

PELLY PROJECT

014319

1976 EXPLORATION REPORT

Watson Lake Mining District

Yukon Territory

N.T.S. 105 F - 7
105 G - 3

By:

P. Dean

CYPRIS ANVIL MINING CORPORATION

January 14, 1977

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PELLY PROJECT

1976 EXPLORATION REPORT

INTRODUCTION

The Pelly Regional Project was designed to carry out exploration for massive sulfide deposits within a Mississippian volcanic terrane in the Pelly Mountains. The project area encompasses 700 square miles, centered approximately 40 miles southeast of Ross River (Figure 1).

The Pelly Mountains are rugged, with an elevation range of about 3500 feet to 6500 feet. Snow does not leave the higher ranges until the middle of July, and permanent snow begins again in early September, providing an exploration season of less than 2 months at higher elevations. There are three lakes within the project area which are suitable for float planes, but normal access is by helicopter from Ross River. A number of tote roads traverse parts of the area. These have fallen into disrepair and are mostly impassable, but they could easily be opened up again if needed.

The Mississippian rock package was considered to be favourable ground for exploration for the following reasons:

- 1) The rock types present in the Formation are those normally associated with massive sulfide districts including volcanic flows of various compositions, rhyolite tuffs and breccias, and black shales.
- 2) The MM Property of probable massive sulfide type occurs in the Mississippian rocks, not in older rocks, as was previously thought.
- 3) Sulfides are abundant in the volcanics, producing widespread spectacular gossans.
- 4) The area in which the volcanics occur is easily accessible and close to roads, yet appeared to have received little exploration for massive sulfide deposits. Previous exploration in the Pelly Mountains had concentrated on skarns at intrusive contacts and silver bearing veins in older sedimentary rocks.

Further impetus to carry out the program this year was provided when Dirk Templeman-Kluit of the G.S.C. published a paper (Templeman-Kluit, Gordey, Read, 1976) emphasising the economic favourability of the Mississippian terrane.

The field work carried out this season consisted of detailed regional geochemical sampling, prospecting, and limited amounts of geologic mapping. The work was carried out by a crew of four, consisting of a geologist, an assistant geologist-pro prospector, and two geochemical samplers. The crew based out of Ross River, using a helicopter for daily set outs and pick ups. The work began on June 20th and was completed by the end of August.

GEOLOGY

Regional Setting

"Two contrasting sequences of stratified rocks are exposed in the Pelly Mountains. On the northeast near Tintina Trench a succession of shale, sandstone and carbonate rocks was deposited during shallow marine conditions near the margin of the stable continental platform. This miogeoclinal succession ranges in age from late Proterozoic Triassic. On the southwest a late Paleozoic metamorphosed eugeoclinal assemblage which includes argillaceous chert, siliceous tuff, basalt and serpentinite occur. The eugeoclinal assemblage lies in an allochthonous sheet above the autochthonous miogeoclinal succession. The autochthonous succession is imbricated by large northeast directed thrust faults and the allochthonous assemblage is broken by steep faults. All the rocks were arched over two large northwest trending anticlines which were the locus of relatively long-lived heat flow accompanied by intrusion of elongated mid-Cretaceous granitic batholiths. Transcurrent movement along Tintina Fault occurred shortly after the intrusive event" (Templeman-Kluit, 1976).

The miogeoclinal succession underlies the majority of the joint venture project area, and it is within this package that the Mississippian volcanic sequence occurs. Regionally, the miogeosynclinal package spans Proterozoic to Triassic time, with important stratigraphic breaks in the Middle Cambrian and during Late Silurian to Early Devonian time. Figure 2, from Templeman-Kluit, 1976, summarizes the lithologies and ages of formations present in the Pelly Mountains

south of Tintina Trench. Only Cambrian, Devonian, and Mississippian age formations underly significant areas within the project boundaries, and mapping and prospecting was concentrated on the Mississippian volcanic-sedimentary package. The regional geology was mapped by Wheeler, Green, and Roddick, in 1960, and was revised by Templeman-Kluit in 1975 (Figure 3).

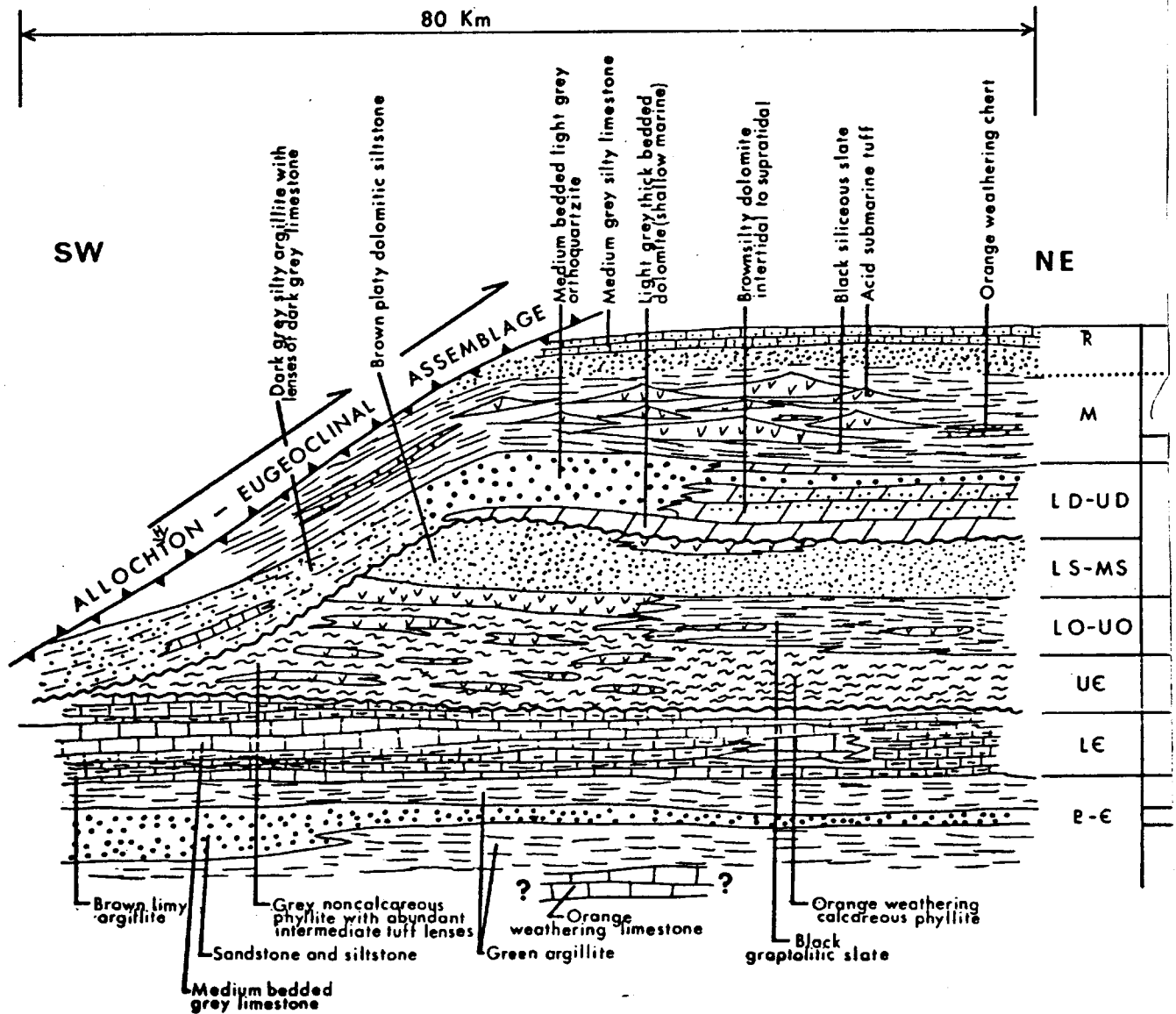
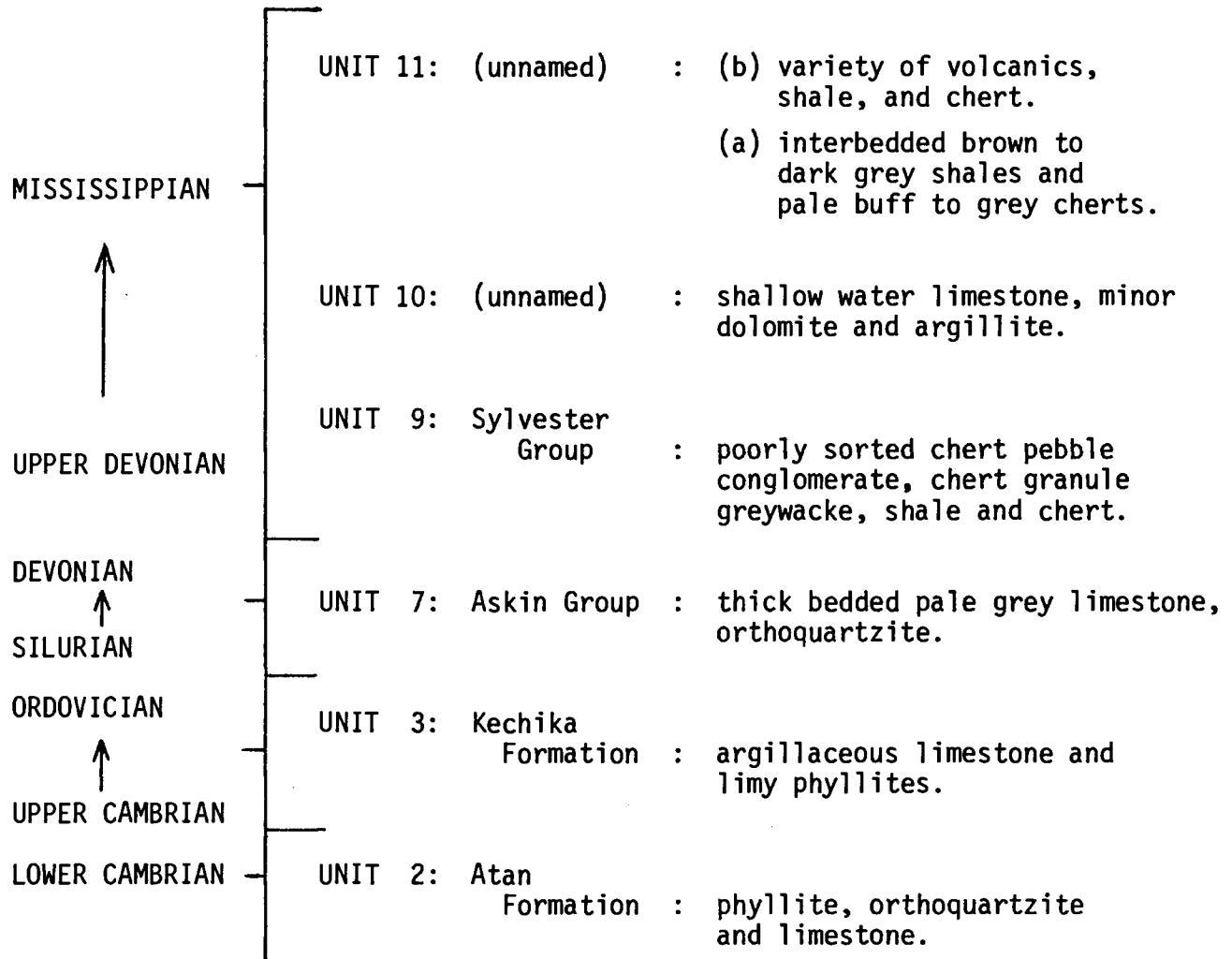


Figure 2 : Schematic Cross-section of Pelly Mountains

TABLE OF FORMATIONS



DISCUSSION OF FORMATIONS

Unit 2: ATAN GROUP: This group underlies only limited portions of the project area, and was not examined by the Pelly Project. The Formation consists of orthoquartzites, limestone and phyllite.

Unit 3: KECHIKA FORMATION: Rocks of this group outcrop extensively throughout the project area, and typically consist of carbonate rich phyllites derived from shallow water, argillaceous limestones. Occasional beds of more massive, buff weathering dolomite occur in the Kechika, and grey to black, non-calcareous shales of uncertain age may also belong in the Kechika.

Well foliated, lensy greenstone bodies are relatively abundant, and are usually aligned in the direction of foliation of the enclosing phyllites. The phyllites weather to form smooth silvery grey talus slopes recognisable from a distance. Quartz veins are common in the Kechika, and often contain traces of chalcopyrite and/or galena along with abundant pyrite. Within the project area the Kechika is strongly deformed, and its internal stratigraphy would be difficult to unravel.

Unit 7: ASKIN GROUP: Thick bedded orthoquartzite and pale grey weathering, massive, medium grey limestone make up this unit. The Askin Group apparently overlies Kechika Group equivalents conformably outside the project area. Contact relations are obscure within the project area since the unit is almost always fault bounded with older strata and often thrust over younger strata.

Unit 9: SYLVESTER GROUP: This unit, consists of grey and brown weathering cherts and shales, coarse-grained chert and quartz granule greywackes, and chert pebble conglomerates. Greywackes are the most distinctive and probably the most abundant lithology in Unit 9 outcrops we encountered within the project area. This rock type contains abundant angular chert and quartz grains floating in a finer grained, poorly sorted matrix which is often calcareous. Shale fragments up to 2" in size occur occasionally. The rock type suggests a nearby source area and rapid deposition.

Unit 10: UNNAMED LIMESTONE UNIT: Shallow water grey limestone, with minor argillite and dolomite make up this unit, which was not examined by us this season. It is tentatively assigned to the Mississippian, since it apparently overlies Unit 9, but contact relations are not clear.

Unit 11: VOLCANIC UNIT: Both volcanic and sedimentary lithologies are represented in this unit, which was the major exploration target of the Pelly Project. The Formation can be broadly subdivided into a lower unit which is composed of thin bedded chert and brown to black shale, and an upper unit composed of volcanics predominantly, with minor chert and shale interbeds. Within the upper unit, facies changes occur rapidly, units are lensy

and discontinuous, and unit correlations can seldom be made even between adjacent ridge tops. Rhyolitic flows, tuffs, and breccias, and related pyritic cherts occur in two loosely defined belts within the upper unit, and all the significant showings of barite or sulfides occur within these two belts.

A great variety of volcanic rocks occur within the upper part of Unit 11. Volcanics of probable andesitic composition are most abundant and include both massive flow rocks, breccias, and tuffs. Pillow structures are evident at one location, but in general widespread strong shearing has obliterated completely the original textures. More felsic volcanics are second in abundance where they occur, but these seem to be restricted to two belts within the basin, as mentioned above. These acid volcanics also have been strongly sheared in most places, but occasionally recognisable breccia textures are preserved. Basalts are not common throughout the area, but can form substantial thicknesses where they do occur. Serpentine occurs occasionally, usually as thin layers associated with shearing in the more basic volcanics, but also as quite sizeable lenses. A serpentine body close to the Askin Group - Unit 11 contact on the MM Property is several 10's of feet thick and at least several hundred feet long.

