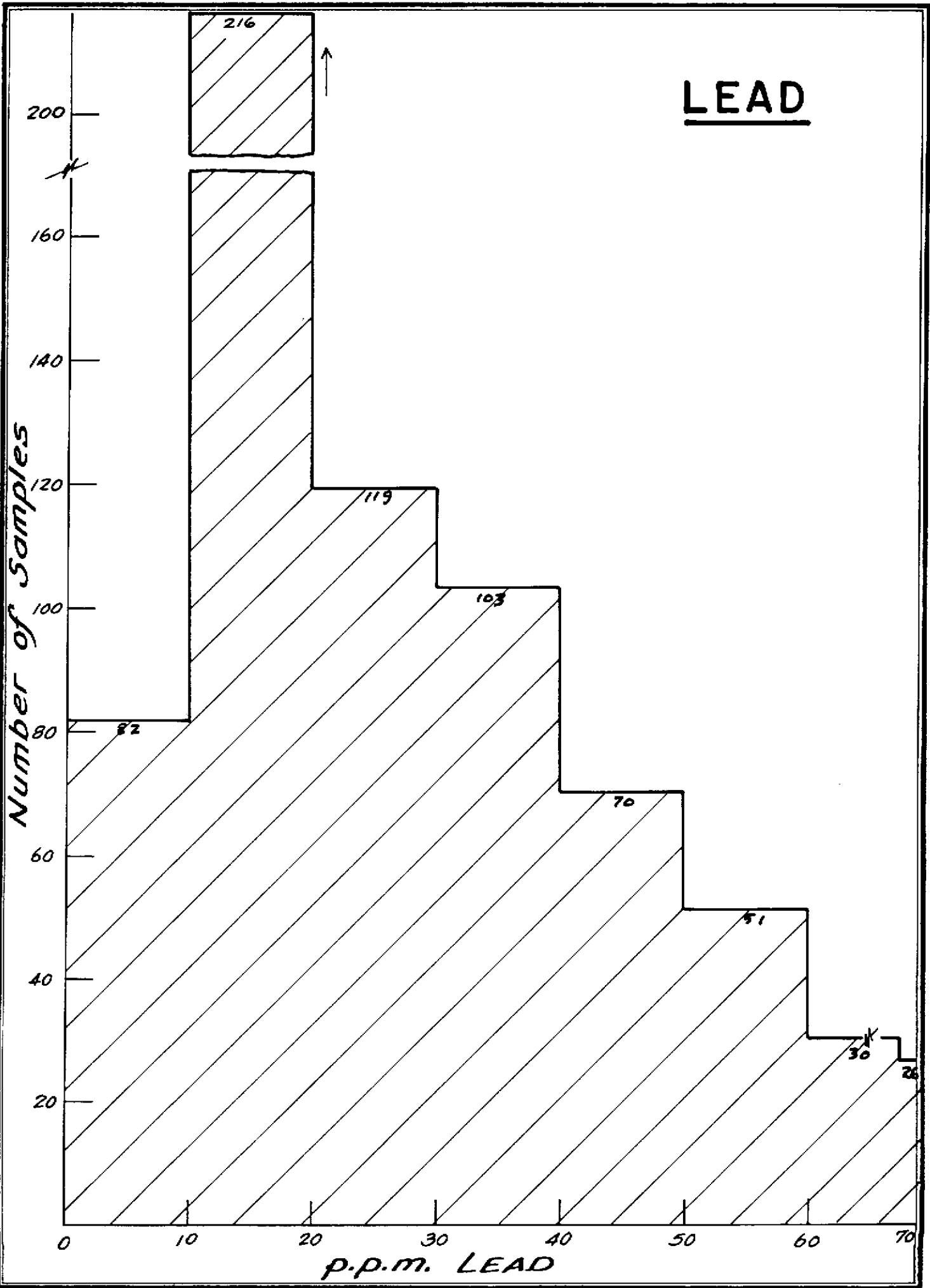
58ppm

GOLD

Number of Samples

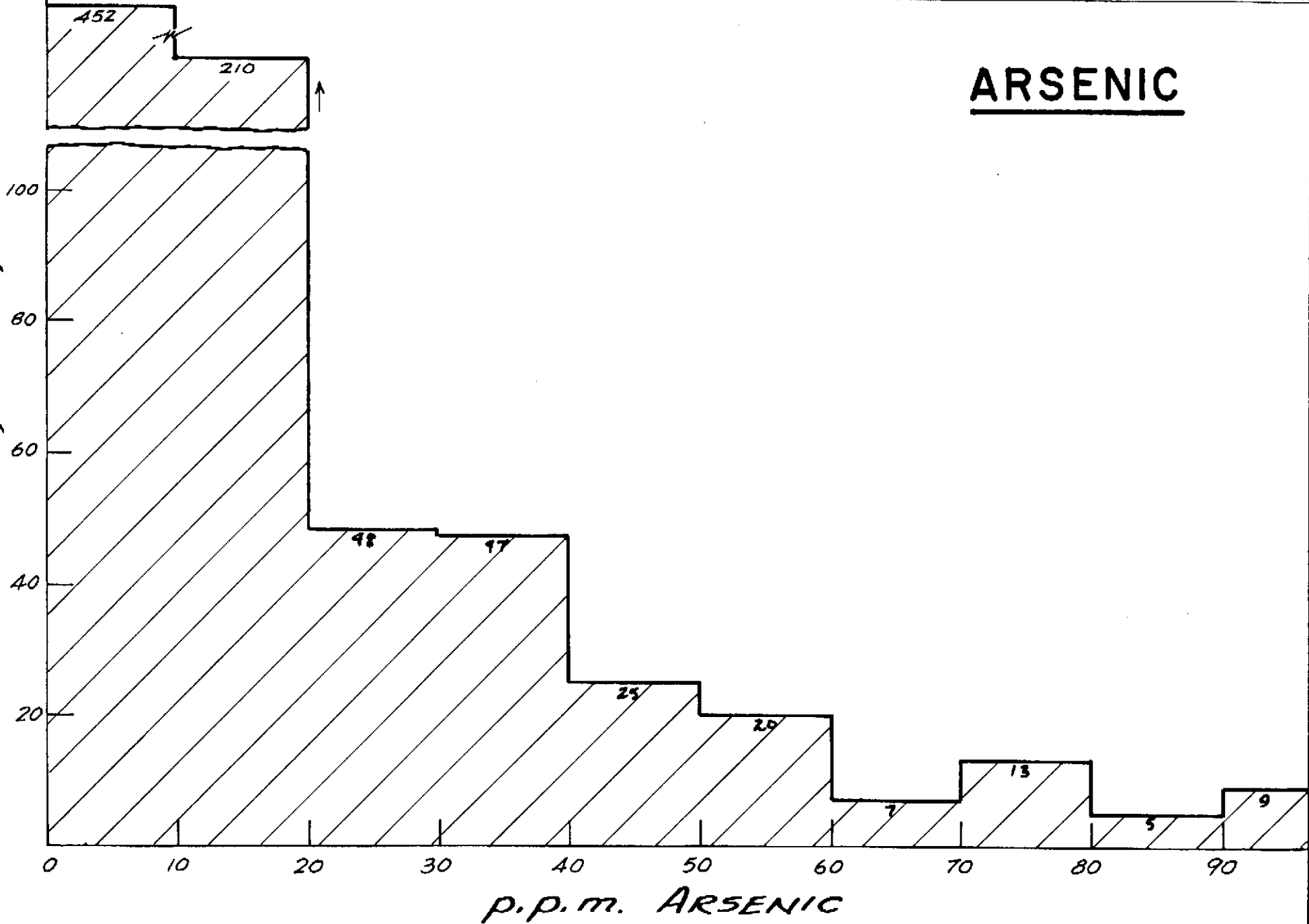


LEAD



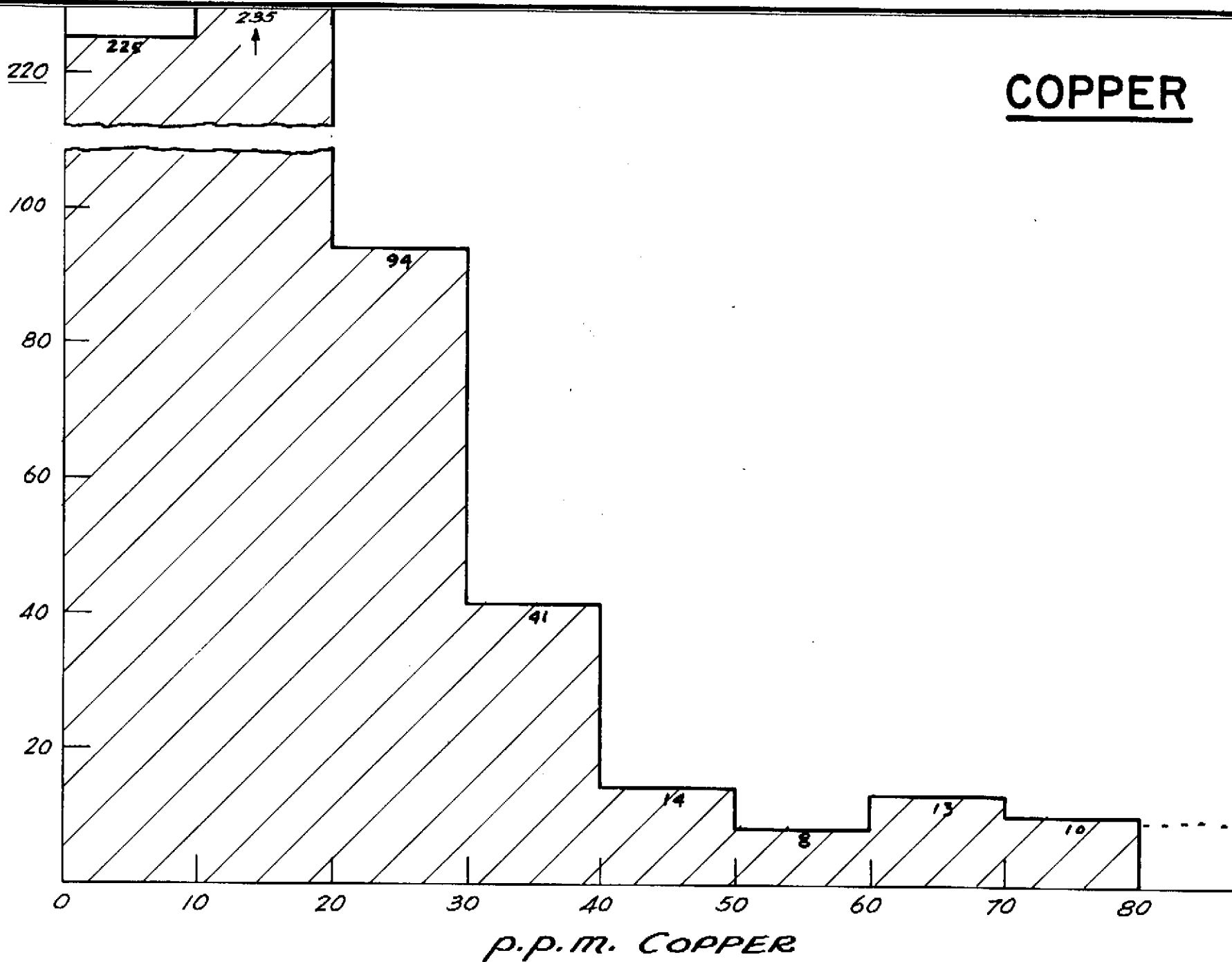
ARSENIC

Number of Samples

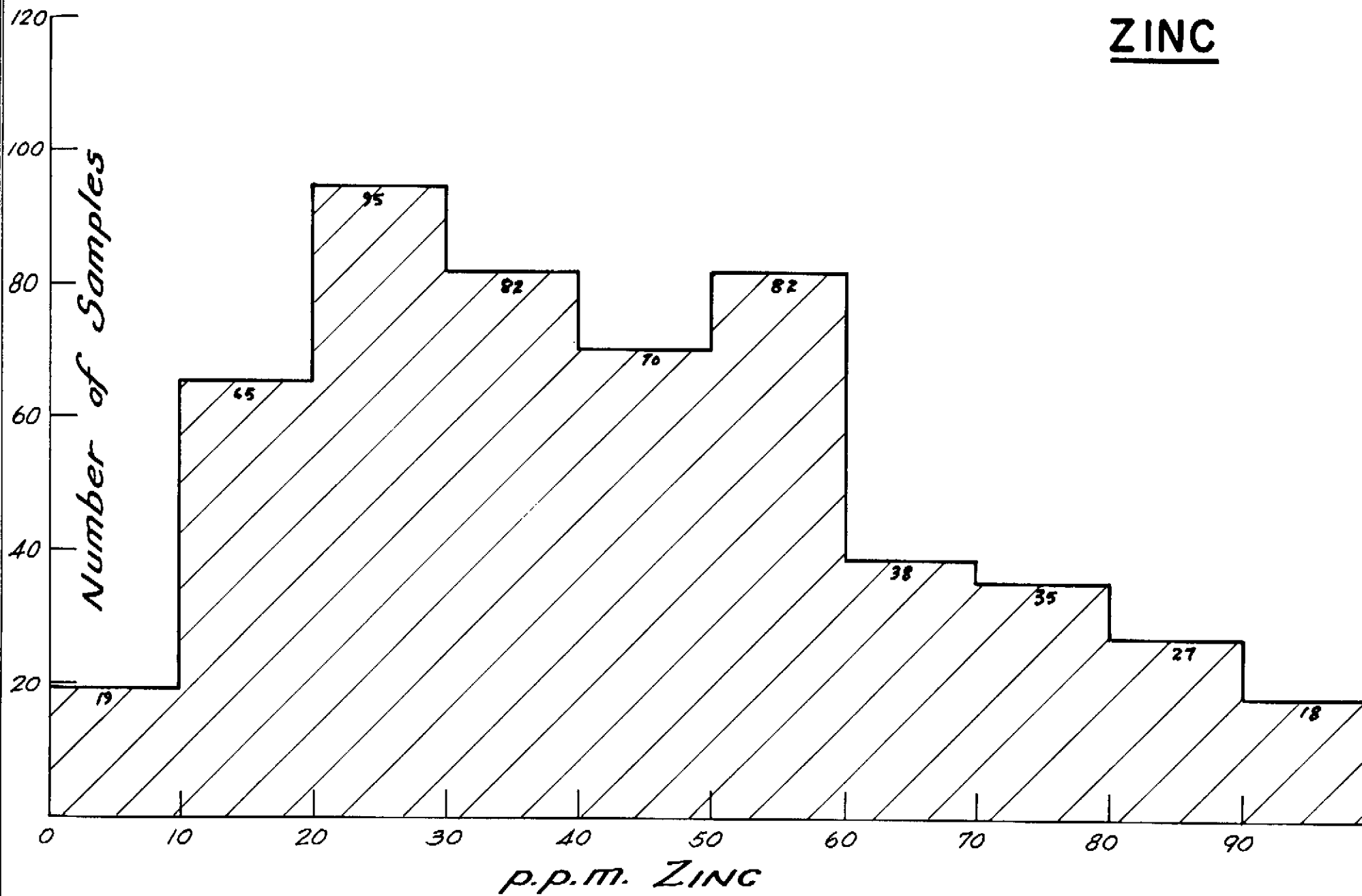


COPPER

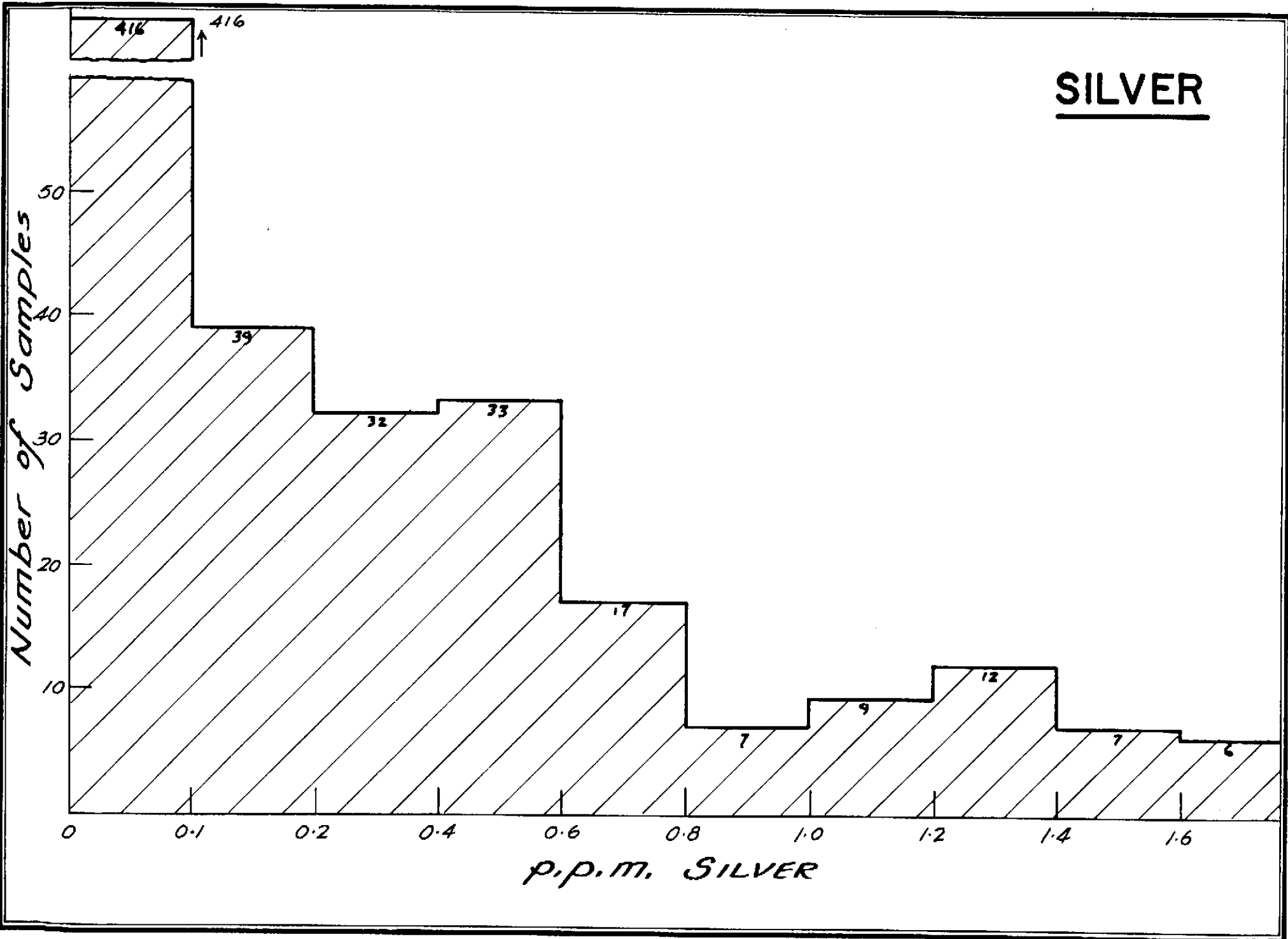
Number of Samples



ZINC



SILVER



APPENDIX VI

PETROGRAPHIC SUMMARY

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 6, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57951 LOCATION WARSPITE DUMP

