

GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT

on the

DWONK GROUP

Watson Lake Mining District

N.T.S. 105 - G - 14



Latitude: 61° 57' N

Longitude: 131° 10' W

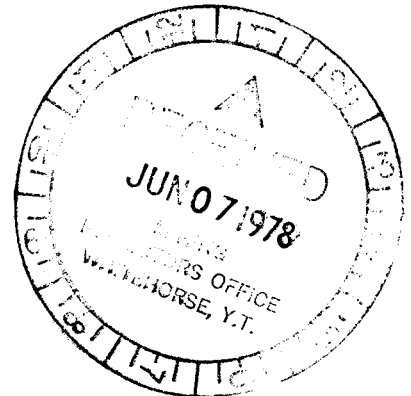


By:

W. ROBERTS

CYPRUS ANVIL MINING CORPORATION

May 9, 1978.



Field Work Done During the Periods:

August 20 - September 10, 1977

April 3 - 15, 1978.

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work to the amount of \$ 18,000.00

A. J. Jamoin  
Acting District Geologist or  
District Mining Engineer

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

[Signature]  
P. R. BAXTER  
Supervising Mining Recorder  
Commissioner of Yukon Territory

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LIST OF CLAIMS -- DWONK GROUP

<u>Claim No.</u>	<u>Grant No.</u>	<u>No. of Claims</u>	<u>Recording Date</u>	<u>Due Date</u>
1 - 90	YA25521-YA25610	90	September 2, 1977	September 2, 1978

GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT

on the

DWONK GROUP

INTRODUCTION

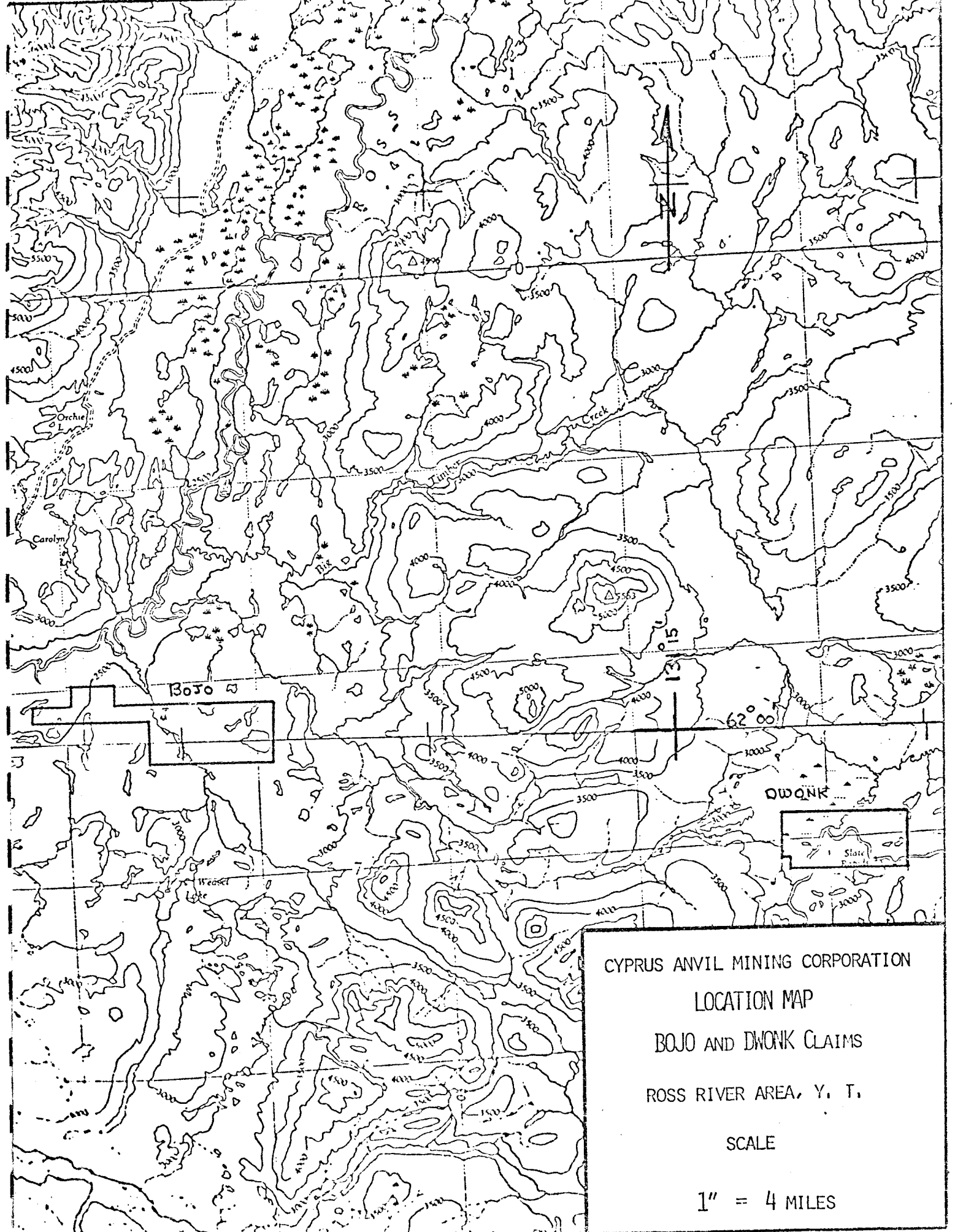
The DWONK Group was staked to cover two outcrops of massive barite along the north bank of the Pelly River near Slate Rapids. Both outcrops of barite and host black shales contain bedded pyrite.

During late August-early September, several pace and compass soil lines were established in an attempt to outline any possible associated copper, lead and zinc mineralization.

In early April, a hand-cut grid totalling 10 line miles was established in the area of the barite exposures. Magnetic and Horizontal Loop electromagnetic surveys were conducted over the strike projection of the barite horizon. Since the horizon underlies the Pelly River in several localities, the geophysical program was conducted while the river was frozen. The geophysical program will be completed during the 1978 field season.

