



**WELCOME NORTH MINES LTD. (N.P.L.)**  
1027 - 470 Granville St., Vancouver, B.C. V6C 1V5 Telephone (604) 687-1658

VANGORDA PROJECT



GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT

ON THE

WYNNE 1 - 42 CLAIM GROUP

LATITUDE 62°23'N

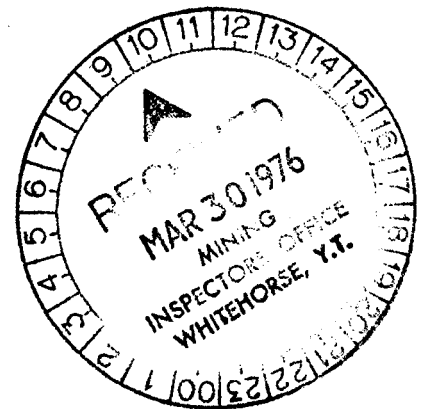
LONGITUDE 133°02'W

N.T.S. 105K-6

WHITEHORSE MINING DISTRICT  
YUKON TERRITORY

During the Period July 1 - Aug. 29, 1975.

by  
F. Foster  
and  
J.S. Brock



February 28, 1976.

061489

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

\$ 16,800

16,800

*W.D. Sinclair*

~~at~~ ~~Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

*[Signature]*

**K.R. BAXTER**  
Supervising Mining Recorder

~~at~~ Commissioner of Yukon Territory



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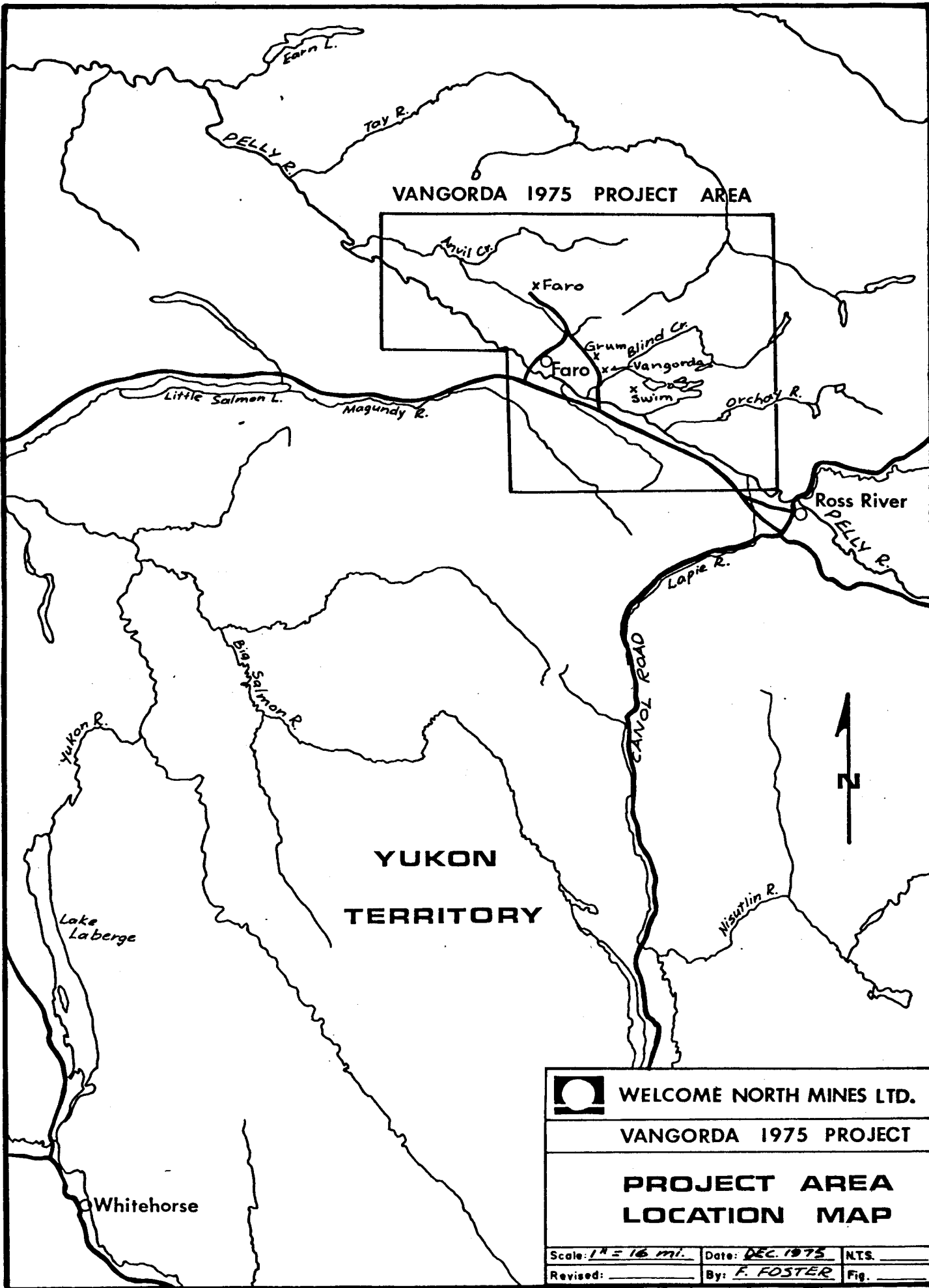
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**VANGORDA 1975 PROJECT AREA**

**YUKON  
TERRITORY**

	<b>WELCOME NORTH MINES LTD.</b>	
	<b>VANGORDA 1975 PROJECT</b>	
<b>PROJECT AREA LOCATION MAP</b>		
Scale: 1" = 16 mi.	Date: <b>DEC. 1975</b>	NTS.
Revised: _____	By: <b>F. FOSTER</b>	Fig. _____

Whitehorse

## INTRODUCTION

The WYNNE 1-36 claims were staked by Welcome North Mines in February, 1975, and the WYNNE 37-42 claims were later tied on in December, 1975. The property was located over what was considered to be a favourable geologic environment for Anvil-Vangorda type massive sulphide deposits.

The WYNNE 1-36 claims were subsequently joint ventured to Getty Mining Pacific Ltd. in March, 1975 as part of the Vangorda 1975 Project. Under the joint venture agreement, Getty Mining Pacific currently holds a 60 percent working interest in the property, with Welcome North as partner with a 40 percent carried interest. The WYNNE 37-42 claims were staked later in the year under this joint venture agreement.

Welcome North, as operator, during the period July 1, 1975 to August 29, 1975 carried out an exploration program consisting of geological mapping, soil and silt geochemistry surveys and electromagnetic and magnetic surveys.

MINERAL CLAIMS

The WYNNE 1-42 claim group consists of the following 42 contiguous mineral claims located in the Whitehorse Mining District of the Yukon Territory (see Fig. 1).

<u>CLAIMS</u>	<u>GRANT NUMBERS</u>	<u>RECORDING DATE</u>
WYNNE 1-36	Y92748-Y92783	Feb. 24, 1975
WYNNE 37-42	YA4128-YA4133	Dec. 8, 1975

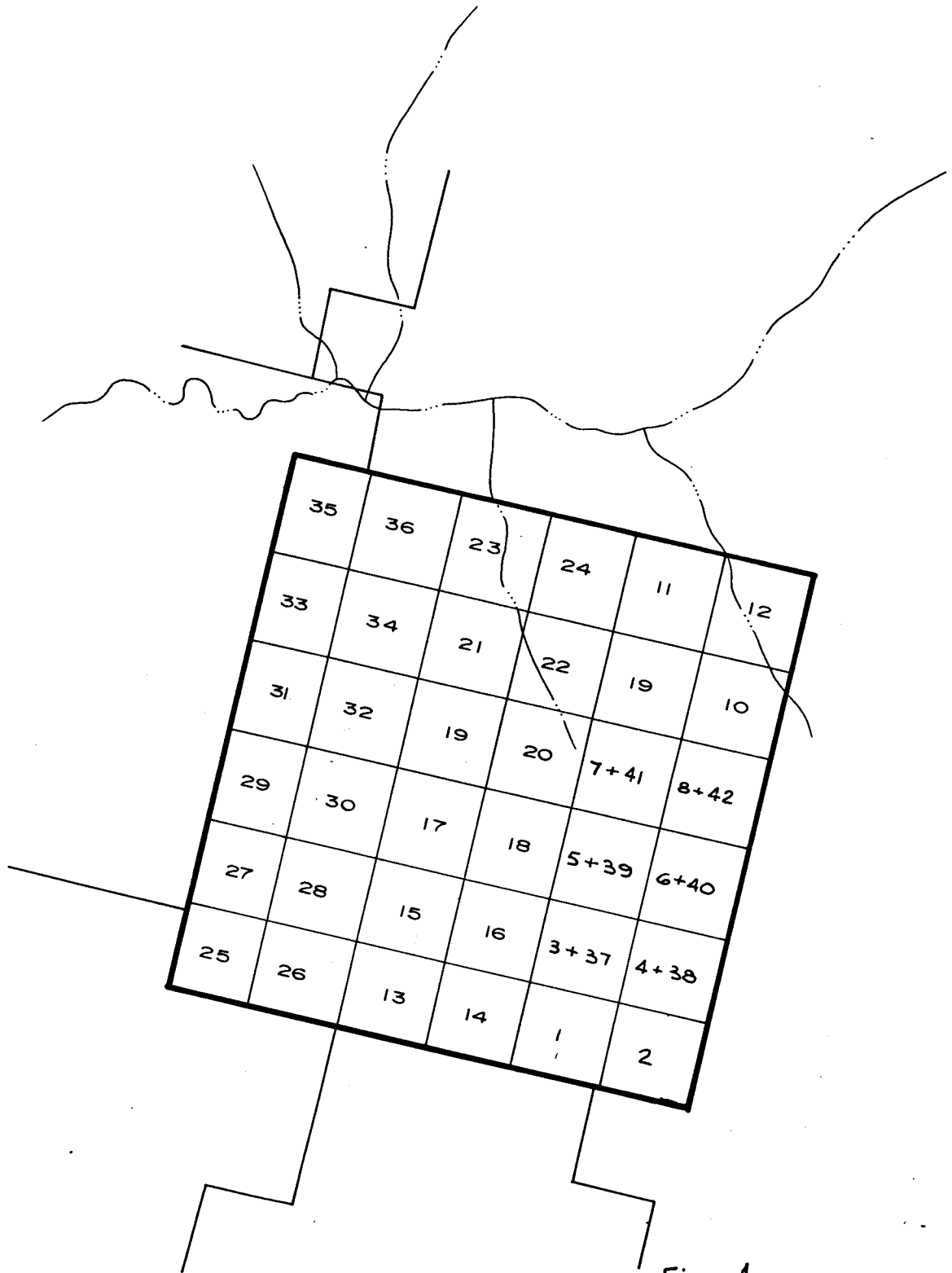


Fig. 1  
VANGORDA 75 PROJECT  
WELCOME NORTH/  
GETTY MINING PACIFIC  
WYNNE 1-42  
105-K-6



## SUMMARY AND CONCLUSIONS

The WYNNE claim group, situated on the northern limb of the Anvil Anticlinorium, is of geologic interest because it is underlain by northerly dipping schists of Unit (1c), calc-silicate gneisses of Unit (2a), phyllites of Unit (3a), and graphitic and bleached phyllites of Unit (3b), the specific horizon containing the Grum-Vangorda type massive sulphides.

Geophysical surveys carried out on the property have delineated a coincident magnetic-electromagnetic, east-west striking, anomalous zone of broad areal extent which is situated over graphitic and bleached phyllites of Unit (3b) in the central regions of the property.

Geochemical surveys conducted over the property have delineated a 4000 x 1200 foot, east-west trending zone anomalous in lead and zinc situated downslope from the large coincident magnetic-electromagnetic anomaly previously mentioned.

The presence of such a strong geophysical anomaly in close proximity with an extensive geochemical anomaly warrants consideration of this claim group as a high priority target area. Further detailed geological mapping and geophysical surveys consisting of gravity surveying and Turam electromagnetic surveying should be carried out prior to diamond drilling such that specific drill hole targets can be better delineated within the presently documented anomalous zones.

### LOCATION AND ACCESS

The Wynne 1-42 claims are located in the Whitehorse Mining District of the Yukon Territory (N.T.S. 105K-6) at latitude  $62^{\circ}23'N$ , and longitude  $133^{\circ}02'W$ , 125 miles northeast of Whitehorse, Yukon Territory and 13 miles northeast of the town of Faro, Yukon Territory (see Figure 2).

Access to the property can be gained by helicopter from Faro or from the Anvil mine site situated 12 miles west of the property in Rose Creek valley.

The property is located at an elevation of 5000 feet on the north end of a NNE trending ridge five miles north of Mt. Mye. Two-thirds of the property lies above treeline on gently rolling slopes vegetated with buckbrush in their lowermost extremities. Three shallow northerly trending ravines located in the central area of the property expose abundant outcrop along with a large bluff located in the southeast corner of the property. In the western portion of the property outcrop is exposed by local breaks in slope. Below treeline outcrop is scarce and generally restricted to stream cuts.



WELCOME NORTH MINES LTD.

VANGORDA 1975 PROJECT

PROPERTY LOCATION MAP

WYNNE CLAIMS 1-42

Scale 1" = 10 mi

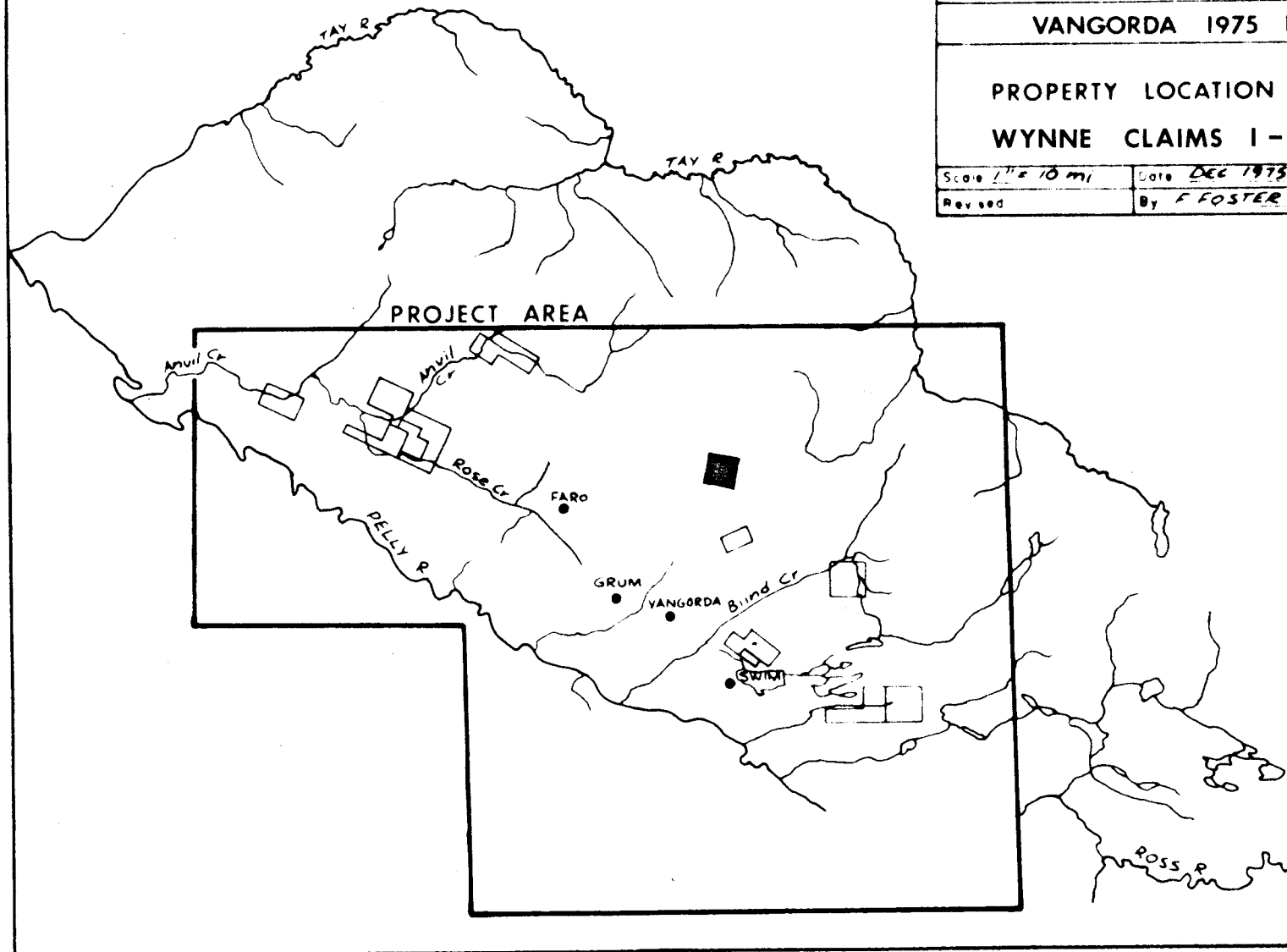
Date DEC 1975

NTS 054

Revised

By F FOSTER

Fig 2



## REGIONAL GEOLOGY

The Anvil District, as outlined in Fig. 3, lies immediately northeast of the Tintina Trench, the probable locus of a major zone of northwest-southeast transcurrent faulting.