HANDSPECIMEN DESCRIPTION:

COLOUR SILVERY GREY- WHITE

TEXTURE SILKY TO CLASTIC TOUGHNESS VERY HARD & WELL INDURATED

GRAIN SIZES 0.5 - 0.7 MM

FABRIC AND PACKING EQUIGRANULAR, CLOSE PACKED

STRATIFICATION SCHISTOSE IN H.S.

MINOR STRUCTURES _____

COMPOSITION (%) 80% QUARTZ
19% SERICITIC MUSCOVITE
1% PY
% _____

FIELD NAME PHYLLITIC QUARTZITE

THINSECTION DESCRIPTION:

COLOUR AND MICROT texture CLEAR, SCHISTOSE - CATACLASTIC

GRAIN SIZES AND SHAPES SUTURED AND EMBAYED GRAIN BOUNDARIES, QTZ, ELONGATE MUSCOVITE
0.1 TO 1.5 MM, GRANULATED

FABRIC AND PACKING STRONG PLANAR, IRREGULAR

STRATIFICATION SCHISTOSE, GRANULATION, NO PRIMARY STRUCTURES

MICROSTRUCTURES CALCITE AND MUSCOVITE REPLACING QTZ, MN STAIN

COMPOSITION (%) 85% QUARTZ
10% MUSCOVITE - THICKEST LAYER .7 MM WIDE
3% CALCITE - REPLACING QTZ IN PATCHES 1 MM
1% PYRITE
1% EPIDOTE - SUBRECTANGULAR CLEAVAGE, SMALL GRAINS

NAME QUARTZ MUSCOVITE SCHIST

COMMENTS: UNDULATORY EXTINCTION NOT WELL DEVELOPED, GRANULATION "BEHIND"

LARGE COMPOSITE QTZ GRAINS

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 6, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57952 LOCATION WARSPITE DUMP

HANDSPECIMEN DESCRIPTION:

COLOUR DARK GREY-BLACK

TEXTURE SCHISTOSE WITH RELICT SANDY TOUGHNESS WELL INDURATED

GRAIN SIZES 1 MM, SOME SILT SIZE

FABRIC AND PACKING WELL SORTED, PENETRATIVE CLEAVAGE

STRATIFICATION MASKED BY CLEAVAGE

MINOR STRUCTURES DK VEINLETS, MICRO FRACTURES

COMPOSITION (%) 70% QUARTZ
10% MUSCOVITE
5% ANKERITE
15% "MTX"

FIELD NAME DARK (BLACK) PHYLLITIC QUARTZITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE LIGHT GR TO COLOURLESS

GRAIN SIZES AND SHAPES ELONGATE MUSCOVITE UP TO .3 MM, SMALL QTZ .05, LARGE
COMPOSITE QTZ UP TO .8 MM

FABRIC AND PACKING LRG GRAINS FLOATING IN GRANULATED MTX

STRATIFICATION NO PRIMARY, EXTREME CATACLASIS, SCHISTOSITY

MICROSTRUCTURES ANKERITE PORPHROBLASTS, LRG QTZ GRAINS STRAINED, SMALL GRAINS CLEAR

COMPOSITION (%) 40% QUARTZ
35% MUSCOVITE
25% CALCITE
% ONE EPIDOTE GRAIN 0.08 MM RECTANGULAR CLEAVAGE
% V. HIGH RELIEF

NAME FLASER QUARTZITE

COMMENTS: COMPOSITE QTZ WITHIN GRANULATED ZONES, TWO AGES OF MUSCOVITE

(A) EARLY DEFINING SCHISTOSITY (B) SMALL, RANDOMLY ORIENTED NEEDLES THROUGHOUT
SOME ROUNDED "BALLS" OF INGROWN MUSCOVITE NEEDLES AND "CHERT"

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: December 6, 1978
EXAMINED BY: J.S.

SPECIMEN NUMBER 57953 LOCATION WARSPITE DUMP

HANDSPECIMEN DESCRIPTION:

COLOUR BLACK

TEXTURE "CHERTY", SILICIFIED TOUGHNESS VERY WELL INDURATED

GRAIN SIZES PHENOS 0.5 MM

FABRIC AND PACKING _____

STRATIFICATION NON, MASSIVE, VAGUE SCHISTOSITY

MINOR STRUCTURES QTZ. VEINLETS

COMPOSITION (%) 70 % QUARTZ
5 % "MICA"
25 % MTX
1 % PY

FIELD NAME SILICIFIED SILTSTONE

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE COLOURLESS, EQUIGRANULAR, PSEUDO PORPHYRITIC

GRAIN SIZES AND SHAPES COMPOSITE QTZ UP TO 2.0 MM, MOST 0.15-0.3 MM, ELONGATE MICA

FABRIC AND PACKING ALL GRAINS STRAINED, GRANULATED APPEARANCE, MOSAIC

STRATIFICATION VEINLETS OF MUSCOVITE, CRUDELY PARALLEL, VERY FINE NEEDLE MUSCOVITE

MICROSTRUCTURES MICROFRACTURES PARALLEL TO SCHISTOSITY, MINOR SUTURED GRAINS

COMPOSITION (%) 75 % QUARTZ
15 % MUSCOVITE
8 % OPAQUES (PY?)
1 - Tr % EPIDOTE - YELLOW-GREEN, SLIGHTLY PLEO
% UNIAXIAL FIGURE

NAME FLASER

COMMENTS: SOLUTION FEATURES - QTZ GRAINS CUT IN HALF, NON-MATCHING SIDES,

MUSCOVITE REPLACEMENT, SOME QTZ. GRAIN GHOSTS (CENTERS).

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: December 7, 1978
EXAMINED BY: J.S.

SPECIMEN NUMBER 57954 LOCATION WARSPITE DUMP

HANDSPECIMEN DESCRIPTION:

COLOUR BLACK TO DARK GREY

TEXTURE CONGLOMERATIC (BX) TOUGHNESS VERY WELL INDURATED

GRAIN SIZES ANKERITE - 3 MM, PY - 5 MM, CLASTS - 20 MM.

FABRIC AND PACKING COARSE, PORPHYROBLASTIC

STRATIFICATION SCHISTOSE

MINOR STRUCTURES PORPHYROBLASTS OF ANKERITE

COMPOSITION (%) 30 % QUARTZ
30 % ANKERITE
30 % LITHIC CLASTS
10 % PY

FIELD NAME SCHISTOSE CONGLOMERATE

THINSECTION DESCRIPTION:

COLOUR AND MICROTEXTURE CLEAR TO LIGHT GREY
XLINE

GRAIN SIZES AND SHAPES Py-3.5 MM, ANKERITE POIKIOBLASTIC - 1.5 MM, QTZ VARIABLE
(see below)

FABRIC AND PACKING QTZ: 0.08 MM, COMPOSITE GRAINS 1.5 to 3 MM
VAGUE ALIGNMENT OF

STRATIFICATION SCHISTOSE, NO RELICT SEDIMENTARY STRUCT., COMPOSITE QTZ.

MICROSTRUCTURES COMPOSITE QTZ GRAINS WITH GRANULATED MARGINS BY NEEDLE MUSCOVITE

COMPOSITION (%) 25% CALCITE (ANBRITE)
35-40% QUARTZ
30-35% MUSCOVITE (BOTH GENERATIONS)
1% EPIDOTE
5% PY

NAME BLASTO MYLONITE?

COMMENTS: ANKERITE POIKIOBLASTIC TEXTURE MANY INCLUDED QTZ GRAINS, LARGE CLAST
(Primary)
COMPOSED OF 50% QTZ 0.08 MM LINEATED AND 50% ELONGATE + RANDOM NEEDLE MUSCOVITE
ANKERITE SUPERIMPOSED ON ALL STRUCTURE WIL RELICT LINEATION PRESERVED, TWO AGES
OF MUSCOVITE.

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: December 6, 1978
EXAMINED BY: J.S.

SPECIMEN NUMBER 57955 LOCATION WARSPITE DUMP, * 7.6 ppm Au.

HANDSPECIMEN DESCRIPTION:

COLOUR LIGHT GREY, BANKS OF XLINE PYRITE

TEXTURE VAGUELY CLASTIC TOUGHNESS WELL INDURATED, SILICIFIED

GRAIN SIZES 3 - 5 MM

FABRIC AND PACKING REXLIzed, CLOSE

STRATIFICATION VAGUE

MINOR STRUCTURES _____

COMPOSITION (%) 90 % QUARTZ

5 % MUSCOVITE

5 % PYRITE

% _____

FIELD NAME SILICIFIED MICACEOUS QUARTZITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE INTERLOCKING MOSAIC, SOME ROUNDED EMBAYMENTS OF QTZ, COLOURLESS

GRAIN SIZES AND SHAPES SUBRECTANGULAR TO SUBOCTAHEDRAL, 0.1 TO 0.3 MM, IRREGULAR

FABRIC AND PACKING UNDULATORY TO FRINGE EXTINCTION.

STRATIFICATION NONE

MICROSTRUCTURES REXLIZATION, MINOR FLOWAGE OF SiO₂ + MUSCOVITE

COMPOSITION (%) 60 % QUARTZ

10 % MUSCOVITE

30 % OPAQUES (PYRITE)

% TRACE APATITE BEFORE SILICIFICATION, SMALL GRAINS

% _____

NAME PYRITIZED, SILICIFIED META ARENITE?

COMMENTS: Au CONTENT 7.6 ppm, HIGH As.

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: December 6, 1978
EXAMINED BY: J.S.

SPECIMEN NUMBER 57956 LOCATION WARSPITE DUME

HANDSPECIMEN DESCRIPTION:

COLOUR DARK GREY

TEXTURE SILTY TOUGHNESS MODERATELY INDURATED, FLAKEY

GRAIN SIZES SILT, MINOR 0.5 MM GRAINS

FABRIC AND PACKING TOO FINE-GRAINED

STRATIFICATION PHYLLITE, VAGURE PRIMARY (?) PARALLEL TO FOLIATION

MINOR STRUCTURES "WISPY" LAYERS, DARK FRACTURES

COMPOSITION (%) 70 % QUARTZ
30 % MUSCOVITE
Tr % PYRITE
%

FIELD NAME PHYLLITIC SILTSTONE

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE CLEAR, FLATTENED (COMPRESSED) QTZ GRAINS

GRAIN SIZES AND SHAPES MAINLY QTZ @ 0.05 MM AND "RELIEF" GRAINS @ 0.3 to 0.7 MM

FABRIC AND PACKING EUHEDRAL CALCITE REPLACING QTZ.

STRATIFICATION NONE, SCHISTOSITY, SOME GHOST INCLUSION RINGS

MICROSTRUCTURES RELICT SAND SIZE GRAINS

COMPOSITION (%) 80% QUARTZ
10-15% MUSCOVITE
5% CALCITE
@% PYRITE
%

NAME MYLONITIC QUARTZITE

COMMENTS: LARGE SLIGHTLY STRAINED QTZ GRAINS "ISLANDS" (KNOTS) IN LINEATED SMALL
QTZ FLOWAGE WITH EMBAYED (RAGGED) GRAIN BOUNDARIES.

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 8, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57030 LOCATION _____

HANDSPECIMEN DESCRIPTION:

COLOUR MEDIUM GREY, 2MM WHITE QTZ VEINLET, SPECKLED

TEXTURE PHYLLITIC TOUGHNESS BRITTLE FROM FRACTURES

GRAIN SIZES SAND, 1 MM "PORPHYROCLASTS" SOME SILT GRAINS?

FABRIC AND PACKING FOLIATED DEVELOPMENT OF MICA

STRATIFICATION VAGUE ALIGNMENT OF PORPHYROCLASTS

MINOR STRUCTURES WELL FRACTURED CONJUGATE SET?

COMPOSITION (%) 90% QUARTZ
10% MICA
%
%

FIELD NAME GREY QUARTZITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE COLOURLESS WITH BROWN SPECKS

GRAIN SIZES AND SHAPES SUBRNDED LRG QTZ GRAINS SURROUNDED BY EQUIGRANULAR MOSAIC

FABRIC AND PACKING OF SUBRECTANGULAR SMALLER GRAINS, UP TO 5% RANDOM NEEDLE MUSCOVITE
VERY FINE GRAINED 0.015 MM LONG 0.002 WIDE

STRATIFICATION MUSCOVITE STRONGLY ALIGNED (HEALED FRACTURES)

MICROSTRUCTURES UNDULATORY EXTINCTION, GRANULATION OF GRAIN BOUNDARIES

COMPOSITION (%) 85% QUARTZ
15% MUSCOVITE 5% NEEDLE VARIETY
TR% EPIDOTE 2 XLS
%
%

NAME GREY PHYLLONITE

COMMENTS: SOME OF THE LARGER QTZ GRAINS HAVE PRONOUNCED MICROFRACTURE

MANY 0.005 MM INCLUSIONS

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: December 8, 1978
EXAMINED BY: J.S.

SPECIMEN NUMBER 57961 LOCATION WARSPITE DUMP

HANDSPECIMEN DESCRIPTION:

COLOUR GREENISH GREY, SPOTTED, BRN FRACTURES

TEXTURE CONGLOMERATIC (VAGUE) TOUGHNESS VERY WELL INDURATED

GRAIN SIZES VERY SILICIFIED, PEBBLES(?) UP TO 10 MM

FABRIC AND PACKING POORLY SORTED (RELICT) SECONDARY SILICIFICATION

STRATIFICATION NONE APPARENT IN H.S.

MINOR STRUCTURES CURVED FRACTURES

COMPOSITION (%) 60 % QUARTZ
40 % MTX-MUSCOVITE + OTHERS?
%
%

FIELD NAME QUARTZ PEBBLE CONGLOMERATE (SILICIFIED)

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE COLOURLESS

GRAIN SIZES AND SHAPES PEBBLES MADE UP OF INTERLOCKING MOSAIC WITH MINOR MUSCOVITE

FABRIC AND PACKING RELXIZED, NO DIRECT RELICT TEXTURE DISCERNABLE.

STRATIFICATION NONE, SLIGHT SCHISTOSITY, MUSCOVITE IN FRACTURES

MICROSTRUCTURES CALCITE NOT STRAINED

COMPOSITION (%) 55 % QUARTZ
35 % CALCITE
10 % MUSCOVITE
PRYRITE
%

NAME LIMY MYLONITE (CONGLOMERATE?)

COMMENTS: CALCITE REPLACING QTZ AT GRAIN BOUNDARIES AND SPREADING IN A "MTX" POSITION,

CALCITE NOT IN XL CONTINUITY WITH ADJACENT XLS AND OPTIC AXIS RANDOMLY ORIENTED

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: December 8, 1978
EXAMINED BY: J.S.