GEOLOGIC INTERPRETATION

The geologic mapping we carried out this year was intended to gain a general familiarity with the Mississippian stratigraphic package, and as a result, traverses are to scattered to be of use in creating a detailed regional map. The G.S.C. mapping carried out in 1960 seems to provide an accurate picture of the regional extent of these rocks, and at this point we cannot improve on it. Enough information has been gained, however, to make some tentative interpretations of the nature and origin of the Mississippian package.

To begin with, there is geologic evidence which suggests that Unit 9, which Tempieman-Kluit feels is older than Unit 11, is in fact the same age, and is a facies equivalent of it. Unit 9 occurs exclusively around the periphery of the outcrop area of Unit 11. This pattern is not a result of its supposed

older age, since Unit 9 is missing in the numerous places in the centre of the belt of Mississippian rocks where Unit 11 has been truncated by erosion. Therefore this halo effect must represent original sedimentary distribution of this Unit. Secondly, rocks typical of Unit 9, for example poorly sorted chert granule greywackes, are interbedded with typical shales and volcanics of Unit 11, and these interbeds increase in abundance and thickness towards the periphery of the Mississippian belt. Very fine-grained siltstones with graded bedding which occur closer to the core of the belt are probable turbidites which may be more distant correlatives of Unit 9 sediments.

Shallow water grey limestones and dolomites (Unit 10) are mapped as overlying Unit 9 and underlying Unit 11. These limestones at no point contact Unit 11, and they also occur only peripheral to Unit 11, in close association with Unit 9.

A pattern begins to emerge, with deep water shales and cherts interfingering with a peripheral wedge of rapidly deposited, coarse-grained and poorly sorted sediments. These are overlain by shallow water limestones deposited in a near shore inter-tidal environment. The pattern suggests a small elongate basin with a width in the order of 50 miles. The transition from Devonian carbonate shelf environment into Mississippian deep water chert-shale environment must have occurred rapidly, since there are no transitional shallow water sediments at the base of the chert-shale sequence. Also, the rock types in Unit 9 indicate short distances of travel and rapid deposition. In addition, it is of interest to note that Unit 9 is in fault contact with older formations along the entire northeast flank of the Mississippian basin. All of these factors taken together suggest a wide, fault bounded, graben-like basin which developed rapidly during the early Mississippian (Figure 4). By the end of the Mississippian shallow water conditions had returned, which persisted into the Triassic.

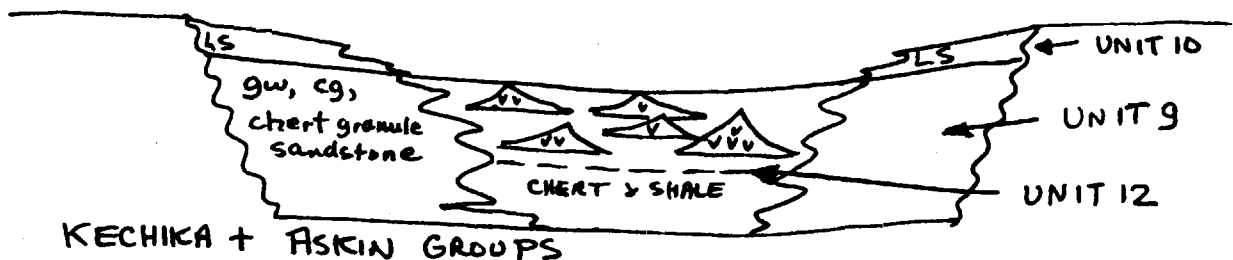


Figure 4 : Hypothetical Cross-section of Mississippian Basin

Basic to felsic volcanism was concentrated mainly in the central portion of this Mississippian basin. Acid volcanic pyroclastics and associated mineral deposits are even more restricted in extent occurring only within two belts a few miles in length and breadth.

The above discussion is very tentative and is based on limited local knowledge, so it is difficult to say exactly how this hypothetical basin would fit into the grander tectonics of the Northern Cordillera. Mineral deposits of this type, and most of the volcanics as well, typically occur within a converging plate margin, subduction zone environment. A local, continental-margin, tensional environment within such a larger, subduction zone setting, could have produced the Mississippian rock package. On the otherhand, the possibility cannot be disregarded that these rocks are in fact a part of the allochthon, and are therefore totally unrelated to the underlying rocks, being thrust onto them from the southwest. The occurrence of the deeper water chert-shale facies would fit well with this hypothesis, as would the presence of serpentine bodies within the Mississippian volcanics. The problematic origin of these rocks is therefore far from being resolved at this time.

ECONOMIC GEOLOGY

Mineral deposits known to occur in the project area include Kuroko type massive sulfide deposits, lead-zinc-silver veins, skarn type molybdenum-tungsten deposits, bedded barite within shales, and various small quartz vein occurrences of no economic interest. The only type of deposit which has seen production in the area is the silver bearing lead-zinc veins on the Ketz River property, which have been mined in a small way for a number of years. The Pelly Project directed itself specifically to the Kuroko type massive sulfide deposits, which seem to have the best potential for economic tonnages. The blanket geochemical coverage, however, ensures that significant mineral showings in other settings would also be detected.

The MM Property is the only Kuroko deposit in the Pelly Mountains which was known in the spring. Its characteristics are as follows:

- 1) It is hosted by a unit of acid volcanic rocks which include

agglomerates, lapilli tuffs, and fine-grained tuffs or cherts, all of which contain some pyrite, and some of which contain enough pyrite to produce spectacular gossans.

- 2) Sugary bedded barite exhalite a few feet thick is associated with the massive sulfides.
- 3) The MM deposit produces a strong geochemical train in stream sediments, which is not surprising since it outcrops very well.
- 4) The massive sulfides contain both pyrrhotite and pyrite and therefore should respond to EM and magnetic geophysical methods.

The prospecting program we carried out this season was guided by these characteristics, and succeeded in outlining several areas with some of the above characteristics. Next year the geophysical properties of the deposits will be exploited to try to develop drill targets within some of these areas of geologic and geochemical favourability.

MINERAL SHOWINGS AND AREAS OF INTEREST

The following discussion briefly summarizes the showings and geologically significant areas discovered during the geologic and geochemical prospecting program. The showings are located by number on Figure 5.

- 1) ANISE Claims: Staked for the following reasons;
 - a) Very pyritic black shales of Mississippian age form one small outcrop in a valley bottom area with nearly total overburden cover.
 - b) Pyrrhotite float with sphalerite and galena occurs on a cat road in the valley bottom - source unknown.
 - c) There are sporadic lead and zinc geochemical highs which must arise from a source area in the bottom of the valley.
 - d) Black shales are coated with hydrozincite in one creek canyon outcrop. Linecutting and geochemical sampling were carried out on the claims this year; geophysical work is planned for next season. (See assessment report).
- 2) DD Claims: These claims were tied on to the MM Property to secure valley bottom areas underlain by the Mississippian pyritic volcanic host rocks. Very weak geochemical anomalies occur on the claims. No work was done this season.
- 3) "CPA" Showings: These showings, which were covered by the CPA claim group, were "rediscovered" during the Pelly Project geochem program.

The showings consist of sphalerite, galena, and traces of fluorite in carbonate veins which occur within a large gossan zone in the Mississippian volcanics. Detailed prospecting and a small geochemical grid (Figure 6) were completed over the showings but the area was not considered worth staking.

- 4) BNOB Claims: This claim group was staked when a 30 foot thick bed of barite was discovered in the midst of a geochemically anomalous pyritic lapilli tuff formation. Geochemical sampling on a flagged grid, geologic mapping, and prospecting have been carried out on the claim group. Geophysical work is planned for next year. (See assessment report).
- 5) ASKIN Group Showing: Sphalerite, smithsonite, and galena occur in Askin Group dolomites. The mineral showings do not outcrop, and are only known from talus and frost heaved rubble. The mineralization occurs in veins and breccias, and does not appear to be extensive. A small soil geochem grid (Figure 7) was flagged in over the area of mineralized float during this season; no work is planned for next season.
- 6) CHZERPNOUGH Claims: Sphalerite, galena, fluorite and minor chalcopyrite, with abundant pyrite occur in carbonate cemented volcanic breccias on the Chzerpnough claims. Sedimentary barite float also has been found on the property, and anomalous geochem values in soils occur over a wide area. A geochemical grid and geological mapping have been completed on the claims this year, and geophysical work is planned for next year. (See assessment report).
- 7) UNNAMED: This showing consists of galena and sphalerite grains disseminated in a pyritic cherty tuff unit. While not worth staking, the area around this showing warrants more careful prospecting and geologic mapping.
- 8) UNNAMED: Coarse-grained barite float occurs in a prominent gossan associated with black shales at this location. Weak lead geochemical anomalies occur in the vicinity of the barite float but no galena was seen during initial prospecting.
- 9) UNNAMED: Coarse-grained vein barite with galena was found at this

locality. There is a substantial geochemical anomaly present in the area, but the sporadic mineralized float appeared to be abundant enough to explain the anomaly. The occurrence did not warrant staking.

- 10) EROS Claims: These claims cover a gossan zone in black shales which is anomalous in lead and zinc. The black shales do not outcrop and the claims were staked solely on the basis of the geochemical results and the black shale environment (Figure 8). Geophysical surveys are planned for next year.
- 11) UNNAMED: A large creek at this locality is moderately anomalous in zinc and some boulders and other material in the creek are covered with a whitish lime coating which gives a weak positive reaction with hydrazincite stain. The zinciferous coating and the anomaly begins where the creek crosses the contact between limy Kechika phyllites and Mississippian black shales, and the anomaly is probably the result of acid groundwater seepages precipitating zinc under the alkaline conditions in the main stream. Careful prospecting on three occasions failed to locate any mineralization. The area was staked late in the season by another company.
- 12) UNNAMED: A pyrite cemented breccia outcropping in a creek canyon at this spot is geochemically anomalous in lead. The breccia consists of 10 to 20% pyrite cementing black shale fragments. No galena or other sulfides were seen in the breccia in the preliminary prospecting it received this year. Additional prospecting and rock geochemical investigations should be carried out next year.
- 13) "BARITE CANYON": Abundant very coarsely crystalline barite fills veins and breccia cavities in Askin Group dolomite at this locality. Some weak zinc mineralization (hydrazincite coatings) occurs with the barite, but the area does not seem to warrant further investigation.
- 14) UNNAMED: The showing at this locality is very similar to showing No. 7, and contains galena and sphalerite as widely disseminated grains in pyritic cherty tuff.
- 15) SIP/JOE Claims: The showings on this claim group have been known and staked for a number of years, but it is included here since it is

the fourth known occurrence of the sugary bedded barite such as occurs on the MM Property. Small showings of sphalerite occur with the barite at this locality.

All of the showings are associated with two belts of acid volcanic activity which contain numerous spectacular gossans due to the abundant pyrite in the cherty tuff members. These two areas of acid volcanics will be mapped and prospected in greater detail next year, in the hope that the internal stratigraphy of the volcanic pile can be sorted out to the extent that favourable horizons can be traced through overburden covered areas and age relations of mineral showings and enclosing rocks can be established.

GEOCHEMISTRY

Regional geochemical sampling was carried out over the entire project area at a fairly detailed scale. A total of 4282 silt, seepage, and soil samples were taken, which represents an average sample density of 6.5 samples per square mile. Actually, the density varies greatly from this average, being much higher in areas with pyritic gossan zones and much lower in areas not underlain by the Mississippian volcanic units.

Materials sampled include soil, stream silts, and seepage sediments. In general, samples classed as "silt" come from creeks with well defined channels and well developed sediments, and such samples would ideally be representative of the entire headwaters of the stream from which they were taken. A seepage sample, on the other hand, consists of soil or sediment from a spring or seep where ground water is emerging, and could therefore be expected to be representative of only the area upslope from the sample site, through which the ground water percolated. The source area represented by a soil sample is even more restricted in extent. The size of the source area must be taken into account when considering the relative magnitude of geochemical values. The relative importance of mechanically transported anomalies, hydromorphic anomalies, and residual anomalies varies between the three mediums, with mechanical transportation being most important in stream sediments, hydromorphic dominant in seepage samples, and residual dominant in soil samples. Of course all categories are gradational,

and the relative dominance of anomaly type varies with each specific sample:

an anomalous stream sediment from a swamp may represent only a hydromorphic anomaly, and an anomalous soil sample from a talus slope results from mechanical transportation. The specific environment of each geochemical sample ^{must} therefore be considered when interpreting values from a regional survey such as this one.

Background geochemical values in the various geological formations that occur throughout the area also vary greatly, and this also must be taken into account when trying to decide on the threshold of anomalous values for any element. Because of the variability of source area size, sample medium, sample environment, and geological background, statistical methods are not appropriate for data from a regional program such as this one. Each sample result has been considered in the context of its particular environment, and no attempt has been made to treat the data statistically.

The same analytical procedure has been used on all samples, whether from silts, seeps or soils. The samples are air dried in Kraft paper bags, and then sieved to yield an -80 mesh fraction. The -80 mesh material is dissolved in a nitric-perchloric acid reagent, which results in the total extraction of copper, lead, and zinc in the samples, including that portion bound in silicate minerals. The amounts of copper, lead, and zinc are then determined using an atomic absorption instrument.

Geochemical results have been plotted on a number of maps at a scale of 1" to $\frac{1}{2}$ mile and 1" to $\frac{1}{4}$ mile. The following list of figures includes all regional geochemical maps:

Figure 9 :	Geochemical Results :	105 F - 7 :	Scale 1" :	$\frac{1}{2}$ mile
Figure 10 :	Geochemical Results :	105 F - 8 :	Scale 1" :	$\frac{1}{2}$ mile
Figure 11 :	Geochemical Results :	105 F - 9 :	Scale 1" :	$\frac{1}{2}$ mile
Figure 12 :	Geochemical Results :	105 F - 10 :	Scale 1" :	$\frac{1}{2}$ mile
Figure 13 :	Geochemical Results :	105 F - 15 :	Scale 1" :	$\frac{1}{2}$ mile
Figure 14 :	Geochemical Results :	105 G - 3 :	Scale 1" :	$\frac{1}{2}$ mile
Figure 15 :	Geochemical Results :	105 G - 4 :	Scale 1" :	$\frac{1}{2}$ mile
Figure 16 :	Geochemical Results :	105 G - 5 :	Scale 1" :	$\frac{1}{2}$ mile
Figure 17 :	Geochemical Results :	105 G - 6 :	Scale 1" :	$\frac{1}{2}$ mile
Figure 18 :	Geochemical Results :	105 G - 12 :	Scale 1" :	$\frac{1}{2}$ mile

Figure 19 :	Detail Area :	105 F - 8	:	Scale 1" :	¼ mile
Figure 20 :	Detail Area :	105 F - 9a	:	Scale 1" :	¼ mile
Figure 21 :	Detail Area :	105 F - 9 & 10	:	Scale 1" :	¼ mile
Figure 22 :	Detail Area :	105 F - 10a	:	Scale 1" :	¼ mile
Figure 23 :	Detail Area :	105 F - 10b	:	Scale 1" :	¼ mile
Figure 24 :	Detail Area :	105 F - 10c	:	Scale 1" :	¼ mile
Figure 25 :	Detail Area :	105 G - 5a	:	Scale 1" :	¼ mile
Figure 26 :	Detail Area :	105 G - 5b	:	Scale 1" :	¼ mile

The geochemical results will not be discussed in any detail, since anomalies of importance and related showings have already been covered under "Mineral Showings and Areas of Interest".