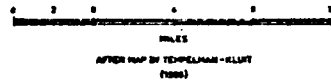
The central part of the district is formed by the Anvil Range, the dominating structure being a doubly plunging arch-like feature around the Anvil batholith. The core of the Anvil Range is underlain by granitic rocks for which potassium-argon age determinations suggest an age of 80 - 90 million years. The Anvil Arch is flanked on the southwest and northeast by phyllites, calc-silicate gneisses and schistose rocks thought to be of Cambrian (?) to Ordovician age; these metasediments which have undergone at least three phases of deformation are host to the known massive sulphide deposits of Faro, Vangorda, Grum and Swim.

The schistose quartz rich host rocks of the Faro sulphide deposits are confined to the lower part of a unit of muscovite-biotite schist whose lower sections are sometimes graphitic. Small greenstone lenses are often found in the upper part of this sequence. This section constitutes the lower member of a 6,000 foot thick sequence of biotite-muscovite schist, calc-silicate gneiss and skarn, phyllite, chloritic greenstone bodies, and tuffaceous phyllite.

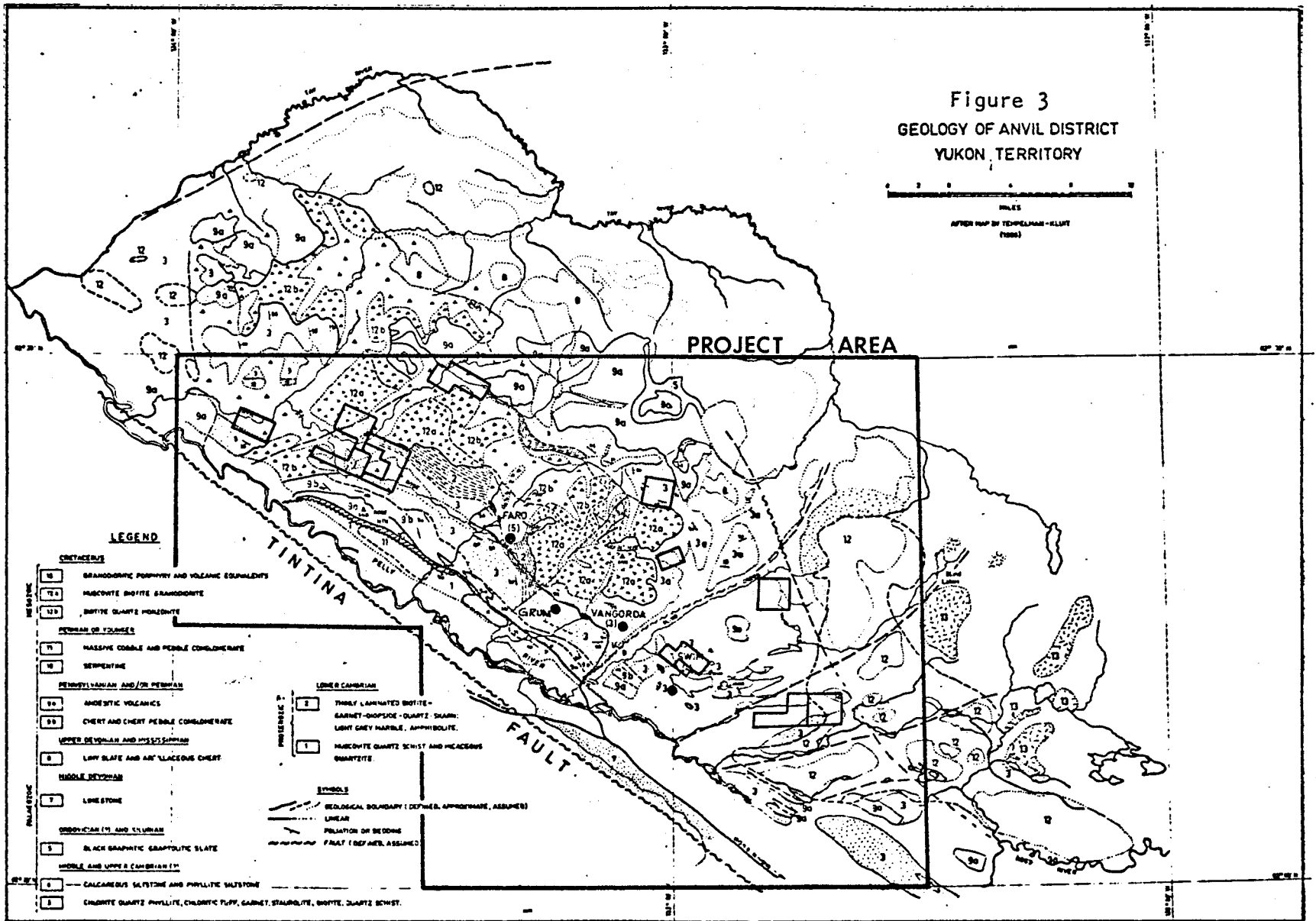
The phyllitic host rocks of the Grum, Vangorda and Swim sulphide deposits are confined to graphitic quartz-rich sections of phyllite situated close to relic volcanic complexes of greenstone, chloritic phyllite, limestone, and pyroxenite in the lower part of an estimated 3,000 foot thick unit of phyllite. The phyllite unit is separated from the lower schist unit in many areas by thick sections of calc-silicate gneiss.

The sulphide bodies of the Anvil district are tabular and lie in the plane of the crenulation foliation developed during the first phase of deformation. Their long axes coincide with the intersection of primary and secondary foliation. The sulphide deposits appear to have been only slightly affected by the regional metamorphism of phyllite host rocks.

Figure 3  
GEOLOGY OF ANVIL DISTRICT  
YUKON TERRITORY



PROJECT AREA



However, a distinct average grain size increase from the Swim northwest to the Faro deposits reflects a thermal metamorphic gradient caused by the intrusion of the Anvil Batholith. The base metals have been introduced into the phyllite prior to its metamorphism and deformation.

It appears that two units, the pelitic schists and phyllites, are host rocks for the four economically important sulphide masses and are also host to several smaller, presently non-economic deposits in the area.

Chloritic tuffaceous greenstone outcrops are close to all four deposits but are nowhere immediately against ore. Graphite is present in host rocks around all four deposits, but it is far more prevalent around the Swim body than near the Vangorda, Grum or Faro deposits.

A description of the rocks that make up the stratigraphic section of the Anvil Arch, and their tentative ages is listed on the following page. The description has been taken from Templemen-Kluit (1968) and modified by field observations and by information obtained from Cyprus-Anvil Mining Company.

ERA	PERIOD OR EPOCH	FORMATION	MAP UNIT	LITHOLOGY	
Cenozoic	Tertiary		14b	Rhyolitic tuff	
			14a	Quartz-feldspar porphyry	
RELATIONS NOT KNOWN					
Mesozoic	Cretaceous or Tertiary		13	Saussuritized porphyritic hornblende diorite	
			INTRUSIVE INTO UNITS 2, 3, AND 11		
	Age unknown		12b	Hornblende diorite, gabbro	
			12a	Pyroxenite, sometimes cataclastic and serpentinized	
	INTRUSIVE INTO UNITS 2 AND 3				
	Cretaceous	Anvil Batholith	11	Porphyritic biotite-quartz monzonite and granodiorite; muscovite-biotite granodiorite; foliated equivalents	
INTRUSIVE INTO UNITS 2, 3, AND 8					
Lower or Middle Triassic		10	Massive, well indurated cobble and pebble conglomerate with fragments of mica quartz schist (Unit 1), basalt (Unit 8), chert (Unit 8a), limestone (Unit 8c) and serpentinite (Unit 9); brown sandstone slate and argillaceous limestone		
Upper Permian or Lower Triassic		9	Serpentinite and serpentinized peridotite		
FAULT BOUNDED					
Paleozoic	Upper Permian	Anvil	8c	Light grey, massive resistant recrystallized limestone	
	Lower Permian	Range	8b	Massive green basalt, commonly amygdaloidal, includes common pyroclastic and less common pillowed varieties, metamorphosed equivalents near granitic bodies	
	Lower Permian and Upper Permian	Group	8a	Greenish grey, pale green and brick red argillaceous and tuffaceous chert	
	UNCONFORMABLE ON UNITS 3, 4, 5, 6, 7				
	Upper Devonian		7	Grey slate, chert, greywacke, chert pebble pebble conglomerate and limestone	
	UNCONFORMABLE ON UNITS 3 AND 4				
	Middle Devonian		6	Limestone and dolomite	
	Silurian and Devonian		5	Light grey, medium bedded, medium-grained orthoquartzite	
	CONFORMABLE				
	Middle Ordovician Lower Silurian		4	Dark grey and black graptolitic slate, minor thin-bedded black chert	
UNCONFORMABLE ?					
Ordovician-Silurian			3d	Rhyolitic quartz-feldspar porphyry, sometimes pyritic	
			3c	Medium green foliated actinolite schist, andesitic greenstone, foliated fine grained amphibolite, amygdaloidal chlorite phyllite	
			3b	Sulphide horizon; muscovite phyllite and quartzite, siliceous graphitic phyllite, massive and banded pyrite and pyrrhotite	
			3a	Dark grey biotite-chlorite schist and phyllite, medium greenish grey lustrous chlorite-muscovite-quartz phyllite, locally calcareous or graphitic	
GRADATIONAL CONTACT					
Cambro-Ordovician			2b	Foliated amphibolite, pale green chloritic phyllite, greenstone, chlorite	
			2a	Calc-silicate schist, phyllite, and gneiss with interbanded biotite and calc-silicate rich layers, can contain 2b	
GRADATIONAL CONTACT					
Cambrian			1d	Chloritic schist and phyllite, and greenstone	
			1c	Muscovite schist, muscovite-biotite schist, muscovite-andalusite schist + graphite, biotite-andalusite-muscovite schist + garnet and staurolite, graphitic schist	
			1b	Faro sulphide horizon, muscovite quartzite + sulphides, massive and banded pyrite and pyrrhotite	
			1a	Quartz-feldspathic biotite-muscovite schist and gneiss, in part bleached and hornfelsed	

TABLE 1 LITHOLOGIC SECTION, ANVIL DISTRICT

## PREVIOUS WORK

The X claims, presently restaked in the north as the WYNNE 1-42 claims, were staked in March, 1966 by Action Explorations Ltd. at the same time the FALCON claims adjoining on the north were staked by Malta Mines Ltd. Both companies flew airborne EM and magnetometer surveys over the ground and Action Explorations Ltd. carried out geochemical surveys and geological mapping in the same year.

The BIN claims, just east of the WYNNE claims, were staked in late 1965 by Jaye Explorations Ltd. who tied on the EXTRA claims and LAMB claims early in 1966 and carried out airborne magnetometer and EM surveys, geochemical surveys, and geological mapping prior to the drilling of 4 holes (2521 feet) in the same year.

The BIN claims were restaked in April, 1974 as the FAT claims by Ridgemont Mining Corp. Ltd. (Cyprus) who carried out magnetometer, Turam electromagnetic and gravity surveys later in the year.

To the west of the WYNNE claims, Giant Yellowknife Mines Ltd. staked the AC and JET claims in March, 1966. The company flew airborne magnetometer and EM surveys and conducted geological mapping and geochemical surveys over the claims in 1966. The eastern portion of the JET claims was restaked by Mercury Explorations Ltd. in September, 1968 as the ZAN claims which, at present, adjoin the WYNNE claims on the west. Mercury Explorations conducted extensive gravity surveys in 1969 before forming a joint venture with Giant Yellowknife Mines Ltd. and Kangaroo Explorations Ltd. (a subsidiary of Cyprus). Kangaroo carried out additional I.P. and geochemistry surveys and drilled 1948 feet in 3 holes in 1970. Kangaroo conducted reconnaissance mapping, soil sampling, and more detailed geological mapping prior to diamond drilling (2000 feet in 3 holes) in 1973.

The TAF claims, adjoining the WYNNE claims on the south, were staked over the southern half of the old X claims in 1971 by Kangaroo Explorations Ltd., who conducted geological mapping and geochemical surveys in the same year.

## GEOLOGY

The WYNNE claims are situated in an area thinly blanketed with overburden which exhibits abundant outcrop and subcrop. Limited mapping carried out on the claim group by Welcome North personnel during the summer of 1975 further substantiated results from a previous geological survey carried out by Action Explorations in 1966. The property lies on the north limb of the Anvil Anticlinorium and is underlain by gently northerly dipping biotite-muscovite-andalusite schists of Unit (1c) [see Table 1], calc-silicate gneisses of Unit (2a), biotite-muscovite phyllite of Unit (3a) and graphitic phyllite, suspected as being Unit (3b). These rocks onlap the Anvil batholith to the south of the claim group which separates them from similar rocks of the southern limb of the Anvil Anticlinorium.

### Lithology

Beginning at the bottom of the stratigraphic section (Table 1), Unit (1c) is situated mainly on the southern portion of the claim group (see Plate 6) where it is observed in outcrop as massive, brown to rusty weathering, coarse-grained to fine-grained biotite (20%)-muscovite (40%)-quartz (40%) schist. Locally the schist grades to andalusite-muscovite-quartz schist and lustrous grey biotite-quartz schist, both of which appear to be stratigraphically controlled. In the andalusite-muscovite-quartz schist large (up to 2 inches long) crystals of andalusite are observed lying in the  $S_2$  cleavage planes (see following section on structure) along which fine-grained muscovite is concentrated.

Restricted outcrops of quartzite and recrystallized, thinly banded limestone [Unit (2a)?] occur within Unit (1c) in the vicinity of station ON-15W. The limestone is tentatively mapped as Unit (2a), however it is not of the same character, being less siliceous than those limestones seen elsewhere in Unit (2a).

Unit (2a) is mapped on the property as a narrow belt of calc-silicate gneiss, lensoid in nature and no more than 400 feet wide. The belt is striking east-west, being truncated on its eastern limit by a small fault.

Unit (3a) covers the remaining northern three-quarters of the property and is composed of lustrous grey to dark grey biotite-muscovite-phyllite, the dark grey phyllite being a little coarser-grained and slightly schistose. At one isolated locality, station 30N-36E, large (1/4") crystals of pyrite, now altered to limonite, occur in thin (1/4") quartz bands parallel to the  $S_2$  schistosity in the phyllite. The recessive weathering nature of the limonite and abundance of these relict pyrite crystals over limited areas produces a "honey combed effect" in the phyllite outcrops.

Two lenses of Unit (3c) [of unknown strike length] and less than 100 feet thick are mapped in the central regions of the claim group. These volcanic greenstone lenses are composed of greenish-grey andesitic rock containing biotite and muscovite with a rusty alteration coating the grains of these two minerals.

A larger body of Unit (3c), exhibiting intrusive contact relationships, occurs to the west of lines 30N and 36N. This body may represent an old relic volcanic center, however further detailed mapping is required to substantiate this hypothesis.

A prominent zone of siliceous graphitic phyllite striking westerly across the property is mapped as Unit (3b) in the vicinity of lines 18N and 24N. In outcrop, this phyllite is black and sooty (depending on the carbon content) and, due to a strong degree of deformation, has rather friable weathering characteristics. Much of the silica is tied up in quartz veins occurring along very irregular hairline fractures.

Associated with this belt of graphitic phyllite is a narrow (less than 50 feet) discontinuous zone of bleached phyllite which occurs along the northern contact between the graphitic phyllite and the lustrous grey phyllite of Unit (3a). This zone becomes wider in the vicinity of 21N-30E where it is observed in outcrop and subcrop over a width of

75 feet. The bleached phyllite outcrops as pale, rusty-brown to orange coloured rock and, in thin-section, exhibits a composition of essentially quartz and muscovite (see Fig. 4 and 5) with trace amounts of opaque minerals.

The previously mentioned graphitic phyllite has been tentatively assigned to Unit (3b), the specific horizon for Vangorda-Grum type massive sulphides rather than Unit (3a), because of the close proximity of this bleached phyllite which has been found in direct association with all the known massive sulphide bodies present in the Anvil Range.

### Structure

Rocks underlying the property are affected by at least three and possibly four periods of deformation.