LOCATION AND ACCESS

The DWONK Claims cover the Pelly River valley in the area of Slate Rapids on N.T.S. sheet 105-G-14. The Pelly River flows through the center of the claim group from east to west. The center of the claims, located at longitude 131° 10' W and latitude 61° 57' N, is 25 miles southwest of Traffic Mountain,



CYPRUS ANVIL MINING CORPORATION  
LOCATION MAP  
BOJO AND DWONK CLAIMS  
ROSS RIVER AREA, Y. T.

SCALE

1" = 4 MILES

28 miles northwest of the west end of McEvoy Lake and 44 miles east of Ross River.

Access to the property during the period August 20 to September 10, 1977 was by helicopter from a base camp established at Pike Lake 20 miles to the northeast. Logistical support for the camp was provided by float equipped fixed wing from Ross River. Access to the claim group during April 1978 was by helicopter from Ross River.

#### REGIONAL SETTING

Differential subsidence and accompanying marine transgression occurred during early Paleozoic time in the Northern Cordillera. The existence of this feature through Ordovician to Mid-Devonian time defines the Selwyn Basin in east-central Yukon. Various facies recognized within the basin are used to construct the depositional history.

Rock units along the western margin of the chert basin are mapped as two distinct geological terranes - the Pelly Platform and Anvil Range volcanics and metamorphics. The Pelly Platform carbonates and associated eastern slope calcareous shales, termed the Nasina facies, form the southwestern boundary of the chert basin between Ross River and Pelly Lakes. Postulated northward movement of the Pelly Platform along the Pelly - Frances Lake Lineament structurally eliminated the slope and basinal facies between McEvoy Lake and Watson Lake. Recognition of the Pelly Platform limits the aerial extent of chert deposition and reduces the proposed outline of the basin.

Limited mapping, to date, has not outlined any gradational facies between typical Anvil Range and Selwyn Basin lithologies. There definitely appears to be a fault contact between metamorphosed "Anvil type" units and typical slightly deformed Selwyn Basin sediments. Carbonates in the Anvil section suggest a possible association with the Pelly Platform. It is the writer's opinion that the Anvil units, deposited and deformed in an area of anomalous heat flow, represent a fossil rift zone that led to the formation of the miogeoclinal basinal assemblages to the east.

Continuous sedimentation in the Selwyn miogeosyncline from early Ordovician to Mid-Devonian represents relatively stable conditions in the Northern Cordillera during this period. In the Late Devonian, this cycle was sharply interrupted by rapid differential uplifts that destroyed the basinal feature and produced thick accumulations of sediment in the form of deep-sea submarine fans and channels.

The resulting black shale, siltstone, greywacke, and chert pebble conglomerate deposits have been termed "black clastics". The southern belt of black clastics, outlined between the Tay River and Frances Lake, rests unconformably on the Pelly Platform carbonates. A source area for these sediments has not yet been recognized.

Permian to Pennsylvanian basalts and associated red and green cherts overlying the "black clastics" are mapped as allochthons by the G.S.C.

Structurally, the Selwyn Basin has suffered several periods of strong deformation that has altered the original depositional basin. The most intense force was a southwest-northeast compression, characterized by northwest trending thrust faults, northeast verging isoclinal folds and a strong penetrative foliation.

Faulting has also played an important role in the evolution of the Basin. Although direct evidence is scant, synsedimentary faulting is probably responsible for abrupt facies changes and anomalous thickening of units. Complexity between Pelly Platform, Anvil Failed Rift and Klondike Schist Terranes along the western boundary of the Selwyn Basin can best be explained by major northwest trending sutures. North to northeast trending faults have a minor effect and generally displace unit contacts within geological provinces.

TABLE OF GEOLOGICAL FORMATIONS

AGE	UNIT	DESCRIPTION
TERTIARY	Tv	GREEN TO DARK GREY FINE GRAINED BASALT, DACITE AND ANDESITE, ALSO WITH ASSOCIATED PORPHYRIES.
CRETACEOUS	JCr	MEDIUM TO COARSE GRAINED BIOTITE GRANODIORITE TO QUARTZ MONZONITE, OFTEN PORPHYRITIC, ALSO FOLIATED TO GNEISSOSE
TRIASSIC	Tr	TAN WEATHERING, SANDY TO SILTY SHALE, MINOR BROWN - BLACK LIMESTONE
PENNSYLVANIAN TO PERMIAN	PPv	ANVIL RANGE GROUP. UNDIFFERENTIATED VOLCANICS, CHERT AND LIMESTONE.
UPPER DEVONIAN TO MISSISSIPPIAN	UDMs	EARN GROUP. UNDIFFERENTIATED CHERT, SHALE, QUARTZITE CONGLOMERATE AND LIMESTONE.
	UDMs	IMPERIAL FORMATION. BROWN WEATHERING, MASSIVE BEDDED SILTSTONE TO INTERBEDDED SILTSTONE AND BLACK SHALES (TURBIDITES)
	UDMc	CANOL FORMATION. SILVERY BLUE GREY TO BLACK WEATHERING, THINLY LAMINATED TO MASSIVE BEDDED BLACK SILICEOUS SHALE WITH INTERBEDDED BLACK CHERT.
	UDMg	MACMILLAN FORMATION. MASSIVE TO CRAGGY DARK GREY TO BLACK WEATHERING, CHERT PEBBLE CONGLOMERATE (COARSE TO FINE GRAINED) TRENDING Laterally TO GREYWACKE AND BLACK QUARTZITE.
	REGIONAL UNCONFORMITY	
ORDOVICIAN TO MIDDLE DEVONIAN	SDL	GREY TO BUFF WEATHERING, THICK BEDDED DOLOMITE, SILTY DOLOMITE QUARTZITE AND FOSSILIFEROUS LIMESTONE
	ODcp	LIGHT GREY WEATHERING, LIGHT GREY CALCAREOUS SERICITE PHYLLITE - CONTAINS LARGE LENSES OF META ANDESITE ODV
	ODbc	BLACK WEATHERING, BLACK MASSIVE CHERT.
	ODrr	ROAD RIVER FORMATION. BLACK TO DARK GREY WEATHERING, BLACK GRAPHITIC SHALE OFTEN VERY CALCAREOUS WITH BEDS OF LIMESTONE
	ODch	BLACK, GREY, WHITE, GREEN, PURPLE, (VARICOLOURED) CHERT.
	EOp	BLACK WEATHERING, BLACK TO GREY VARIABLY CALCAREOUS. PHYLLITE - MAY CONTAIN LENSES OF METABASITE (VANGORDA, GRUM, DY HORIZON)
	EOw	GREY WEATHERING, LIGHT TO DARK GREY MASSIVE CRYSTALLINE LIMESTONE GRADING TO WAVY BANDED LIMESTONE, OR CALCAREOUS SHALE TO PHYLLITE
UPPER CAMBRIAN	EOv	DARK GREEN WEATHERING, MASSIVE TO FOLIATED GREEN META ANDESITE AND METABASITE
MIDDLE TO UPPER CAMBRIAN	EOc	DARK GREEN, WHITE AND PURPLE BANDED CALCITE SILICATES
	EO	ATAN GROUP. ORTHOQUARTZITE, SHALE, GREEN PHYLLITE, QUARTZ PEBBLE CONGLOMERATE, AND, GREY - BLACK PHYLLITE
	EOsc	STAUROLITE GARNET BIOTITE MUSCOVITE SCHIST WITH METABASITE HORIZONS
UNCONFORMITY		
HADRYNIAN	HIq	QUARTZITE, LIMESTONE, GRANULITE, CHERT, SHALE, AND PHYLLITE