PROPOSED EXPLORATION

The following work is proposed for the 1977 field season:

- 1) Line cutting on the BNOB, CHZERPOUGH, DD and EROS claim groups (144 Km). A cut base line and flagged cross lines may suffice on EROS and DD claims.
- 2) Magnetic and electromagnetic surveys on all claim groups.
- 3) Geologic mapping at a scale of 1" : 1320 feet over the two belts of pyritic acid volcanic breccias.

The above work can be completed in about 2½ months of field time, assuming that this regional work would be carried out concurrently with the drilling on the MM property. Geophysical work could begin on the ANISE claims by mid June. A total budget of \$72,600 will be required to carry out the field work outlined above. The budget details, personnel requirements, etc. are outlined in full in Appendix II.

Respectfully submitted,

Peter Dean.

January 14, 1977.

APPENDIX I

LIST OF PERSONNEL

P. Dean	Geologist	1405 - 1011 Beach Avenue, Vancouver, B. C.
M. Fretwell	Prospector	330 - 355 Burrard Street, Vancouver, B. C.
A. Tench	Geo-chem Sampler	330 - 355 Burrard Street, Vancouver, B. C.
H. Hannigan	Geo-chem Sampler	330 - 355 Burrard Street, Vancouver, B. C.
B. Dean	Cook	1405 - 1011 Beach Avenue, Vancouver, B. C.

NOTES RE: PELLY AND MM/JJ/DD BUDGET

ESTIMATE FOR 1977

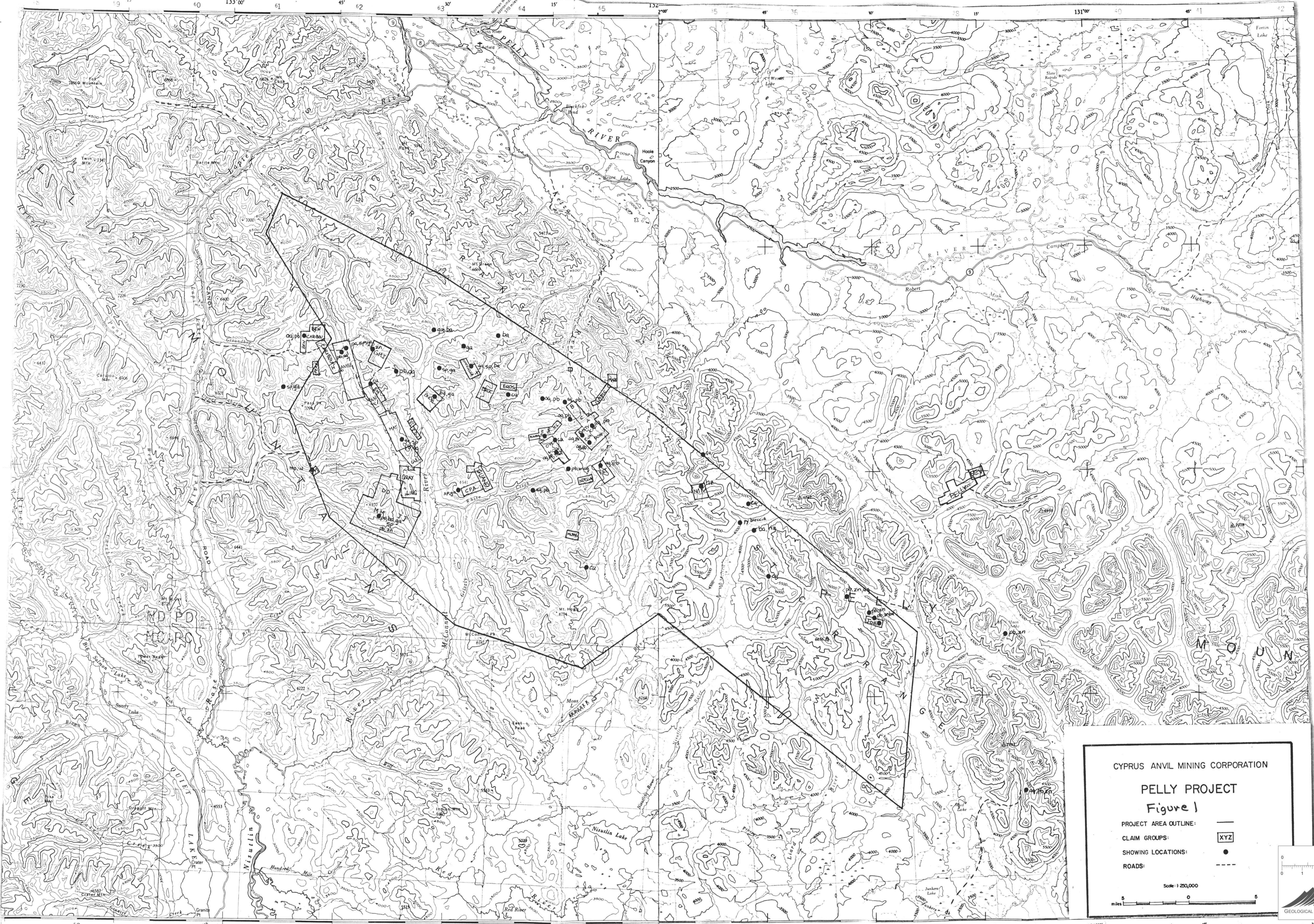
- 1) The budget is planned for the following program:
 - a) 5,000 feet of drilling on MM.
 - b) line cutting, magnetic and geophysical surveys on all Pelly claim groups.
 - c) geologic mapping and prospecting in limited areas of interest outlined during the 1976 regional work.
- 2) Personnel requirements assume that the drilling and regional work are carried out concurrently.
- 3) The budget assumes that Hudson Bay provides geophysical crew approximately at cost.
- 4) Diamond drill costs are based on 1976 costs +20%. If costs are more reasonable than this then more footage could be drilled.
- 5) Camp costs for drill crew and our MM property geologist are included in "Drilling".
- 6) Rotary wing time is estimated based on 1976 usage, and assumes that we use a Jet Ranger at 1976 contract rates. The regional support portion covers set outs from Ross River or the MM Camp, and fly camp moves.

BUDGET DETAILS

		<u>TOTAL</u>	<u>DD & MM/JJ DRILLING</u>	<u>PELLY REGIONAL</u>
01	<u>Salaries and Wages</u>			
	Project Geologist	8m x 2200 = \$ 17,600	\$ 8,600	\$ 9,000
	Drill Geologist	4m x 1500 = 6,000	6,000	
	Field Assistants	2 x 2m x 1200 = 4,800	2,400	2,400
	Cook	2m x 1000 = 2,000		2,000
	Geophysical Operator	2m x 1500 = 3,000		3,000
	Helper	2m x 1200 = 2,400		2,400
	Draughtsman	4m x 1000 = 4,000	2,000	2,000
		<hr/>	<hr/>	<hr/>
		\$ 39,800	\$ 19,000	\$ 20,800
02	<u>Staking Costs</u>	estimated 1,000		1,000
03	<u>Consulting Fee</u>			
	HB geophysicist	15 days x \$150/day = 2,250	500	1,750
04	<u>Line Cutting</u>			
	BNOB	40 Km		
	CHZERPNOUGH	20 Km		
	DD	50 Km		
	EROS	14 Km		
		144 Km		
		90 line mi x \$120/mi = 10,800	3,750	7,050
08	<u>Drilling</u>			
	5,000 ft at \$25/foot	all inclusive = 125,000	125,000	
11	<u>Assays and Geochemical Analysis</u>			
	200 assays at \$10.00 each	= 2,000	1,500	500
	1000 geochemical analysis at \$3.00 each	= 3,000	1,500	1,500
		<hr/>	<hr/>	<hr/>
		5,000	3,000	2,000
12	<u>Field Equipment</u>			
	Geophysical equipment rental estimate	1,000	300	700
	Miscellaneous	2,000	1,000	1,000
		<hr/>	<hr/>	<hr/>
		3,000	1,300	1,700
		<hr/>	<hr/>	<hr/>
	SUB TOTAL	\$ 186,850	\$ 152,550	\$ 34,300

BUDGET DETAILS (Continued)

		<u>TOTAL</u>	<u>DD & MM/JJ DRILLING</u>	<u>PELLY REGIONAL</u>
CARRIED FORWARD		\$ 186,850	\$ 152,550	\$ 34,300
13 <u>Camp Maintenance</u>				
6 men x 80 days x \$20.00	=	9,600	3,000	6,600
14 <u>Fuel</u>				
Included with rotary wing				
15 <u>Rotary Wing (includes fuel)</u>				
Regional support 100 hrs x \$320	=	32,000	4,800	27,200
Drilling support 100 hrs x \$320	=	32,000	32,000	
		<hr/>	<hr/>	<hr/>
		64,000	36,800	27,200
16 <u>Fixed Wing</u> - estimate				
(Fuel and crew to Seagull Lakes, etc.)		1,000		1,000
17 <u>Miscellaneous Transportation</u>				
Vehicle costs 3 months at \$1000/m	=	3,000		
Miscellaneous		2,000		
		<hr/>		
		5,000	2,500	2,500
<u>Expediting</u>				
- estimate		2,000	1,000	1,000
		<hr/>	<hr/>	<hr/>
TOTALS		<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
		\$ 268,450	\$ 195,850	\$ 72,600



CYPRUS ANVIL MINING CORPORATION

PELLY PROJECT

Figure 1

PROJECT AREA OUTLINE: ———

CLAIM GROUPS: XYZ

SHOWING LOCATIONS: ●

ROADS: - - - - -

Scale: 1:250,000

miles 5 0 5

centimetres 0 1 2 3 4 5

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

YUKON
GEOLOGICAL SURVEY

GEOLOGIC LEGEND

SOUTHWEST OF TINTINA TRENCH				
Era	Period or Epoch	Formation or map-unit	Lithology	Thickness (feet)
CENOZOIC	Pleistocene and Recent	21	Unconsolidated glacial and alluvial deposits	
	Tertiary			
MESOZOIC	Cretaceous	16	Medium- to coarse-grained biotite granite-diorite to quartz monzonite; minor granite, diorite and migmatite	
	Middle and/or Upper Triassic			
	Upper Permian and/or Lower or Middle Triassic	14	Serpentinite, dunite and peridotite	
PALEOZOIC	Upper Pennsylvanian and Lower and Middle Permian			
	Mississippian?	12	Heterogeneous, shattered hornblende syenite	
		11	Altered green volcanic rocks; green and maroon breccias, tufts and flows; varicoloured felsic breccias and tufts	?
	Mississippian?	10	Current-bedded, ripple-marked, grey limestone, minor argillite and dolomite	?
	Upper Devonian and Mississippian Upp.	9 Sylvester Group	Brown and black weathering siliceous slate and shale; thin bedded varicoloured chert; greywacke; chert-pebble conglomerate	?
	Upper Devonian and Mississippian Upp.			
	Silurian and Devonian	7	Thick bedded dolomite, sandy dolomite and orthoquartzite	1000 to 5000
PALEOZOIC	Ordovician and Silurian			
	Ordovician and Silurian	5 Kechika Group (in part)	Black slate, argillaceous limestone and siltstone; minor volcanic breccia	-700
	Cambrian? and Ordovician?			
	Cambrian	3 Kechika Group	Grey lustrous phyllite, limestone and siltstone	+4000
Lower Cambrian	2 Atan Group	Orthoquartzite, limestone, phyllite	+2000	