Three axial plane cleavages and related schistositities have been developed in the area. The cleavage and schistosity associated with the first period of deformation (called  $S_1$ ) has destroyed any bedding relationships in the rocks. This cleavage and schistosity is dominant near the crests of folds produced by the second period of deformation.

The second period of deformation is represented by a very strong axial plane cleavage and schistosity ( $S_2$ ) which pervades throughout the Anvil Range.  $S_2$  completely transposes  $S_1$  on the flanks of second deformation folds such that only remnants of  $S_1$  can be seen between major  $S_2$  surfaces but  $S_2$  is much less dominating over  $S_1$  at crests of these folds.

The third period of deformation is represented by a very weak cleavage and schistosity ( $S_3$ ) which is related to northeast trending folds that gently warp the  $S_2$  surfaces.

Intersections of  $S_1$ ,  $S_2$  and  $S_3$  produce crenulations which are best observed on phyllitic partings. Relationships can also be well observed in thin sections (see Fig. 4 and 5).

A fourth period of deformation which trends east-west has gently warped  $S_2$  surfaces creating an undulatory effect in the  $S_2$  schistosity.

Although further mapping is required for a more detailed analysis,

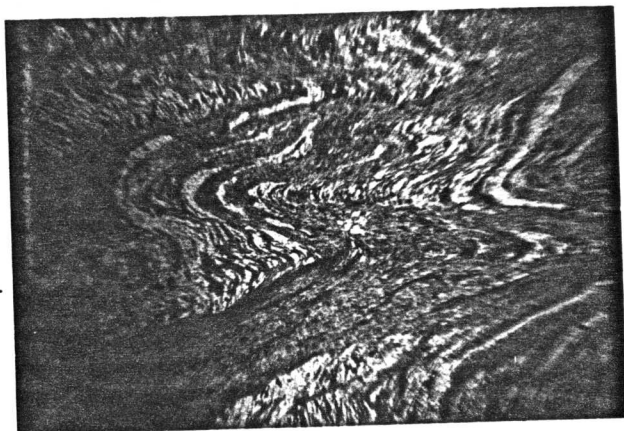


Fig. 4

.05 mm

Thin section of bleached muscovite-quartz phyllite showing folded mica trains representing  $S_1$  and major  $S_2$  cleavage planes just beginning to disrupt them. (Plain light)

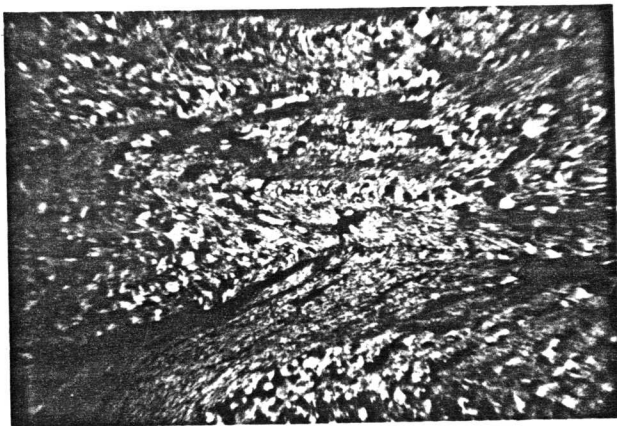


Fig. 5

.05 mm

Thin section of bleached muscovite-quartz phyllite showing folded mica trains representing  $S_1$  and major  $S_2$  cleavage planes just beginning to disrupt them. (Crossed nicols)

present information indicates that the  $S_2$  schistosity steepens in the southern portion of the property.

Several small (crest width less than 50 feet) folds have been mapped on the property, of which all but one are overturned to the north. Two of these folds, trending northwesterly and occurring in a small lens of volcanic greenstone, Unit (3c), located in the central regions of the property, are the product of the period of deformation associated with the  $S_2$  axial plane cleavage. Other folds, some documented by mapping and some not, trending almost due west, are the product of a fourth period of deformation which has, for the most part, gently warped  $S_2$  surfaces as previously mentioned. However the intensity of this deformation does vary over the property, as the  $S_2$  axial plane cleavage has been folded into an overturned anticline just south of the graphitic belt in grey-green phyllite of Unit (3a).

Preliminary mapping data combined with interpreted results from geophysical data suggest that there may be a large east-west trending anticlinal fold axis existing in the area between lines 12N and 24N which has dragged up the graphitic phyllite, Unit (3b), such that it would be exposed in its present manner. However, future mapping will better substantiate this hypothesis.

Faulting on the property is evident, as seen in Plate 6, however the extent of faulting cannot be accurately ascertained until further mapping is completed.

LINE CUTTING

Line cutting was carried out on the property by line cutters of Eastern Associates, hired on a contractual basis from Whitehorse. The grid system consists of a base line and tie line, each 9,000 feet long, trending at  $15^{\circ}$  with perpendicular crosslines spaced 600 feet apart along the base line and tie line. Survey control was maintained by picket and chain methods with periodic line bearing checks by Sylva compass. Picket stations were established on the cross lines at 100-foot intervals.

A total of 19.6 miles of line were cut on the property (see Fig. 6).

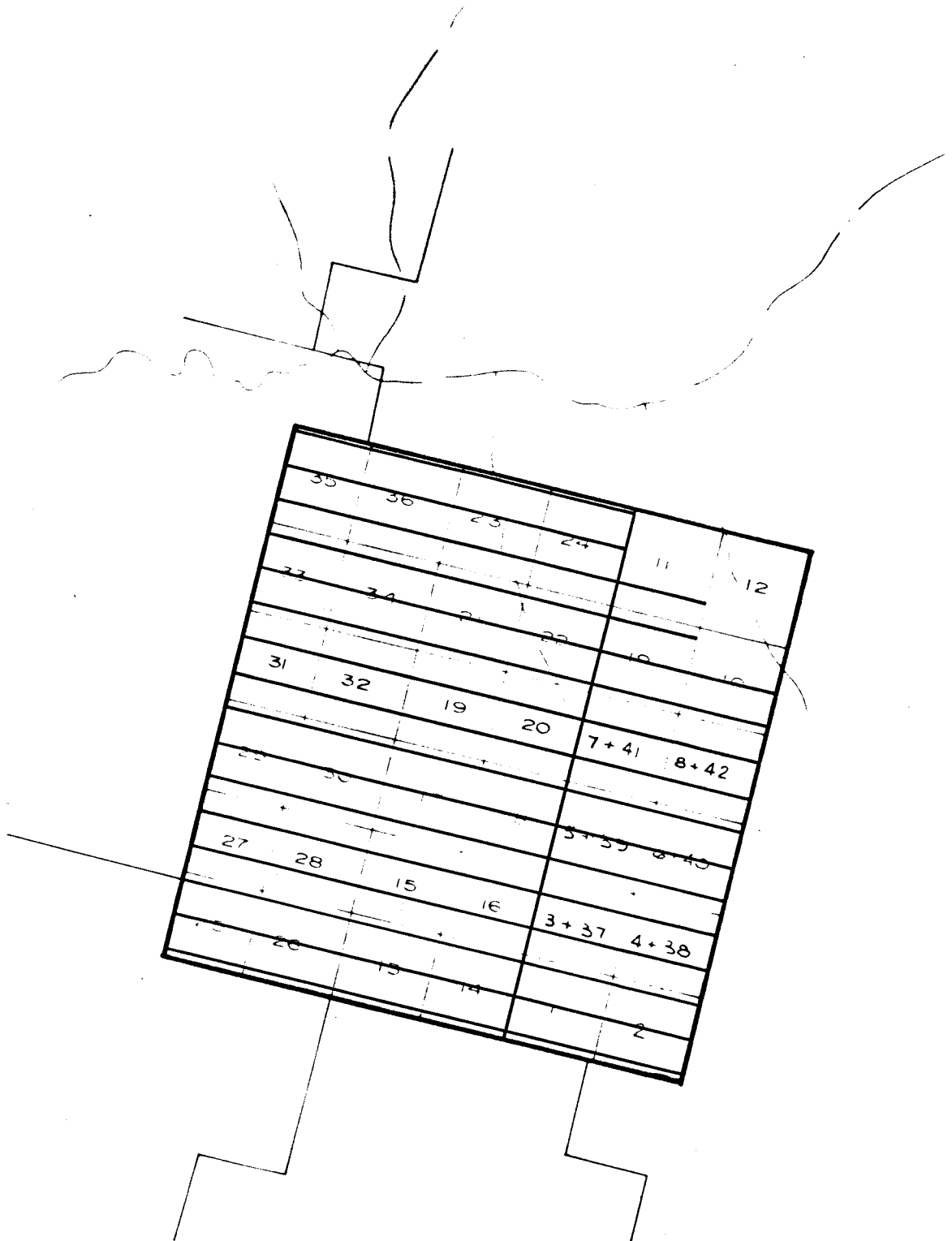


Fig. 6  
VANGORDA 75 PROJECT  
WELCOME NORTH/  
GETTY MINING PACIFIC  
WYNNE I-42  
105-K-6



## GEOCHEMICAL SURVEYS

### 1. Method of Survey

After close study of geochemical evidence leading to the discovery of the Anvil massive sulphide deposit, it was decided to modify the geochemical sampling method to better adapt to the search for deep-seated sulphide deposits.

Sampling was confined to the base of slope contours, sidehill silt seepages, stream sediments and frost boils in order to tap possible drainage emergence from deep-seated sources.

Previous results from other 'grid controlled' geochemical surveys were available for review and revised interpretation.

All soil samples were obtained with a prospector's grub hoe, which was found adequate as a tool for cutting through heavy layers of organic material overlying the soil.

Certain areas determined as being anomalous in lead, zinc, and copper from previous surveys were further investigated with rock geochemistry to determine if the geochemical anomalies in soils were either in situ or transported. All geochemical samples were collected in Kraft brown paper bags and shipped for testing to Acme Analytical Laboratories in Ross River, Yukon.

### 2. Method of Analysis

All samples were analysed by Acme Analytical Laboratories Ltd. at Ross River. When the samples were received, each was dried while in its Kraft bag, then screened to 80 mesh, weighed out to 0.5 grams and digested in hot aqua regia. Rock samples were crushed and pulverized before undergoing this process. Samples were then diluted, clarified for 20 hours and then tested for copper, lead and zinc content on an

atomic absorption spectrophotometer. The 'AA' unit used was a Perkins Model 290 and accuracy of the instrument ideally is 1% of the amount of metal present. Individual cathode lamps were used for each element determination, a direct readout being given in parts per million of the element being tested.

### 3. Treatment of Data

All results of geochemical tests were returned to the field where results were plotted on field maps kept by the party chief for aid in carrying out preliminary follow up of anomalous areas while still in the field.

All results were grouped under soil, silt, rock analyses for each of Cu, Pb and Zn. Data for each of these categories was plotted later onto graphs of trace element quantity (ppm) versus cumulative percent.

A partitioning procedure (see A.J. Sinclair 1973) was used to separate two populations, one being anomalous and the other being background. The overlap of these two populations was determined and thresholds chosen arbitrarily to isolate three priority populations. The population of first priority consists of only anomalous values. Of second priority is a population consisting mainly of anomalous values and a small percentage of background values. Finally, of third priority is a population consisting only of background values. Where only two priority populations are shown, the partitioning procedure could not be applied or no overlap of populations existed.

Separate maps were prepared using a scale of 1" = 400', showing values obtained for copper, lead and zinc. Values were color coded to aid in distinguishing areas anomalous in copper, lead, and zinc.

#### 4. Interpretation of Results


Study of the statistical analysis for copper content in soils sampled during the 1975 season by the Vangorda project in the Anvil District reveals that an anomalous population whose threshold value is 41 ppm (arbitrarily chosen) overlaps with a lower background population as illustrated in Fig. 7. The overlap of these two populations, again arbitrarily chosen, occurs between 41 ppm and 55 ppm. Samples obtained with values in this range (41-55 ppm) are considered to be anomalous only if other samples collected in the immediate vicinity of these yield distinctly anomalous values; otherwise samples with values in the 41-55 ppm range are considered as samples in areas of high background geochemistry.

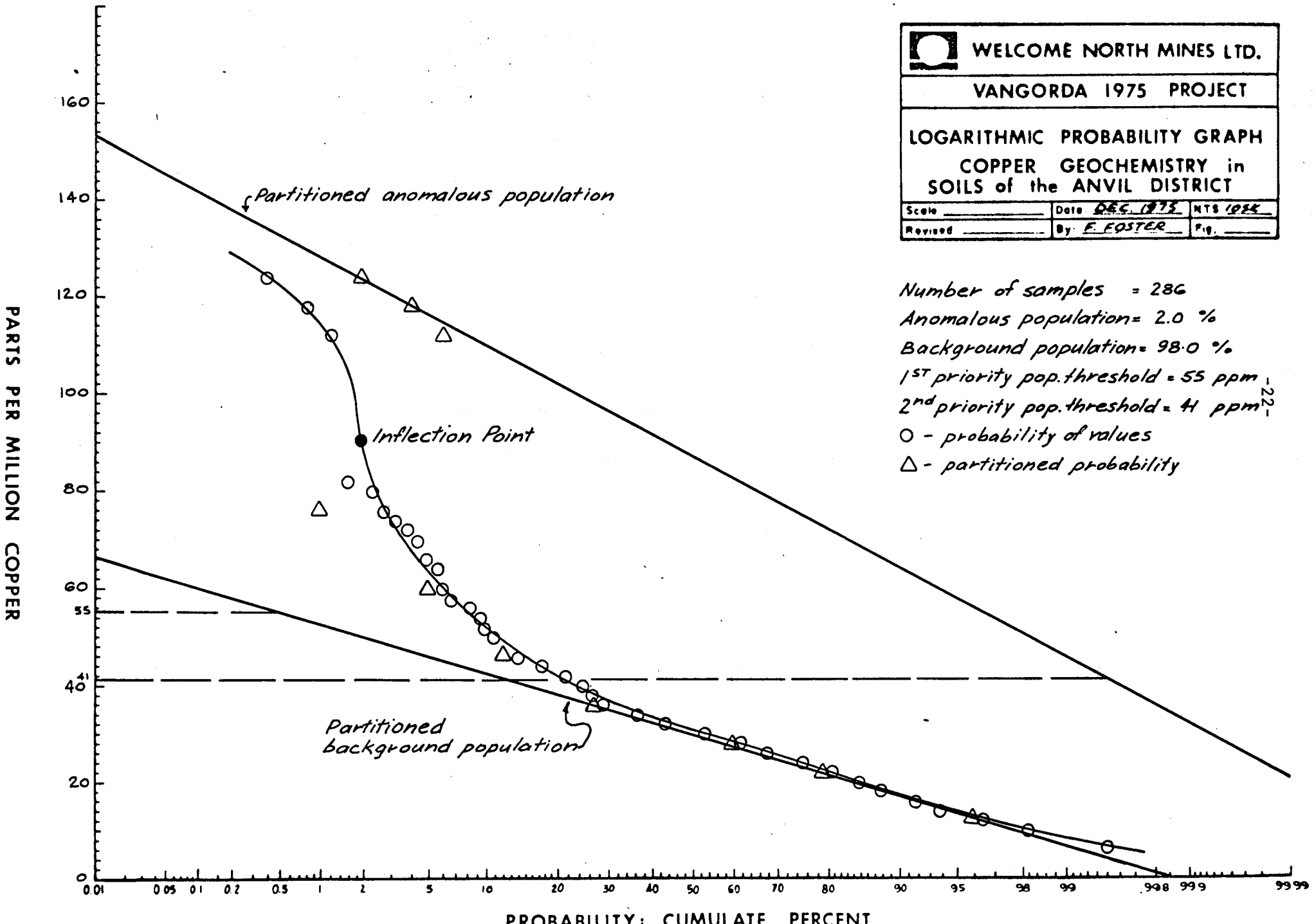
Inspection of the statistical analysis for copper content in silts sampled in the Anvil District (Fig. 8) reveals that three geochemical populations, such as those outlined above for copper in soils, exist and that the overlap between the anomalous and background populations ranges between 30 to 34 ppm.

Inspection of statistical analysis for lead content in soils (Fig. 9) reveals that as above three populations exist and that the overlap between the anomalous and background populations ranges between 38 to 49 ppm.

With reference to lead content in silts, the statistical analysis for this (Fig.10) reveals three populations exist such as described above for copper in soils and silts and lead in soils. Values greater than 34 ppm are anomalous, values in the range 26 to 33 ppm are either anomalous or high background, and values less than 25 ppm are background.


The statistical analysis for zinc content in soils (Fig. 11) shows three populations as well. Values greater than 100 ppm are anomalous, values in the range 90 to 100 ppm are either anomalous or high background, and the values less than 89 ppm are background.