## GEOLOGY

Exposures of interbedded black chert and shale, black calcareous shale and minor limestone, Unit OD<sub>RR</sub>, occur several miles to the north of the property. This unit, termed the Nasina facies, represents the eastern slope of the Pelly Platform.

Silurian to Devonian platy dolomite, sandy dolomite, quartzite, and fossiliferous limestone appear to conformably overlie the shale sequence. Thickness of Unit SD<sub>L</sub> is unknown but it does appear to thin to the west where it is structurally terminated at the Ross River, 30 miles to the west. Devonian rugose corals have been discovered in several outcrops west of Fortin Lake during earlier programs.

Platform limestones trend east-west along the northern boundary of the claim group and dip moderately to the south. No mineralization was noted in this unit.

Upper Devonian to Mississippian "black clastics" unconformably overlie platform carbonates in an east-west trending belt through the center of the claim group. In the central and eastern portion of the claim group the most prominent unit is a light grey weathering, light to medium grey phyllitic shale interbedded with pale green chloritic phyllite. Minor interbeds of black phyllitic shale and grey-brown siltstone are common throughout. Chert pebble conglomerate or greywacke channel deposits are absent. Lack of coarse-grained sediments in this section suggest a low energy environment of deposition. Beige weathering, pale grey massive bedded crystalline barite, Unit UDM<sub>B</sub>, occurs near the base of phyllitic shale accumulation.

Structurally, Unit UDM<sub>P</sub> has suffered two periods of internal deformation. An initial phase of isoclinal folding and associated axial plane cleavage has been deformed by broad folding and warping along northeast trending axes. Overall, this unit trends east-west and dips 20 to 40 degrees to the south.

Unit UDM<sub>SS</sub>, consisting of grey weathering, dark grey to black silty shale, siltstone and shale, is similar to the Imperial Formation in Eastern Selwyn Basin.

This succession often contains 20 to 200 foot thick beds of dark grey weathering, shale and chert pebble conglomerate correlative to the Macmillan Formation common throughout the Upper Devonian Sequence in the Northern Cordillera. Unit UDM<sub>SS</sub> has characteristics of being deposited in a distal submarine fan with episodic turbidity current deposits and channel deposits.

Black to dark grey weathering, interbedded black graphitic shale and chert, noted in a creek at the western boundary of the claim group, has been tentatively mapped as the Upper Devonian Canol Formation. No fossil evidence has been found to date to support the proposed age. Chert interbeds vary from 0.5 inches to over 3 feet. Laminations in the shale, commonly less than 0.1 inches in thickness, although they can occur up to 1 inch, are caused by fluctuations in the silica content. This unit probably represents a restricted environment with little addition of pelitic material from nearby submarine fans. No mineralization was noted in this unit.

Thick accumulations of massive green basalt and associated red and green chert overlie the black clastics 2 miles to the south of the DWONK Group.

#### ECONOMIC GEOLOGY

Two outcrops of massive barite with minor pyrite and traces of lead and zinc outline the stratigraphic horizon that potentially might host stratiform lead-zinc mineralization.

The western exposure, roughly 30 feet in thickness, occurs in thick bedded black siliceous shale or Canol Formation. Minor disseminated pyrite occurs in both the barite and shale. Barite and enclosing shale is not anomalous in copper, lead or zinc at this location.

The east showing, located approximately 7,000 feet upstream, consists of a 20 foot thick bed of light grey massive barite within interbedded grey and green phyllitic shale. The barite horizon strikes 095 degrees and dips 30 degrees to the south. A bed of massive pyrite up to 10 inches thick, occurring in the central portion of the barite, was not anomalous in copper, lead or zinc.

Chip samples taken across the barite were slightly anomalous in zinc. Pale green shale directly overlying the barite contained hydrozincite on fracture and foliation surfaces. Rock geochem of this shale yielded 26 ppm copper, 150 ppm lead, and 3100 ppm zinc.

Several blocks of barite-pyrite float were discovered a few hundred feet upstream from the east showing. This mineralization is identical to the distal facies of the Driftpile Creek stratiform barite-pyrite-lead-zinc deposit. The following table summarizes the rock geochem results of samples sent to Bondar-Clegg:-.

<u>Element</u>	<u>DWONK Distal Facies</u>	<u>DRIFTPILE CREEK Distal Facies</u>
SiO <sub>2</sub> %	31.0	15.5
Fe %	7.4	21.0
Na <sub>2</sub> O %	0.8	0.05
Ba %	15.9	1.18
Sr ppm	1,100	2,200
Cu ppm	18	11
Pb ppm	230	3,000
Zn ppm	10,000	>20,000
Ag ppm	2.0	2.6
Cd ppm	11	260

Sulphide mineralization is not common in Upper Devonian barite deposits in the Northern Cordillera. To date, DWONK type mineralization has only been discovered in zones peripheral to massive pyrite-lead-zinc mineralization.