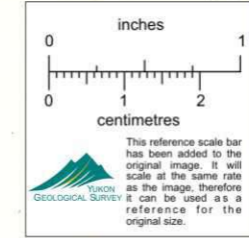
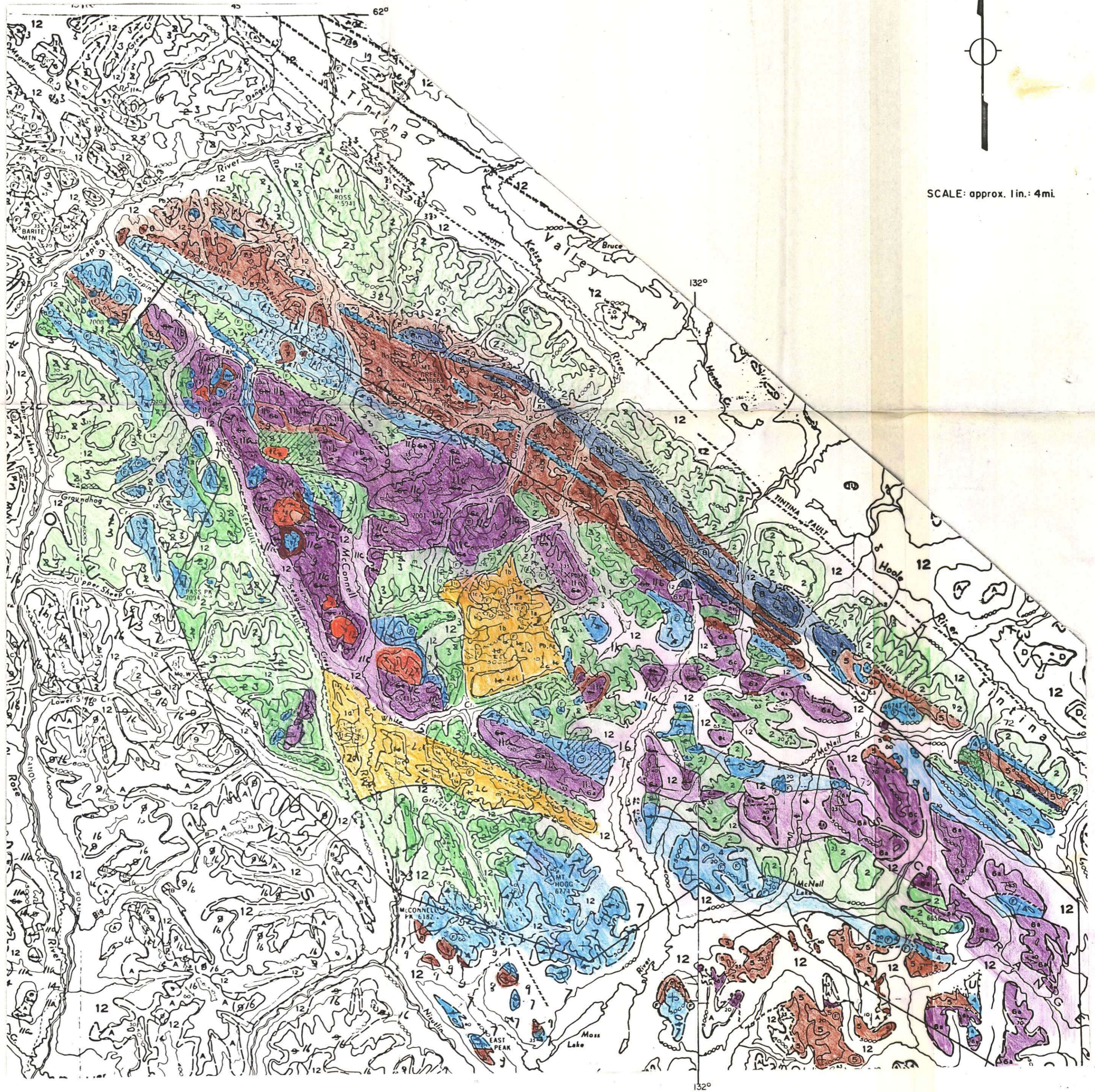
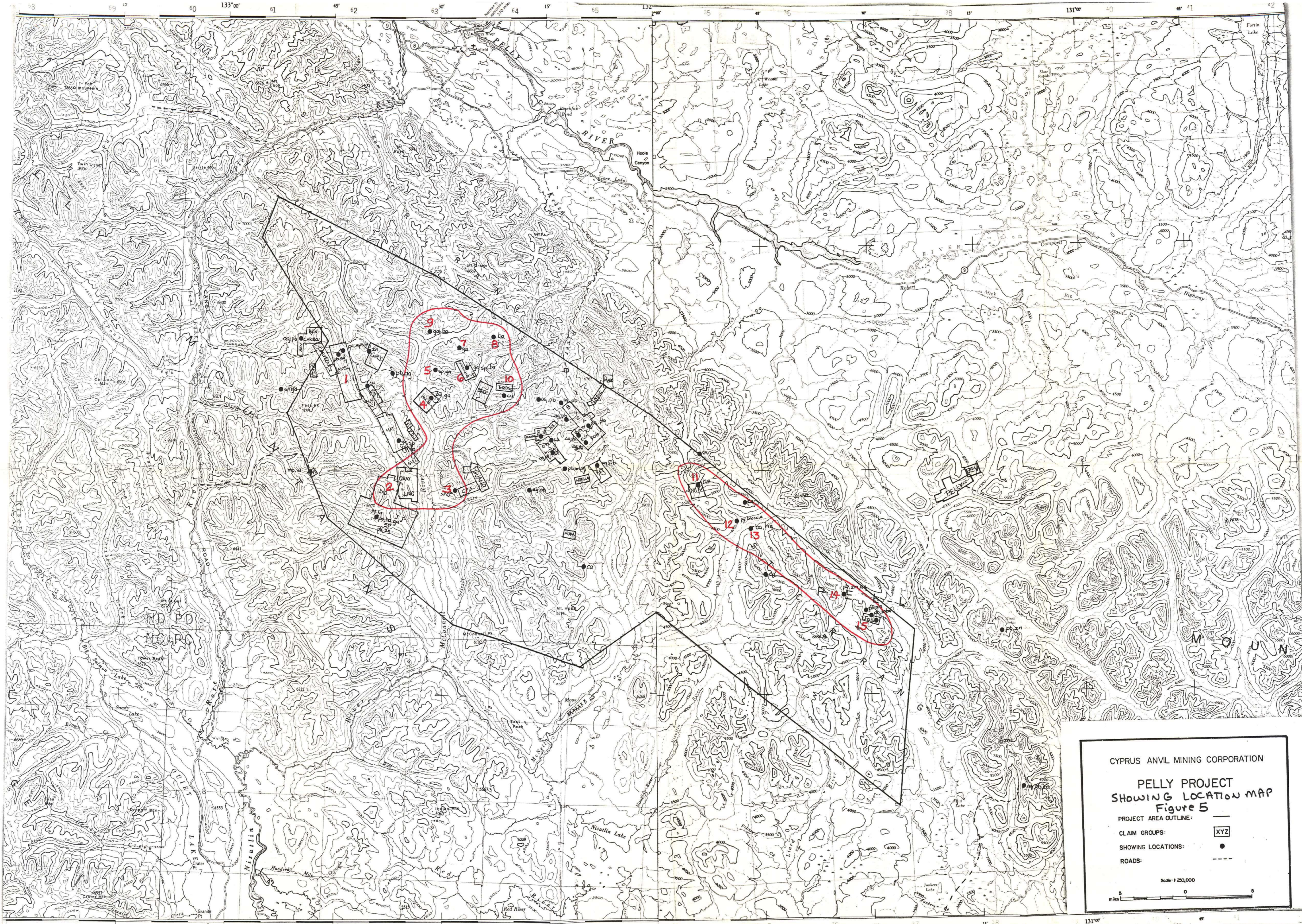


FIGURE 3
PELLY PROJECT
REGIONAL GEOLOGY

FROM: Wheeler, J.O.; Green, L.H. and Roddick, J.A.; 1960, Geol. Surv. Can. Maps 7-1960 and 8-1960.



SCALE: approx. 1 in. = 4 mi.



CYPRUS ANVIL MINING CORPORATION

PELLY PROJECT
SHOWING LOCATION MAP
Figure 5

PROJECT AREA OUTLINE: —

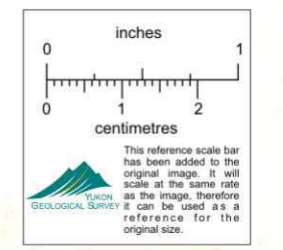
CLAIM GROUPS: [XYZ]

SHOWING LOCATIONS: ●

ROADS: - - -

Scale: 1:200,000

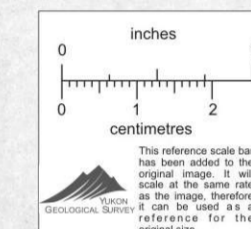
0 1
 0 2
 miles centimetres



CYPRUS ANVIL
MINING CORPORATION
PELLE PROJECT

Figure 6

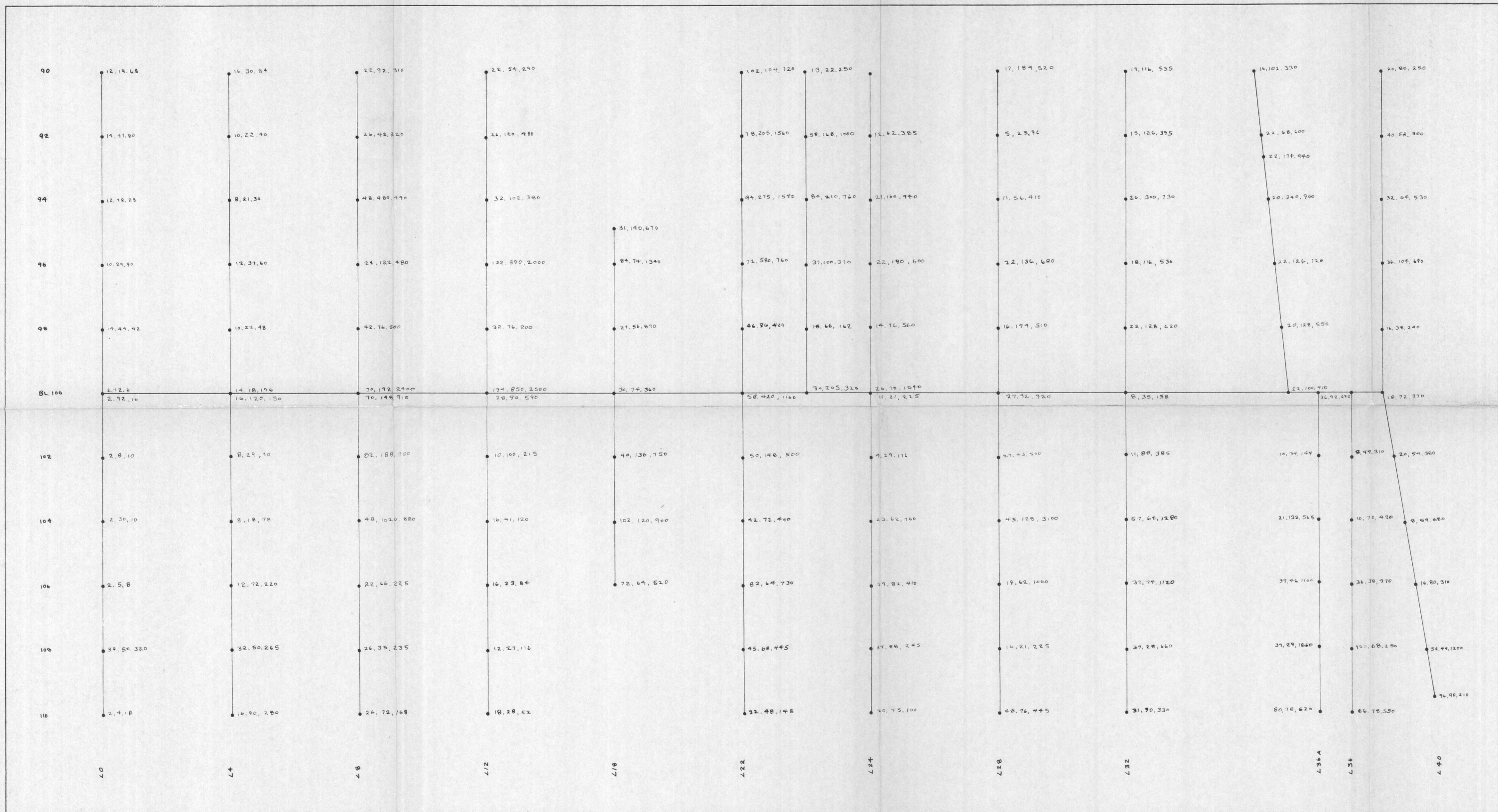
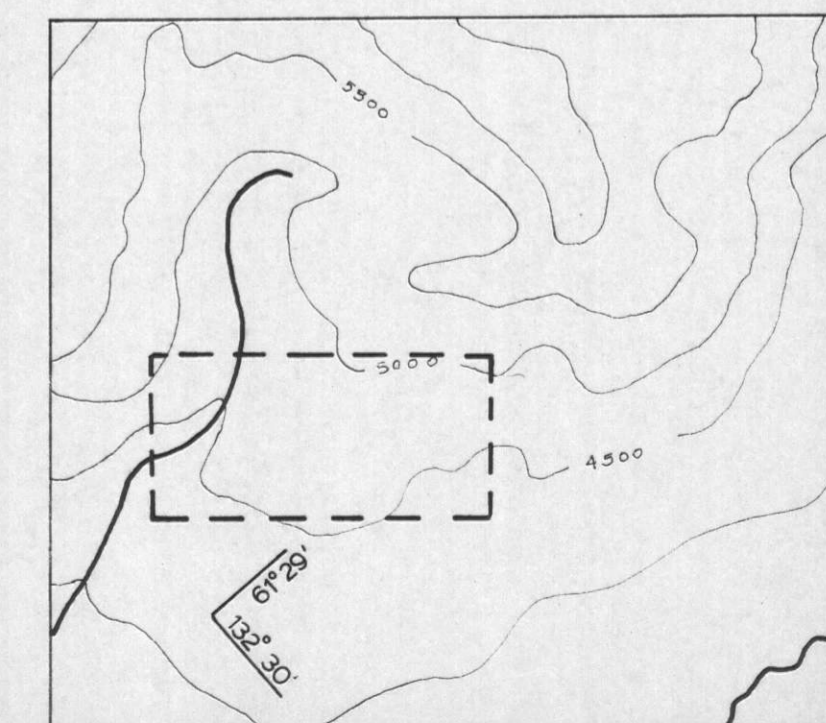
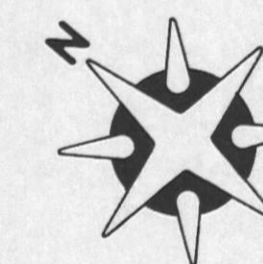
C.P.A.
GEOCHEM GRID

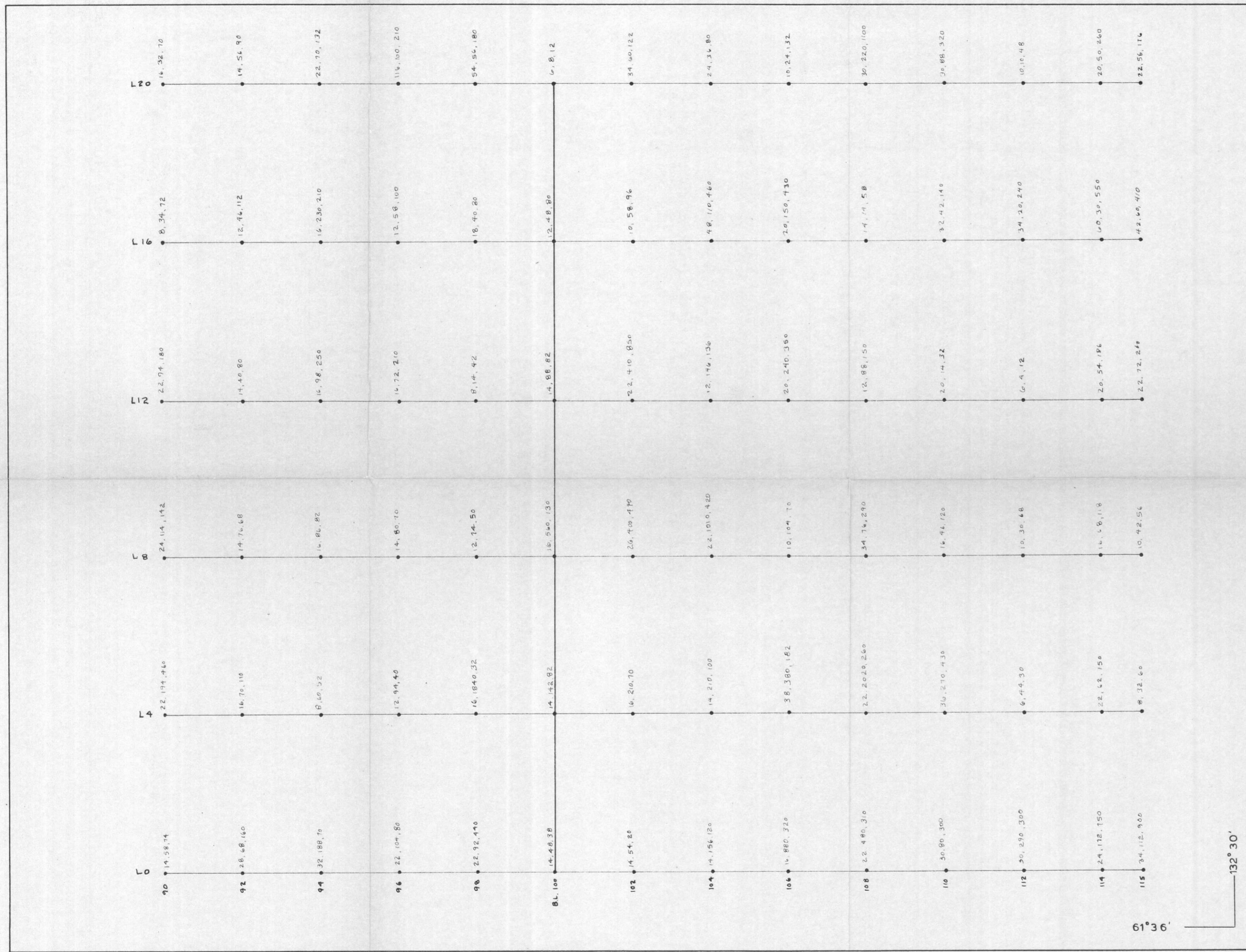


NTS: 105-F-8

1 inch = 200ft.