 <b>WELCOME NORTH MINES LTD.</b>		
<b>VANGORDA 1975 PROJECT</b>		
<b>LOGARITHMIC PROBABILITY GRAPH</b> <b>COPPER GEOCHEMISTRY in</b> <b>SOILS of the ANVIL DISTRICT</b>		
Scale _____	Date <u>DEC. 1975</u>	NTS <u>1025</u>
Revised _____	By <u>F. FOSTER</u>	Fig. _____



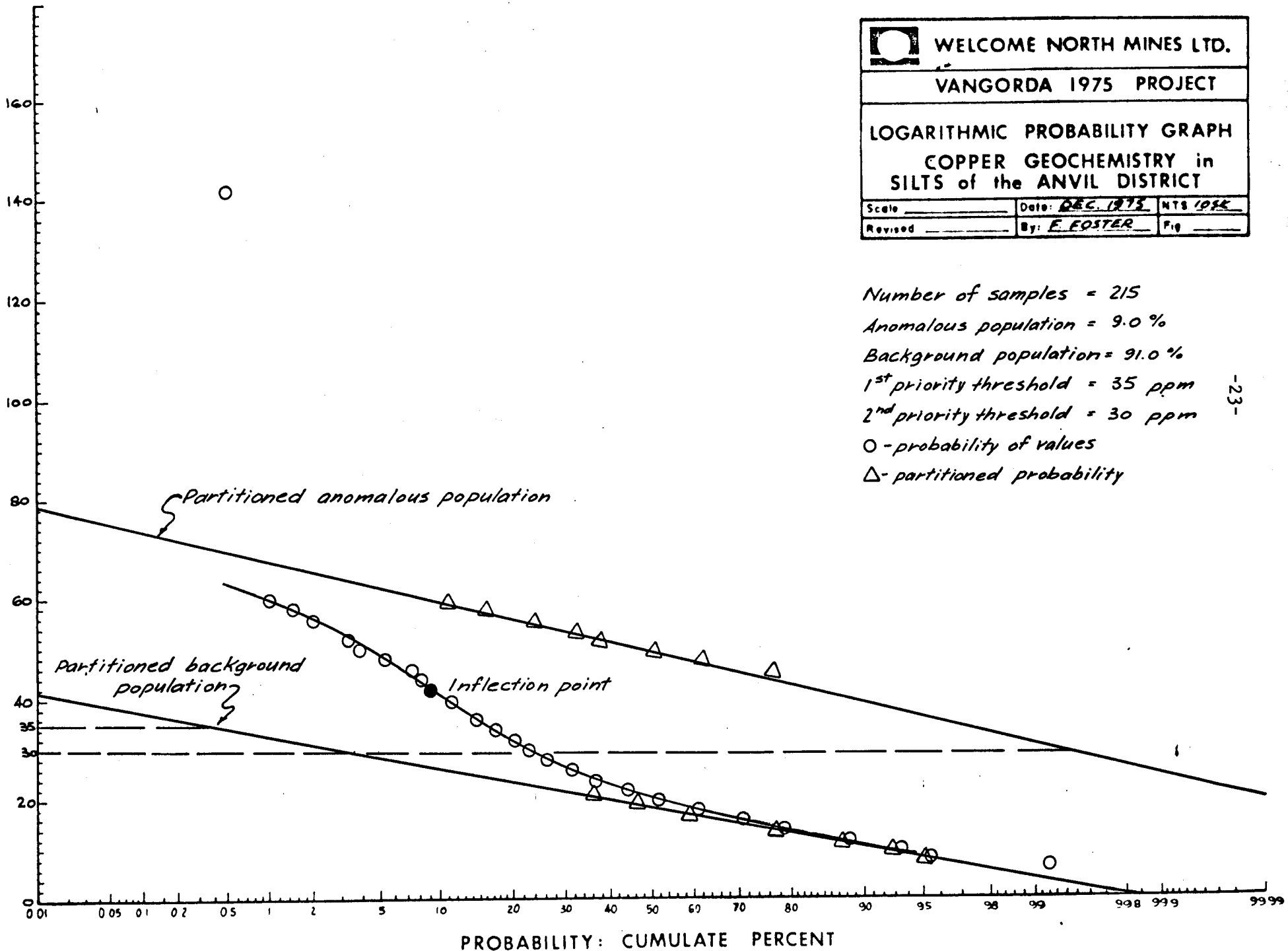
Number of samples = 286  
 Anomalous population = 2.0 %  
 Background population = 98.0 %  
 1<sup>st</sup> priority pop. threshold = 55 ppm  
 2<sup>nd</sup> priority pop. threshold = 41 ppm  
 ○ - probability of values  
 △ - partitioned probability


PARTS PER MILLION COPPER

 WELCOME NORTH MINES LTD.		
VANGORDA 1975 PROJECT		
LOGARITHMIC PROBABILITY GRAPH COPPER GEOCHEMISTRY in SILTS of the ANVIL DISTRICT		
Scale _____	Date: <u>DEC. 1975</u>	NTS <u>105K</u>
Revised _____	By: <u>E. FOSTER</u>	Fig _____

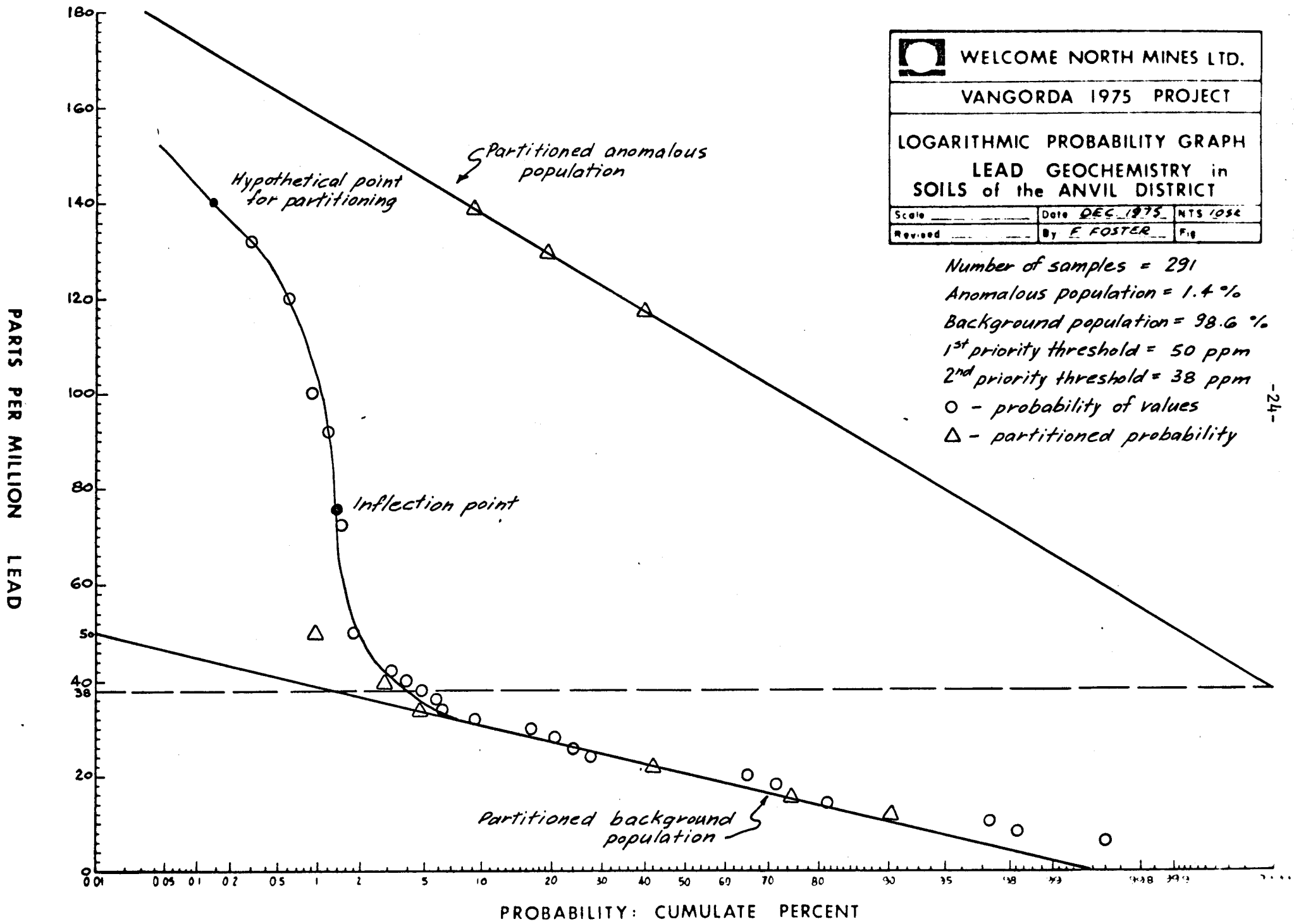
Number of samples = 215  
Anomalous population = 9.0 %  
Background population = 91.0 %  
1<sup>st</sup> priority threshold = 35 ppm  
2<sup>nd</sup> priority threshold = 30 ppm  
○ - probability of values  
△ - partitioned probability


-23-



 WELCOME NORTH MINES LTD.		
VANGORDA 1975 PROJECT		
LOGARITHMIC PROBABILITY GRAPH LEAD GEOCHEMISTRY in SOILS of the ANVIL DISTRICT		
Scale _____	Date <u>DEC 1975</u>	NTS <u>1054</u>
Revised _____	By <u>F. FOSTER</u>	Fig _____

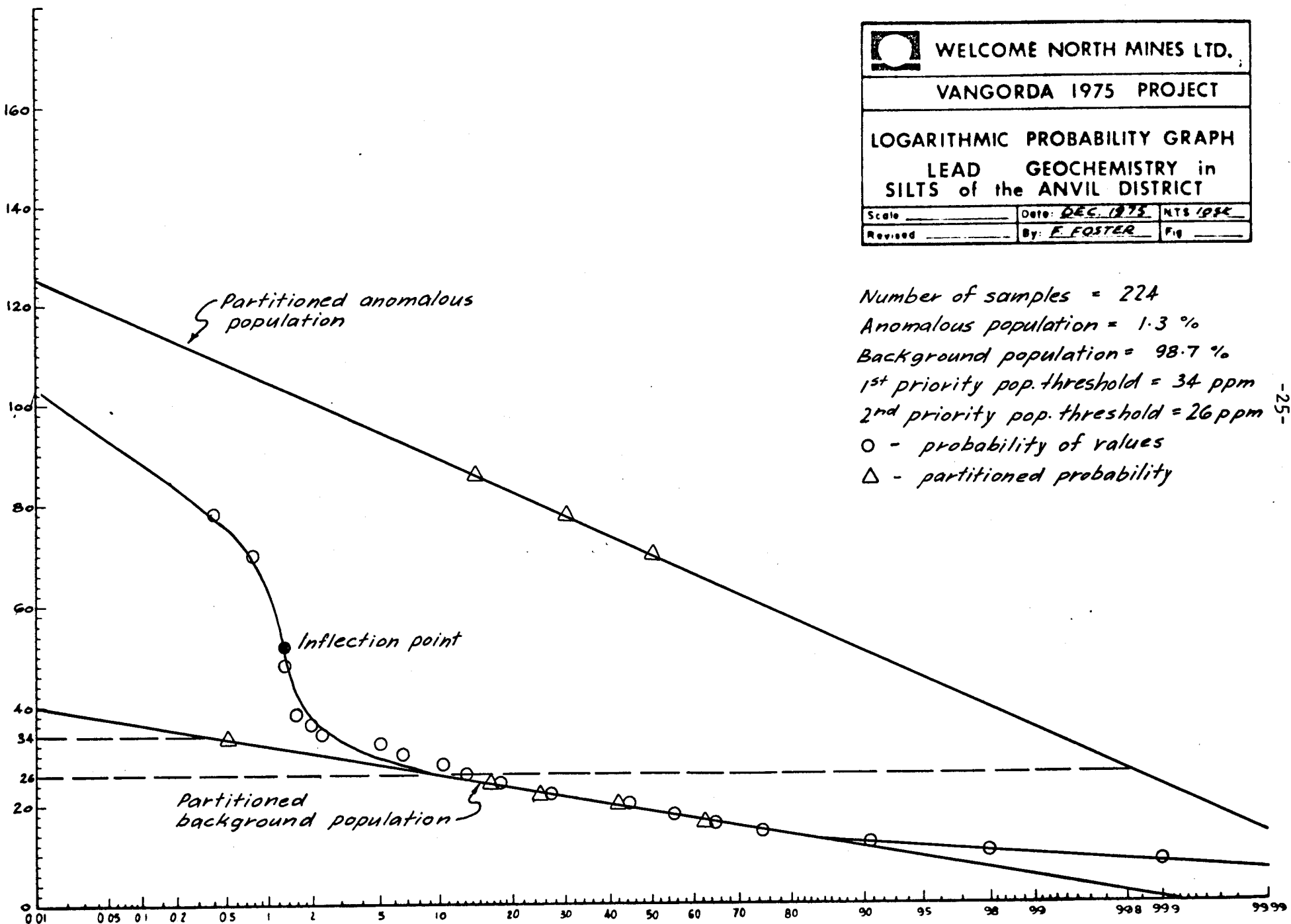
Number of samples = 291  
 Anomalous population = 1.4 %  
 Background population = 98.6 %  
 1<sup>st</sup> priority threshold = 50 ppm  
 2<sup>nd</sup> priority threshold = 38 ppm  
 ○ - probability of values  
 △ - partitioned probability




 <b>WELCOME NORTH MINES LTD.</b>		
<b>VANGORDA 1975 PROJECT</b>		
<b>LOGARITHMIC PROBABILITY GRAPH</b> <b>LEAD GEOCHEMISTRY in</b> <b>SILTS of the ANVIL DISTRICT</b>		
Scale _____	Date: <u>DEC. 1975</u>	NTS <u>100%</u>
Revised _____	By: <u>F. FOSTER</u>	Fig _____

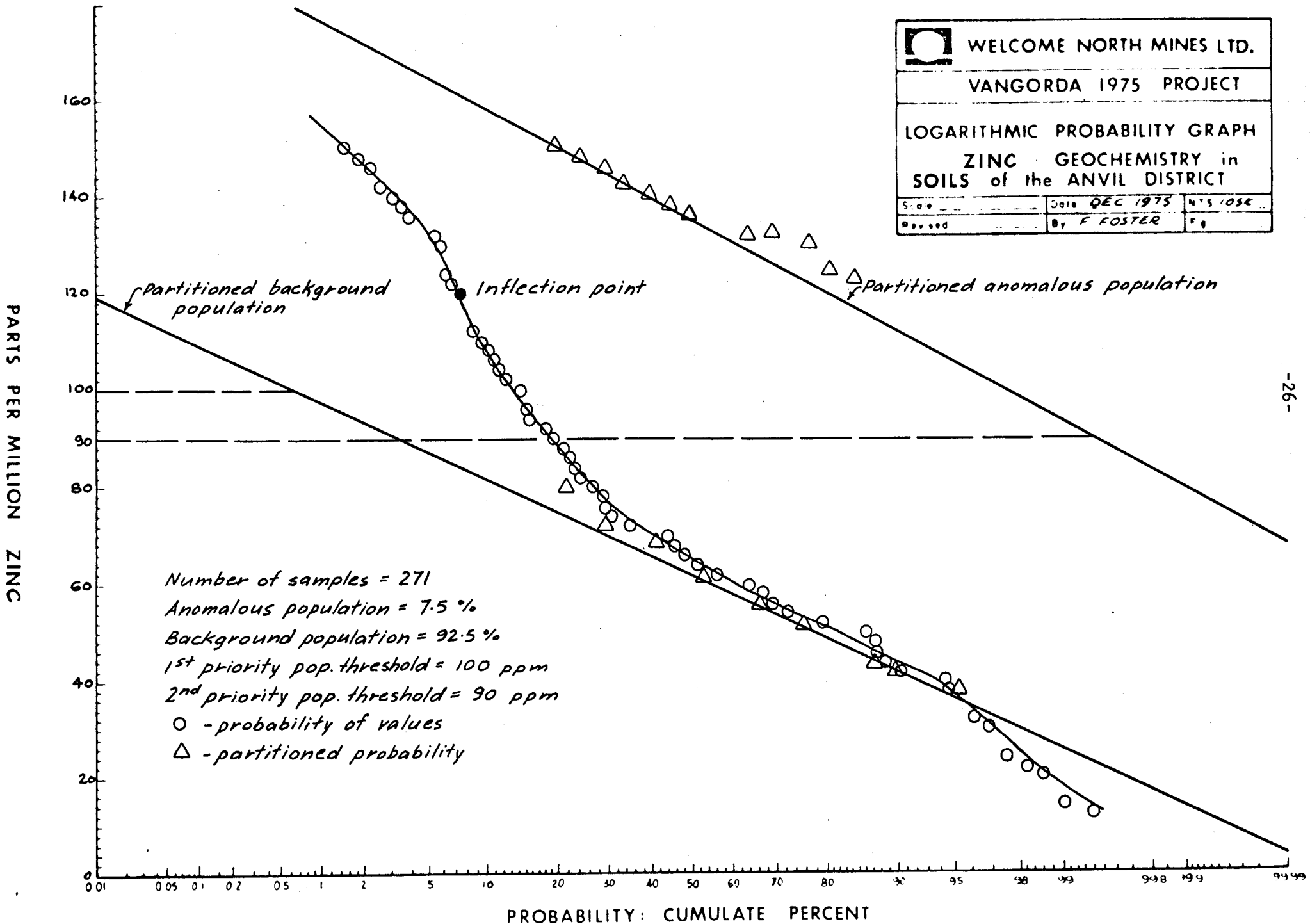
Number of samples = 224  
 Anomalous population = 1.3 %  
 Background population = 98.7 %  
 1<sup>st</sup> priority pop. threshold = 34 ppm  
 2<sup>nd</sup> priority pop. threshold = 26 ppm  
 ○ - probability of values  
 △ - partitioned probability