SPECIMEN NUMBER 57962 LOCATION WARSPITE DUMP

HANDSPECIMEN DESCRIPTION:

COLOUR LIGHT GREY, REDDISH STAIN

TEXTURE SANDY (COARSE) TOUGHNESS HIGHLY FRACTURED

GRAIN SIZES 2 MM TO 6MM, COARSE FLAKY MUSCOVITE

FABRIC AND PACKING POORLY SORTED, SOME FLATTENING, CLOSE PACKED

STRATIFICATION CRUDE STRAT. PARALLEL TO FRACTURE (SOME SOLUTION?)

MINOR STRUCTURES ABUNDANT FRACTURES

COMPOSITION (%) 80% QUARTZ
20% MUSCOVITE
Tr% PYRITE
%

FIELD NAME SILICIFIED COARSE GRAINED QUARTZITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTEXTURE COLOULESS TO LIGHT GREY

GRAIN SIZES AND SHAPES OVOID GRAINS (SINGLE GRAINS) OF QUARTZ UP TO 2.5 MM

FABRIC AND PACKING GRANULATED AND RELXIZED, PERHAPS POORLY SORTED.

STRATIFICATION CRUDE ALIGNMENT OF QUARTZ GRAINS, MAYBE ONLY 2° FLATTENING

MICROSTRUCTURES STYLOLITES AND GRANULATION ALONG TIN, WAVY EXTINCTION

COMPOSITION (%) 60% QUARTZ
20-40% MUSCOVITE VARIABLE
5-20% CALCITE - VARIABLE
% EPIDOTE - 2 GRAINS DETRITAL?
%

NAME LIMY RELXIZED QUARTZITE (PHYLONITE)

COMMENTS: GRANULATION IN PRESSURE SHADOW OF LARGE QUARTZ GRAINS, SOME SUTURED

GRAIN BOUNDARIES, ANOMALOUS BLUE INTERFERENCE COLOUR COMMON

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: December 8, 1978
EXAMINED BY: J.S.

SPECIMEN NUMBER 57963 LOCATION WARSPITE DUMP

HANDSPECIMEN DESCRIPTION:

COLOUR BLACK, WHITE STREAKS AND LAYERS

TEXTURE SCHISTOSE, SILKY, FISSLE TOUGHNESS FAIRLY SOFT

GRAIN SIZES VERY FINE, CLAY TO MUD SIZE

FABRIC AND PACKING TOO FINE GRAINED

STRATIFICATION VERY SCHISTOSE, INTENSELY CONTORTED

MINOR STRUCTURES FOLDS, LINEATED " MICROBOUDINS"

COMPOSITION (%) 20% SECONDARY QUARTZ (OR PRIMARY SILTY LAMANA)

5% ANKERITE

75% MUSCOVITE & QUARTZ (MUDSTONE PRIMARY)

%

FIELD NAME BLACK SCHIST (PHYLLITE)

THINSECTION DESCRIPTION:

COLOUR AND MICROTEXTURE DARK GREY (BLACK) TO LIGHT BROWN, COMPLEX LAMINATED

GRAIN SIZES AND SHAPES VERY FINE SILTY WITH OCCASSIONAL GRANULATED AGGREGATES

FABRIC AND PACKING MICROCRENULATION 120° TO PRIMARY BEDDING

STRATIFICATION EXTREMELY WELL LAMINATED, FLATTENED COMPOSITE AGGREGATES OF
QUARTZ CALCITE

MICROSTRUCTURES MICROSCOPIC CRENULATION, FOLDS IN CALCITE RICH SECTIONS

COMPOSITION (%) 20% QUARTZ (COARSER GRAINED)

15% CALCITE

20% MUSCOVITE

55% FINE LAMINATIONS (BLACK) - TOO FINE

%

FOR THIN SECTIONS

NAME LIMY SILTY PHYLLITE (POSSIBLY PHYLLONITE) MORE SPECIMENS NEEDED FOR
CONCLUSIONS

COMMENTS: CALCITE FRACTURES, CALCITE REPLACING "COARSER" QUARTZ, BOUDINS

(LENTICULAR) OF COARSE GRAINED MATERIAL IN FINELY LAMINATED BLACK MATRIX

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: December 8, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57964 LOCATION WARSPITE DUMP

HANDSPECIMEN DESCRIPTION:

COLOUR LIGHT GREY TO CREAMY WHITE

TEXTURE MASIVE (SLIGHTLY FOLIATED) TOUGHNESS VERY WELL INDURATED

GRAIN SIZES FLOATING PORPHYROCLASTS TO 2 MM

FABRIC AND PACKING MASSIVE, NO FABRIC OR PACKING APPARENT

STRATIFICATION SILICIFIED, MASSIVE

MINOR STRUCTURES PARALLEL FRACTURES, VAGUE "HORIZONTAL" STAIN LINES

COMPOSITION (%) 95% QUARTZ
5% MUSCOVITE
Tr% PYRITE
%

FIELD NAME LIGHT GREY MASSIVE QUARTZITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE COLOURLESS, PYRITE SPECKS, EQUIGRANULAR

GRAIN SIZES AND SHAPES .08 AVERAGE QUARTZ SUBRECTANGULAR, MANY LARGER .3MM

FABRIC AND PACKING NEEDLE MUSCOVITE, MOST FLAKY

STRATIFICATION NONE IN T.S., CALCITE NOT STRAINED

MICROSTRUCTURES LARGER QUARTZ GRAINS HAVE GRANULATED BOUNDARIES

COMPOSITION (%) 80% QUARTZ
10-15% MUSCOVITE
5-10% CALCITE (ANKERITE)
1-2% PYRITE
%

NAME MICACEOUS PHYLONITE

COMMENTS: MUSCOVITE MAINLY IN IRREGULAR (BUT THROUGH GOING) SOLUTION CHANNELS,

MANY QUARTZ GRAINS ARE FRACTURED.

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 8, 1978
EXAMINED BY: J.S.

SPECIMEN NUMBER 57579 LOCATION Line 210N, 300W

HANDSPECIMEN DESCRIPTION:

COLOUR BROWNISH GREY TO LIGHT GREY, DARK BROWN WEATHERING

TEXTURE SANDY TO PEBBLY TOUGHNESS MODERATELY INDURATED, BLOCKY

GRAIN SIZES 3 MM TO .5 MM "PORPHYROCLASTS", 2 MM HEAMATITE PATCHES

FABRIC AND PACKING VERY POORLY SORTED, ANGULAR GRAINS

STRATIFICATION POORLY BEDDED (ALTHOUGH WELL PRESERVED)

MINOR STRUCTURES HEALED HAIRLINE FRACTURES

COMPOSITION (%) 40% SAND QUARTZ

50% MTX QUARTZ

10% MUSCOVITE

2% PYRITE

FIELD NAME SUBGREYWACKE (MICACEOUS SCHIST)

THINSECTION DESCRIPTION:

COLOUR AND MICROT texture COLOURLESS WITH BROWN SPOTS, POORLY SORTED CLASTIC

GRAIN SIZES AND SHAPES WELL ROUNDED QTZ UP TO 1.8 MM

FABRIC AND PACKING POORLY SORTED, VERY LOOSELY PACKED WITH FRAMEWORK GRAINS

STRATIFICATION MUSCOVITE TO .3 MM FLAKES SOME DEGREE OF GRANULATION APPARENT

MICROSTRUCTURES WAVY EXTINCTION ON QTZ AND MUSCOVITE

COMPOSITION (%) 55% QUARTZ (FRAMEWORK)

20% MUSCOVITE

20% QUARTZ (MATRIX)

5% PYRITE (HEAMATITE)

% PLAGIOCLASE, EPIDOTE, APATITE (?)

NAME SUBGREYWACKE (POORLY SORTED) (MYLONITIC)

COMMENTS: SLIGHT REMOBILIZATION OF QTZ AT BOUNDARIES OF LARGE FRAMEWORK GRAINS

AND INTRO OF MUSCOVITE, SOME TENDENCY TOWARD COMPOSITE GRAINS IN QTZ

FRAMEWORK CLASTS

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 6, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57952 LOCATION WARSPITE DUMP

HANDSPECIMEN DESCRIPTION:

COLOUR DARK GREY-BLACK

TEXTURE SCHISTOSE WITH RELICT SANDY TOUGHNESS WELL INDURATED

GRAIN SIZES 1 MM, SOME SILT SIZE

FABRIC AND PACKING WELL SORTED, PENETRATIVE CLEAVAGE

STRATIFICATION MASKED BY CLEAVAGE

MINOR STRUCTURES DK VEINLETS, MICRO FRACTURES

COMPOSITION (%) 70% QUARTZ
10% MUSCOVITE
5% ANKERITE
15% "MTX"

FIELD NAME DARK (BLACK) PHYLLITIC QUARTZITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE LIGHT GR TO COLOURLESS

GRAIN SIZES AND SHAPES ELONGATE MUSCOVITE UP TO .3 MM, SMALL QTZ .05 LARGE
COMPOSITE QTZ UP TO .8 MM

FABRIC AND PACKING LRG GRAINS FLOATING IN GRANULATED MTX

STRATIFICATION NO PRIMARY, EXTREME CATUCALERS, SCHISTOSITY

MICROSTRUCTURES ANKERITE PORPHROBLASTS, LRG QTZ GRAINS STRAINED, SMALL GRAINS CLEAR

COMPOSITION (%) 40% QUARTZ
35% MUSCOVITE
25% CALCITE
% ONE EPIDOTE GRAIN 0.08 MM RECTANGULAR
% V. HIGH RELIEF CLEAVAGE
%

NAME FLASER QUARTZITE

COMMENTS: COMPOSITE QTZ WITHIN GRANULATED ZONES, TWO AGES OF MUSCOVITE

(A) EARLY DEFINING SCHISTOSITY (B) SMALL RANDOMLY ORIENTED NEEDLES THROUGHOUT

SOME ROUNDED "BALLS" OF INGROWN MUSCOVITE NEEDLES AND "CHERT"

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 8 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57580A LOCATION LINE 240N, 210W

HANDSPECIMEN DESCRIPTION:

COLOUR BROWN WHITE TO LIGHT GREY, BROWN GREY ON WEATHERING

TEXTURE APHANTIC, SPECKLED TOUGHNESS VERY WELL INDURATED

GRAIN SIZES CRYPTOXLINE, PYRITE CUBES UP TO 2 MM

FABRIC AND PACKING VERY FINE GRAINED, PACKING UNKNOWN

STRATIFICATION LAYERING ACCENTUATED BY MN STAIN ON FOLIATION

MINOR STRUCTURES WEATHERING OF PYRITE, MN HAIRS AND DENDRITES

COMPOSITION (%) 90% QUARTZ
10% MTX
%
%

FIELD NAME SILICIFIED SILTSTONE (ARGILLITE) (BLEACHED MUDSTONE)

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE LIGHT BROWN YELLOW WITH BROWN SPOTS, SILTY

GRAIN SIZES AND SHAPES QTZ: .03 AVERAGE SUBRECTANGULAR, MUSCOVITE NEEDLES

FABRIC AND PACKING PY UPTO 2.5 MM, PORPHYROBLASTS, LOOSELY PACKED QTZ

STRATIFICATION CRUDE STRAT, ALIGNMENT OF MUSCOVITE

MICROSTRUCTURES POIKOBLASTIC PYRITE INCLUDING QTZ

COMPOSITION (%) 65% QUARTZ
35% MUSCOVITE
10% OPAQUES
%
%

NAME METASILTSTONE

COMMENTS: ONE GRANULATED QTZ GRAIN .5 MM AROUND PYRITE 3 LONG COMPOSITE

QTZ VEINLETS .2 MM WIDE, 3-4 QTZ GRAINS WIDE (.2 MM) VEINLETS BEND

AROUND PY PORPHYROBLASTS

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 8, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57580B LOCATION LINE 240N, 210W

HANDSPECIMEN DESCRIPTION:

COLOUR LIGHT GREY WITH DK BROWN SPOTS, SOME BLEACHED (BUFF) AREAS, SILVERY BROWN ON WEATHERING

TEXTURE SANDY, APHANITIC MTX TOUGHNESS MODERATELY INDURATED, BLOCKY

GRAIN SIZES QTZ PORPHYROCLASTS UP TO 1 MM, MTX FINELY X LINE

FABRIC AND PACKING LOOSELY PACKED, SAND GRAINS FLOATING, SANDY

STRATIFICATION VAGUE, POORLY DEFINED PRIMARY BEDDING, MODERATE FISSILITY

MINOR STRUCTURES HEALED HAIRLINE CRACKS, WEATHERED PYRITE, BLEACHING

COMPOSITION (%) 10% QUARTZ (FRAMEWORK)

50% QUARTZ (MATRIX)

20% MUSCOVITE

10% PYRITE

FIELD NAME SILVERY SERICITE SCHIST (SLIGHTLY BLEACHED)

THINSECTION DESCRIPTION:

COLOUR AND MICROT texture COLOURLESS WITH BROWN SPOTS, RELICT CLASTIC, SCHISTOSE

GRAIN SIZES AND SHAPES QTZ FRAMEWORK : UP TO 1.7 MM, MTX AVERAGE 0.01 MM

FABRIC AND PACKING VERY POORLY SORTED, RELICT CLASTIC APPARENT

STRATIFICATION MTX CRENULATED (MINOR)

MICROSTRUCTURES BOUDINAGE OF GRANULATED QTZ GRAINS

COMPOSITION (%) 30% QUARTZ (FRAMEWORK)

25% QUARTZ (MATRIX)

35% MUSCOVITE

15% OPAQUES

1% PLAGIOCLASE, EPIDOTE

NAME SILVERY MUSCOVITE PHYLLONITE

COMMENTS: MANY FRAMEWORK QTZ GRAINS GRANULATED AT BOUNDARIES, SUGGESTION OF

FLATTENING, GHOST OUTLINES BY INCLUSIONS

SLIGHT WAVY EXTINCTION, PLAGIOCLASE STRAIGHT EXTINCTION

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57581 LOCATION LINE 350N, 240W

HANDSPECIMEN DESCRIPTION:

COLOUR LIGHT BROWN-GREY (BLEACHED), DARK BROWN WEATHERING

TEXTURE APHANITIC, FINE SUGARY TOUGHNESS SLIGHTLY FRIABLE (WEATHERED)

GRAIN SIZES VERY FINE, PYRITE TO 2 MM

FABRIC AND PACKING MASSIVE, MICRO X LINE,

STRATIFICATION PARALLEL DARK HAIRLINE FRACTURES, SUGGESTION OF SCHISTOSITY

MINOR STRUCTURES WEATHERED CAVITIES

COMPOSITION (%) 80% QUARTZ

15% MICA

?% OTHER TOO FINE

5% PYRITE

FIELD NAME PYRITIC BLEACHED SILTSTONE

THINSECTION DESCRIPTION:

COLOUR AND MICROT texture COLOURLESS WITH BROWN-ORANGE SPOTS, RECRYSTALLIZED CLASTIC

GRAIN SIZES AND SHAPES FRAMEWORK GRAINS UP TO 1.5 MM, MUSCOVITE .4 MM

FABRIC AND PACKING POORLY SORTED, POORLY LAYERED, LOOSELY PACKED

STRATIFICATION NO MICROBEDDING, GENERALLY POOR FOLIATION, LOCALLY INTENSE

MICROSTRUCTURES GRAIN MARGIN GRANULATION COMMON, WAVY EXTINCTION

COMPOSITION (%) 20% QUARTZ (FRAMEWORK)

40% QUARTZ (MATRIX)

25% MUSCOVITE (LOCALLY MORE ABUNDANT)

15% PLAGIOCLASE (SOME SERICITIZED)

5% OPAQUES, HBL TR-EPIDOTE

NAME ARKOSIC SILTSTONE (SILTY ARKOSE)

COMMENTS: PLAGIOCLASE GRAINS ARE REPLACED BY SILICA AND SERICITE, POIKIOBLASTIC

PYRITE, PLAG TO 0.5 MM, MINOR SOLUTION FRACTURES, SOME TWIN

GLIDING IN GRANULATED MARGINS OF PLAG GRAINS

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57582 LOCATION LINE 00, 176W

HANDSPECIMEN DESCRIPTION:

COLOUR MEDIUM BLuish GREY, DARK GREY WEATHERING

TEXTURE SILTY-SPECKLED TOUGHNESS WELL INDURATED, ALTHOUGH WEATHERED

GRAIN SIZES SILT SIZE, PURITE TO 2 MM, ABUNDANT CRYPTO XLINE COMPONENT

FABRIC AND PACKING SILICIFIED, NO ORIGINAL FABRIC ?

STRATIFICATION CRUDE SCHISTOSITY, LENTICULAR QUARTS RICH AREAS

MINOR STRUCTURES HEALED SOLUTION FEATURES, WISPY BLACK LINES.