• Cu,Pb,Zn





CYPRUS ANVIL MINING CORPORATION

PELLY PROJECT

'ASKIN GROUP'

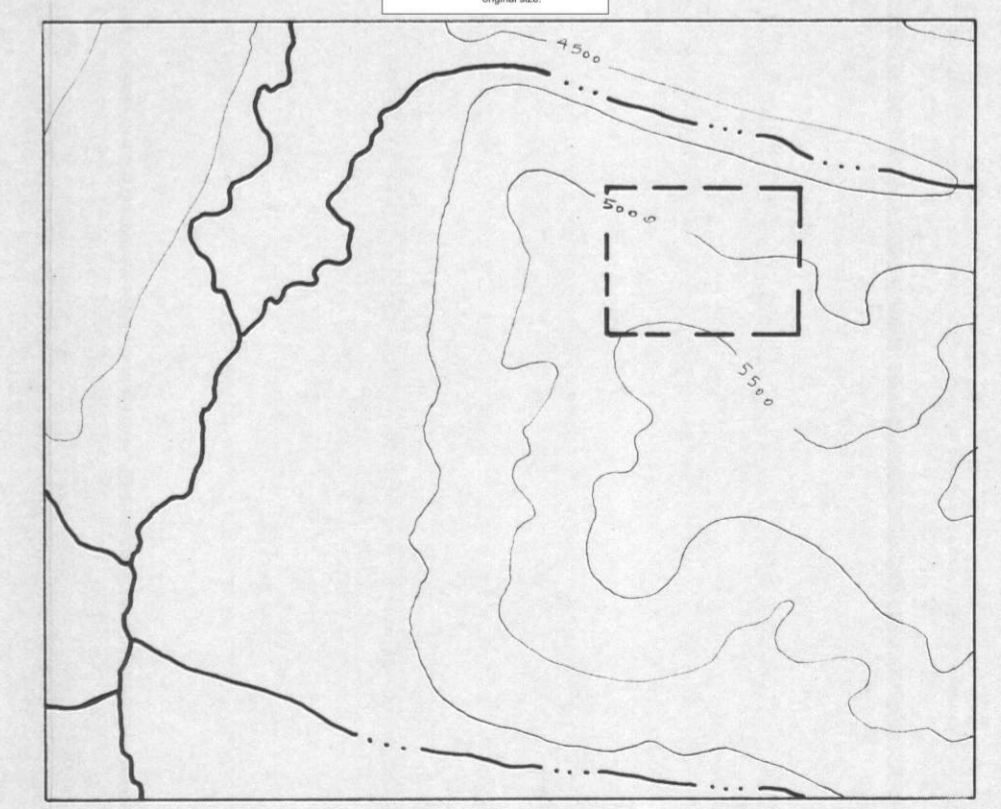
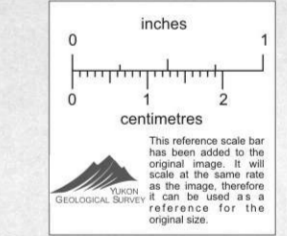
GEOCHEM GRID

NTS: 105-F-10

Fig 7

• Cu,Pb,Zn

1 inch = 400 ft.



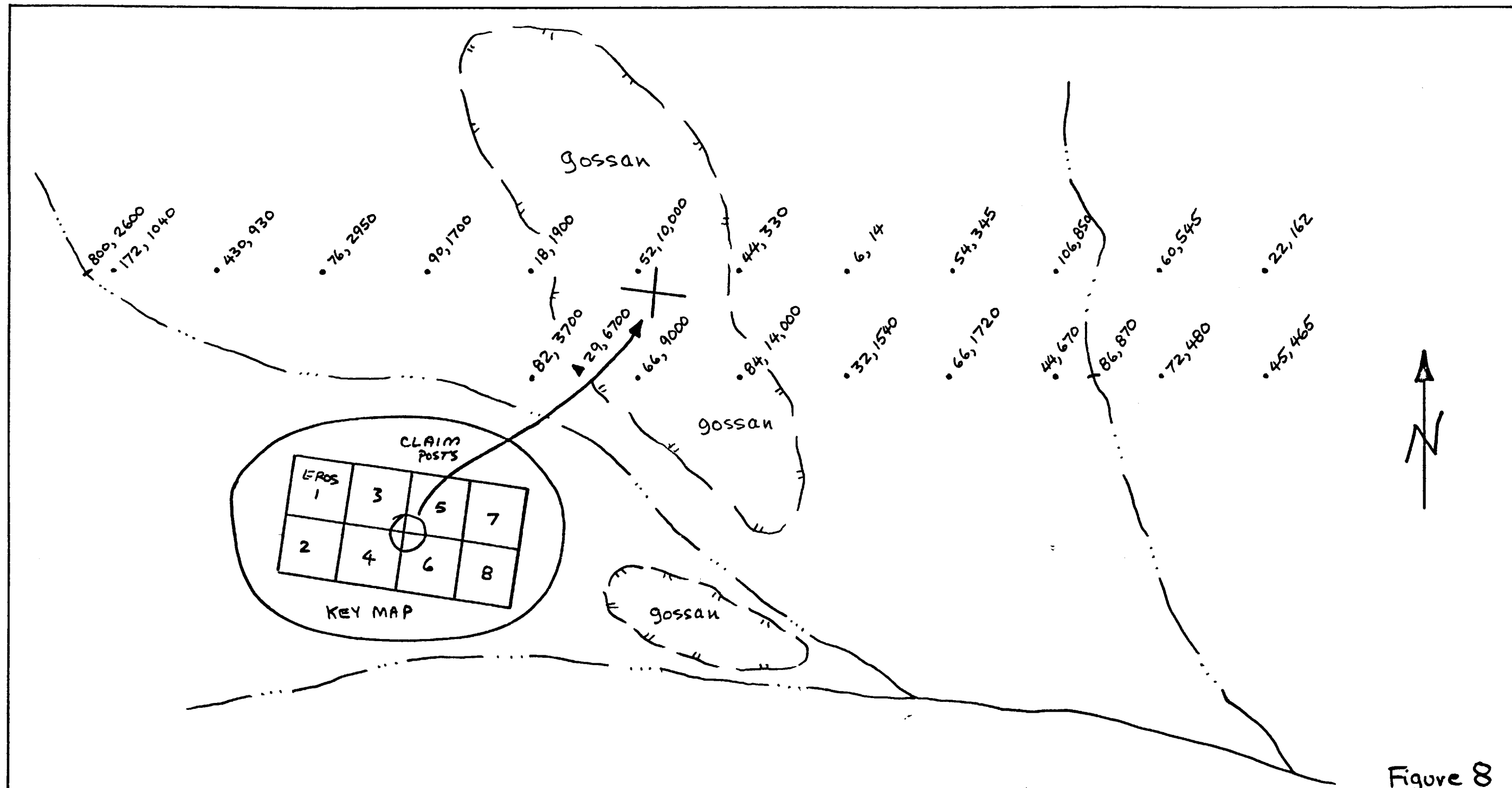
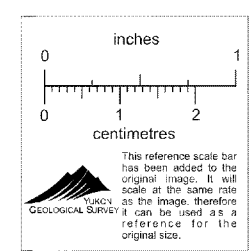


Figure 8

CYPRUS ANVIL MINING CORP ^{AN}	
EROS GEOCHEM GRID	
105 F-9	
• Pb, Zn	soil sample
X Pb, Zn	silt sample
▲ Pb, Zn	rock sample
Scale: 1" : 200 FT	



CYPRUS ANVIL MINING CORPORATION

PELLEY PROJECT

Fig 9

GEOCHEMICAL RESULTS

- soil
- silt
- x rock

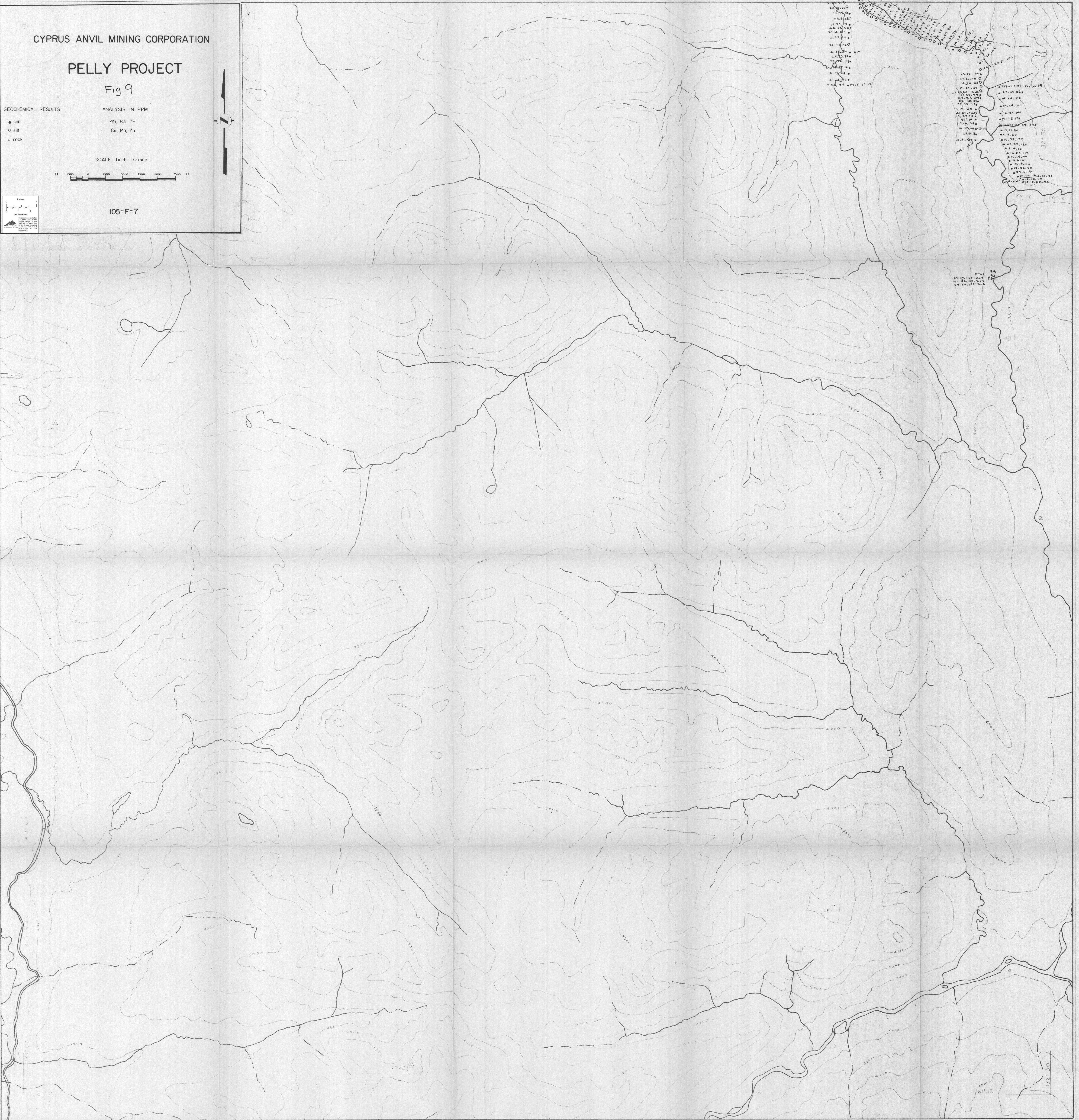
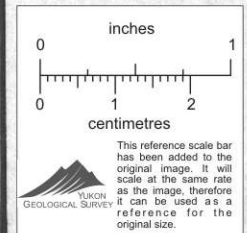
ANALYSIS IN PPM

45, 83, 76
Cu, Pb, Zn

SCALE: 1 inch = 1/2 mile

0 1500 3000 4500 6000 7500 FT

105-F-7



CYPRUS ANVIL MINING CORPORATION

105F-8

Fig 10

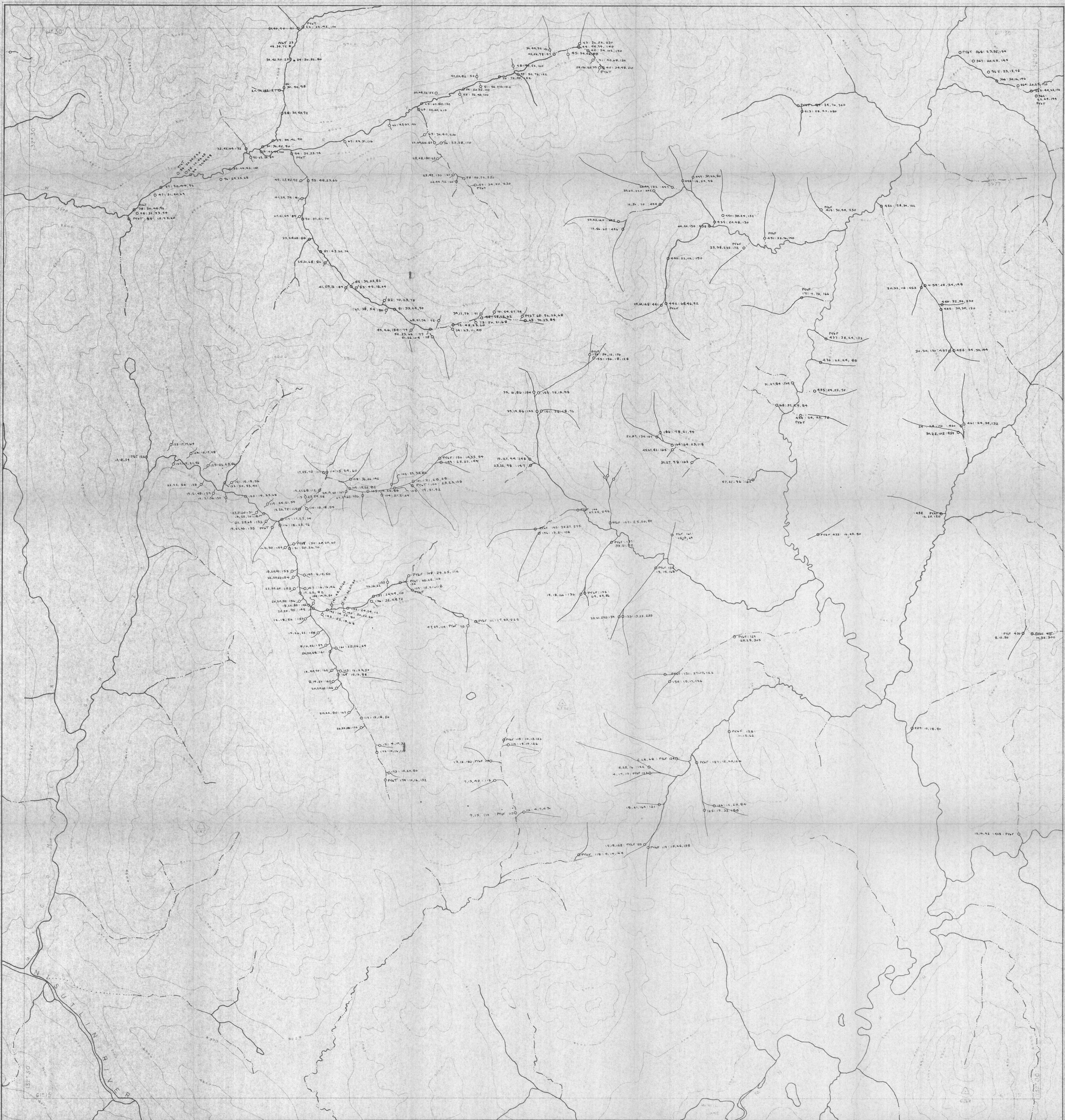
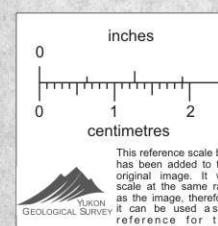
PELLY PROJECT