### GEOCHEMICAL SURVEYS

Several widely spaced north-south soil lines were established to hopefully outline near surface exposures of lead-zinc mineralization. All soils were taken from the "B" horizon every 300 feet along the sample lines.

All samples were packaged in Kraft sample bags and forwarded to the Acme Analytical Laboratory in Ross River. The samples were then dried, sieved to -80 mesh, weighed to half a gram, digested in perchloric acid and analysed by atomic absorption for copper, lead and zinc.

Sample results have been plotted on the accompanying 1" = 1,000' scale topographic map. Sample numbers may be noted at various sites along the sampler's traverse. Thresholds were not calculated for various rock units due to the very low background. All values over 50ppm lead with zinc response would be considered anomalous.

The area of interest is largely covered with overburden and has poor soil development. Lack of geochemical response might be due to overburden cover and accompanying swampy ground rather than lack of mineralization. Several samples will be re-run for barium in 1978.

### GEOPHYSICAL SURVEYS

A grid, totalling 10 line miles, was cut by Eastern Associates in early April to provide control for the geophysical surveys. The east-west base line was cut by chain-saw and all 1,000 foot spaced cross-lines were established using axe and machete.

It was hoped that the electromagnetic survey would provide us with a mapping tool in an area that is largely covered with overburden. Conductors obtained over pyrite or graphitic shale hosting the barite horizon at the two showings might be traced into the swampy ground to outline the strike projection of the potentially economic horizon. Although the sulphides are not magnetic, the magnetometer survey was conducted to outline any significant geological boundaries.

## MAGNETOMETER SURVEY

### Survey Method

Readings were taken with the Proton magnetometer at 100 foot intervals in background areas and 50 foot intervals in anomalous areas. Corrections were made for diurnal variation by establishing a series of base stations along the base line and by tying in to these as often as possible during the survey.

### Instrumentation

#### Magnetics

A Model G816 Proton magnetometer manufactured by Geometrics of Palo Alto, California, was used on the survey.

#### GEOMETRICS MODEL G816 PROTON MAGNETOMETER SPECIFICATIONS

SENSITIVITY:	±1 gamma throughout range.
RANGE:	20,000 to 90,000 gammas (worldwide).
TUNING:	Multi-position switch with signal amplitude indicator light on display.
GRADIENT TOLERANCE:	Exceeds 150 gamma/ft.
SAMPLING RATE:	Manual push-button, one reading each 6 seconds.
ACCURACY (TOTAL FIELD):	±1 gamma through 0° to 50°C temperature range.
SENSOR:	High signal, noise cancelling, interchangeably mounted on separate staff or attached to backpack.
TEMPERATURE RANGE:	Console and sensor: -40°C to +85°C.

### Results and Interpretation

The results of the magnetic survey on the central part of the grid were featureless. Work was discontinued because no useful results were obtained.

## HORIZONTAL LOOP ELECTROMAGNETIC SURVEY

### Survey Method

The MaxMin unit was used in the vertical loop mode and horizontal loop mode with cable lengths of 50 and 100 meters. The 1777 Hz frequency was read at each station and periodic checks were made by reading 444 Hz. Readings were taken at 100 foot intervals and at 50 foot intervals in anomalous areas. Slopes were measured using an inclinometer and the receiver and transmitter coils were aligned using the built-in tilt meters.

A horizontal loop line (80 E) was run adjacent to the easternmost barite outcrop and a number of conductors were detected. An effort was made to project these conductors back towards the western barite showing using the vertical loop mode. The same procedure was repeated for the western barite in an attempt to project it back towards the east. This work was followed up with horizontal loop over questionable crossovers. The eastern portion of the grid was covered using horizontal loop with a 100 meter cable before poor ice conditions made further work impractical.

### Instrumentation

The Apex MaxMin II electromagnetic system manufactured by Parametrics Limited, Markham, Ontario, was used on the entire claim block. Specifications for the instrument are shown below:

#### APEX MAXMIN II EM SYSTEM SPECIFICATIONS

OPERATING FREQUENCIES:	222, 444, 888, 1777 and 3555 Hz.
COIL SEPARATIONS:	50, 100, 200, 250 meters.
MODES OF OPERATION:	(a) Tx coil plane and Rx coil plane horizontal (Horizontal loop mode). (b) Tx coil plane horizontal and Rx coil plane vertical (Minimum coupled mode).
PARAMETERS MEASURED:	In-Phase and Quadrature component of the secondary field.
READOUTS:	Automatic, direct readout on 3½" size meters.
SCALE RANGES:	In-Phase: ±20% normal, ±100% by switch. Quadrature: ±20% normal, ±100% by switch. Inclinometers: ±50% tilt.
READING REPEATABILITY:	±½% to ±1%

### Results and Interpretation

Good vertical loop crossovers were detected adjacent to the conductors located on lines 80 E and 20 E. Crossovers became progressively less distinct as work was continued west from line 80 E and east from line 20 E. Questionable crossovers were checked with the horizontal loop (100 meter cable) and results were inconclusive. It is thought that the area between lines 80 and 20 E may be underlain by flat lying sediments that are probably conductive but are difficult to correlate with the more steeply dipping conductors on lines 80 and 20 E.

Two well defined conductors are located on the south end of line 120 E. Lines 100 and 110 E are likely underlain by sericite phyllite and grey shale exposed on the river bank between lines 90 and 110 E. The relationship between the conductors on Lines 80 and 120 East is not known.

### CONCLUSIONS AND RECOMMENDATIONS

Regional mapping led to the discovery of barite-hosted massive sulphides in Upper Devonian "black clastics" near Slate Rapids on the Pelly River. The DWONK Group was staked to cover possible on-strike associated lead-zinc mineralization. The geologic setting is hopefully similar to the Driftpile Creek deposit in northern British Columbia where a barite-pyrite facies is distal to the central lead-zinc-silver mineralization.

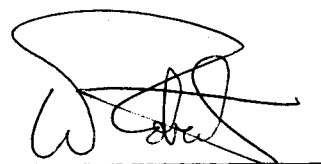
Absence of anomalous geochemistry from the soil sampling program is probably a result of thick overburden rather than lack of lead-zinc mineralization.