PARTS PER MILLION LEAD



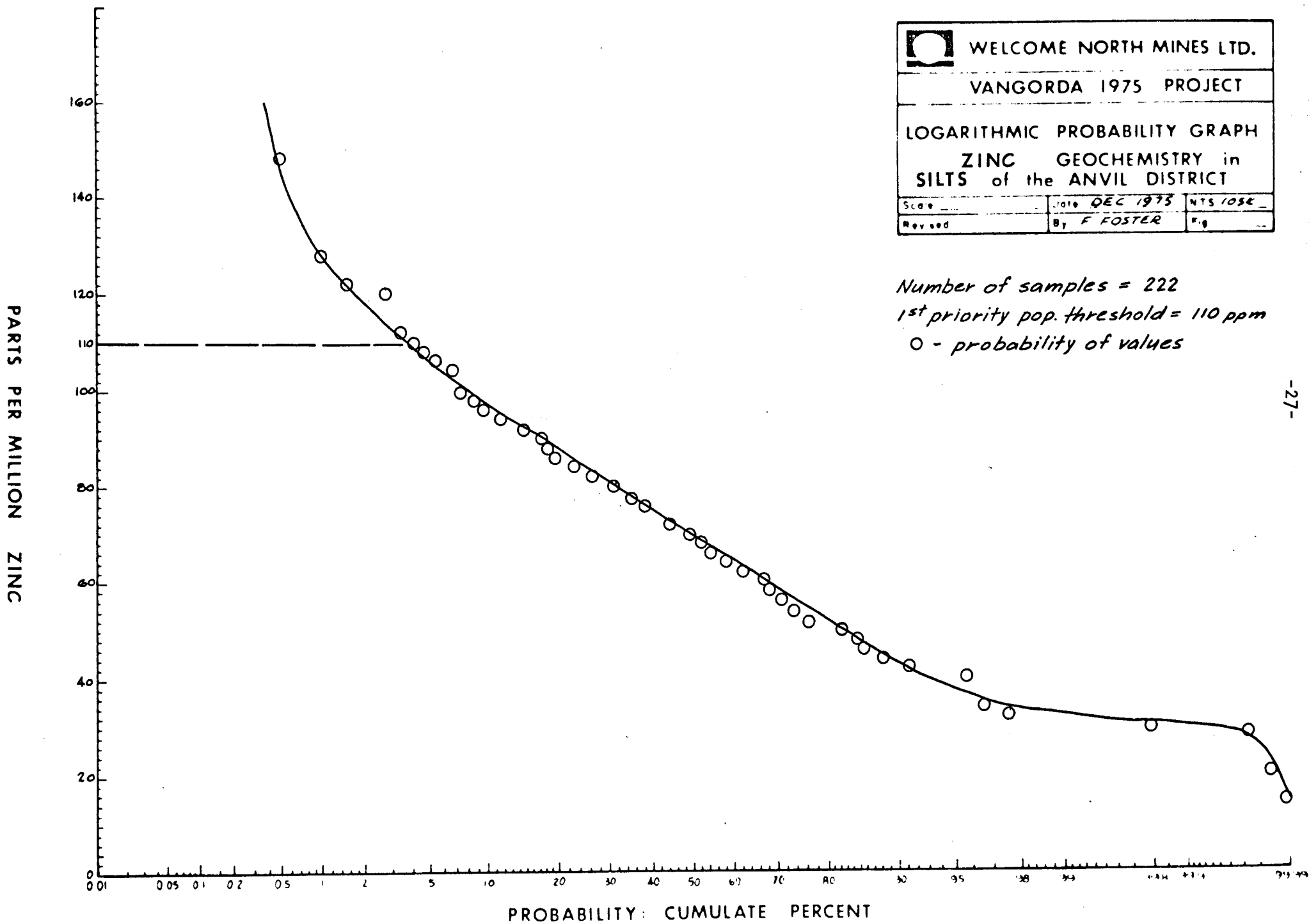
PROBABILITY: CUMULATE PERCENT

 WELCOME NORTH MINES LTD.		
VANGORDA 1975 PROJECT		
LOGARITHMIC PROBABILITY GRAPH		
ZINC GEOCHEMISTRY in		
SOILS of the ANVIL DISTRICT		
Scale	Date DEC 1975	NYS 105C
Revised	By F FOSTER	FG

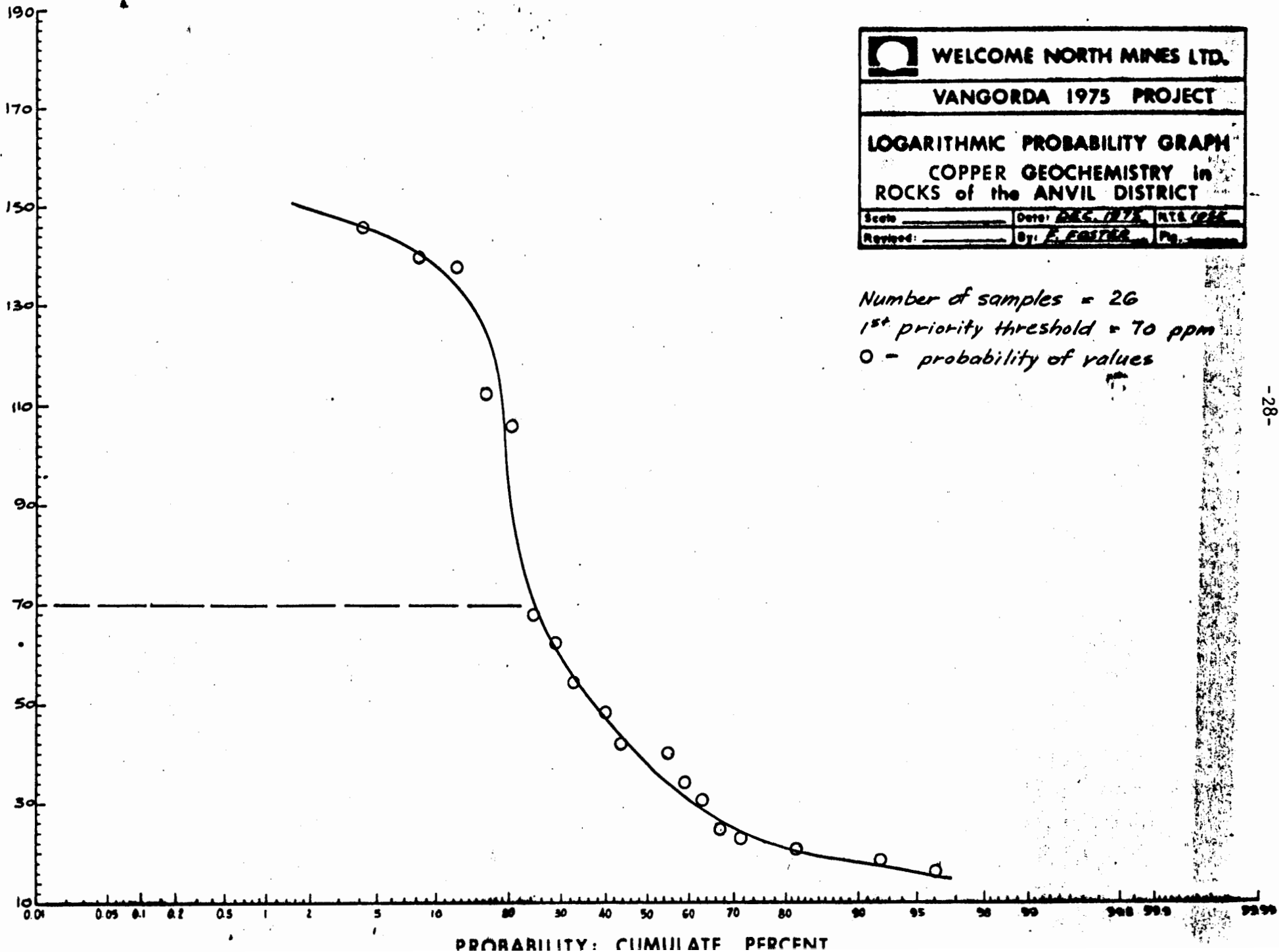



 <b>WELCOME NORTH MINES LTD.</b>		
<b>VANGORDA 1975 PROJECT</b>		
<b>LOGARITHMIC PROBABILITY GRAPH</b> <b>ZINC GEOCHEMISTRY in</b> <b>SILTS of the ANVIL DISTRICT</b>		
Scale	Date DEC 1975	NTS 105E
Revised	By F FOSTER	Fig

Number of samples = 222  
 1st priority pop. threshold = 110 ppm  
 O - probability of values



PARTS PER MILLION COPPER



	<b>WELCOME NORTH MINES LTD.</b>	
<b>VANGORDA 1975 PROJECT</b>		
<b>LOGARITHMIC PROBABILITY GRAPH</b>		
<b>COPPER GEOCHEMISTRY in</b>		
<b>ROCKS of the ANVIL DISTRICT</b>		
Scale: _____	Date: <u>DEC. 1975</u>	MTG: <u>1975</u>
Revised: _____	By: <u>F. EOSTER</u>	Pg. _____

Number of samples = 26  
1<sup>st</sup> priority threshold = 70 ppm  
O - probability of values



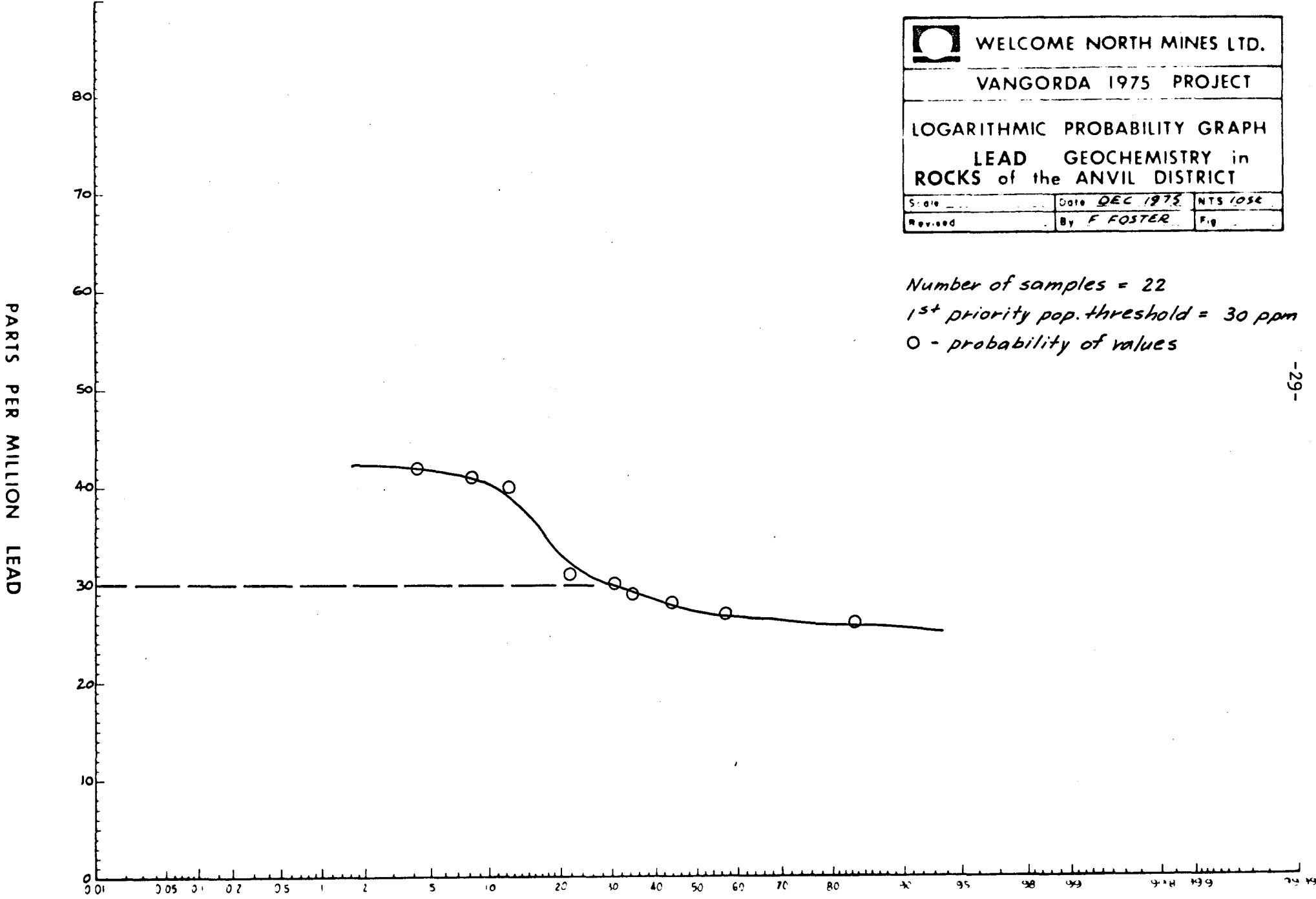
WELCOME NORTH MINES LTD.


VANGORDA 1975 PROJECT

LOGARITHMIC PROBABILITY GRAPH  
LEAD GEOCHEMISTRY in  
ROCKS of the ANVIL DISTRICT

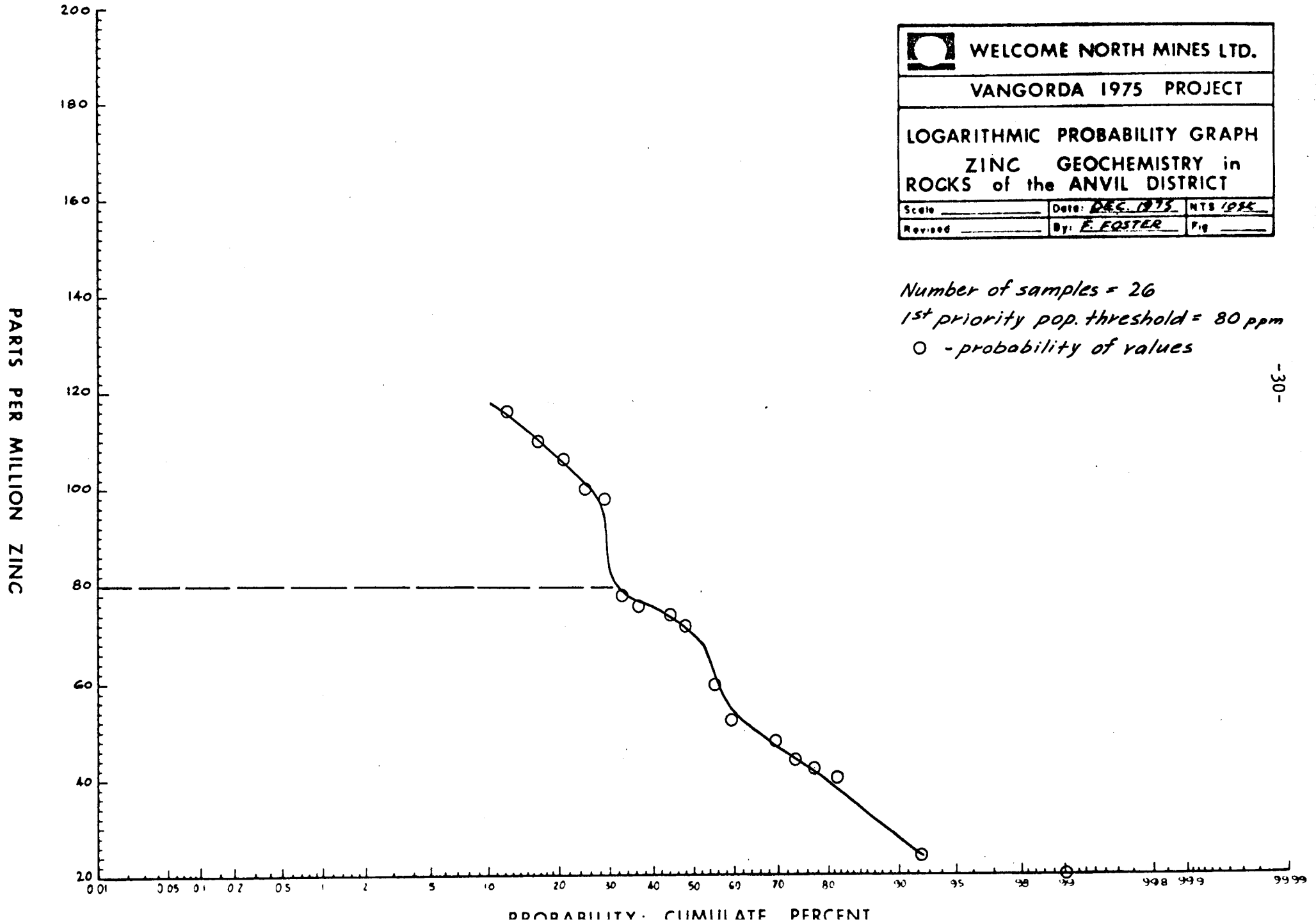
Scale	Date DEC 1975	NTS 1054
Revised	By F FOSTER	Fig