COMPOSITION (%) 80% QUARTZ
10% MUSCOVITE
5% PYRITE
5% VOIDS

FIELD NAME SPECKLED SILTSTONE (PHYLLITIC-MICACEOUS)

THINSECTION DESCRIPTION:

COLOUR AND MICROT texture COLOURLESS, INTENSE GRANULATION, SLIGHT RELICT CLASTIC

GRAIN SIZES AND SHAPES QTZ RELICT GRAMS TO .04 MM, MUSCOVITE FLAKES TO 0.2 MM

FABRIC AND PACKING RECRYSTALLIZED - GRANULATED, ORIGINAL PACKING NOT APPARENT

STRATIFICATION POOR ALIGNMENT OF MUSCOVITE (RANDOM), THROUGHGOING SOLUTION CRACKS,

MICROSTRUCTURES UNDULATORY EXTINCTION IN RELICT GRAINS

COMPOSITION (%) 20% QUARTZ (RELICT FRAMEWORK)
35-45% QUARTZ (GRANULATED AND MATRIX)
30-35% MUSCOVITE
5% OPAQUES - FINE GRAINED AND IN FRACTURES
<1% HBL, EPIDOTE

NAME SILTY PHYLLONITE (FINELY PYRITIC)

COMMENTS: SOLUTION FRACTURES COMMON (IRREGULAR), CIRCULAR VOIDS

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57583 LOCATION LINE 00 140W

HANDSPECIMEN DESCRIPTION:

COLOUR DARK GREY, LIGHTER GREY WEATHERING, KNOBBY WEATHERING

TEXTURE LOOSE SANDY TOUGHNESS VERY WELL INDURATED

GRAIN SIZES 40% SAND (0.5 MM), REST 0.1 MM

FABRIC AND PACKING PPORLY SORTED, LOOSELY PACKED

STRATIFICATION NONE EVIDENT, WELL DEVELOPED SCHISTOSITY

MINOR STRUCTURES WEATHERED LRG PYRITE, FRESH FINE X LINE PYRITE, FLATTENED PY

COMPOSITION (%) 73% QUARTZ
25% MUSCOVITE
2% PYRITE
?% ROCK FRAGS

FIELD NAME PYRITIZED DARK GREY SILTY PHYLLITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE COLOURLESS WITH BROWN SPOTS, RELICT CLASTIC, SOME GRANULATION

GRAIN SIZES AND SHAPES MUSCOVITE FLAKES UP TO .5 MM LONG, LRG WELL ROUNDED OTZ -1.2MM

FABRIC AND PACKING ORIGINALLY POORLY SORTED, MARGINAL GRANULATION

STRATIFICATION VERY SCHISTOSE, NO RELICT MICRO BEDDING

MICROSTRUCTURES SOLUTION CRACKS FILLED WITH OPAQUES, ABUNDANT MICRO FRACTURES

COMPOSITION (%) 70% QUARTZ (FRAMEWORK AND MTX)
25-30 % MUSCOVITE
5% OPAQUES (PYRITE)
TR% HORNBLLENDE
%

NAME SANDY PHYLLITE. (PYRITIZED, DARK GREY) (PHYLLONITIC)

COMMENTS: ONLY LOCAL GRANULATION IN LINEAR ZONES AND GRAIN MARGINS ONE GRAIN
EXHIBITS UNUSUAL "FISH SCALE" INTERNAL TEXTURE (LOCATION MARKED ON
THIN SECTION, 0.015 MM LONG)

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57584A LOCATION LINE 00 AND 130W

HANDSPECIMEN DESCRIPTION:

COLOUR LIGHT GREENISH GREY, BLACK TO SILVERY WEATHERING

TEXTURE FOLIATED CLASTIC TOUGHNESS VERY WELL INDURATED

GRAIN SIZES MANY SAND GRAINS IN FINE MTX

FABRIC AND PACKING SCHISTOSE, HACKLY FRACTURE, LOOSELY PACKED

STRATIFICATION WELL DEVELOPED SCHISTOSITY (BLOCKY), MAYBE PARALLEL TO ORIGINAL BEDDING

MINOR STRUCTURES FLATTENED PYRITE, WISPY HAIRLINES

COMPOSITION (%) 70% QUARTZ

20% MUSCOVITE

5% PYRITE

%

FIELD NAME GREENISH SERICITE PHYLLITE (QUARTZITE)

THINSECTION DESCRIPTION:

COLOUR AND MICROT texture COLOURLESS WITH BROWN SPECKS, GRANULATED (RELICT CLASTIC)

GRAIN SIZES AND SHAPES MUSCOVITE TO .1 MM, QZ RELICTS TO 1.5 MM, RELISED QZ
VARIABLE

FABRIC AND PACKING POORLY SORTED (MAYBE DUE TO GRANULATION)

STRATIFICATION PRONOUNCED SCHISTOSITY, ORIGINAL BEDDING OBLITERATED

MICROSTRUCTURES POIKIOBLASTIC PYRITE, SUGGESTION OF AUGEN TEXTURE

COMPOSITION (%) 10% QUARTZ (RELICT LARGE GRAINS)

40% QUARTZ (MATRIX AND RELISED)

45% MUSCOVITE (ACCORDING TO "LAYERING")

5% OPAQUES

1% SERICITIZED PLAGIOCLASE, EPIDOTE, HBL

NAME SANDY PHYLLONITE (PERHAPS PEBBLY)

COMMENTS: SOME GHOSTS OF WELL ROUNDED QZ GRAINS WITHIN INTERLOCKING MOSAIC
OF RELISED GRAINS, GRANULATED MARGINS, SOME COMPOSITIONAL LAYERING

ONE PLAGIOCLASE CLAST .4 MM (SERICITIZED)

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57584B LOCATION LINE 00 AND 130W

HANDSPECIMEN DESCRIPTION:

COLOUR MEDIUM GREY, LIGHT GREY WEATHERING

TEXTURE PEBBLY SAND TOUGHNESS WELL INDURATED (IN THIN PLATES)

GRAIN SIZES PEBBLES UP TO 20 MM, AVERAGE 1-2 MM

FABRIC AND PACKING RELATIVELY CLOSE PACKED, SCHISTOSE BUT PEBBLES NOT FLATTENED

STRATIFICATION CRUDELY BEDDED, PARALLEL TO SCHISTOSITY

MINOR STRUCTURES PEBBLES ACTING AS AUGEN ?? WELL FRACTURED

COMPOSITION (%) 40% QUARTZ (FRAMEWORK)
22% QUARTZ (MATRIX)
35% MUSCOVITE
3% PYRITE (OXIDIZED)

FIELD NAME PEBBLY PHYLLITIC QUARTZITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTEXTURE COLOURLESS WITH BROWN SPECKS, PYLLONITIC

GRAIN SIZES AND SHAPES COLLESING OF FRAMEWORK GRAINS TO LARGE INTERLOCKING MOSAIC

FABRIC AND PACKING GRANULATED AND RECRYSTALLIZED, RELICT WELL RND ED QTZ UP TO 1.8 MM

STRATIFICATION CRUDE ALIGNMENT OF COMPOSITE GRAINS, RECRYSTALLIZED, MTX QTZ .08-.1MM

MICROSTRUCTURES COMPOSITE GRAINS, INTENSE "END" GRANULATION

COMPOSITION (%) 25% QUARTZ (RELICT FRAMEWORK GRAINS, NOW COMPOSITE GRAINS)
Variable 35% QUARTZ (MATRIX)
Variable 35% MUSCOVITE
5% OPAQUES
TR % PLAGIOCLASE, EPIDOTE

NAME QUARTZ PEBBLE PHYLLONITE

COMMENTS: SOME LARGE GRAINS WITH UNDULATORY EXTINCTION ALTHOUGH MOST SMALL GRAINS
STRAIGHT (RECRYSTALLIZED), MUSCOVITE NEEDLES 0.05 MM LONG, MUSCOVITE AS RANDOM
NEEDLES AND FELTED MASSES FILLING FRACTURES

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978

EXAMINED BY: JS

SPECIMEN NUMBER 57585 LOCATION LINE 00 AND 060W

HANDSPECIMEN DESCRIPTION:

COLOUR DARK AND LIGHT GREY SPOTTED, LIGHT GREY-TAN WEATHERING

TEXTURE CONGLOMERATE TOUGHNESS VERY WELL INDURATED

GRAIN SIZES PEBBLES AVERAGE 6 MM, MINOR FINE SAND GRAINS

FABRIC AND PACKING CLOSE PACKED, IMBRICATION, ALTHOUGH ABUNDANT MATRIX

STRATIFICATION BEDDING WELL PRESERVED

MINOR STRUCTURES THIN QUARTZ VEINLETS

COMPOSITION (%) 5 % QUARTZ (FRAMEWORK)
+15 % QUARTZ (MATRIX)
15 % MUSCOVITE
5 % PYRITE (WEATHERED TO HEAMATITE)

FIELD NAME PHYLLITIC QUARTZ PEBBLE CONGLOMERATE (SILICIFIED)

THINSECTION DESCRIPTION:

COLOUR AND MICROTEXTURE COLOURLESS, INTERLOCKING MOSAIC

GRAIN SIZES AND SHAPES EXTREMELY VARIABLE, VERY SMALL .05 MM TO 4 MM, MAJORITY 0.3MM

FABRIC AND PACKING RECRYSTALLIZATION, ORIGINAL PACK TO COARSE FOR SECTION

STRATIFICATION NOT APPARENT AT LOWEST MAGNIFICATION ALTHOUGH READILY SEEN IN H.S.

MICROSTRUCTURES WAVY EXTINCTION, MAJOR RECRYSTALLIZATION

COMPOSITION (%) 20% QUARTZ (RELATIVELY UNALTERED FRAMEWORK)
60 % QUARTZ (GRANULATED AND MATRIX)
5-10 % MUSCOVITE
2 % OPAQUES
5% PLAGIOCLASE, SERICITIZED "PLAG", TR, EPIDOTE, + HBL

NAME QUARTZ PEBBLE PHYLLONITE

COMMENTS: ONE FRAMEWORK GRAIN IS A LITHIC CLAST CONTAINING MAINLY QTZ
BUT MINOR PLAGIOCLASE, LOCAL INTENSE GRANULATED OF GRAIN MARGINS

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57587 LOCATION LINE 00 015W

HANDSPECIMEN DESCRIPTION:

COLOUR MEDIUM GREY-GREEN (BLEACHED), TAN-GREY ON WEATHERING

TEXTURE APHONITIC, PORPHYROBLASTIC TOUGHNESS POORLY INDURATED (WEATHERED)
PY

GRAIN SIZES ABUNDANT WELLROUNDED SILT SIZE QTZ GRAINS

FABRIC AND PACKING LOOSELY PACKED, FLOATING SILT GRAINS

STRATIFICATION RANDOM SILT PARTICLES, VAGUE FOLIATION

MINOR STRUCTURES CLAY ALTERATION ?

COMPOSITION (%) 80% QUARTZ AND MTX
10% MUSCOVITE
10% PYRITE (OXIDIZED)
%

FIELD NAME BLEACHED GREEN SERICITE PHYLLITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE COLOURLESS WITH BROWN SPOTS, SCHISTOSE

GRAIN SIZES AND SHAPES QTZ FRAMEWORK - .2 TO 1.3 MM, MATRIX QTZ - .03 AVERAGE

FABRIC AND PACKING MARGINAL GRANULATION AND REPLACEMENT OF LARGE GRAINS

STRATIFICATION MASKED BY STRONG SCHISTOSITY (ALIGNMENT OF MUSCOVITE)

MICROSTRUCTURES POIKIOBLASTIC PYRITE

COMPOSITION (%) 45% QUARTZ (FRAMEWORK)
35% QUARTZ (MATRIX)
20% MUSCOVITE
TR % PLAGIOCLASE
%

NAME BLEACHED PHYLLONITIC SERICITE SCHIST

COMMENTS: MICROFRACTURES PERPENDICULAR TO FOLIATION ? SOME LARGE MUSCOVITE

XLS PERPENDICULAR TO FOLIATION

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978

EXAMINED BY: JS

SPECIMEN NUMBER 57588 LOCATION LINE 00 15W

HANDSPECIMEN DESCRIPTION:

COLOUR LIGHT GREY SILVERY, DARK GREY-BROWN WEATHERING

TEXTURE RELICT SILTY SCHISTOSE TOUGHNESS WELL INDURATED

GRAIN SIZES SILT GRAINS .05 MM, APHANITITIC MTX

FABRIC AND PACKING POORLY SORTED, LOOSE, MAYBE RESULT OF GRANULATION?

STRATIFICATION CRUDE LINE OF QTZ GRAINS - CHECK T.S

MINOR STRUCTURES BLEACHING ANHEDRAL PY

COMPOSITION (%) 10% QUARTZ (FRAMEWORK)
85% QUARTZ AND MICA MATRIX
5% OXIDIZED PYRITE
%

FIELD NAME SILTY BLEACHED SERICITE SCHIST

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE COLOURLESS WITH MANY BROWN SPOTS

GRAIN SIZES AND SHAPES FRAMEWORK QTZ .1 TO 1.2 MM, PLAGIOCLASE - .5, HBL - .8 LONG

FABRIC AND PACKING MTX QTZ - .06 TO .1 MM, SOME TENDENCY TO STAR GROUPS IN MUSCOVITE

STRATIFICATION VERY SCHISTOSE, STRONG ALIGNMENT OF MUSCOVITE

MICROSTRUCTURES ALTERATION OF PLAGIOCLASE, POIKIOBLASTIC PYRITE

COMPOSITION (%) 20% + QUARTZ (FRAMEWORK) AND GRANULATED GRAINS
30% QUARTZ (MATRIX)
30% MUSCOVITE
5% PLAGIOCLASE (SERICITIZED)
TR% HORNBLEDE
10-20 OPAQUES, VOIDS

NAME MYLONITIC SANDY SERICITE SCHIST (PYRITIZED)

COMMENTS: MANY COMPOSITE GRAINS, AREAS OF GRANULATION COMMON

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978

EXAMINED BY: JS

SPECIMEN NUMBER 57589 LOCATION NEAR WARSPITE SHAFT (SOUTHEAST)

HANDSPECIMEN DESCRIPTION:

COLOUR DARK GREY, RUSTY WEATHERING

TEXTURE SANDY, CLASTIC TOUGHNESS VERY WELL INDURATED

GRAIN SIZES FRAMEWORK GRAINS : 3-5 MM, ABUNDANT FINE MATRIX

FABRIC AND PACKING WELL ROUNDED, LOOSELY PACKED

STRATIFICATION VAGUE BEDDING NOT WELL PRESERVED, FOLIATION POORLY DEVELOPED

MINOR STRUCTURES WHITE QUARTZ VEINLETS, OPALESCENT QUARTZ GRAINS

COMPOSITION (%) 50 % QUARTZ (FRAMEWORK)
25 % QUARTZ (MTX)
20 % MUSCOVITE
5 % PYRITE (OXIDIZED)

FIELD NAME DARK GREY PHYLLITIC CRS QUARTZITE

THINSECTION DESCRIPTION:

COLOUR AND MICROT texture COLOURLESS WITH BROWN SPECKS, INTERLOCKING MOSAIC

GRAIN SIZES AND SHAPES RELICT FRAMEWORK QTZ UP TO 1.8 MM, MOST RESULTING QTZ 0.3 MM

FABRIC AND PACKING MOST LARGE QTZ GRAINS GRANULATED, PLAG AVERAGE 0.2 MM

STRATIFICATION NONE; ALMOST COMPLETE GRANULATION

MICROSTRUCTURES WAVY EXTINCTION, MICROFRACTURES

COMPOSITION (%) 60 % QUARTZ
20-25 % PLAGIOCLASE AND SOME K-SPAR
10-15 % MUSCOVITE
10 % OPAQUES, VOIDS
% EPIDOTE

NAME DARK GREY QUARTZITE PHYLLONITE

COMMENTS: TWIN LINES IN PLAGIOCLASE COMMONLY DISLOCATED

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57590 LOCATION NEAR WARSPITE SHAFT (SOUTHEAST)

HANDSPECIMEN DESCRIPTION:

COLOUR DARK GREY GREEN, BROWNISH-RED WEATHERING

TEXTURE SANDY TOUGHNESS VERY WELL INDURATED

GRAIN SIZES WELL ROUNDED FRAMEWORK GRAINS 3-4 MM AVERAGE, ABUNDANT DARK

FABRIC AND PACKING CLASTS (ROCK FRAGS?) CLOSE PACKED, RELATIVELY LITTLE MTX

STRATIFICATION POOR FOLIATION, CRUDE BEDDING (MAYBE WEATHERING LINES)

MINOR STRUCTURES FINELY X LINE PYRITE, SOLUTION LINES, SUGGESTION OF GRAIN FLATTENING

COMPOSITION (%) 70 % QUARTZ (FRAMEWORK GRAINS) AND LITHIC(?) CLASTS
30 % QUARTZ AND MICA (MATRIX)
2 % PYRITE
%

FIELD NAME PHYLLITIC GREYWACKE

THINSECTION DESCRIPTION:

COLOUR AND MICROTEXTURE COLOURLESS WITH BROWN SPECKS, GRANULATED WITH RELICT CLASTIC

GRAIN SIZES AND SHAPES FRAMEWORK QTZ 1.5 MM TO 3.4 MM, FRAMEWORK PLAGIOCLASE

FABRIC AND PACKING MANY FRAMEWORK GRAINS ARE COMPOSITE WITH GRANULATED

STRATIFICATION MARGINS, STRON FOLIATION, WIDE INTRO OF SERICITE FLAKES

MICROSTRUCTURES REXLIZATION, RAGGED GRAIN BOUNDARIES

COMPOSITION (%) 25% QUARTZ (FRAMEWORK)
25-30 % QUARTZ GRANULATED AND MATRIX
40 % MUSCOVITE
5 % PLAGIOCLASE (MAINLY SERICITE ALTERATION)
5 % OPAQUES, VOIDS EPIDOTE

NAME SILTY PHYLLONITE

COMMENTS: TWIN GLIDING ON SOME PLAGIOCLASE GRAINS,

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57591A LOCATION BASELINE AT 9455

HANDSPECIMEN DESCRIPTION:

COLOUR TAN-BROWN (BLEACHED), DARK BROWN WEATHERING

TEXTURE BLEACHED, RELICT CLASTIC TOUGHNESS WELL INDURATED IN SPITE OF WEATHERING

GRAIN SIZES SAND - 1 MM, SILT 0.5 MM, FINE GRAINED MATRIX

FABRIC AND PACKING FLOATING WELL ROUNDED QTZ GRAINS, LOOSELY PACKED

STRATIFICATION NONE APPARENT, INCIPIENT FOLIATION (WEATHERED)

MINOR STRUCTURES PY COMPLETELY WEATHERED - MANY IRREGULAR CAVITIES
BLACK HAIRLINE

COMPOSITION (%) 20% QUARTZ (SAND AND SILT)
60% MATRIX (MUSCOVITE AND QUARTZ)
20% VOIDS
%

FIELD NAME DEEPLY WEATHERED SILTY PHYLLITE (LUSTROUS SERICITE SCHIST)

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE LT BROWN WITH DARKER BANDS, SCHISTOSE AND GRANULATED

GRAIN SIZES AND SHAPES FRAMEWORK .15 TO .7 MM, MATRIX QTZ .07 MM

FABRIC AND PACKING WELL ROUNDED FRAMEWORK, POORLY SORTED, LOOSELY PACKED?