1976 REGIONAL GEOCHEM

• SOIL SAMPLE

○ SILT SAMPLE

1/2 MILE TO 1 INCH



PELLY PROJECT

Fig 11

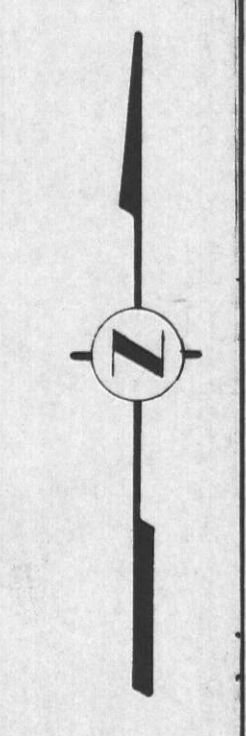
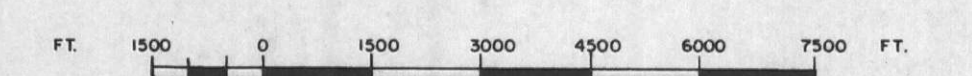
GEOCHEMICAL RESULTS

ANALYSIS IN PPM

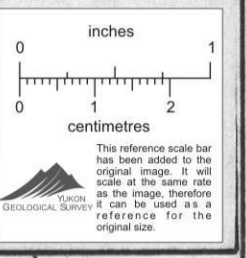
- soil
- silt
- x rock

45, 83, 76
Cu, Pb, Zn

SCALE: 1 inch = 1/2 mile



105-F-9



CYPRUS ANVIL MINING CORPORATION

PELLY PROJECT

Fig 12

GEOCHEMICAL RESULTS

ANALYSIS IN PPM

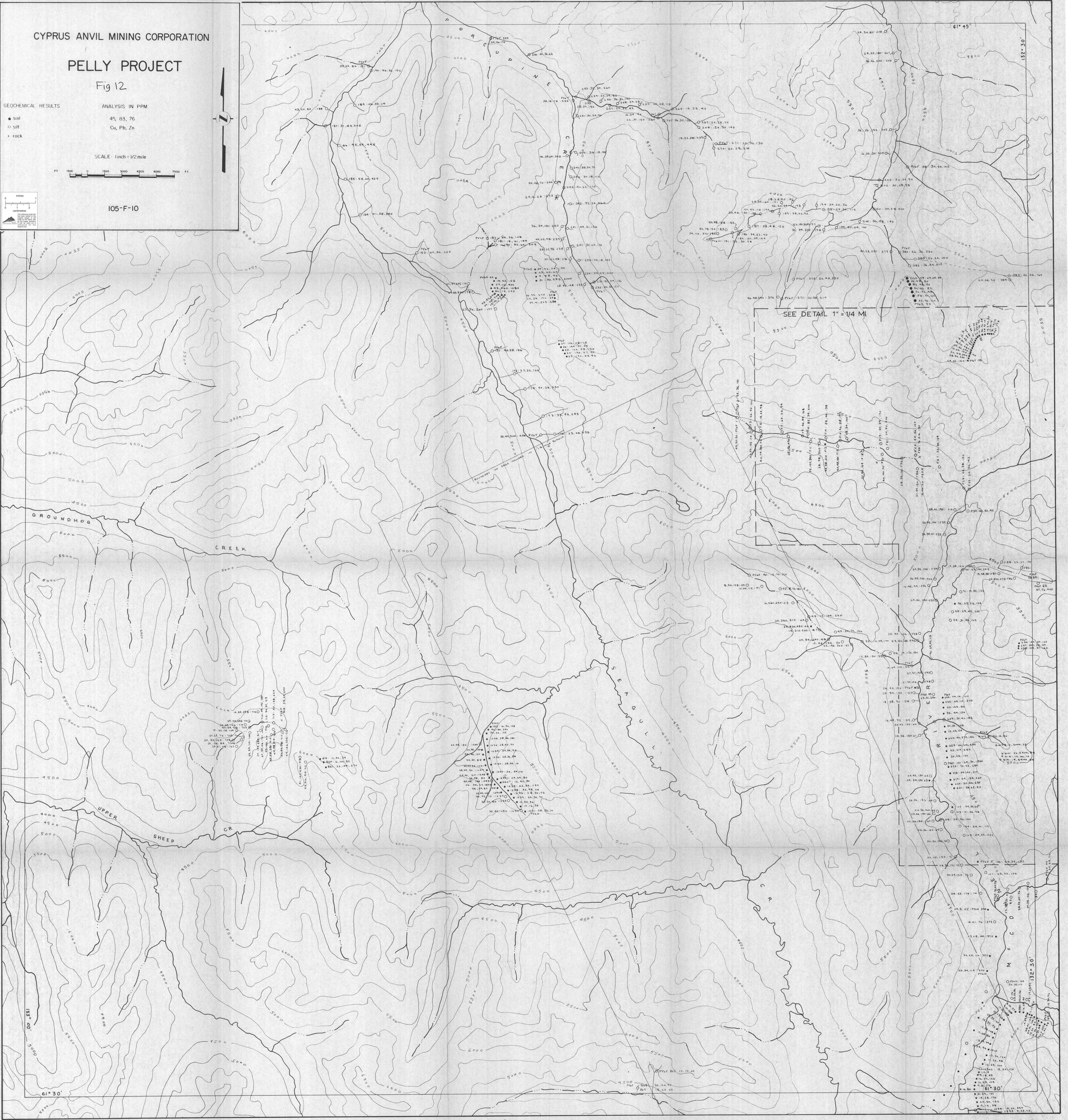
45, 83, 76
Cu, Pb, Zn

- soil
- silt
- x rock

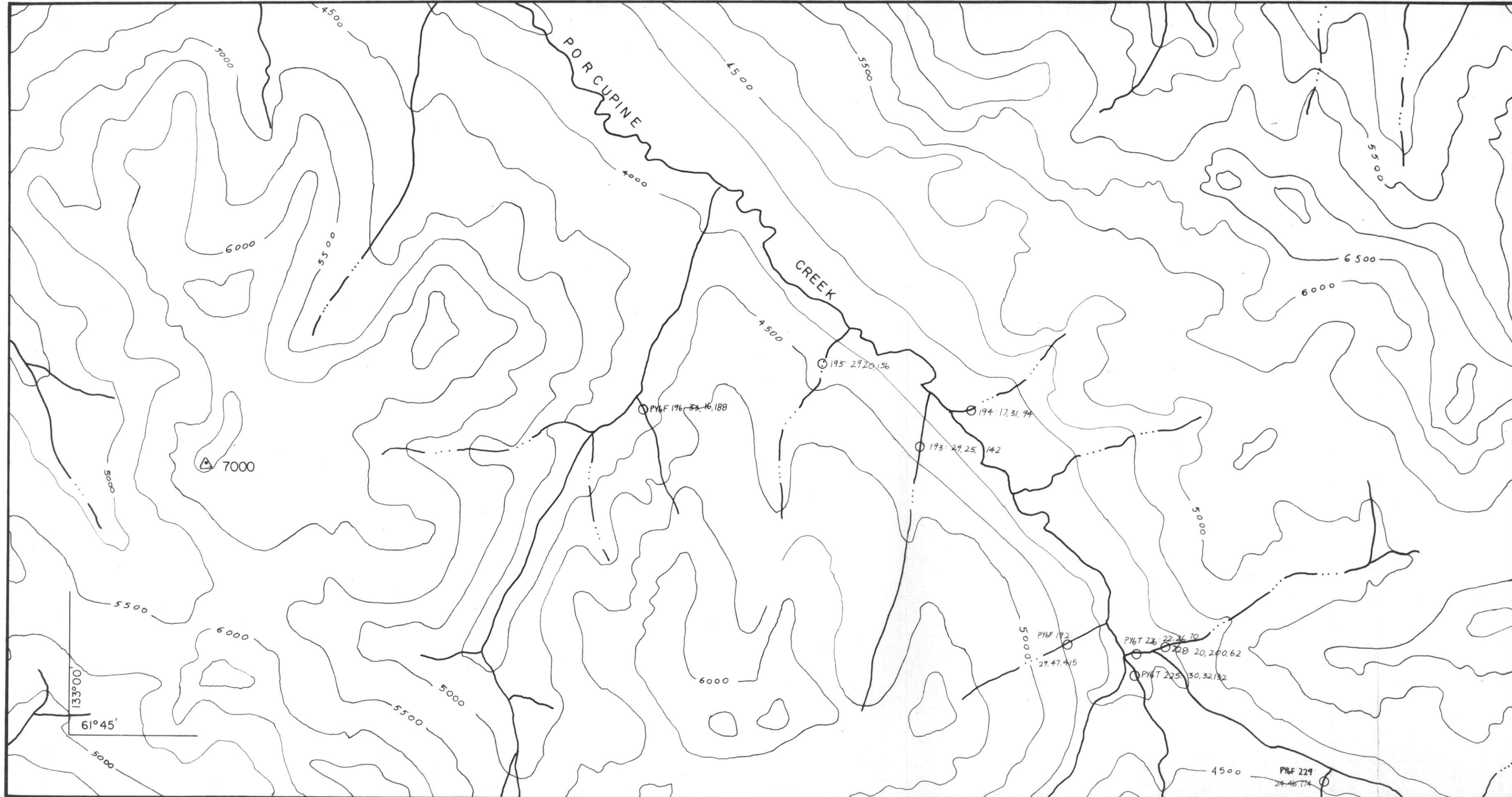
SCALE 1 inch = 1/2 mile

0 1000 2000 3000 4000 5000 6000 7000 FT.