Failure of the horizontal loop electromagnetic survey to trace continuous conductive trends from sulphide exposures into overburden covered areas is probably a result of complex geology and deep overburden.

Further geophysical surveys are recommended. Gravity or Spectral I. P. surveys are proposed for the 1978 season. Gravity anomalies coincident with conductor

axes would outline potential targets for barite-sulphide mineralization. The Spectral I. P. technique, being tested in the Faro area during the 1978 field season, may be a useful exploration technique to discriminate between sulphide and graphitic conductors.

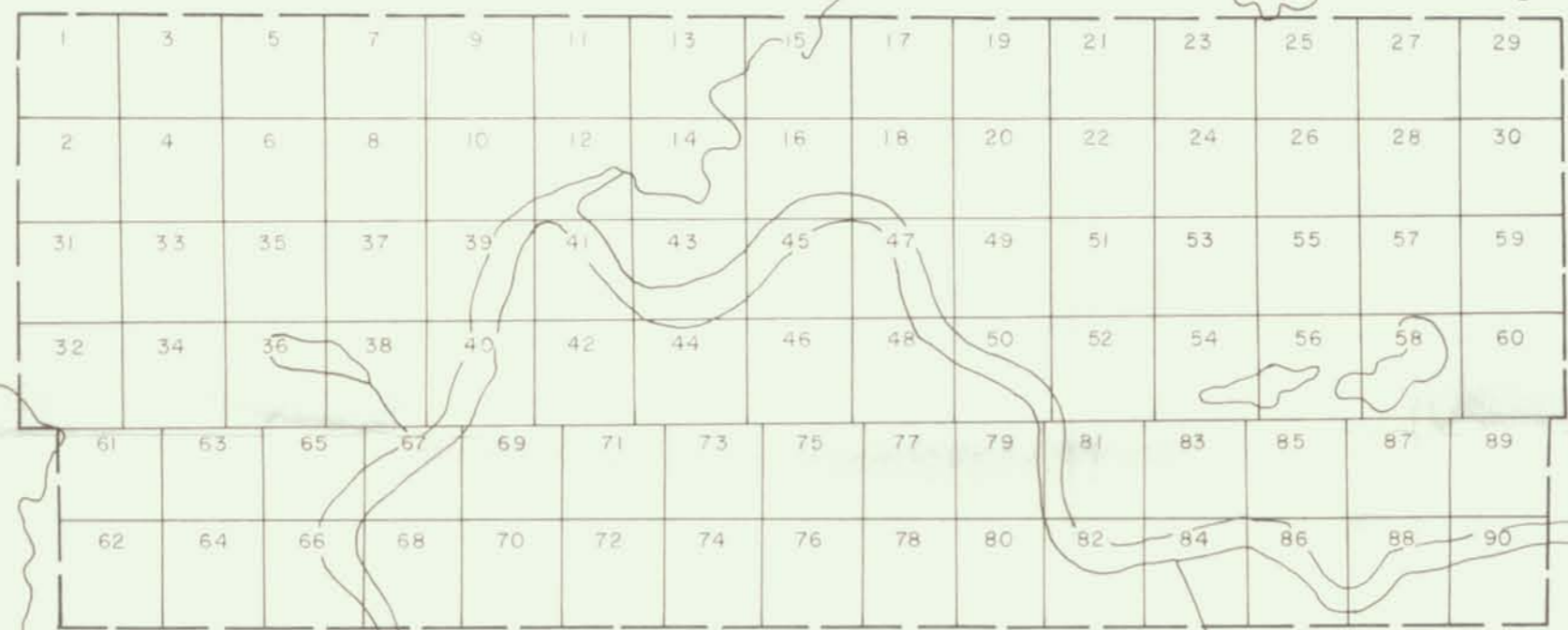
Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Wayne J. Roberts', is written over a horizontal line.

WAYNE J. ROBERTS  
CYPRUS ANVIL MINING CORPORATION

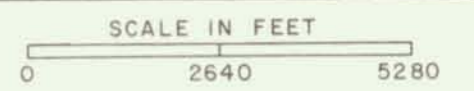
May 9, 1978.

131°00'



61°55'