STRATIFICATION STRONG FOLIATION AND GRANULATION PARALLEL TO SCHISTOSITY

MICROSTRUCTURES RANDOM INCLUSIONS IN FRAMEWORK GRAINS, WAVY EXTINCTION

COMPOSITION (%) 10% QUARTZ (FRAMEWORK)
20-40% QUARTZ (MATRIX AND GRANULATED AND VEIN) (VARIABLE)
20-40% MUSCOVITE (VARIABLE)
5% OPAQUES, HORBLLENDE, PLAGIOCLASE
30% VOIDS

NAME SANDY PHYLLONITE

COMMENTS: ? STAINED (YELLOW) FRACTURES IN SOME FRAMEWORK GRAINS (HAS HIGH
RELIEF)? UNKNOWN SIGNIFICANCE? MICROFRACTURES COMMON

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57591B LOCATION ON BASELINE @ 945S

HANDSPECIMEN DESCRIPTION:

COLOUR STREAKY LIGHT AND DARK BROWN, REDDISH-BROWN WEATHERING

TEXTURE RELICT SANDY, FINE MTX TOUGHNESS WELL INDURATED

GRAIN SIZES ABUNDANT QTZ GRAINS 1-2 MM, WELL ROUNDED

FABRIC AND PACKING RELATIVELY LOOSE PACKED

STRATIFICATION NO PRIMARY BEDDING IN H.S., MODERATE FOLIATION

MINOR STRUCTURES SOLUTION CRACKS, MANY CAVITIES

COMPOSITION (%) 40% QUARTZ
40% MUSCOVITE AND QUARTZ MATRIX
20% VOIDS (PYRITE?)
%

FIELD NAME WEATHERED SANDY PHYLITE (LUSTROUS SERICITE SCHIST)

THINSECTION DESCRIPTION:

COLOUR AND MICROT texture COLOURLESS WITH LIGHT BROWN STREAKS

GRAIN SIZES AND SHAPES FRAMEWORK WELL ROUNDED QTZ 0.2 TO 1.4 MM, MTX QTZ .05 MM

FABRIC AND PACKING SCHISTOSE, MINOR GRANULATION, ONE MUSCOVITE 1.0 MM LONG

STRATIFICATION ORIGINALLY POORLY SORTED, GENERALLY SLIGHT DEVEL. OF FOLIATION

MICROSTRUCTURES BUT LOCALLY INTENSE

COMPOSITION (%) 40% QUARTZ (FRAMEWORK)
+ 40% QUARTZ MATRIX INCLUDES MINOR GRANULATION
20% MUSCOVITE
TR% OPAQUES
%

NAME MICACEOUS PHYLITE (QUARTZITE)

COMMENTS: SOME FRAMEWORK GRAINS ARE COMPOSITE TYPE AND MINOR GRANULATION

OCCURRED. MAINLY ONLY WAVY EXTINCTION AND MARGINAL REFLIXATION, SOME "PEAR"

SHAPED GRAINS

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9. 1978

EXAMINED BY: JS

SPECIMEN NUMBER 57592 LOCATION ON BASELINE @ 655S

HANDSPECIMEN DESCRIPTION:

COLOUR MEDIUM GREY SPECKLED, DARK GREY-BROWN WEATHERING

TEXTURE SANDY TOUGHNESS VERY WELL INDURATED

GRAIN SIZES MANY "LRG" GRAINS 1-2 MM, MAJORITY 0.5 MM

FABRIC AND PACKING CLOSE PACKED, MODERATELY WELL SORTED

STRATIFICATION FINE BEDDING ? (ALIGNMENT OF LRG GRAINS) POOR SCHISTOSITY

MINOR STRUCTURES IRREGULAR LIGHT GREY QUARTZ VEINLETS

COMPOSITION (%) 60% QUARTZ (FRAMEWORK)
20% QUARTZ (MATRIX) AND LITHIC CLASTS ?
10% MUSCOVITE
10% FINE VOIDS

FIELD NAME DARK GREY PHYLLITIC QUARTZITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTEXTURE COLOURLESS, GRANULATED AND REXLIZED

GRAIN SIZES AND SHAPES RND ED FRAMEWORK QTZ UP TO 1 MM, MOSAIC OF ANGULAR .1 QTZ

FABRIC AND PACKING EPIDOTE RND ED .1 MM, ORIGINALLY FAIRLY WELL PACKED ?

STRATIFICATION SCHISTOSE AND REXLIZED, PRIMARY STRAT OBLITERATED

MICROSTRUCTURES EXTREME GRANULATION OF FRAMEWORK GRAINS

COMPOSITION (%) 10% QUARTZ (WHOLE FRAMEWORK)
50% QUARTZ (GRANULATED)
20% QUARTZ (MATRIX)
20% MUSCOVITE
TR% OPAQUES, EPIDOTE, PLAGIOCLASE, K-SPAR? VOIDS

NAME MEDIUM GREY PHYLLONITE

COMMENTS: UNDULATORY EXTINCTION

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978

EXAMINED BY: JS

SPECIMEN NUMBER 57593 LOCATION ON BASELINE @ 600S

HANDSPECIMEN DESCRIPTION:

COLOUR VERY DARK GREY-BLACK, SILVERY BLACK WEATHERING (BRN STAINED)

TEXTURE PHYLLITIC (SILTY?) TOUGHNESS WELL INDURATED (BUT FISSILE)

GRAIN SIZES VERY FINE, OCCASSIONAL SILT GRAIN

FABRIC AND PACKING CLOSE PACKED (TOO FINE GRAINED)

STRATIFICATION VAGUE BEDDING - MAYBE FOLIATION, MODERATELY WELL FOLIATED

MINOR STRUCTURES FRACTURES PARALLEL TO SCHISTOSITY

COMPOSITION (%) TOO FINE
%
%
15% PYRITE (OXIDIZED - FRESH)

FIELD NAME BLACK PHYLLITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTEXTURE COLOURLESS, BRN SPOTTED

GRAIN SIZES AND SHAPES FRAMEWORK QTZ UP TO .6 MM, MTZ AND GRANULATED XLS - .02 MM

FABRIC AND PACKING SCHISTOSE, COARSE MUSCOVITE ALONG FRACTURE LINES

STRATIFICATION NO PRIMARY, ALIGNMENT OF MUSCOVITE

MICROSTRUCTURES MANY GRANULATED FRAMEWORK GRAINS

COMPOSITION (%) 70% QUARTZ
25% MUSCOVITE
+5% OPAQUES (HEMATITE)
TR% PLAGIOCLASE
%

NAME BLACK SILTY PHYLLONITE (PYRITIZED)

COMMENTS: MANY LINES OF INCLUSIONS IN ALL FRAMEWORK GRAINS, UNDULATORY EXTINCTION, INCLUSIONS LINES SEMI PARALLEL (40-50° TO SCHISTOSITY)

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57594 LOCATION LINE 600S, 85E

HANDSPECIMEN DESCRIPTION:

COLOUR SILVERY MEDIUM GREY, DARK GREY, BRN STAINED, WEATHERING

TEXTURE SCHISTOSE (RELICT SILTY?) TOUGHNESS WELL INDURATED

GRAIN SIZES VERY FINE GRAINED

FABRIC AND PACKING TOO FINE FOR IDENTIFICATION

STRATIFICATION WELL LAYERED, PROBABLY NOT PRIMARY, SCHISTOSE

MINOR STRUCTURES CRENULATED FOLIATION, BLACK HAIRLINE NETWORK

COMPOSITION (%) % TOO FINE
%
%
10 % PYRITE (OXIDIZED AND FRESH)

FIELD NAME GREY CRENULATED PHYLLITE (SCHIST)

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE COLOURLESS WITH BROWN SPOTS

GRAIN SIZES AND SHAPES QTZ TO .3 MM, PLAG TO .2 MM, MUSCOVITE SMALL NEEDLES & FLAKE

FABRIC AND PACKING SCHISTOSE, RECONSTITUTED

STRATIFICATION RECRYSTALLIZED (MAINLY STRAIGHT EXTINCTION) WELL FOLIATED

MICROSTRUCTURES QTZ GENERALLY FLATTENED, GRAIN BOUNDARIES RAGGED

COMPOSITION (%) 60 % QUARTZ
40 % MUSCOVITE (VARIABLE ACCORDING TO LAYERING)
1-2 % PLAGIOCLASE
4 % OPAQUES
TR % HORNEBLENDE (DETRITAL)

NAME GREY PHYLLONITE

COMMENTS: OPAQUES (PYRITE) ARE POIKIOBLASTIC, PROBABLE GRANULATION

QTZ RICH AREAS MAY BE DISINTEGRATION OF LARGER CLASTS

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978

EXAMINED BY: JS

SPECIMEN NUMBER 57595 LOCATION ON LINE 600S, 122E

HANDSPECIMEN DESCRIPTION:

COLOUR LIGHT GREY SALT AND PEPPER, DARK GREENISH BROWN WEATHERING

TEXTURE SPECKLED QTZ EYE PORPHYRITE TOUGHNESS INDURATED, BUT RELATIVELY SOFT

GRAIN SIZES QTZ EYES TO 2 MM, ELONGATE FELDSPAR TO 3 MM

FABRIC AND PACKING CRYSTALLINE

STRATIFICATION NONE (IGNEOUS)

MINOR STRUCTURES WEATHERED VOIDS

COMPOSITION (%) 5 % QUARTZ EYES
2 % FELDSPAR PHENOS
90 % "SALT AND PEPPER"
3 % VOIDS

FIELD NAME PROSERPINE ACID DYKE (INTRUSIVE)

THINSECTION DESCRIPTION:

COLOUR AND MICROTEXTURE LIGHT BROWN, IGNEOUS (IRREGULAR)

GRAIN SIZES AND SHAPES HBL PRISMS TO 0.4 MM LONG, FP XLS UP TO .5 MM MOST STUBBY
SUBRECTANGULAR

FABRIC AND PACKING SUGGESTION OF RADIATING "GLOMEROPORPH" FEW QTZ PATCHES 0.1MM

STRATIFICATION QUARTZ EYES TO 2.1 MM, SLIGHTLY IRREGULAR KIDNEY SHAPED

MICROSTRUCTURES ROUNDED VOIDS, RELICT TWINS IN HBL

COMPOSITION (%) 35 % SERICITIZED PLAGIOCLASE (ALMOST ENTIRELY ALTERED)
25 % HORNBLLENDE ALSO ALTERED
+40 % QUARTZ (QUARTZ PRESENT IN PLAG ALTERATION)
2 % OPAQUES
%

NAME PROSERPINE DYKE (ANDESITIC?)

COMMENTS: QUARTZ EYES ENVELOPED BY .07 MM OF FINE FELTED QTZ AND SERICITE,
QUARTZ EYES*NOT STRAINED, SOME QTZ EYES INVADED BY QTZ-SERICITE ALTERATION

*SOME SLIGHTLY FRACTURED

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57596 LOCATION LINE 600S, 120E

HANDSPECIMEN DESCRIPTION:

COLOUR BROWN-LIGHT GREY, SILVERY BROWNISH GREY ON WEATHERING

TEXTURE BLEACHED AND WEATHERED TOUGHNESS WELL INDURATED IN SPITE OF OXIDATION

GRAIN SIZES VERY FINE

FABRIC AND PACKING TOO FINE GRAINED

STRATIFICATION SCHISTOSITY WELL DEVELOPED, NO RELICT BEDDING

MINOR STRUCTURES BLACK HAIR LINES (MND) VAGUE OUTLINE OF QTZ VEINLET

COMPOSITION (%) 70% QUARTZ AND MUSCOVITE (FINE GRAINED)
30% VOIDS, PYRITE AND ANKERITE?
%
%

FIELD NAME PHYLLITIC BLEACHED MUDSTONE (VERY WEATHERED) MYLONITIC?

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE LIGHT BROWN-BUFF, SCHISTOSE (SILTY)

GRAIN SIZES AND SHAPES MOST QTZ .03 MM, MUSCOVITE .01 MM

FABRIC AND PACKING STRONGLY LINEATED ORIGINALLY POORLY SORTED (?)

STRATIFICATION QTZ RICH AREA @ 30° TO SCHISTOSITY - PROBABLE PRIMARY BEDDING

MICROSTRUCTURES HIGHLY FRACTURED, FED STAINED

COMPOSITION (%) 45% QUARTZ
40% MUSCOVITE
5% OPAQUES (HEMATITE)
10% VOIDS
%

NAME PHYLLITIC SILTY MUDSTONE (BLEACHED)

COMMENTS: COMPOSITE VEINLET ON EDGE OF SLIDE MADE OF SUTURED XLS

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57597 LOCATION 419S ON 00 (BASELINE)

HANDSPECIMEN DESCRIPTION:

COLOUR GREEN TO UNIFORM GREY, SILVER WHITE ON WEATHERING

TEXTURE CHERTY TOUGHNESS VERY COMPACT

GRAIN SIZES CRYPTOXLINE

FABRIC AND PACKING TOO FINE GRAINED, ANKERITE PORPHYROBLASTS (BOUDINS?)