Number of samples = 22  
 1<sup>st</sup> priority pop. threshold = 30 ppm  
 O - probability of values



 WELCOME NORTH MINES LTD.		
VANGORDA 1975 PROJECT		
LOGARITHMIC PROBABILITY GRAPH ZINC GEOCHEMISTRY in ROCKS of the ANVIL DISTRICT		
Scale _____	Date: <u>DEC. 1975</u>	NTS <u>100%</u>
Revised _____	By: <u>E. FOSTER</u>	Fig _____

Number of samples = 26  
 1st priority pop. threshold = 80 ppm  
 ○ - probability of values



Examination of the statistical analysis for zinc content in silts (Fig. 12) shows that a major background population exists. The partitioning procedure cannot be applied in this case due to there being such a small percentage of anomalous samples. The configuration of the logarithmic probability plot shown in Fig. 12 suggests that the values greater than the arbitrarily chosen threshold of 110 ppm contain high background values as well as anomalous values. Unfortunately there is insufficient data to distinguish the highest possible background value and all values greater than 110 ppm are thus considered as anomalous.

Insufficient data was collected for a proper statistical analysis of the copper, lead, and zinc content in rocks sampled in the Anvil District, therefore threshold values of 70, 30, and 80 ppm for copper, lead, and zinc, respectively were arbitrarily chosen by visual inspection of the logarithmic probability plots (Fig. 13, 14, and 15).

The geochemical survey carried out over the WYNNE claims was designed to further substantiate a previous geochemical survey carried out in 1966 by Action Explorations Ltd. The claim group is covered by only a thin masking of overburden and sampling of frost boils, sidehill seepages, and various suspect outcrops yielded good to excellent results (see Plates 2, 3, and 4).

#### Copper

Anomalous geochemical response of copper on the claim group is poor (see Plate 2). Only one anomalous response was obtained from a rock chip sample (138 ppm Cu) located at station 36N-6E. High background responses were obtained at various isolated points on the property but of particular interest was a zone of high background response (up to 50 ppm Cu in frost boils) located between lines 42N and 48N from 30E to 40E.

#### Lead

Anomalous response of lead geochemistry on the property was fairly restricted (see Plate 3). One anomalous zone was delineated by

frost boil samples yielding up to 100 ppm Pb in an area located over phyllites of Unit (3a) previously mentioned as yielding high background values in Cu. This zone situated between lines 42N and 48N from 30E to 40E, lies 600 feet east of a narrow, 1100 foot long, north-south trending zone also located over phyllites of Unit (3a) which yielded weakly anomalous values in lead.

Elsewhere on the claim group, isolated samples anomalous in lead geochemistry were collected as follows:

- a) location: 25N-30E  
sample: rock chip from bleached phyllite of Unit (3b) yielding 44 ppm Pb
- b) location: 12N-15E  
sample: rock chip from phyllite of Unit (3a) yielding 92 ppm Pb.

### Zinc

An excellent anomalous response from zinc geochemistry was obtained from the geochemical survey over the claim group (see Plate 4). A very extensive zone 4000 feet x 1200 feet and elongate in an east-west direction was delineated between lines 30N and 48N from the baseline eastward by frost boil soil samples, sidehill seepage silt samples, and rock chips, yielding a maximum value of 210 ppm Zn. This zone is located over phyllites of Unit (3a) and lies immediately downslope from an extensive zone of high magnetic susceptibility which is coincident with a strong electromagnetic conductor.

Several isolated zones of very restricted nature were also located on the property:

- a) location: 20N-30E  
sample: rock chip yielding 116 ppm Zn and frost boil yielding 138 ppm Zn in area overlying bleached siliceous phyllite previously mentioned as anomalous in Pb.
- b) location: 12N-15E  
sample: rock chip yielding 110 ppm Zn in area overlying phyllite of Unit (3a) previously mentioned as anomalous in Pb.

- c) location: in vicinity of 18N-0E  
sample: frost boils yielding up to 110 ppm Zn located over phyllite of Unit (3a) near a contact with graphitic phyllite of Unit (3b)
- d) location: 12N-20W  
sample: frost boil yielding 130 ppm Zn located over phyllite of Unit (3a).

In summary, one very extensive zone anomalous in Zn geochemistry, located over phyllites of Unit (3a) and encompassing several small zones of anomalous Pb geochemistry, substantiates results obtained from a previous geochemical survey run by Action Explorations Ltd. in 1966 and infers a very extensive source for these base metal concentrations.

## GEOPHYSICAL SURVEYS

The geophysical surveys were carried out on a contract basis by geophysical crews of Peter E. Walcott and Associates Ltd. hired out of Vancouver, B.C.

### 1. Instruments Used

For the magnetometer survey, a McPhar M700 fluxgate magnetometer was used. The instrument is hand-held and measures the vertical magnetic component by use of an oil-dampened fluxgate which automatically levels itself in the direction of the vertical field. The magnetometer is of light weight and a direct read-out of gamma values can be obtained quickly.

The electromagnetic survey was carried out with a Crone CEM dual frequency unit. The Crone is of the inductive type and may be used either as a horizontal or vertical loop apparatus. Measurements are made of the resultant dip angle of the field and the width of null or out of phase component. It is designed to be operated with a maximum coil spread of 600 feet on frequencies of 390 and 1830 cycles per second with no inter-connecting cables. The effective depth penetration is 300 feet for a horizontal conductor with maximum coil spread (no skin effect allowance) and 100 feet for a vertical conductor. The effective lateral coverage is a direct function of the spread under ideal conditions. The equipment was chosen in order to give reliable information on the attitude and configuration of a conductor, the physical properties of the host rock, dimensions of the conductor, and results free from error due to topographic relief.

### 2. Method of Survey

#### a) Magnetometer Survey

Prior to the actual magnetometer survey, readings were taken along the central base line at cross line intersection points. These stations were looped and re-read every hour as a means of controlling drift and diurnal variations. With base stations of an established value serving as a means of controlling drift and diurnal variations, a rapid and

precise check was kept on magnetic variations and the entire survey was thus kept on a relative basis during day to day operation. Each cross line was read with re-checks at the base station within every hour, this method provided an internal control for detecting diurnal and drift variations. The survey was done by one operator using the same instrument.

b) Electromagnetic Survey

All surveys were run with horizontal loop configuration and 300 foot coil spacing in order that highest response could be obtained from flat lying sulphide bodies. Readings at 1830 cps were taken at each station. The coil configuration was not adaptable to conditions of conductive overburden and maximum response from such was expected. All traverses were made by the "in line method" and done over the same grid as used for the magnetometer surveys. In some cases a lower frequency (390 cps) was adopted for better resolution of conductors, within areas of more specific interest. The two-man EM crew did all their ground work in coincidence with the magnetometer crew.

3. Treatment of Data

a) Magnetic Results

Magnetic results were corrected in the field for diurnal and drift variations by the field operator. The final gamma values were then plotted on a grid plan using scale of 400 feet to 1 inch. This data was presented to the party chief who profiled and contoured the data on overlay material in order that he could remain familiar with day to day results and progress of the survey, direct its course, and have results available for the project geologist when he carried out geochemical surveys and geological mapping on the property. Magnetic data is presented in this report on a map of 1" = 400' scale showing gamma values and contoured results (see Appendix). The map shows major drainage features and locations of mineral claim posts.

b) Electromagnetic Results

All results as derived in the field were plotted each night by the EM operators on a grid plan using a scale of 1" = 400'. Results were presented to the party chief for inspection, profiling and preliminary contouring in order that this data be compared with the magnetometer survey and the results be available to the project geologist when he carried out geochemical and geological surveys on the property. Final plotting was done on maps of 1" = 400' scale similar to that used for the magnetic map. Electromagnetic data is presented in this report showing values profiled and contoured.

4. Interpretation of Results

a) Magnetometer Survey

Results from the magnetometer survey carried out over the claim group were very encouraging. The magnetic background is more uniform over the underlying phyllites in the northern portion of the property where overburden is thicker, than over the underlying schists and phyllites on the southern portion of the property where considerable rock exposure occurs.

A strong magnetic feature (up to 500 gammas above background) is observed to strike across the property in close proximity to a belt of graphitic phyllite of Unit (3b) [see Plates W-202-4 and W-202-6]. In fact the axis of this feature coincides very closely with the strike of the graphitic belt of rocks. The offset in the trend of this magnetic feature observed at station 18N-14E is most likely due to a fault, as yet not detected by mapping. The source of this magnetic response is believed to be pyrrhotite associated with the graphitic horizon, Unit (3b). This postulation is further substantiated by a hole drilled by Kangaroo Exploration Ltd. on this feature somewhat further to the west which intersected considerable widths of pyrrhotite.

Another cluster of restricted but strong (up to 1000 gammas

above background) magnetic features trending in north-south directions is situated in the vicinity of station 6N-21W over biotite-muscovite-quartz schist of Unit (1c) and phyllite of Unit (3c).

b) Electromagnetic Survey

Two conductive zones, "A" and "B" (see Plate W-202-5), are discernible from the results of the electromagnetic survey. Northward dips, as expected, are indicated for the individual conductors by the profile shape on cross lines perpendicular to the grid lines (Plate W-202-6).

Conductor "A" corresponds closely to outcropping graphitic phyllite of Unit (3b) and is coincident with the major magnetic feature mentioned in the previous section. The central axis of the magnetic feature does tend to be slightly offset to the south of the central axis of the conductor "A" suggesting that the source of these coincident anomalies is structurally complex. This is further substantiated by the fact that the magnetic susceptibility and the quality of the electromagnetic conductor both vary along the strike of the anomalous zone.

Profiles of conductor "A" (see Plate W-202-6) indicate that it is actually a combination of two closely spaced conductors, one strong and one weak, dipping at approximately  $60^\circ$  to the north. The weaker conductor, lying to the south, is coincident with the previously mentioned magnetic anomaly and it is postulated that the source of the weaker conductor is a sulphide zone situated adjacent to the more conductive graphitic phyllite to the north.

Conductor "B", situated over phyllites of Unit (3a), is not quite as strong (maximum dip angle of  $-22^\circ$ ) as conductor "A". The source of this conductor is postulated as graphitic horizons (possibly the same horizon causing conductor "A") at depth. It should be noted that no magnetic anomaly is associated with this conductor such as there is with conductor "A".

A third relatively insignificant conductive zone (maximum dip angle of  $-10^{\circ}$ ) is delineated at the extreme eastern end of line 6S over phyllites of Unit (3a). As with conductor "B", there is no magnetic anomaly associated with this conductor.

In summary, the results from both the magnetic and the electromagnetic surveys correlate very well with those of a previous survey done to the east by Cyprus Anvil Mining Corp. Both conductor "A" and the conductor situated on line 6S correspond to Turam conductor axes obtained on that survey.

RECOMMENDATIONS

Evaluation of present geochemical, geophysical and geological data reveals that a very extensive geochemical anomaly is situated in close proximity to a large coincident magnetic-electromagnetic anomaly located over the graphitic horizon believed to be Unit (3b), host for the Vangorda-Grum type massive sulphide bodies.

Since the property is a high priority target area the following exploration work is recommended for the 1976 field season:

1. Continued detailed geological mapping on a scale of 1 in. = 400 ft.
2. Further detailed geochemical sampling in the vicinity of geophysical anomalies.
3. Installation of the following tielines on the existing grid to be used for further geophysical surveys:

Tieline 20W - 12S to 48N  
Tieline 10W - 12S to 48N  
Tieline 10E - 0N to 48N  
Tieline 20E - 0N to 48N  
Tieline 39E - 0N to 60N  
Tieline 45E - 0N to 60N

4. Turam electromagnetic and gravity surveys should be conducted on the following lines:

Turam Electromagnetic Survey

Tieline 20W - 12S to 48N  
Tieline 10W - 12S to 48N  
  
Tieline 10E - 0N to 48N  
Tieline 20E - 0N to 48N  
  
Tieline 39E - 0N to 60N  
Tieline 45E - 0N to 60N

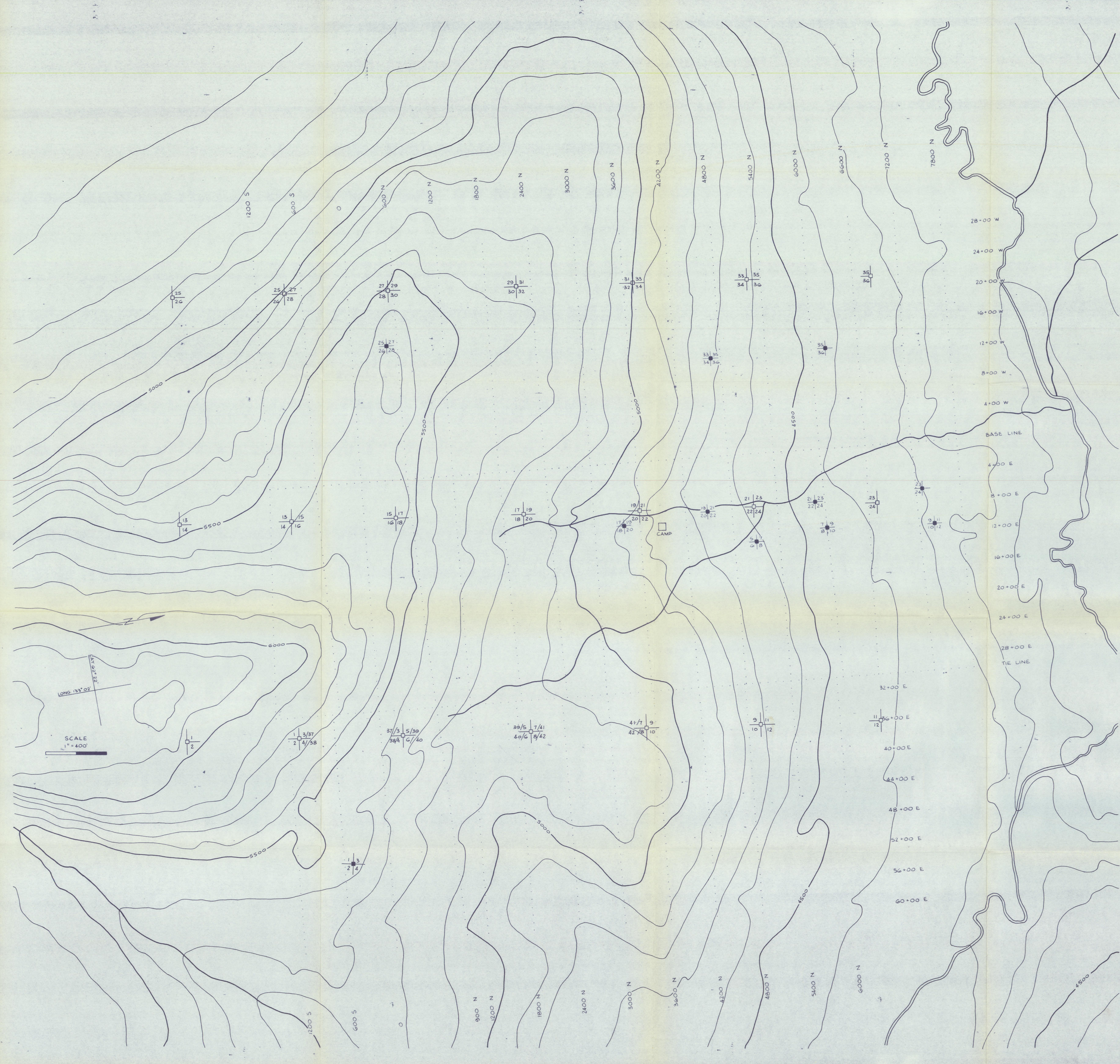
Gravity Survey

Tieline 10W - 12S to 48N  
Tieline 10E - 0N to 48N  
Tieline 30E - 0N to 48N  
Tieline 45E - 0N to 60N

5. Diamond drill hole locations should be contingent upon the results obtained in the field from the interpretation of all available data following the completion of the above proposed surveys.