MacMILLAN PROJECT  
DWORK CLAIMS  
CLAIM MAP



Mar., 1978 WR/rwr

105-G-14

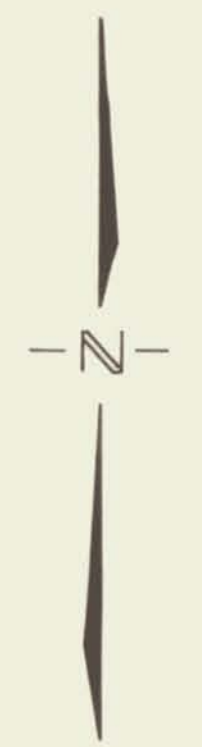


LEGEND

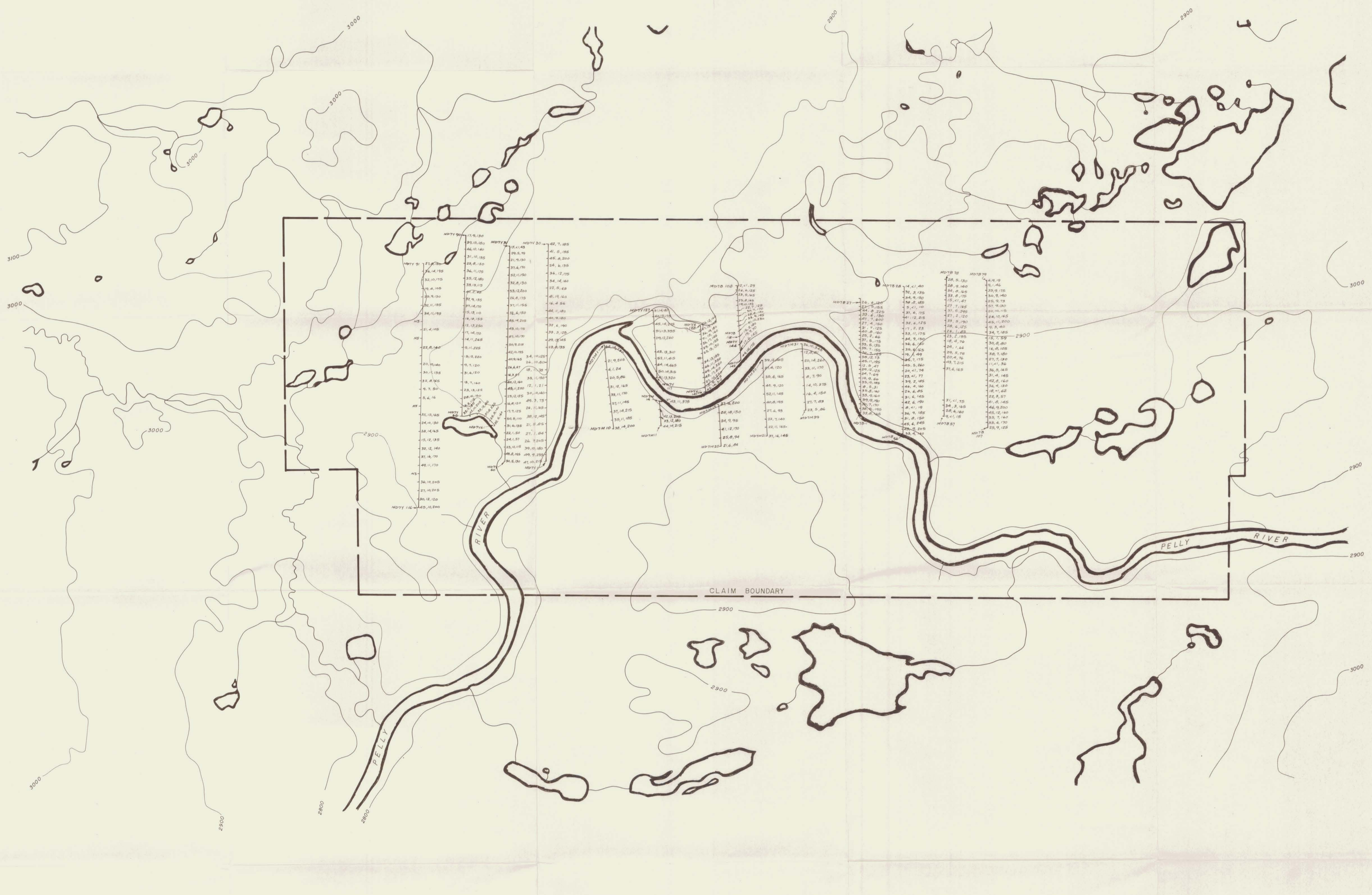
- |                                       |                   |   |
|---------------------------------------|-------------------|---|
| UPPER DEVONIAN<br>TO<br>MISSISSIPPIAN | UDM <sub>ss</sub> | IMPERIAL FORMATION: BROWN WEATHERING, MASSIVE BEDDED SILTSTONE TO INTERBEDDED SILTSTONE AND BLACK SHALES (TURBIDITES).  |
|                                       | UDM <sub>c</sub>  | CANOL FORMATION: SILVERY BLUE GREY TO BLACK WEATHERING, THINLY LAMINATED TO MASSIVE BEDDED BLACK SILICEOUS SHALE WITH INTERBEDDED BLACK CHERT.                                |
|                                       | UDM <sub>cg</sub> | MACMILLAN FORMATION: MASSIVE TO CRAGGY DARK GREY TO BLACK WEATHERING, CHERT PEBBLE CONGLOMERATE (COARSE TO FINE GRAINED) TRENDING LATERALLY TO GREYWACKE AND BLACK QUARTZITE. |
|                                       | UDM <sub>b</sub>  | CREAM WEATHERING, LIGHT GREY MASSIVE CRYSTALLINE BARITE WITH THIN BEDS AND DISSEMINATED PYRITE.   |
|                                       | UDM <sub>p</sub>  | LIGHT GREY WEATHERING, LIGHT TO MEDIUM GREY PHYLLITIC SHALE WITH BEDS OF LIGHT GREEN WEATHERING, GREEN FOLICATED META VOLCANICS.  |
| SILURIAN - DEVONIAN                   | SD <sub>ls</sub>  | GREY TO BUFF WEATHERING, THICK BEDDED DOLOMITE, SILTY DOLOMITE QUARTZITE AND FOSSILIFEROUS LIMESTONE.   |

SYMBOLS

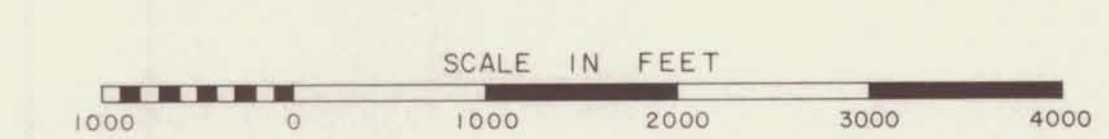
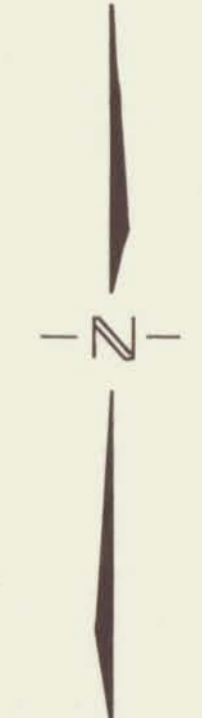
- |  |   |
|--|---|
|  | Geological Contact, defined, approximate, assumed |
|  | Limit of Outcrop                                  |
|  | Thrust Fault                                      |
|  | Faults, defined assumed                           |
|  | Fossil Locality                                   |
|  | Mineralization                                    |
|  | Gossan  |
|  | Anticlinal Fold Axes                              |
|  | Bedding   |
|  | Foliation   |
|  | Isoclinal Folding                                 |