STRATIFICATION WELL FOLIATED, NO PRIMARY SED FEATURES

MINOR STRUCTURES SOME BLACK WISPY LINES, OVOID PYRITE

COMPOSITION (%) % TOO FINE GRAINED (MOSTLY QUARTZ AND MUSCOVITE)
15 % ANKERITE AFTER PYRITE (OXIDIZED PYRITE)
%
%

FIELD NAME SILVER SCHIST (SITICIFIED MUDSTONE) CHECK FOR PHYLONITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTEXTURE COLOURLESS WITH BROWN SPOTS, SCHISTOSE

GRAIN SIZES AND SHAPES OXIDIZED PY PORPHYROBLASTS 4.0 MM, MOST QTZ .03 MM

FABRIC AND PACKING MUSCOVITE .01 TO .03 MM, LOOSELY PACKED QTZ (REXLISED)

STRATIFICATION ONLY FOLIATION AND CROSS CRENULATION APPARENT

MICROSTRUCTURES SUGGESTION OF MICROCRENULATION, WELL FRACTURED

COMPOSITION (%) 40 % QUARTZ
45 % MUSCOVITE
15 % OXIDIZED PYRITE (OPAQUES)
%
%

NAME SILVER SCHIST (APPARENTLY NOT MYLONITIC)

COMMENTS: OCCASIONAL .2 MM FLATTEN COMPOSITE QTZ, THIN QTZ RICH SECTION MAY

INDICATE ORIGINAL SILTY LAYER NOW CONTORTED

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57598 LOCATION NEAR 00, 00

HANDSPECIMEN DESCRIPTION:

COLOUR LIGHT BROWN, SILVERY-BROWN ON WEATHERING

TEXTURE CLASTIC, SANDY TOUGHNESS VERY WELL INDURATED

GRAIN SIZES BIMODAL 1 MM AND 0,5 MM, GRAINS SUBRND TO ANGULAR

FABRIC AND PACKING MAINLY POORLY SORTED, VERY LOOSELY PACKED, IMMATURE

STRATIFICATION INDISTINCT FOLIATION, POSSIBLE RELICT BEDDING, UNCERTAIN

MINOR STRUCTURES SOLUTION CRACKS, WEATHERED PY ALONG FRACTURES

COMPOSITION (%) 40% QUARTZ (FRAMEWORK)
60% MATRIZ (MUSCOVITE AND QTZ)
% VOIDS, (OZIDIXED PY ETC)
%

FIELD NAME SANDY PHYLLITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE COLOURLESS TO LT BROWN, GRANULATED CLASTIC

GRAIN SIZES AND SHAPES RND ED COMPOSITE GRAINS OF SUBRECT TO SUTURED 0.2 MM XLS

FABRIC AND PACKING INTERLOCKING MOSAIC WITHIN LOOSELY ? PACKED RELICT (COMPOSITE)

STRATIFICATION GRAINS, DISTINCT FOLIATION, LRG GRAINS FLATTENED

MICROSTRUCTURES NEEDLE MUSCOVITE COMMON, MICROFRACTURES IN LRG GRAINS

COMPOSITION (%) 75 % QUARTS
20 % MUSCOVITE
4 % OPAQUES
TR % HBL CALCITE
%

NAME SANDY PHYLLONITE

COMMENTS: SOME OPAQUES PREMUSCOVITE, SOME LOCAL EXTREME GRANULATION WHEREAS MOST

ONLY OUTER EDGES GRANULATED, SUGGESTION OF SERICITIZED FELDSPAR

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978

EXAMINED BY: JS

SPECIMEN NUMBER 57599 LOCATION ON BASELINE @ 145S

HANDSPECIMEN DESCRIPTION:

COLOUR DARK GREY TO BLACK, DARK GREY WITH SLIGHT BUFF ON WEATHERING

TEXTURE SILTY TOUGHNESS VERY WELL INDURATED

GRAIN SIZES MOST GRAINS 0.5 MM, OCCASSIONAL 1 MM

FABRIC AND PACKING FAIRLY WELL SORTED, MINIMUM OF MATRIX

STRATIFICATION FINE (WEAK) FOLIATION, BEDDING POSSIBLY INDICATED BY IMBRICATION
(UNLIKELY)

MINOR STRUCTURES MANY "GASH" QTZ VEINLETS AT SMALL ANGLE TO FOLIATION

COMPOSITION (%) 70% QUARTZ
10% DARK MTX
20% VOIDS (FINE HOLES)
% PYRITE - VARIABLE

FIELD NAME BLACK SILTSTONE (SILICIFIED)

THINSECTION DESCRIPTION:

COLOUR AND MICROTEXTURE COLOURLESS WELL PRESERVED CLASTIC

GRAIN SIZES AND SHAPES RELICT WELL RND ED QTZ AVERAGE .4 MM, GRANULATED HASH AS

FABRIC AND PACKING MTX ABOUT 0.08 MM, SUBRECTANGULAR, ORIGINAL ROCK APPARENTLY

STRATIFICATION LOOSELY PACKED OBSCURED BY FOLATION MAY BE PARALLEL, ALL MUSCOVITE VFG

MICROSTRUCTURES SLIGHTLY RAGGED GRAIN BOUNDARIES ON MOST FRAMEWORK GRAINS

COMPOSITION (%) 60% QUARTZ (RELICT FRAMEWORK)
+15% QUARTZ (MTZ AND PROBABLY SOME GRANULATION)
+15% MUSCOVITE
10% VOIDS (MOSTLY WELL RND ED)
2% OPAQUES, EPIDOTE, TREMALITE? DETRITAL HBL

NAME BLACK "PHYLLONITIC" SILTSTONE (GREYWACKE)

COMMENTS: LARGE NUMBER OF SUBRND VOIDS (ALSO IN H.S.) SOME LRG FRAMEWORK

GRAINS HIGHLY FRACTURED

McINTYRE MINES LIMITED
Vancouver, B.C.

PETROGRAPHIC DESCRIPTION

PROSERPINE GROUP

DATE: DECEMBER 9, 1978
EXAMINED BY: JS

SPECIMEN NUMBER 57600 LOCATION DRILL CORE FOUND ON OLD ROAD NORTH
OF WARSPITE PORTAL @ 190N, 150W

HANDSPECIMEN DESCRIPTION:

COLOUR LIGHT GREY, WEATHERING UNKNOWN (DRILL CORE)

TEXTURE SILICIFIED, RELICT CLASTIC TOUGHNESS VERY WELL INDURATED

GRAIN SIZES STRETCHED RELICT GRAINS 2 X 7 MM MOSTLY OBLITERATED BY INFLUX

FABRIC AND PACKING OF SiO_2 PERHAPS CLOSELY PACKED ORIGINALLY

STRATIFICATION VAGUE OUTLINES OF RELICT GRANS, OVOID AND ELONGATED

MINOR STRUCTURES BLACK INSOLUBLE STREAKS, WELL FRACTURED, SOME MILKY QTZ VEINLETS

COMPOSITION (%) 95 % QUARTZ
4 % MUSCOVITE
1 % PYRITE
%

FIELD NAME INTENSELY SILICIFIED QUARTZITE

THINSECTION DESCRIPTION:

COLOUR AND MICROTTEXTURE COLOURLESS, EQUIGRANULAR WITH INCIPIENT GRANULATION

GRAIN SIZES AND SHAPES SUTURED SUBRECTANGULAR GRAINS 1 MM (LRG), .1 MM FOR

FABRIC AND PACKING COMPOSITE GRAINS, .01 GRAINS FOR INTENSE GRANULATION

STRATIFICATION METAMORPHIC OVERPRINTING OBLITERATES PRIMARY BEDDING

MICROSTRUCTURES FRAMEWORK GRAINS FLATTENED, WAVY EXTINCTION NOT WELL DEVELOPED

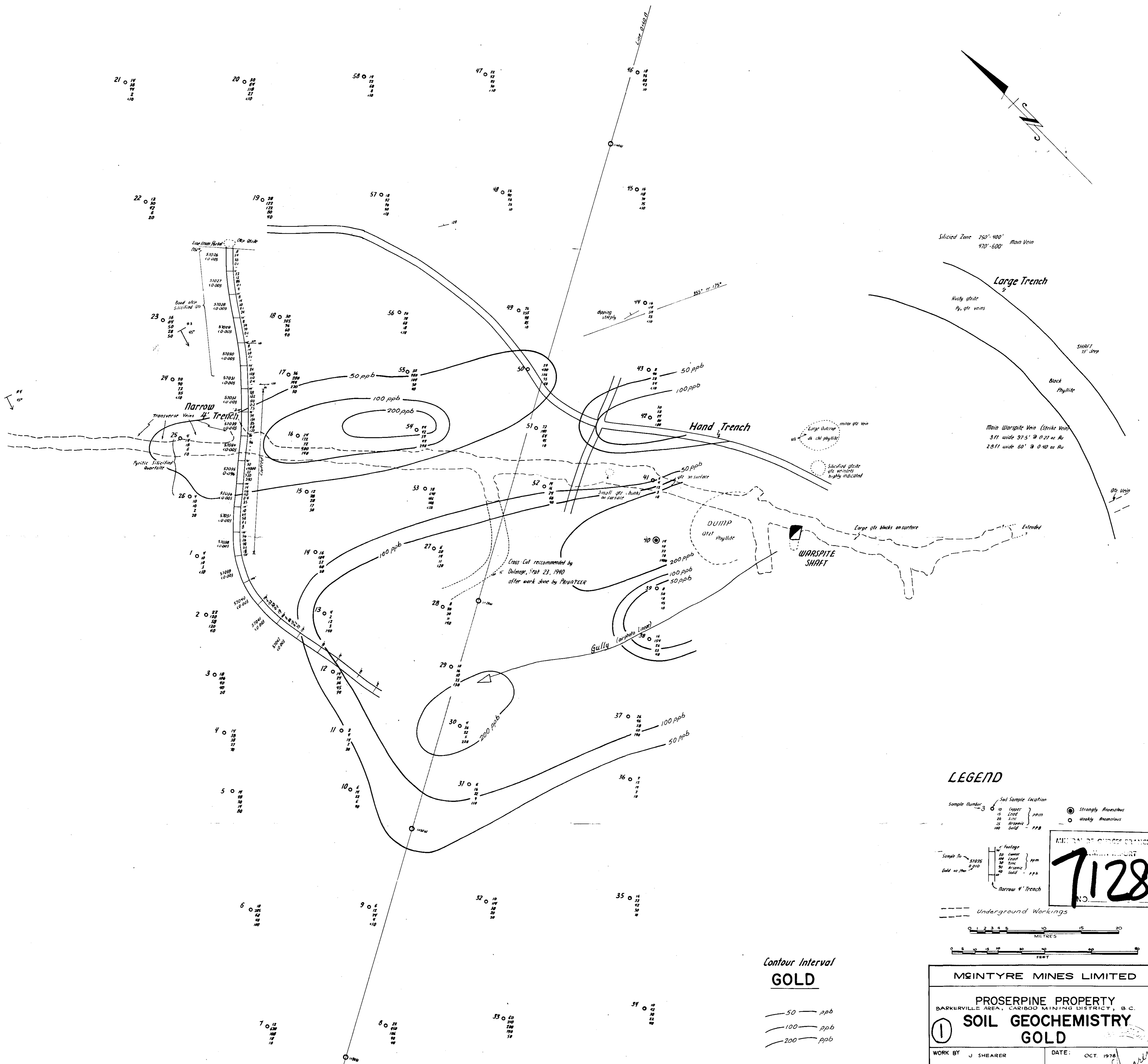
COMPOSITION (%) 50 % QUARTZ (RELICT FRAMEWORK, NOW COMPOSITE GRAINS)
30 % QUARTZ MAKING UP INTENSE GRANULATION
5-10 % MUSCOVITE (VARIABLE)
5-10 % CALCITE (VARIABLE)
TR % EPIDOTE, OPAQUES

NAME SILICIFIED INICACEONS PHYLLONITE

COMMENTS: QTZ GRAINS REDUCED TO COMPOSITE GRAINS, LOCAL INTENSE GRANULATION

AT GRAIN BOUNDARIES, SOME REYLIZATION IMPORTANT, GRANULATED AREAS ARE STRONGLY

LINEATED, CALCITE OCCASSIONAL IN LARGE PATCHES



LEGEND

Sample Number 3 Soil Sample location

10 Copper } ppm
15 Lead }
20 Zinc }
25 Arsenic }
30 Gold } ppb

○ Strongly Anomalous
○ Weakly Anomalous

Sample No. 51035 } Footage } ppm
50 }
100 }
200 }
Gold as Au } 0.010 } ppb

Narrow 4' Trench

--- Underground Workings

0 1 2 3 4 5 10 15 20 METRES

0 5 10 15 20 25 30 35 40 FEET

Contour Interval
GOLD

— 50 — ppb
— 100 — ppb
— 200 — ppb

MINI-SAL DE CHIFFRE CRANICH

7128

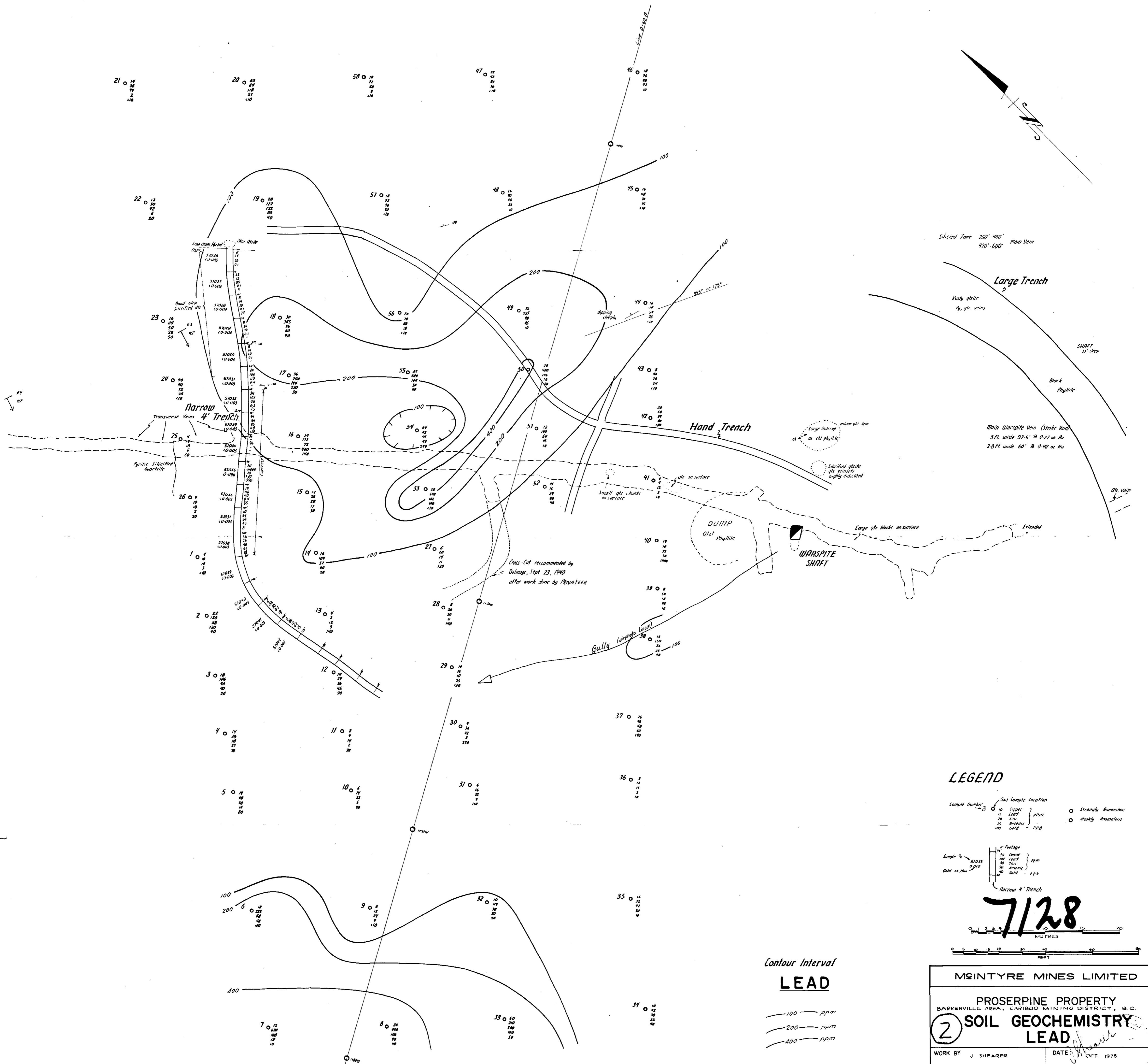
MINI-SAL DE CHIFFRE CRANICH

PROSERPINE PROPERTY
BARKERVILLE AREA, CARIBOO MINING DISTRICT, B.C.