105-F-10



SEE DETAIL 1" = 1/4 MI

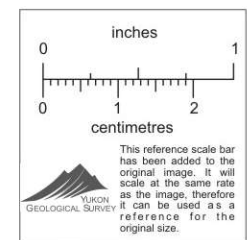


CYPRUS ANVIL
MINING CORPORATION
Fig 13
PELLY PROJECT

105-F-15

○ SILT SAMPLE
Cu, Pb, Zn

SCALE:
1/2 mile = 1 inch



CYPRUS ANVIL MINING CORPORATION

PELLEY PROJECT

Fig 14

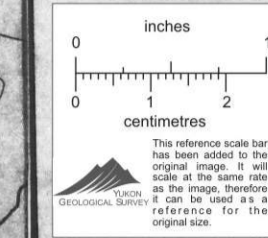
GEOCHEMICAL RESULTS

ANALYSIS IN PPM

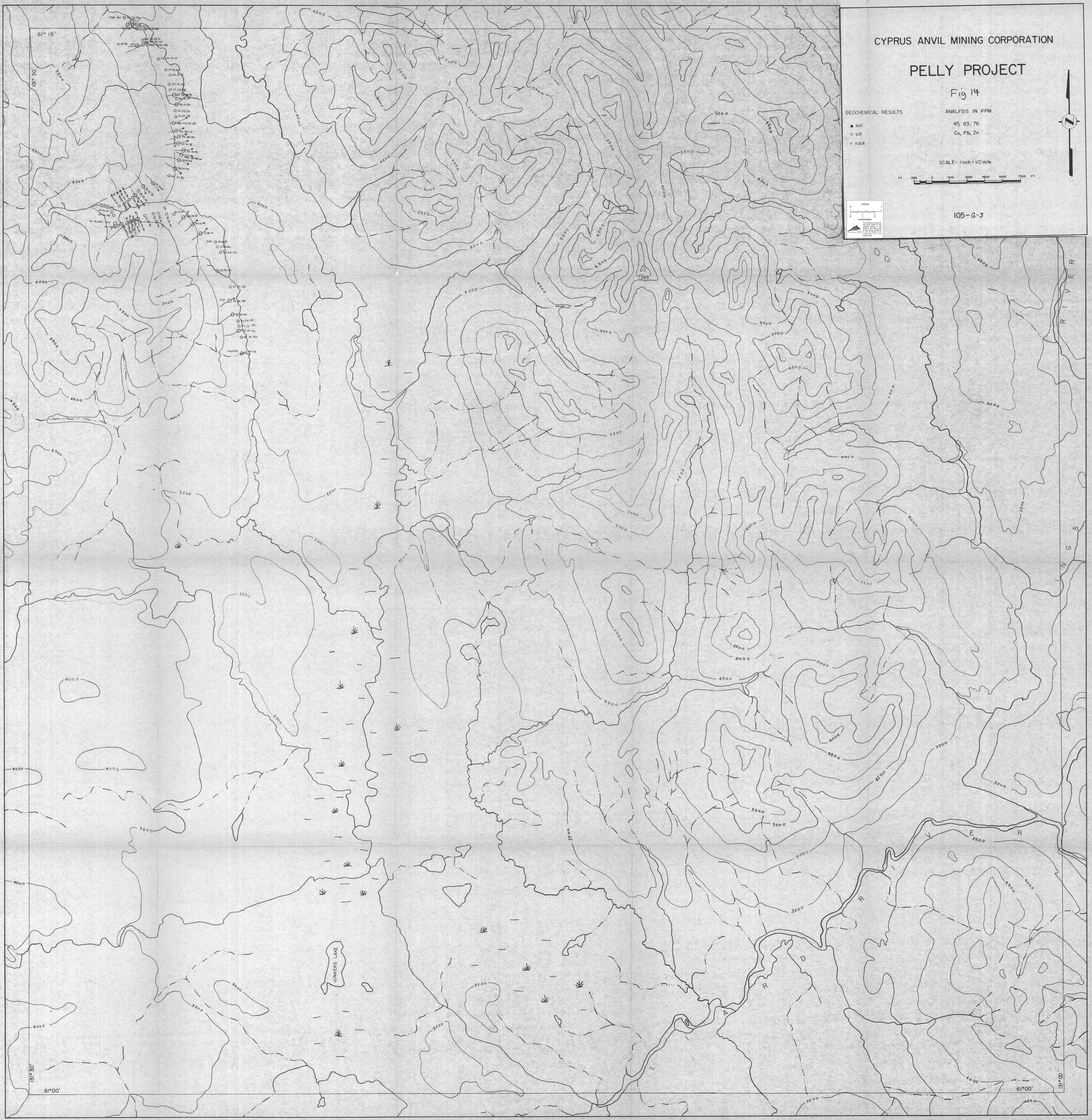
- soil
- silt
- x rock

45, 83, 76
Cu, Pb, Zn

SCALE: 1 inch = 1/2 mile



105-G-3



CYPRUS ANVIL MINING CORPORATION

PELLEY PROJECT

Fig 15

GEOCHEMICAL RESULTS

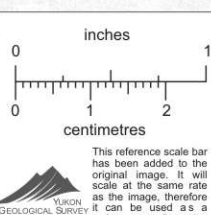
ANALYSIS IN PPM

45, 83, 76
Cu, Pb, Zn

SCALE 1 inch = 1/2 mile



105-G-4



PELLY PROJECT

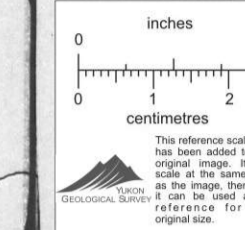
Fig 16

GEOCHEMICAL RESULTS
● soil
○ silt
x rock

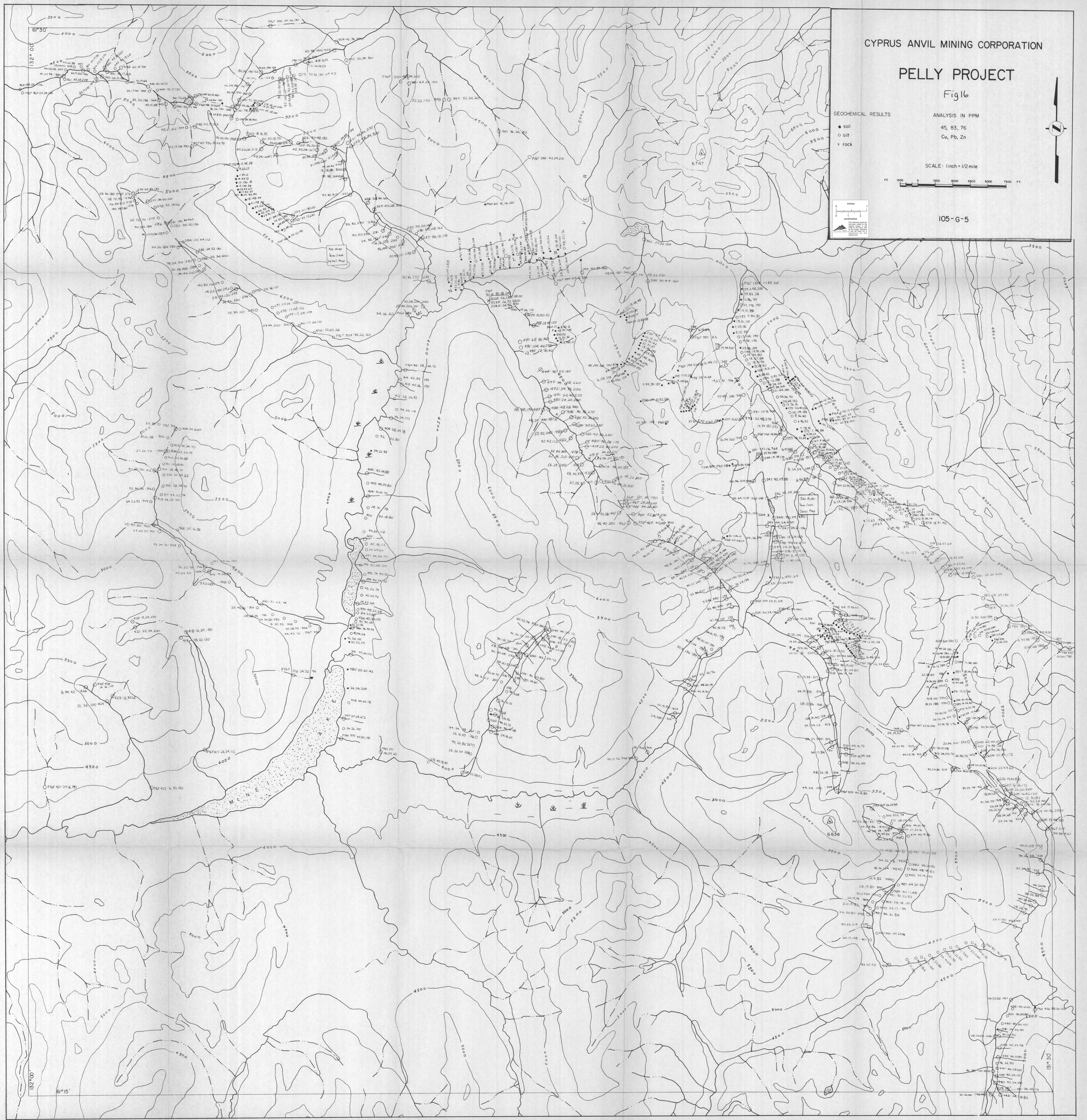
ANALYSIS IN PPM
45, 83, 76
Cu, Pb, Zn

SCALE: 1 inch = 1/2 mile

0 1500 3000 4500 6000 7500 FT.



105-G-5



PELLEY PROJECT

Fig 17

GEOCHEMICAL RESULTS

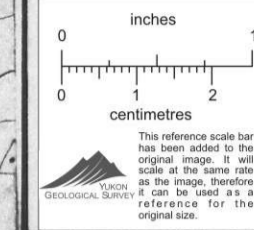
- soil
- silt
- x rock

ANALYSIS IN PPM

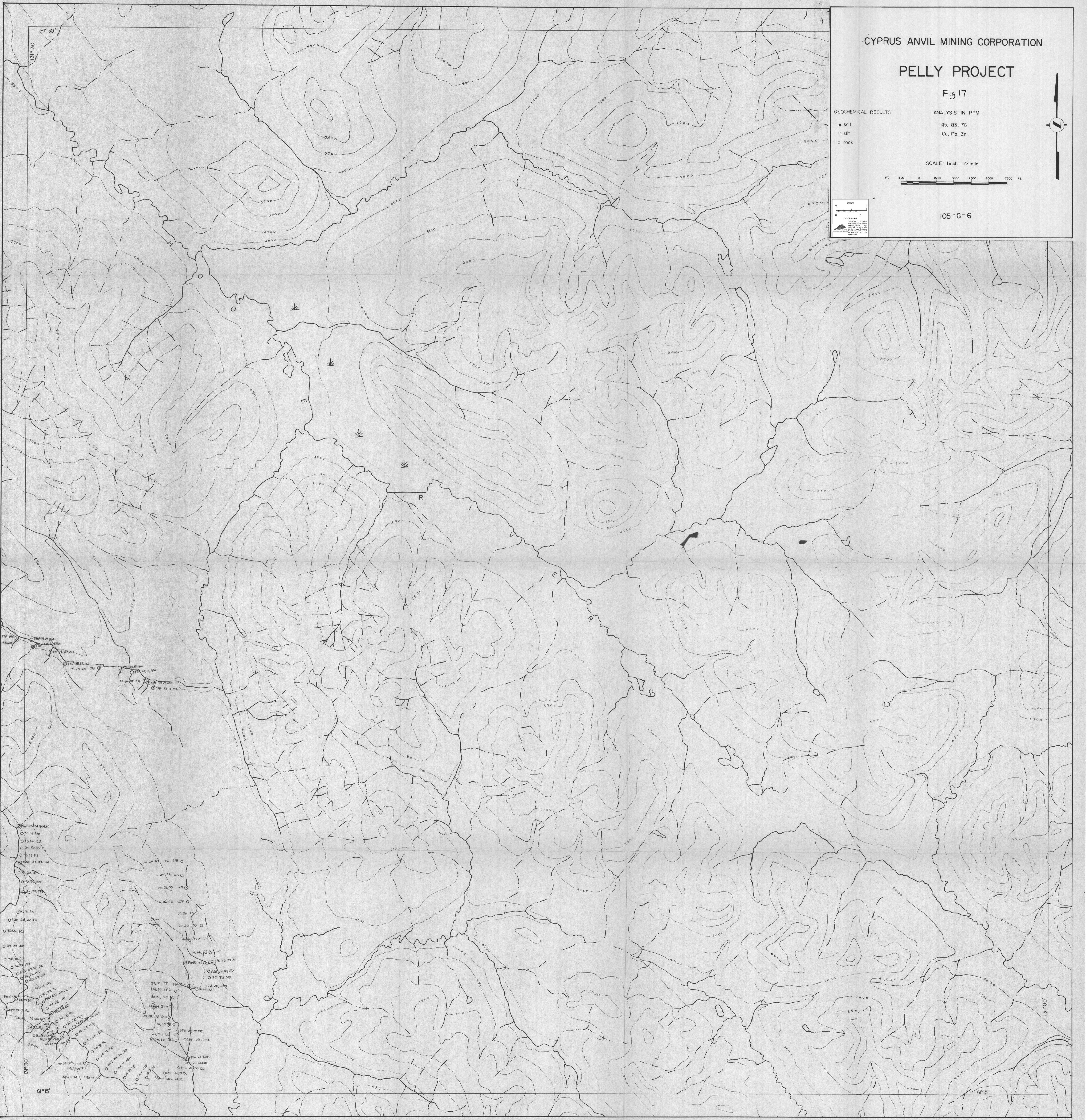
45, 83, 76
Cu, Pb, Zn

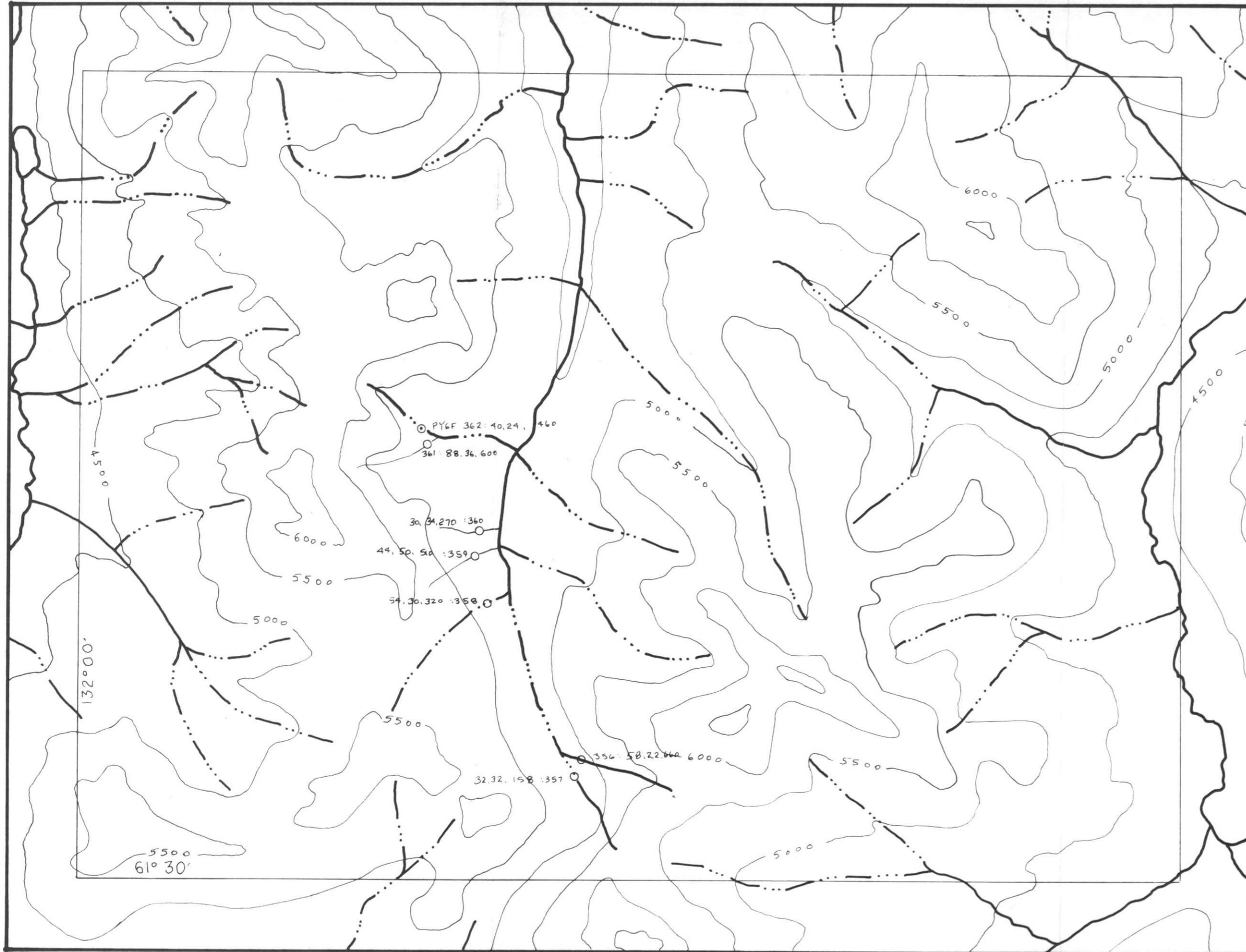
SCALE: 1 inch = 1/2 mile

0 1000 2000 3000 4000 5000 6000 7000 FT.