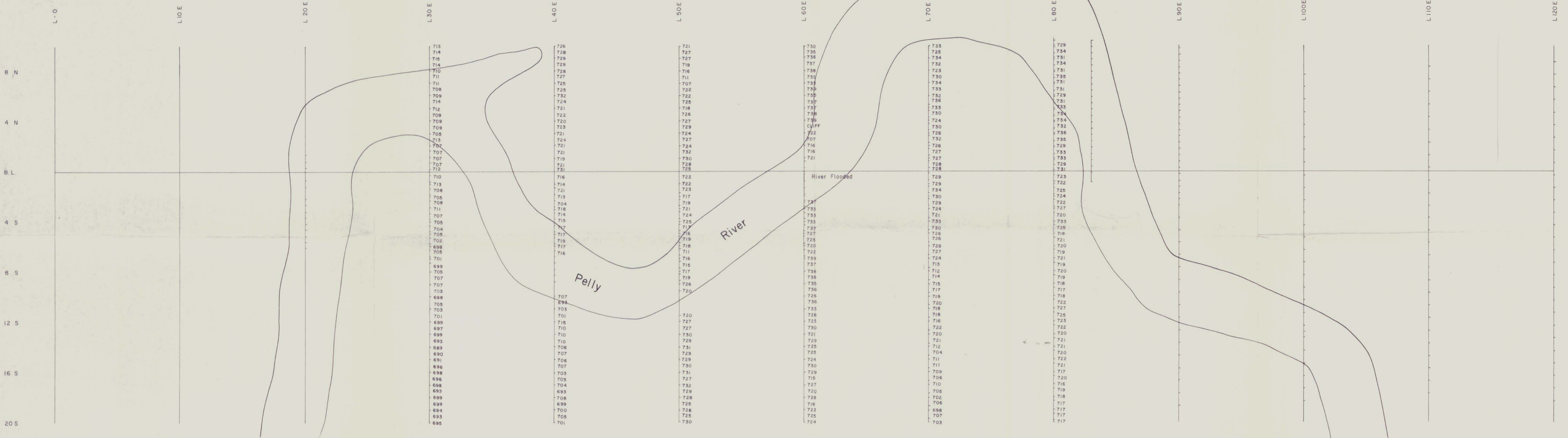
CYPRUS ANVIL MINING CORPORATION	
MACMILLAN PROJECT	
DWORK GROUP	
GEOLOGY MAP	
REVISED: GEOLOGY BY: W. ROBERTS D. KILBY	NTS: 1056-14 DRAWN BY: C. L. C. / B. R. DATE: MAY 22, 1978



MPTV 39 - 23.6,06 SAMPLE NUMBER Cu,Pb,Zn (analysis in parts per million)

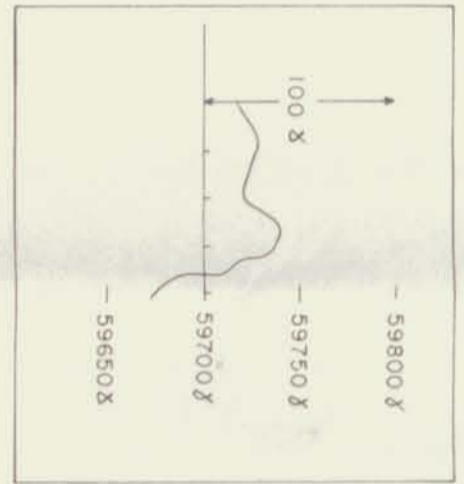
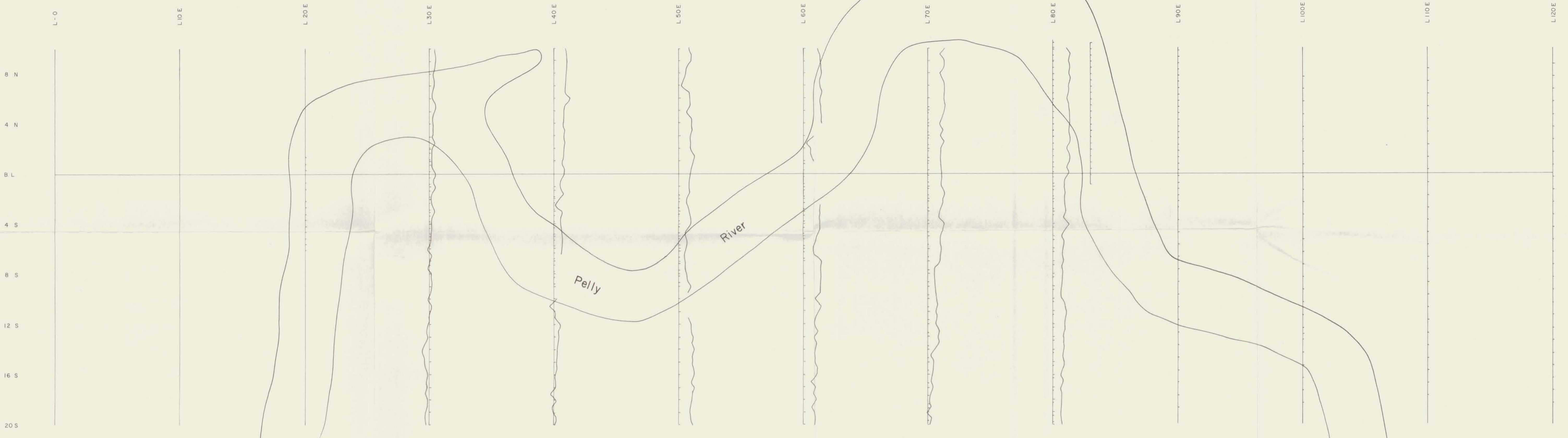


CYPRUS ANVIL MINING CORPORATION	
MacMILLAN PROJECT	
DWNOK CLAIMS	
GEOCHEMICAL VALUES MAP	
Cu, Pb, Zn	
REVISED:	NTS: 105-G-14 DRAWN BY: WR/rwr DATE: FEB, 1976