SOIL GEOCHEMISTRY
GOLD

WORK BY: J. SHEARER DATE: OCT. 1978

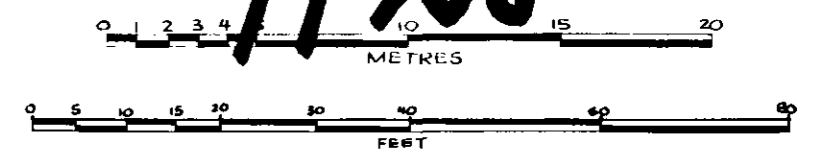
DRAWN BY: A. R. G. N.T.S. 03H/4E



LEGEND

- Sample Number 3
- 10 Copper
 - 15 Lead
 - 20 Zinc
 - 25 Arsenic
 - 100 Gold
- Soil Sample location
- Strongly Anomalous
 - Weakly Anomalous
- Sample No. 51035
- Footage
 - 30 Copper
 - 60 Lead
 - 90 Zinc
 - 90 Arsenic
 - 100 Gold
- Gold as Au
- ppm
- ppb
- Narrow 4' Trench

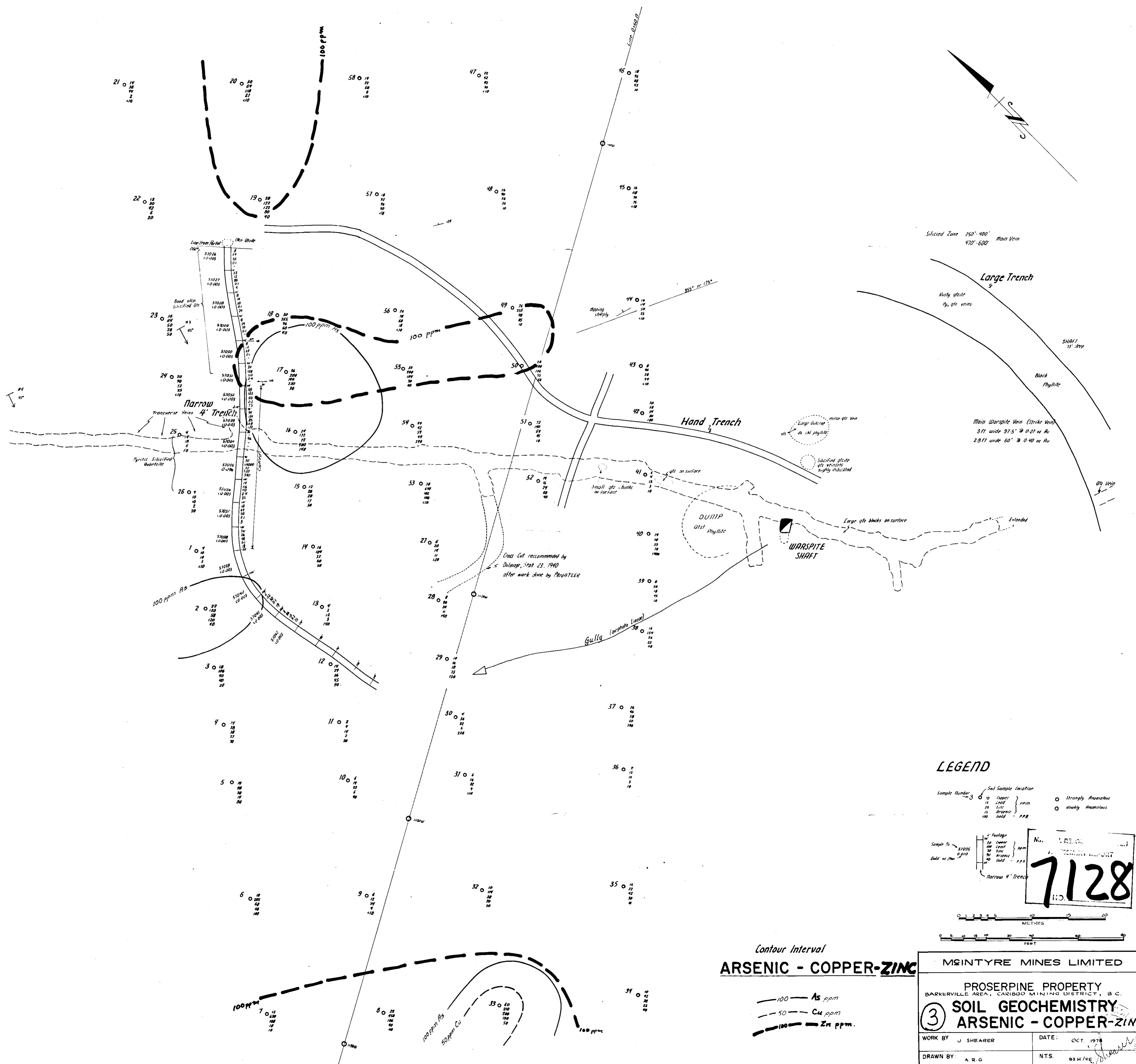
7128



Contour Interval
LEAD

- 100 — ppm
- 200 — ppm
- 400 — ppm

MCINTYRE MINES LIMITED	
PROSERPINE PROPERTY BARKERVILLE AREA, CARIBOO MINING DISTRICT, B.C.	
(2) SOIL GEOCHEMISTRY LEAD	
WORK BY: J. SHEARER	DATE: OCT. 1978
DRAWN BY: A.R.G.	NTS. 93 H/4E



LEGEND

Sample Number \circ Soil Sample Location
 10 Copper ppm
 20 Zinc ppm
 25 Arsenic ppm
 100 Gold - P.P.B.

\circ Strongly Anomalous
 \circ Weakly Anomalous

Sample No. 51035
 Gold as P.P.B.
 Footage
 50' Copper ppm
 100' Lead ppm
 50' Zinc ppm
 50' Arsenic ppm
 100' Gold - P.P.B.
 Narrow 4' Trench

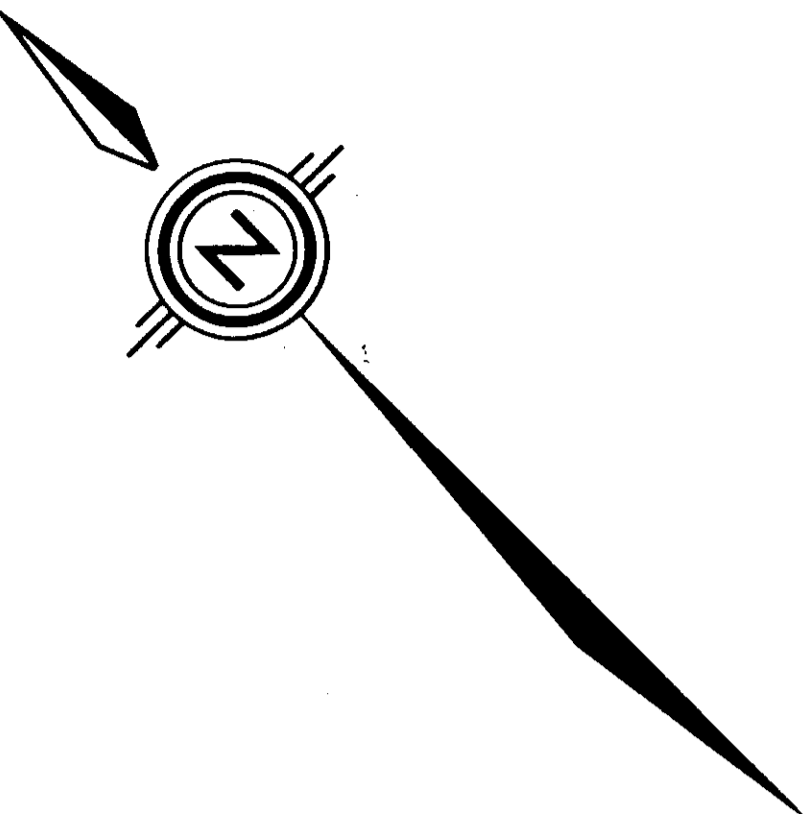
No. 7128
 REGIONAL TECHNICAL REPORT
 110

METRES
 FEET

Contour Interval
ARSENIC - COPPER-ZINC
 --- 100 --- As ppm
 --- 50 --- Cu ppm
 --- 100 --- Zn ppm.

MCINTYRE MINES LIMITED
 PROSERPINE PROPERTY
 BARKERVILLE AREA, CARIBOO MINING DISTRICT, B.C.
③ SOIL GEOCHEMISTRY
ARSENIC - COPPER-ZINC
 WORK BY: J. SHEARER DATE: OCT. 1978
 DRAWN BY: A.R.G. NTS. 93 H/4E

FIGURE 13



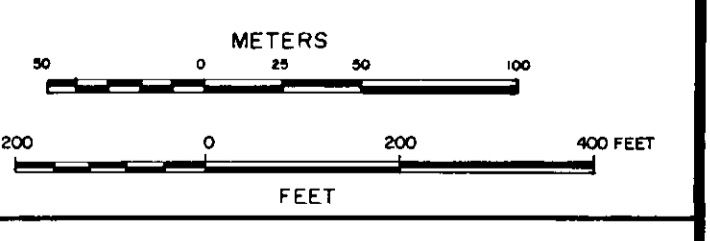
Note: For Grid Lines 18+00S to 30+00S See accompanying Drawing

KEY:

- Lead (p.p.m.)
- Arsenic (p.p.m.)
- Gold (p.p.b.)
- 32592 X - Rock Sample (Thin Section & Multi-element Analysis)
- 30 - Soil Profile (See Figures 6-10)

CONTOUR KEY:

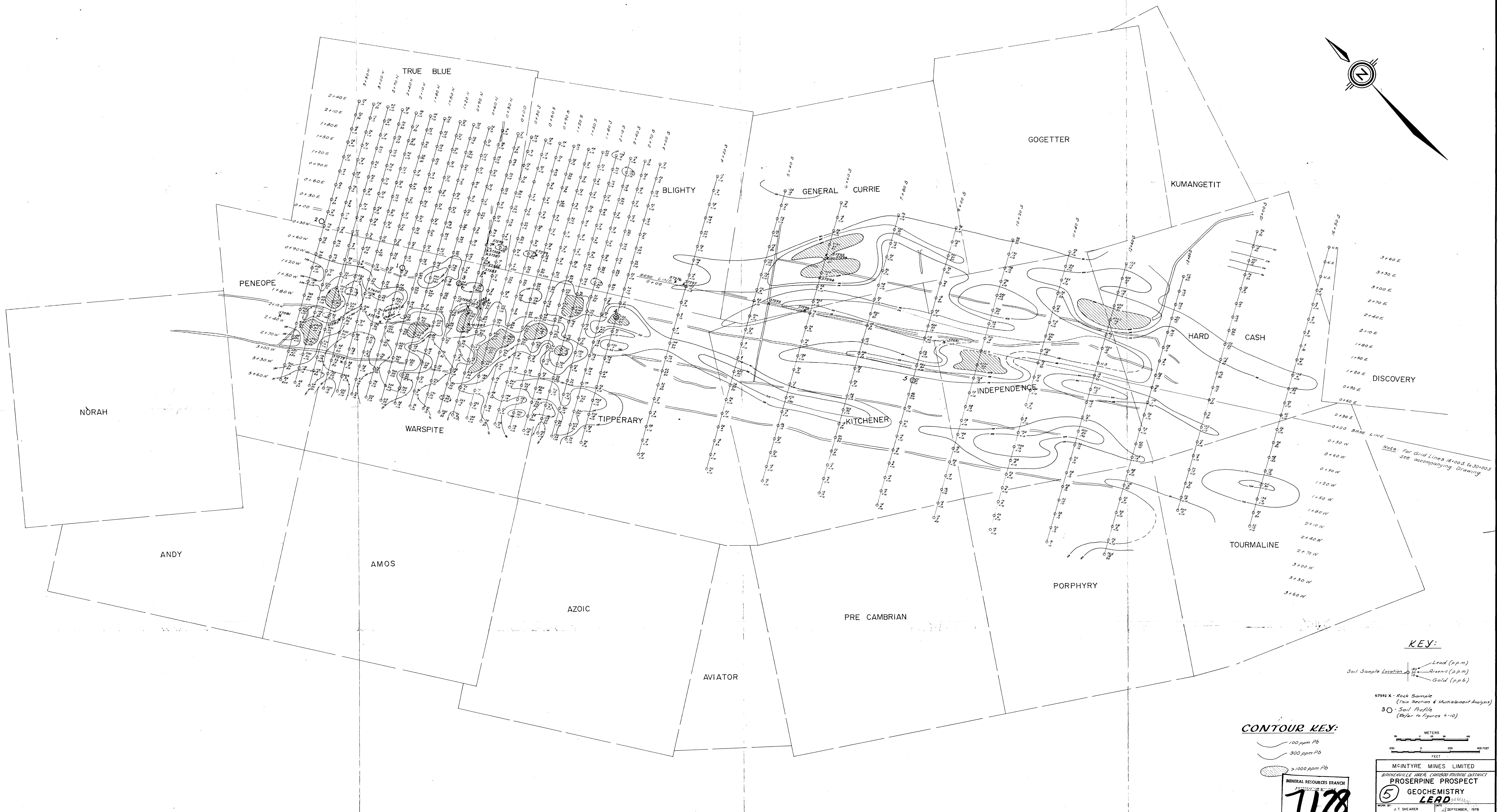
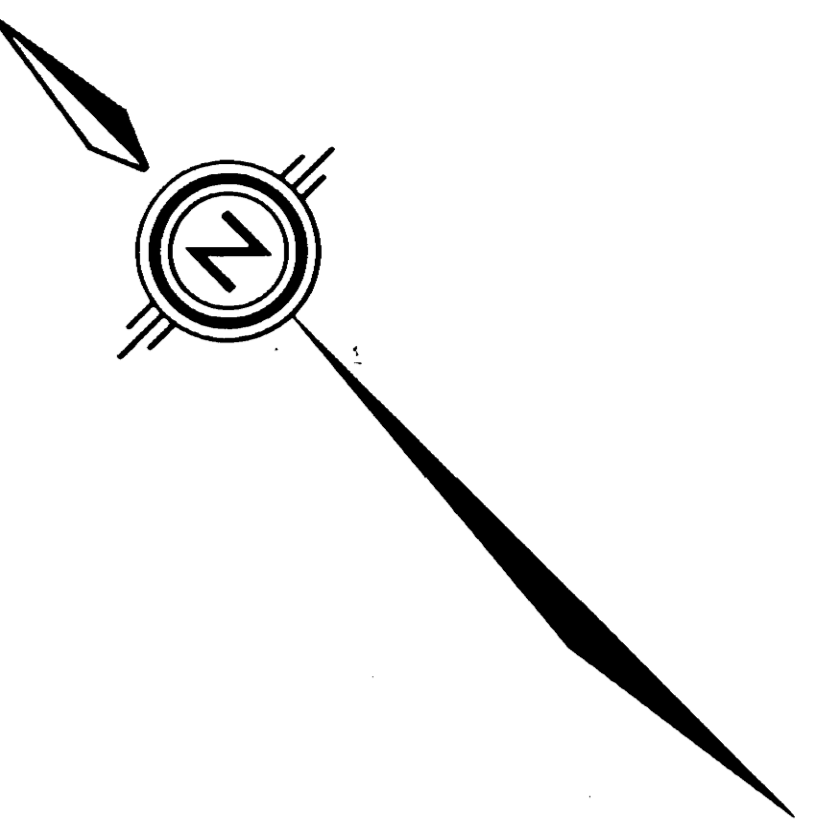
- 50 ppb Au
- 100 ppb Au
- > 200 ppb Au



7128

MCINTYRE MINES LIMITED
 BARKERVILLE AREA, CARIBOO MINING DISTRICT
 PROSERPINE PROSPECT
 GEOCHEMISTRY
 GOLD
 WORK BY: J. T. SHEARER DATE: SEPTEMBER, 1978
 DRAWN BY: FIGURE 14 DATE: 10/31/78

FIGURE 14



Note: For Grid Lines 18+00S to 30+00S see accompanying Drawing

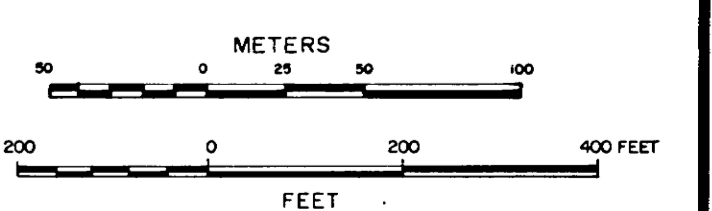
KEY:

- Soil Sample Location
- Lead (p.p.m)
- Arsenic (p.p.m)
- Gold (p.p.b)

- 57512 X - Rock Sample (Thin Section & Multi-element Analysis)
- 30 - Soil Profile (Refer to Figures 4-10)

CONTOUR KEY:

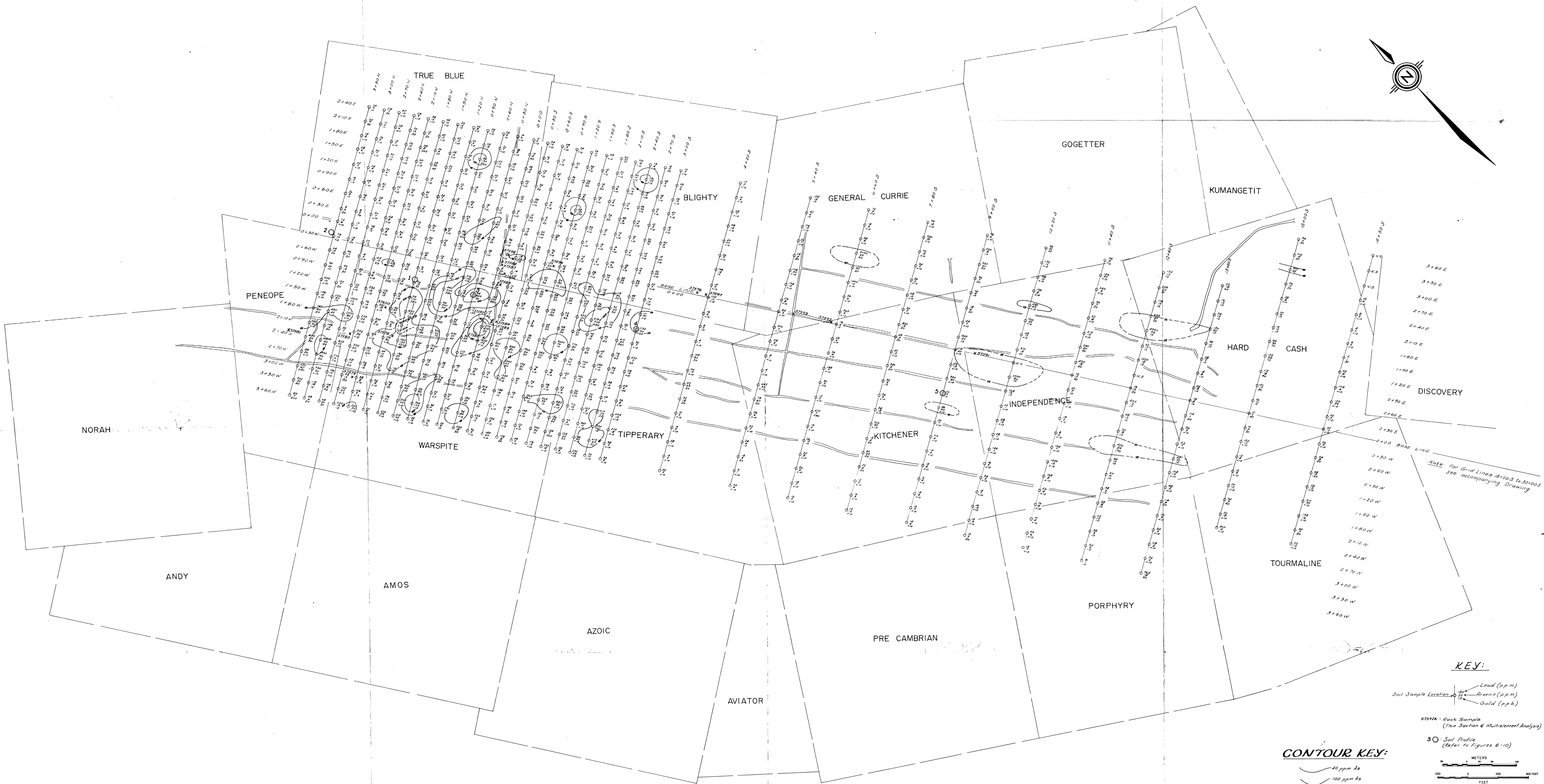
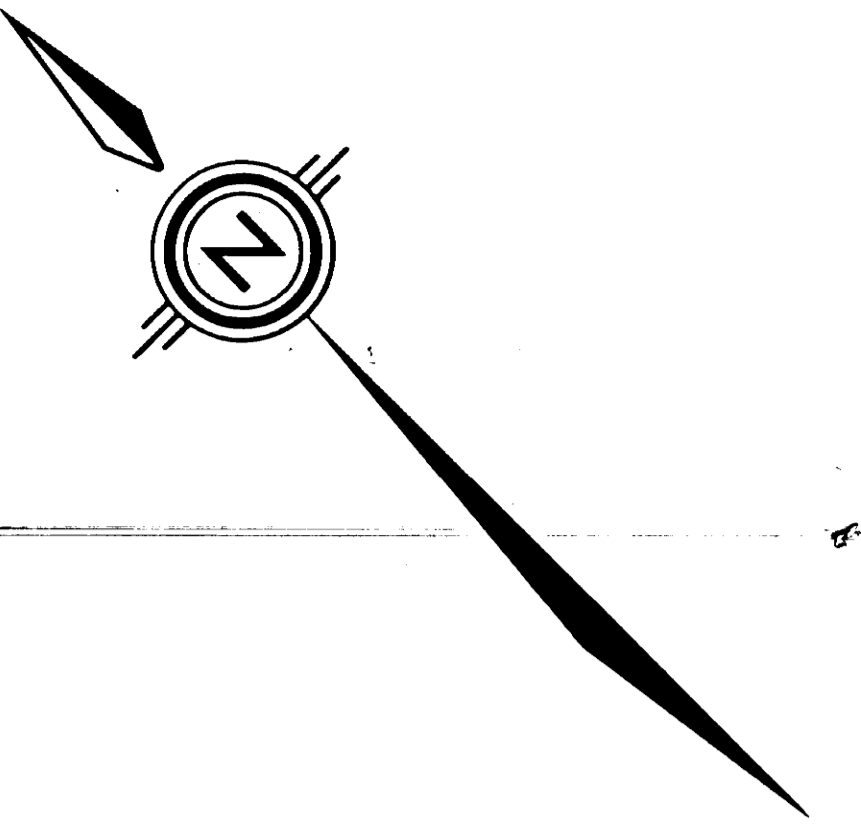
- 100 ppm Pb
- 300 ppm Pb
- > 1000 ppm Pb



7128

MCINTYRE MINES LIMITED
 BIRKENHEAD AREA, CAMBODIA DIVISION DISTRICT
 PROSERPINE PROSPECT
 MINERAL RESOURCES BRANCH
 ASSOCIATED REGION
 ⑤ GEOCHEMISTRY
LEAD
 WORK BY: J. T. SHEARER DATE: SEPTEMBER, 1978
 DRAWN BY: FIGURE 15 DATE: 31/1/77

FIGURE 15



Note: For Grid Lines R-100S to R-3000S See accompanying Drawing

KEY:

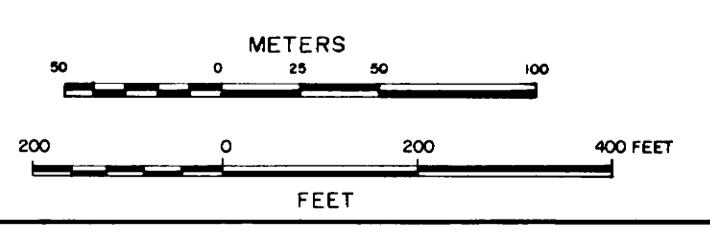
- Lead (p.p.m)
- Arsenic (p.p.m)
- Gold (p.p.t)

9752X - Rock Sample (Thin Section & Multi-element Analysis)

30 - Soil Profile (Refer to figures 6-10)

CONTOUR KEY:

- 20 ppm As
- 100 ppm As
- >200 ppm As



MCINTYRE MINES LIMITED
MINERAL RESOURCES BRANCH
BARRHILL AND CARIBOU MINING DISTRICT
PROSPERINE PROSPECT
GEOCHEMISTRY
ARSENIC

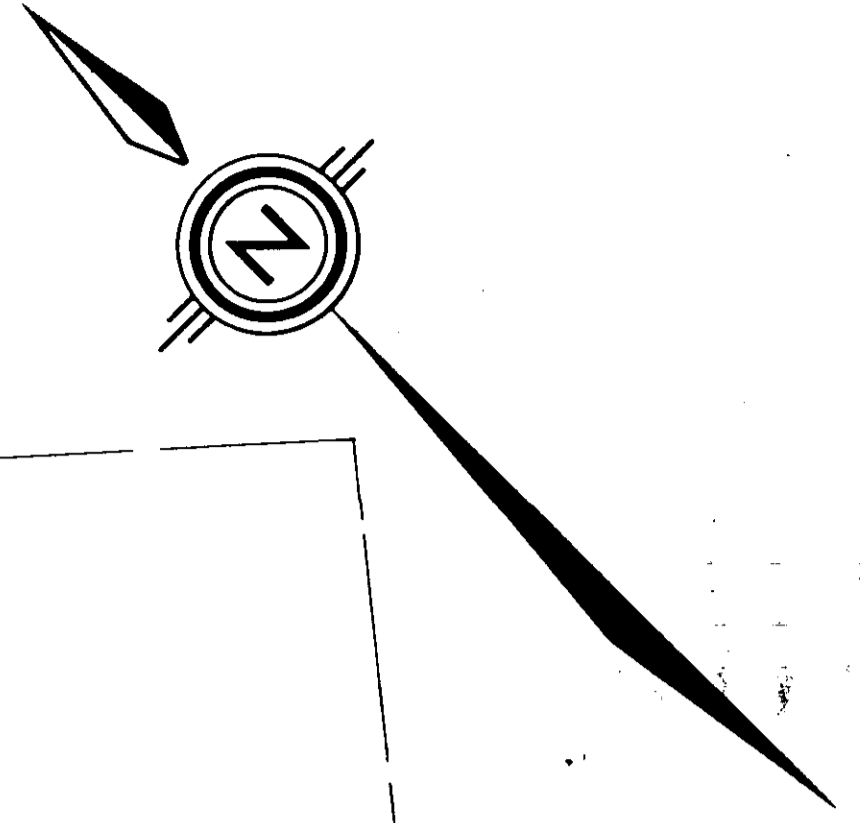
7128
NO.

WORK BY: J.T. SHEARER
DATE: SEPTEMBER, 1978
DRAWN BY: J.T.S.
FIGURE 16

FIGURE 16

KUMANGETIT

PTARMIGAN FR.



CASH

DISCOVERY

JUBITOR

VENUS

MERCURY

BASE LINE 0+00

For lines 3+20 N to 16+50 S
see accompanying Drawing

TOURMALINE

LUFT

STAR FR.

GROUSE

ANTLER

3+60 E

3+30 E

3+00 E

2+70 E

2+40 E

2+10 E

1+80 E

1+50 E

1+20 E

0+90 E

0+60 E

0+30 E

0+00 BASE LINE

0+30 W

0+60 W

0+90 W

1+20 W

1+50 W

1+80 W

2+10 W

2+40 W

TOR

TWEEDSMUIR

TRIUMPH

CONTOURS

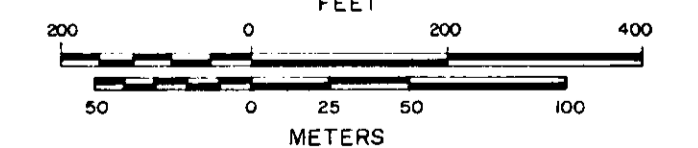
50 ppb Au
100 ppb Au
200 ppb Au

> 200 ppb Au

KEY:

Soil Sample Location
Lead (ppm)
Arsenic (ppm)
Gold (ppb)

MINERAL REVENUE BRANCH
REPORT
7128



MCINTYRE MINES LIMITED
BARNVILLE AREA, CARIBOO MINING DISTRICT
PROSERPINE PROSPECT
GEOCHEMISTRY
GOLD

WORK BY: J. T. SHEARER DATE: SEPTEMBER 1978
DRAWN BY: FIGURE 17 INTS. 35N/3W/2

FIGURE 17

KUMANGETIT

PTARMIGAN FR.

CASH

DISCOVERY

JUBITOR

VENUS

MERCURY

TOURMALINE

LUFT

STAR FR.

GROUSE

ANTLER

TOR

TWEEDSMUIR

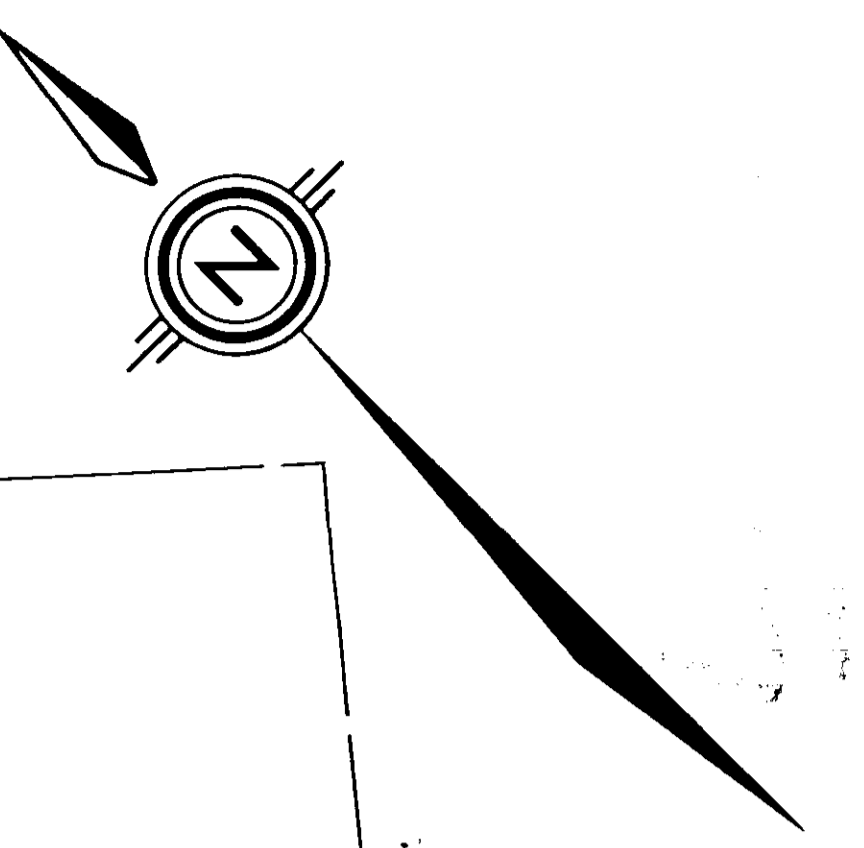
TRIUMPH

CONTOURS

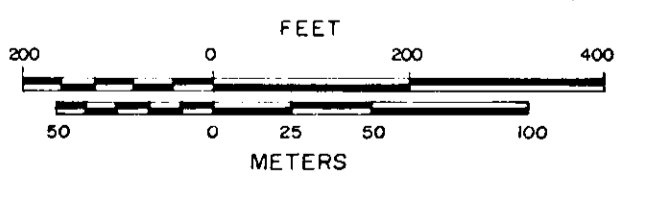
100 ppm Pb
300 ppm Pb

KEY:

Soil Sample Location
180
25
10
Lead (ppm)
Arsenic (ppm)
Gold (ppb)



MINERAL RESOURCES DIVISION
7128



MCINTYRE MINES LIMITED
 BARKERVILLE AREA, CARIBOO MINING DISTRICT
 PROSERPINE PROSPECT
 (8) GEOCHEMISTRY
 LEAD
 WORK BY: J. T. SHEARER DATE: SEPTEMBER, 1978
 DRAWN BY: FIGURE 18 N.T.S. 93W/3W/2
 FIGURE 18

KUMANGETIT

PTARMIGAN FR.

CASH

DISCOVERY

JUBITOR

VENUS

MERCURY

LUFT

STAR FR.

TOURMALINE

GROUSE

ANTLER

TOR

TWEEDSMUIR

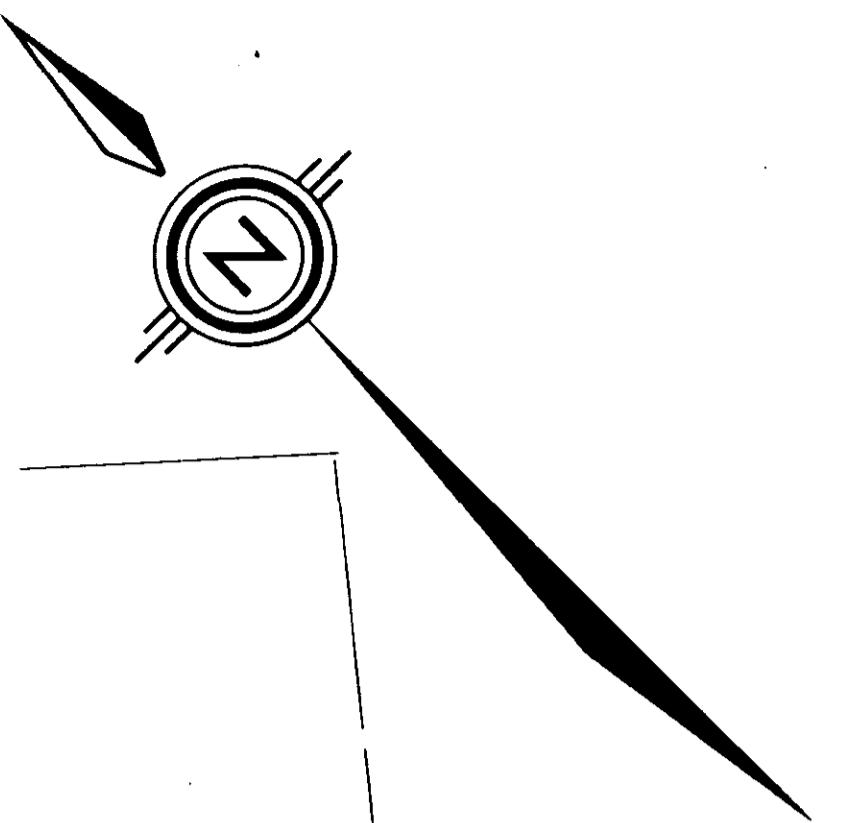
TRIUMPH

CONTOURS

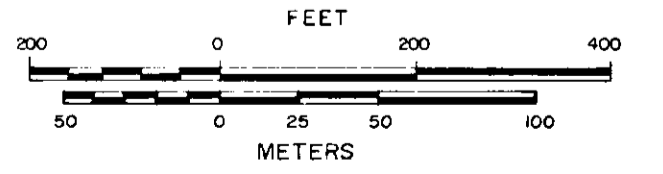
40 ppm As
 100 ppm As
 > 200 ppm As

KEY:

Soil Sample Location
 Lead (pp.m)
 Arsenic (pp.m)
 Gold (p.p.b)



MINERAL RESOURCES
7128



MCINTYRE MINES LIMITED
 BARKERVILLE AREA, CARIBOO MINING DISTRICT
PROSERPINE PROSPECT
 ⑨ **GEOCHEMISTRY**
ARSENIC
 WORK BY: J. T. SHEARER DATE: SEPTEMBER, 1978
 DRAWN BY: N.T.S. DATE: 93H/3W/2
 FIGURE 19

FIGURE 19