105-G-6





CYPRUS ANVIL MINING CORPORATION

PELLEY PROJECT

Fig 18

105G-12

GEOCHEM

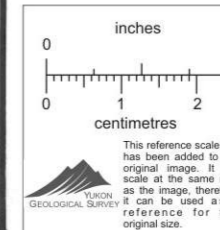
○ SILTS

1 INCH = 1/2 MILE



Dec 1976

H. J. H.



CYPRUS ANVIL MINING CORPORATION

PELLY PROJECT

Fig 19

GEOCHEMICAL RESULTS

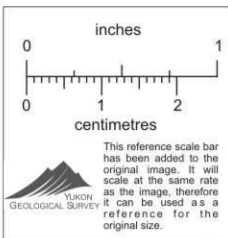
○ silt
● soil

ANALYSIS IN PPM

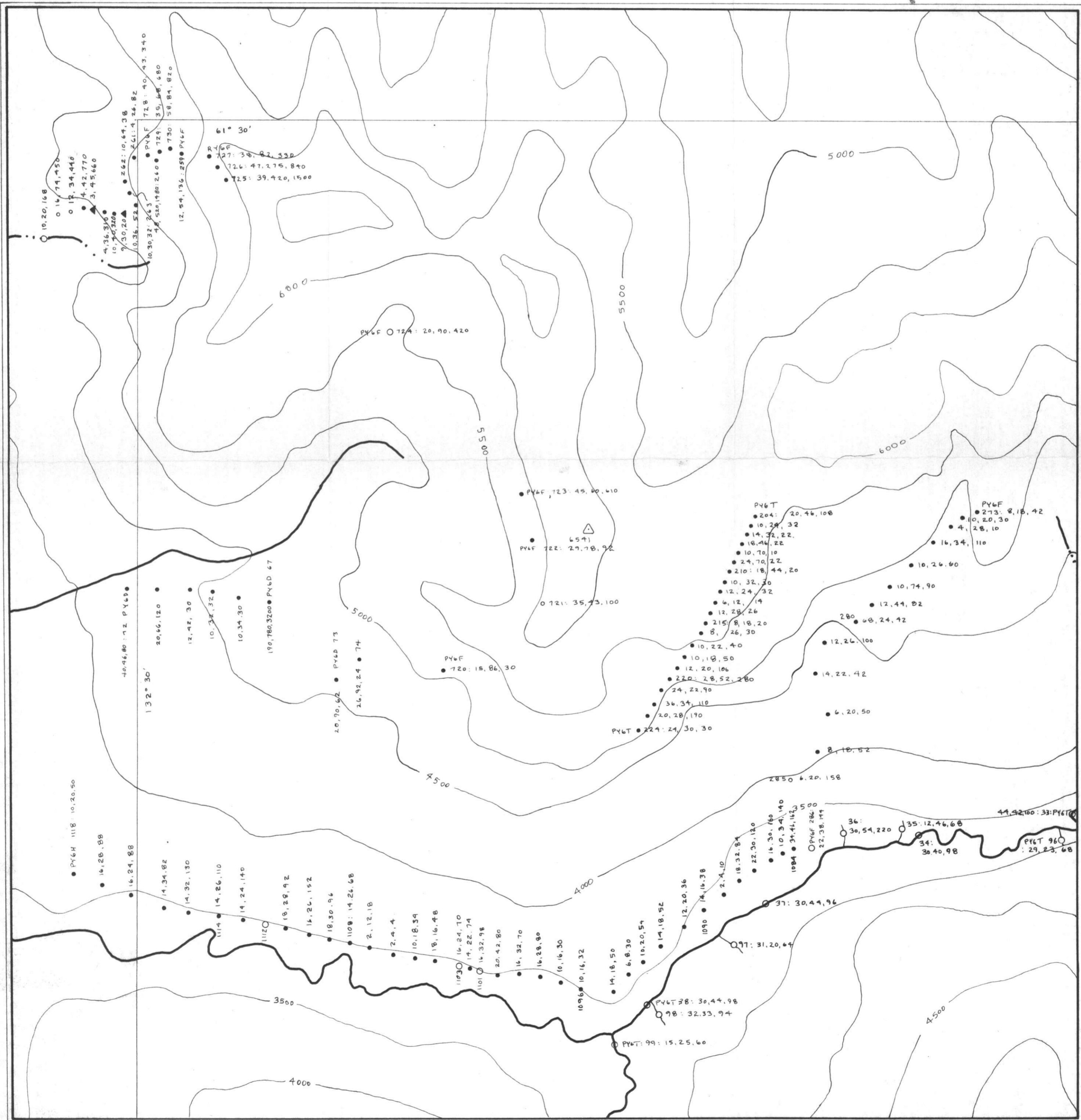
45, 67, 89
Cu, Pb, Zn

SCALE
1 inch = 1/4 mile

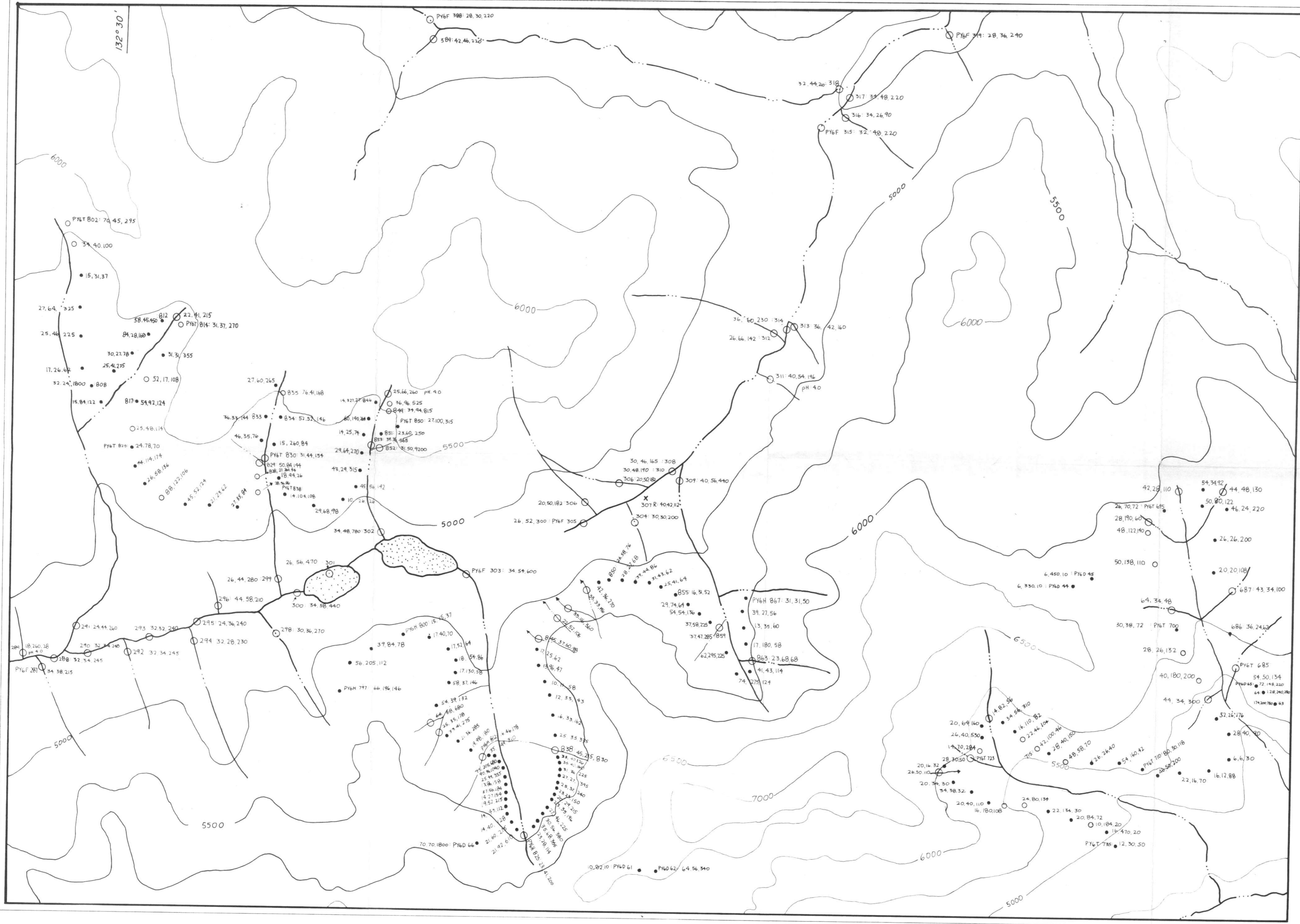
105-F-8



NOV. '76
M.R.F., H.J.H.



105F-8

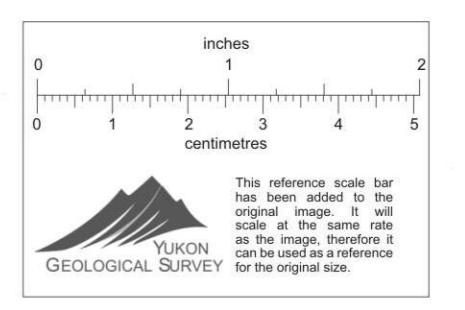


CYPRUS ANVIL
MINING CORPORATION
Fig 20
PELLY PROJECT

105-F-9A
DETAIL AREA

SCALE
1 inch = 1/4 mile

GEOCHEMICAL ANALYSIS
silt
seepage
soil
rock



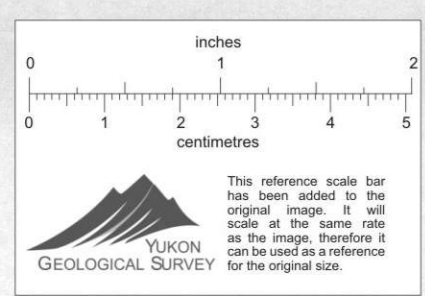


CYPRUS ANVIL MINING CORPORATION

PELLY PROJECT

Fig 21

COMPOSITE 105-F-9 & F-10
DETAIL AREA



SCALE: 1 inch = 1/4 mile

GEOCHEMICAL ANALYSIS:

- silt
- soil
- ✕ rock



MCCONNELL RIVER

MINO CLAIMS



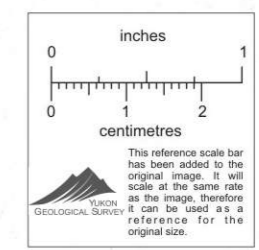
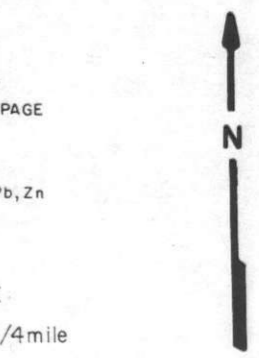
CYPRUS ANVIL
MINING CORPORATION
Fig 22
PELLY PROJECT

NTS: 105-F-10a

SEAGULL VALLEY DETAIL AREA

- SILT
 - SOIL
 - SEEPAGE
- Cu, Pb, Zn

SCALE
1" = 1/4 mile

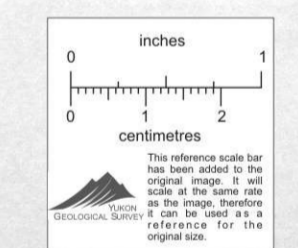


CYPRUS ANVIL
MINING CORPORATION
PELLY PROJECT
Fig 23
105-F-10 b
SEAGULL VALLEY DETAIL AREA

SCALE 1 inch = 1/4 mile

GEOCHEMICAL RESULTS
○ silt
● seepage
* soil
x rock

ANALYSIS IN PPM
45, 67, 89
Cu, Pb, Zn



NGV/76



CYPRUS ANVIL MINING CORPORATION

PELLEY PROJECT

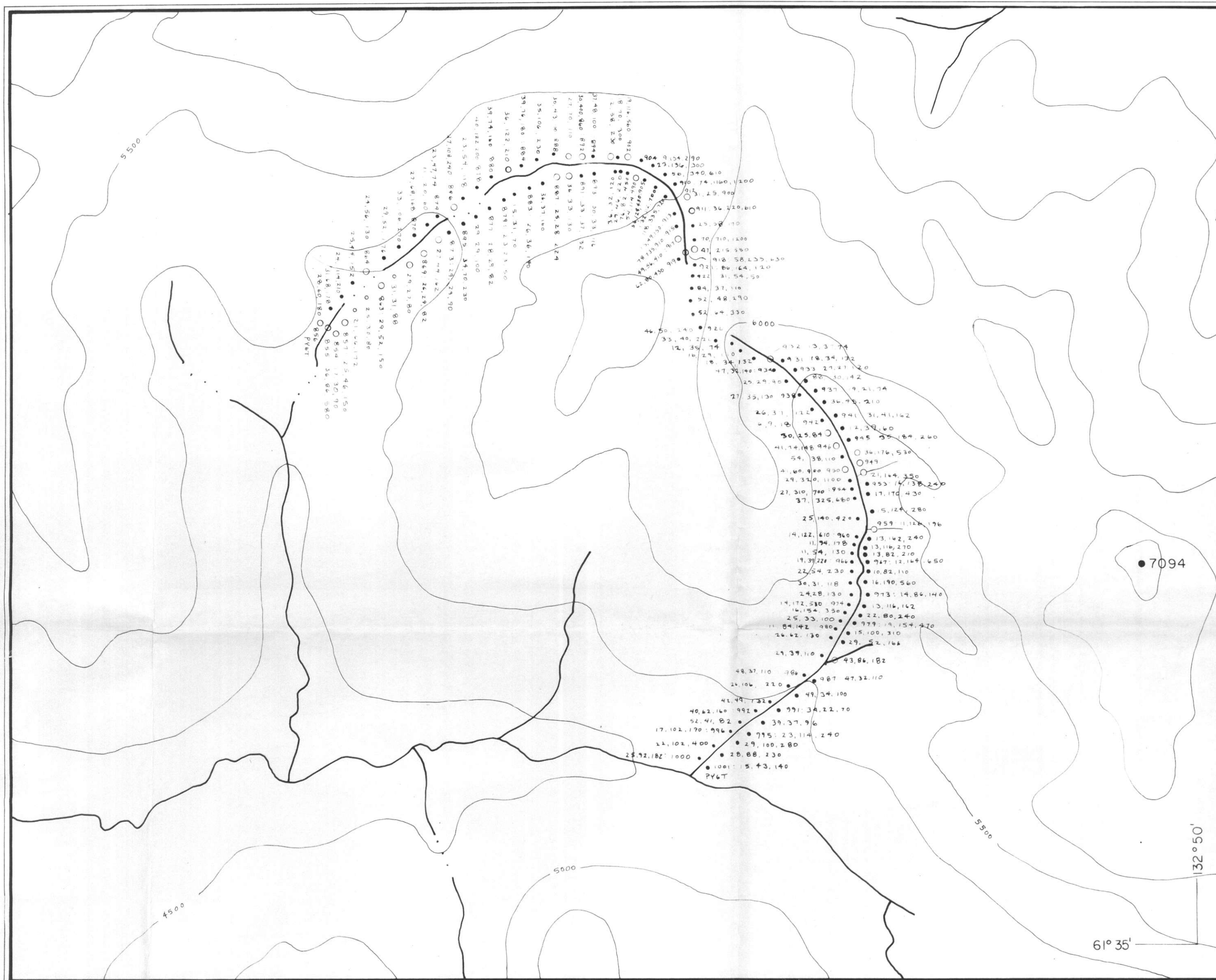
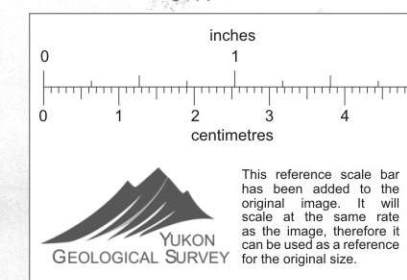
Fig 24

PASS PEAK
DETAIL AREA
105-F-10 c

1 inch = 1/4 mile

soil •

silt ○



CYPRUS ANVIL MINING CORPORATION

PELLEY PROJECT

Fig 25

DETAIL AREA

105-G-5a

SCALE: 1 inch=1/4 mi.

• SOIL

○ SILT