CYPRUS ANVIL MINING CORPORATION  
 MACMILLAN PROJECT  
 DWONK GROUP  
 MAGNETOMETER VALUES MAP

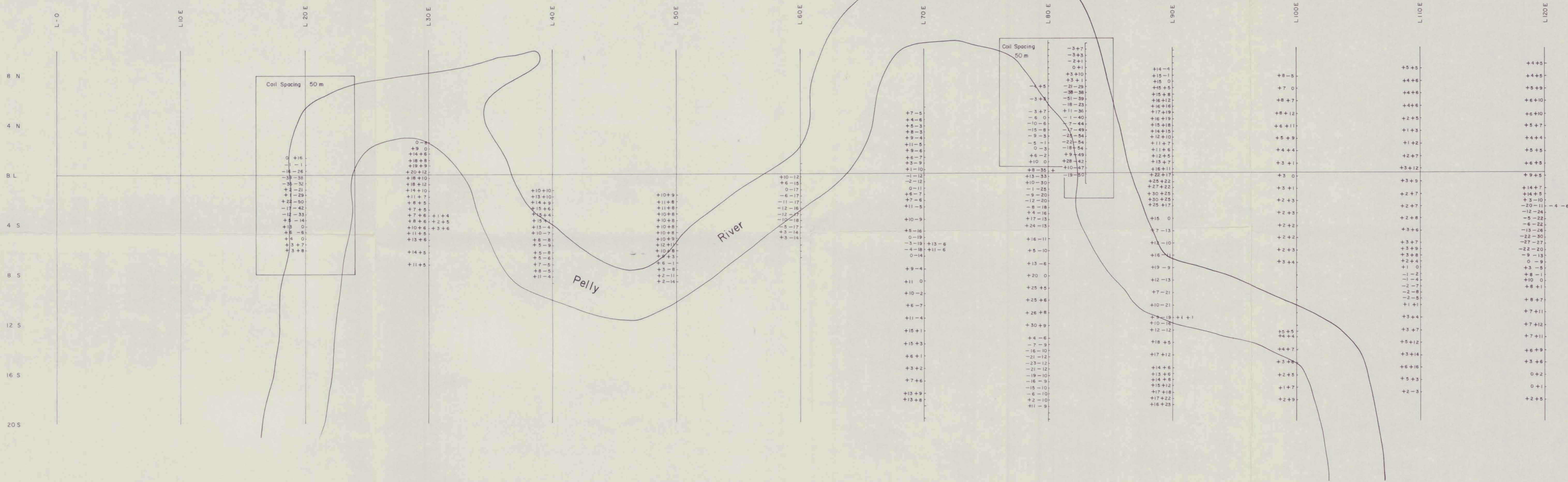
N.T.S. 105 - G - 14  
 DATE: MAY 19, 1978  
 Scale: 1 in. = 400 ft.  
 SURVEY BY: J. JOHNSTON & D. KILBY  
 DRAWN BY: C. L. CORY



INSTRUMENT: GEOMETRICS PROTON MODEL 816  
 MAGNETIC BASE 59000 G  
 SCALE: 1 in = 400 ft 1 in = 100 G

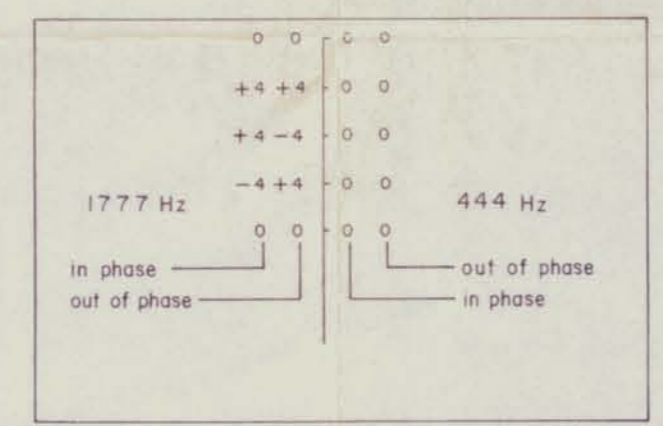
CYPRUS ANVIL MINING CORPORATION  
 MACMILLAN PROJECT  
 DWONK GROUP  
 MAGNETOMETER PROFILES MAP

N.T.S. 105-G-14 400 0 400 SURVEY BY: J. JOHNSTON & D. KILBY  
 DATE: MAY 22, 1978 Scale: 1 in = 400 ft. DRAWN BY: C. L. CORY



Coil Spacing 50 m

-3+7
-3+3
-2+1
0+1
+3+10
+3+1
+15+5
+15+8
+16+12
+16+16
+17+19
+11-36
+16+19
+15+18
+14+15
+12+10
+11+7
+11+6
+12+5
+13+7
+16+11
+13-33
+10-30
0-11
-1-25
-9-20
-12-20
-8-18
+4-16
+17-13
+24-13
+16-11
+5-10
+13-6
+20 0
+25+5
+25+6
+26+8
+30+9
+4-6
-7-9
-16-10
-21-12
-23-12
-21-12
-19-10
-16-9
-15-10
-6-10
+2-10
+11-9



H.E.M. - Coil Spacing - 100 m

CYPRUS ANVIL MINING CORPORATION

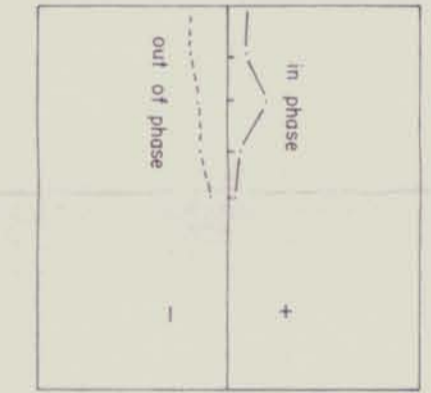
MACMILLAN PROJECT

DWONK GROUP

HORIZONTAL LOOP E.M. SURVEY  
VALUES MAP

N.T.S. 105-G-14 400 0 400  
DATE: MAY 19, 1978 Scale: 1 in. = 400 ft.

SURVEY BY: J. JOHNSTON & D. KILBY  
DRAWN BY: C. L. CORY



INSTRUMENT: APEX MAX MIN II  
 FREQUENCY — 1777 Hz  
 COIL SPACING — 100 m 50 m INSIDE BOX  
 SCALE 1 in. = 400 ft. 1 in. = 40%

CYPRUS ANVIL MINING CORPORATION	
MACMILLAN PROJECT	
DWONK GROUP	
HORIZONTAL LOOP E.M. SURVEY PROFILES MAP	
N.T.S. 105-G-14 DATE: MAY 19, 1978	 Scale: 1 in. = 400 ft.
	SURVEY BY: J. JOHNSTON & D. KILBY DRAWN BY: C. L. CORY