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- Map: Dynasty Exploration Ltd., Anvil District, 105K, Airborne Electromagnetic Survey, Lockwood Survey Corp., 1965.
- Map: Action Explorations Ltd., Anvil District, 105K-6, Airborne Magnetic Survey, scale 1 in. = 1320 ft., Lockwood Survey Corp., 1966.
- Map: Action Explorations Ltd., Anvil District, 105K-6, Airborne Electromagnetic Survey, scale 1 in. = 1320 ft., Lockwood Survey Corp., 1966.
- Map: Malta Mines Ltd., Anvil District, 105K-6, Airborne Magnetic Survey, scale 1 in. = 1320 ft., Lockwood Survey Corp., 1966.
- Map: Malta Mines Ltd., Anvil District, 105K-6, Airborne Electromagnetic Survey, scale 1 in. = 1320 ft., Lockwood Survey Corp., 1966.
- Map: St. Lucie Exploration Co. Ltd., Anvil District, 105K-6 + 7, Airborne Magnetometer Survey, Lockwood Survey Corp., 1966.
- Map: St. Lucie Exploration Co. Ltd., Anvil District, 105K-6 + 7, Airborne Electromagnetic Survey, Lockwood Survey Corp., 1966.
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**LEGEND**

- Claim Posts, as located on gov't claim map
- Claim Posts, as located in the field
- ..... Grid Lines

**WELCOME NORTH MINES LTD.**  
**VANGORDA 1975 PROJECT**  
**WYNNE CLAIMS 1 - 42**  
**GRID LOCATION MAP**

Scale: 1 INCH = 400 FEET Date: AUGUST 1975 NTS: 105K/G  
 Revised: By: F. FOSTER Plate: 1



LONG 133° 02'

SCALE  
1" = 400'

**LEGEND**

□ Claim Posts, as located on gov't claim map  
 ■ Claim Posts, as located in the field  
 ... Grid Lines

○ - SOIL      ○ - SILT      △ - ROCK

55+ ppm	35+ ppm	70+ ppm
41-54 ppm	30-34 ppm	0-60 ppm
0-40 ppm	0-20 ppm	

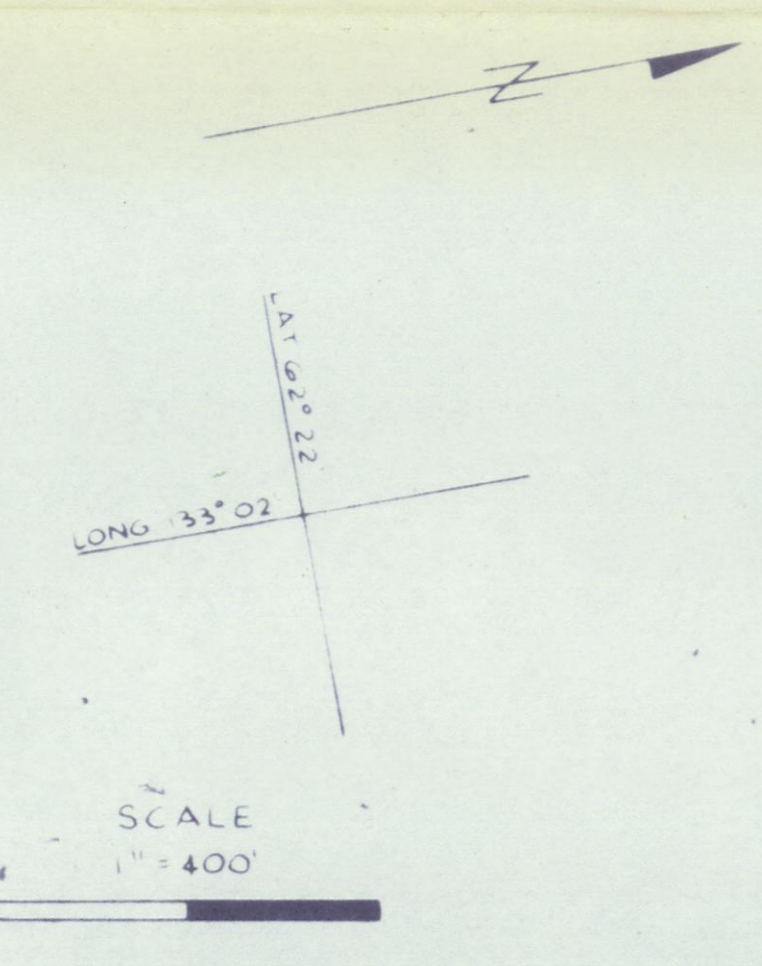
**WELCOME NORTH MINES LTD.**

VANGORDA 1975 PROJECT

WYNNE CLAIMS 1 - 42

COPPER GEOCHEMISTRY

Scale: 1" = 400' Date: AUGUST 1975 NTS 10546  
 Revised: By: E. FOSTER Plate 2



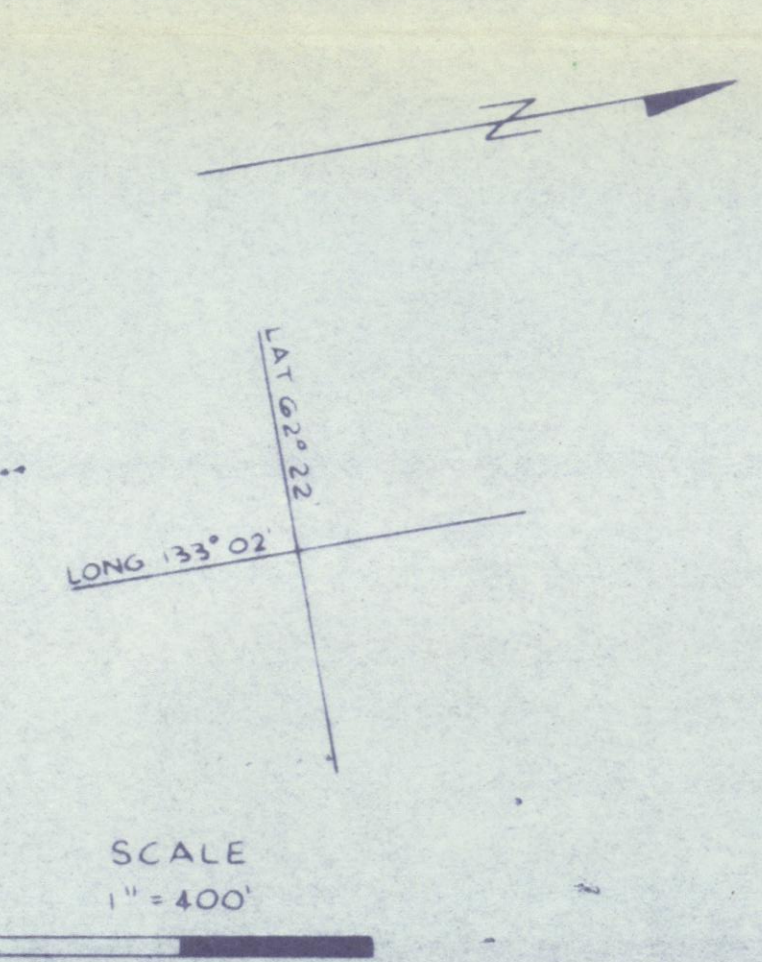
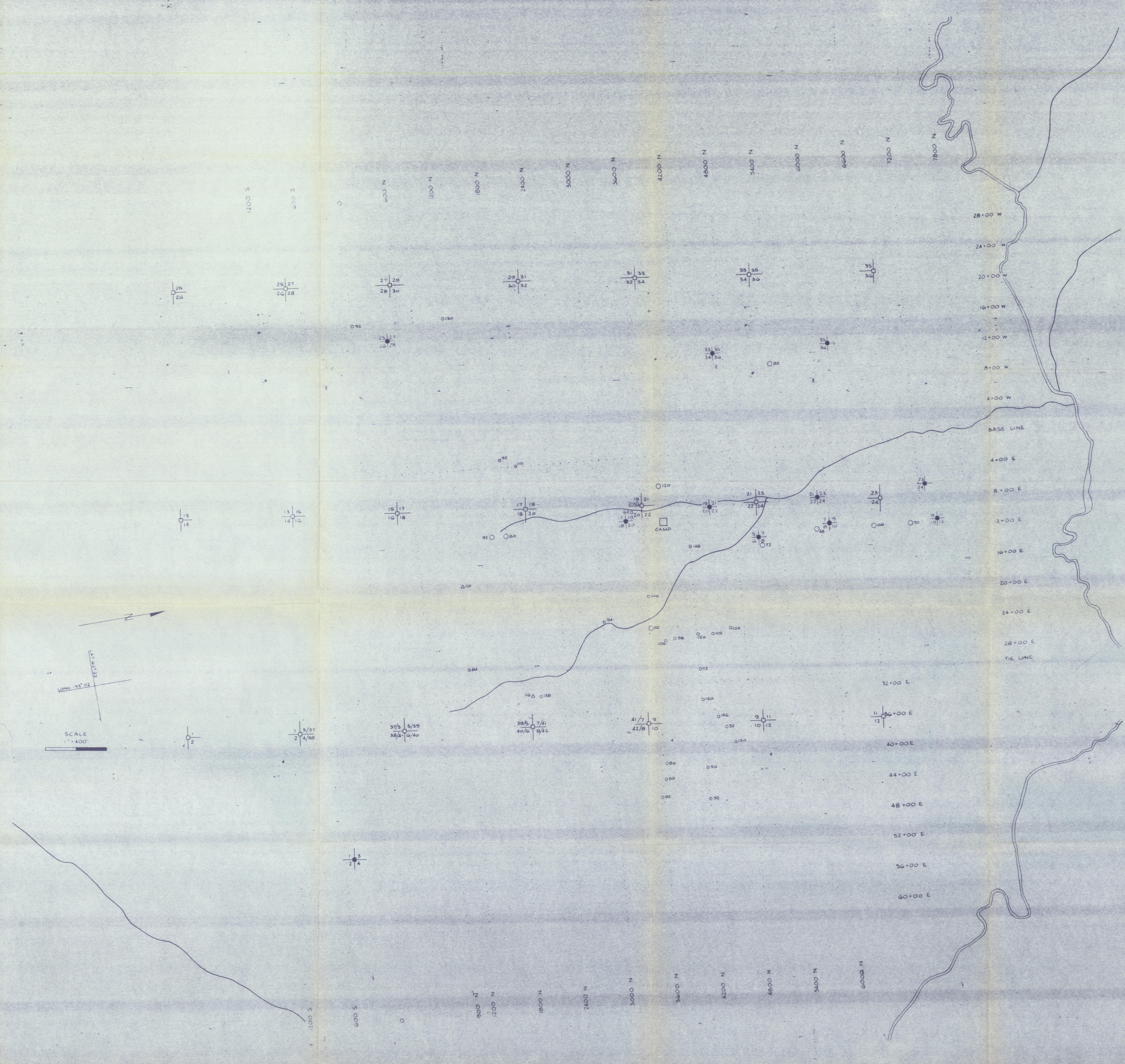
**LEGEND**

- Claim Posts as located on govt claim map
- Claim Posts as located in the field
- Grid Lines

○ - SOIL	○ - SILT	△ - ROCK
□ 50+ ppm	□ 34+ ppm	□ 30+ ppm
□ 38-49 ppm	□ 26-33 ppm	□ 0-29 ppm
□ 0-37 ppm	□ 0-25 ppm	

**WELCOME NORTH MINES LTD.**  
**VANGORDA 1975 PROJECT**  
**WYNNE CLAIMS 1 42**  
**LEAD GEOCHEMISTRY**

Scale 1 INCH = 400 FT Date AUGUST 1975 NTS 10546  
 Revised By E. FOSTER Plate 3



**LEGEND**

- Claim Posts, as located on govt claim map
- Claim Posts, as located in the field
- Grid Lines

○ - SOIL	○ - SILT	△ - ROCK
□ 100+ ppm	□ 110+ ppm	□ 80+ ppm
□ 30-99 ppm	□ 0-109 ppm	□ 0-79 ppm
□ 0-99 ppm		

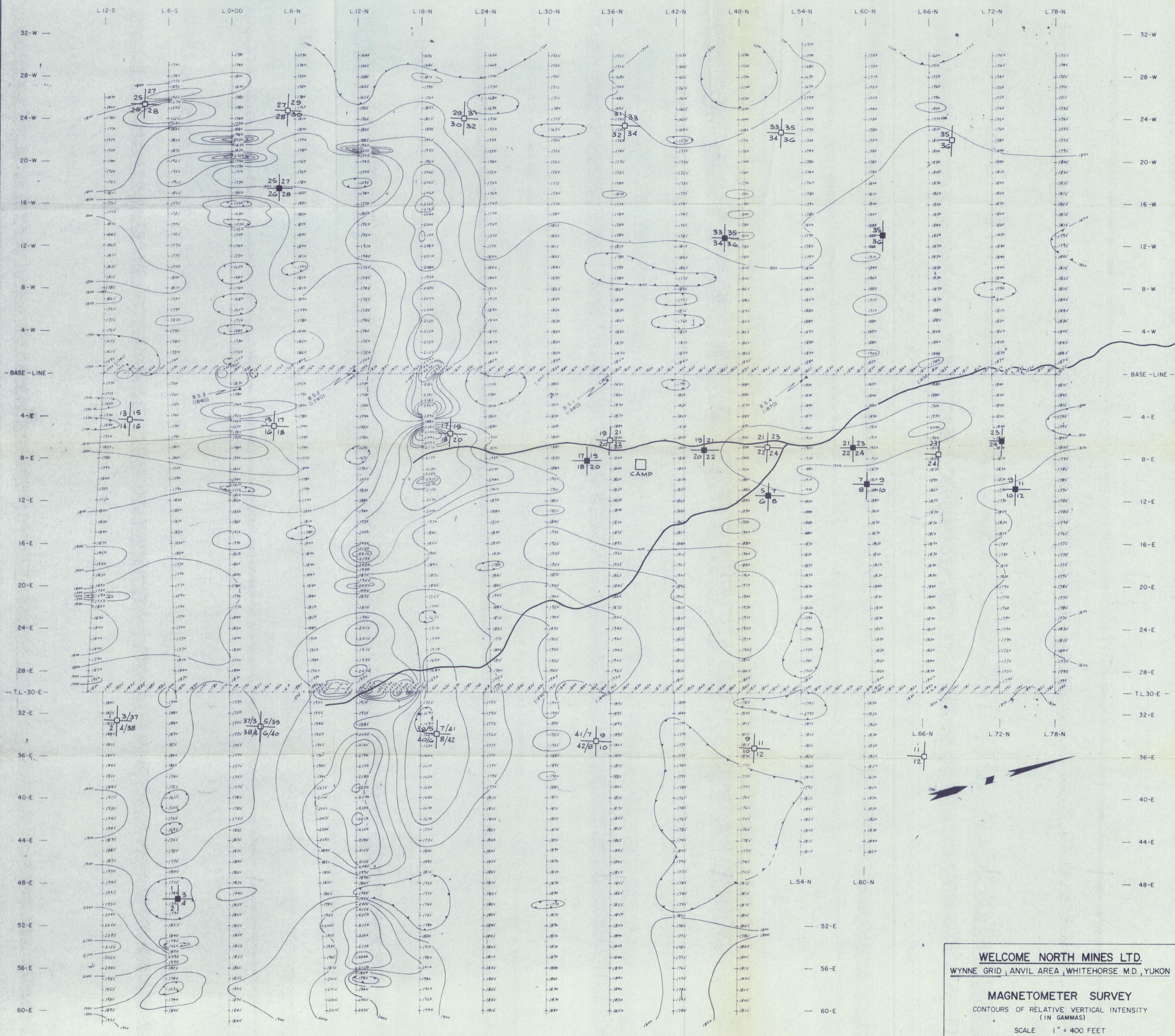
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VANGORDA 1975 PROJECT

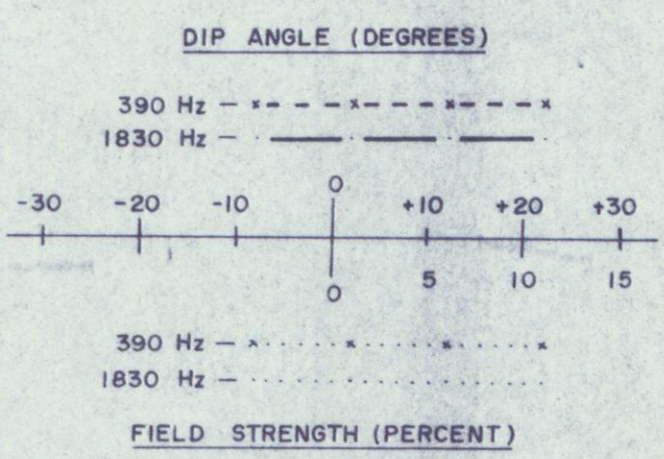
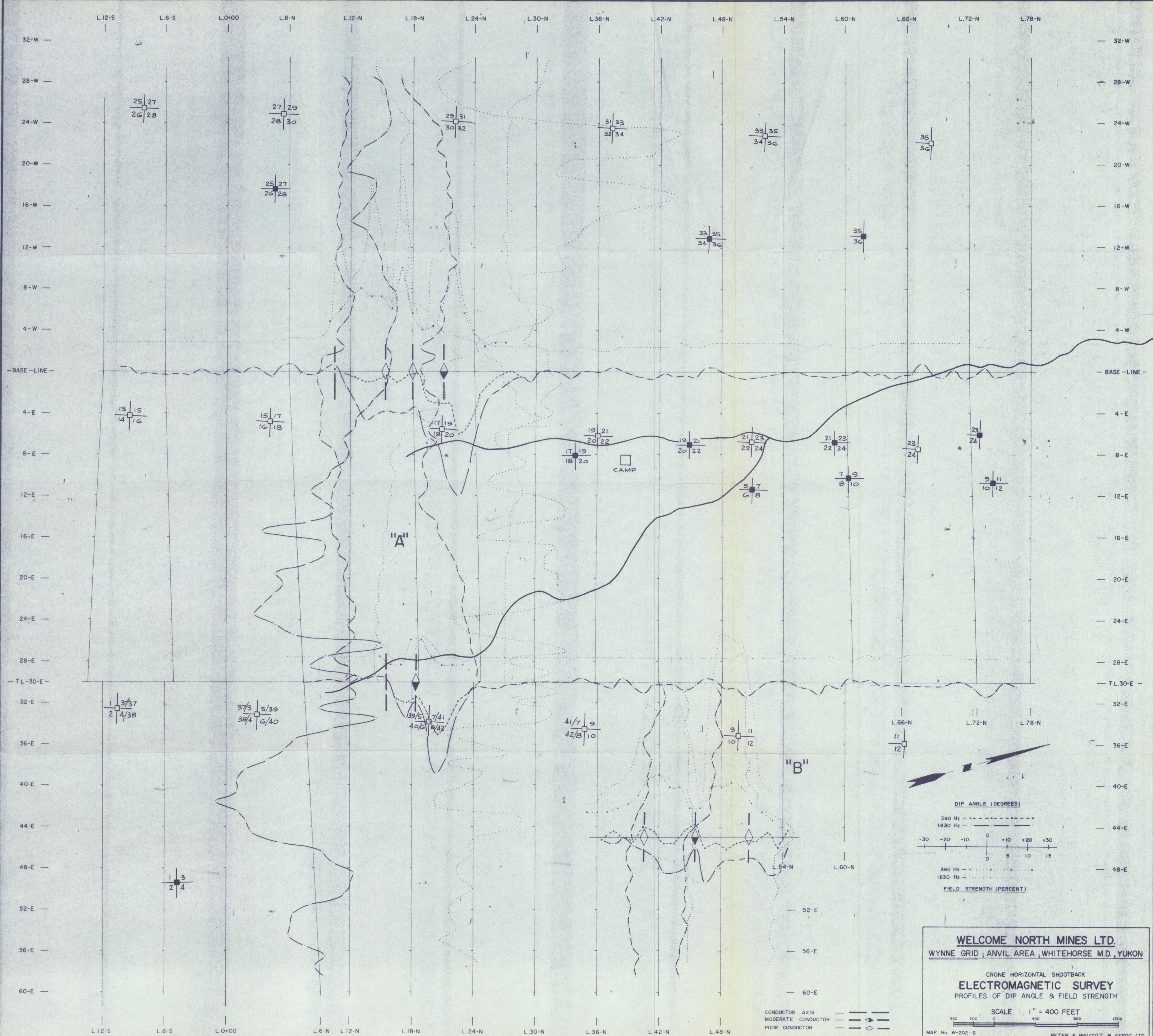
WYNNE CLAIMS 1-42

ZINC GEOCHEMISTRY

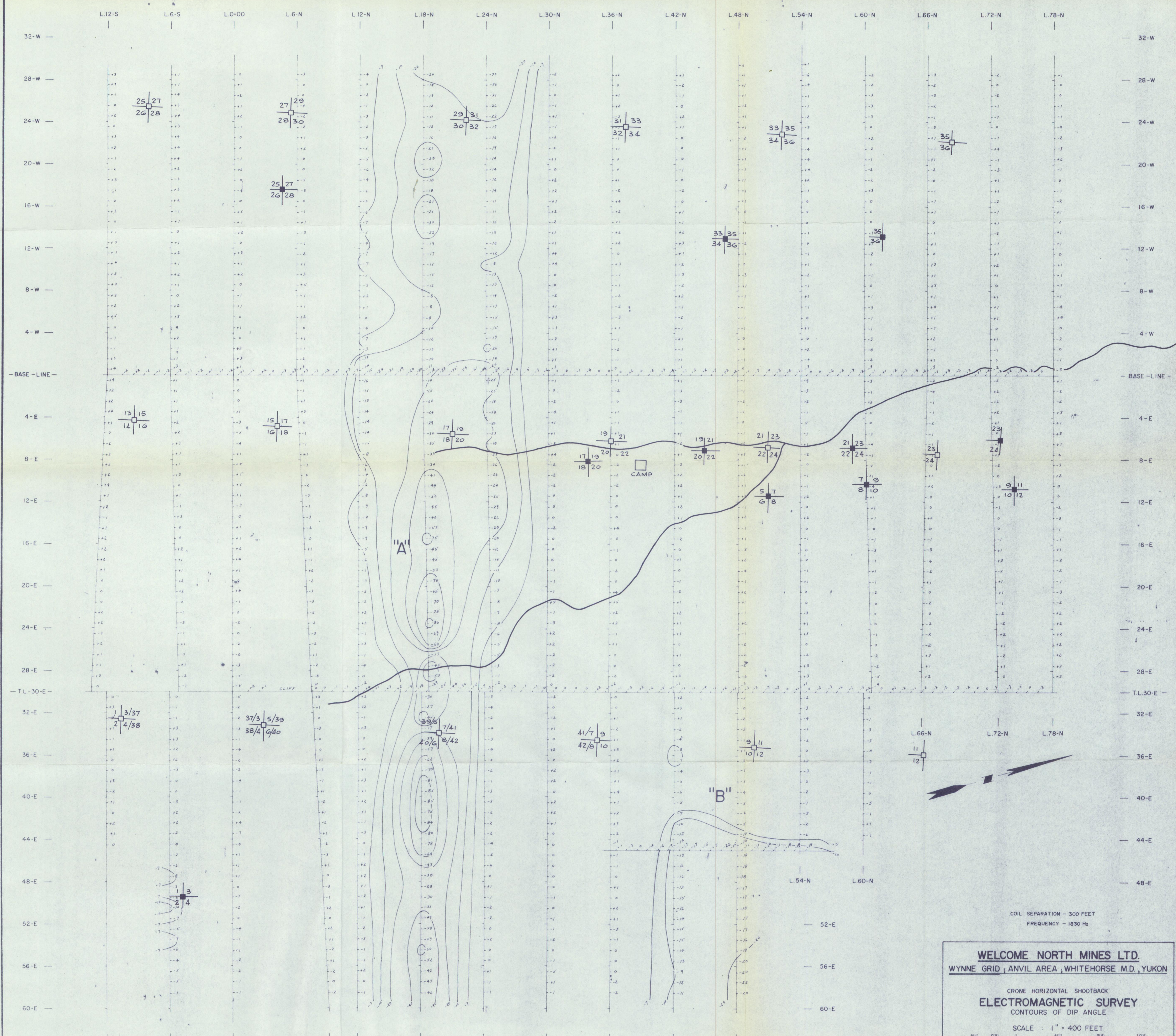
Scale: 1 INCH = 400 FEET Date: AUGUST 1975 NTS 10546  
 Revised By: E. FOSTER Plate 4



**WELCOME NORTH MINES LTD.**  
 WYNNE GRID; ANVIL AREA, WHITEHORSE M.D., YUKON  
**MAGNETOMETER SURVEY**  
 CONTOURS OF RELATIVE VERTICAL INTENSITY  
 (IN GAMMAS)  
 SCALE 1" = 400 FEET  
 MAP No W-202-4  
 TO ACCOMPANY A REPORT BY PETER E. WALCOTT & ASSOC. LTD.  
 PETER E. WALCOTT, P.Eng., DATED DEC 1975  
 AUGUST - 1975



**WELCOME NORTH MINES LTD.**  
 WYNNE GRID; ANVIL AREA, WHITEHORSE M.D., YUKON  
 CRONE HORIZONTAL SHOOTBACK  
**ELECTROMAGNETIC SURVEY**  
 PROFILES OF DIP ANGLE & FIELD STRENGTH  
 SCALE : 1" = 400 FEET  
 MAP No. W-202-6  
 TO ACCOMPANY A REPORT BY  
 PETER E. WALCOTT, P.Eng., DATED - DEC. 1975  
 PETER E. WALCOTT & ASSOC. LTD.  
 AUGUST - 1975



COIL SEPARATION - 300 FEET  
 FREQUENCY - 1830 Hz

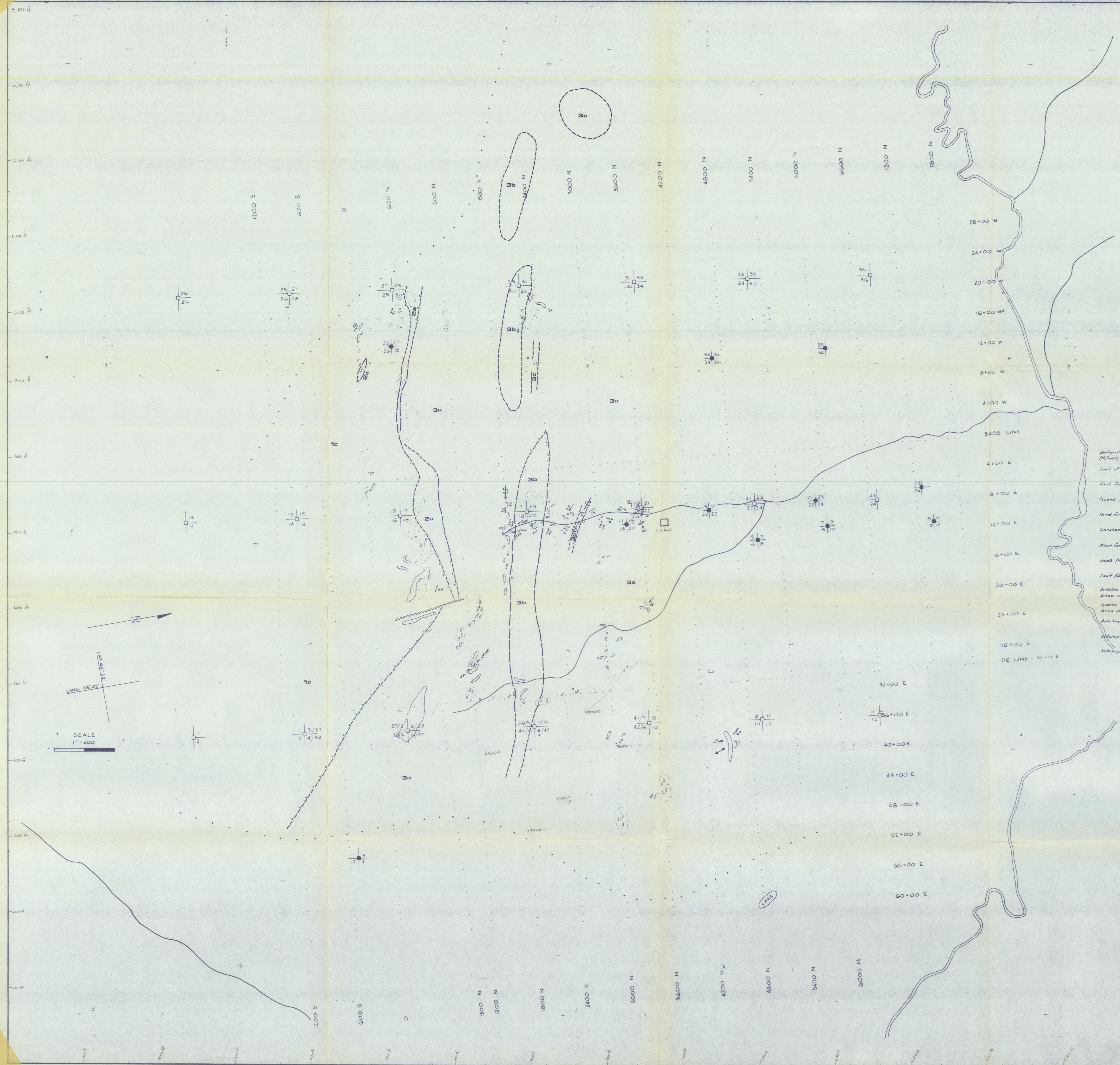
**WELCOME NORTH MINES LTD.**  
 WYNNE GRID ; ANVIL AREA ; WHITEHORSE M.D., YUKON

CRONE HORIZONTAL SHOOTBACK  
**ELECTROMAGNETIC SURVEY**  
 CONTOURS OF DIP ANGLE

SCALE : 1" = 400 FEET

MAP No. W-202-5  
 TO ACCOMPANY A REPORT BY  
 PETER E. WALCOTT, P.Eng., DATED - DEC. 1975

PETER E. WALCOTT & ASSOC. LTD.  
 AUGUST - 1975



**LEGEND**

- Ordovician & Silurian**
- 3c** Medium green foliated actinolite schist, andesitic gneiss, biotite horn-gneiss amphibolite, amygdaloidal chlorite phyllite
- 3b** Siliceous graphitic phyllite, muscovite phyllite and quartzite
- 3a** Dark gray biotite-chlorite schist and phyllite
- Cambrian & Ordovician**
- 2a** Calc-silicate schist, gneiss and phyllite, can contain 2b
- Cambrian**
- 1c** Muscovite-biotite schist, muscovite andalusite-biotite schist ± garnet and staurolite

- Geological boundary (defined, approx, gradational, assumed) ...
- Limit of geological mapping ...
- First foliation (S<sub>1</sub>) ...
- Second foliation (S<sub>2</sub>) ...
- Third foliation (S<sub>3</sub>) ...
- Lineation ...
- Minor fold axis related to S<sub>2</sub> ...
- Joints (inclined, vertical) ...
- Fault (defined, approx, assumed) ...
- Anticline (approx, assumed) ...
- Syncline (approx, assumed) ...
- Anticline, Syncline overturned ...
- Outcrop ...
- Subcrop ...

**LEGEND**

- Claim Posts, as located on govt claim map
- ⊕ Claim Posts, as located in the field
- ... Grid Lines

LONG 133° 02'

SCALE 1" = 400'

**WELCOME NORTH MINES LTD.**  
**VANGORDA 1975 PROJECT**  
**WYNNE CLAIMS 1 - 42**  
**GEOLOGY**

Scale 1 INCH = 400 FT Date AUGUST 1975 NTS 10566  
 Revised By E. FOSTER Plate 3



LONG 133° 02'

SCALE  
1" = 400'

- LEGEND**
- Claim Posts, as located on gov't claim map
  - Claim Posts, as located in the field
  - ..... Grid Lines
  - CEM Conductor .....
  - Magnetic Anomaly .....
  - - Cu 55+ppm; Pb 50+ppm; Zn 100+ppm
  - - Cu 35+ppm; Pb 34+ppm; Zn 110+ppm
  - △ - Cu 70+ppm; Pb 30+ppm; Zn 80+ppm

**WELCOME NORTH MINES LTD.**

VANGORDA 1975 PROJECT

WYNNE CLAIMS 1-42

COMPILATION MAP

GEOLOGY & GEOPHYSICS

Scale 1"=400 FT Date AUGUST 1975 NTS 10546  
 Revised By F. FOSTER Plate 6