ASSESSMENT REPORTS

June 1966

MAP No. 105 E/4,5 TYPE OF WORK: Magnetic

REPORT FILED UNDER	April Mining Corp. Ltd.
DATE PERFORMED	June 1 - May 1966
LOCATION - LAT.	62° 10' N Swim Lakes, Y.T.
LONG.	133° 00' W
CLAIM Nos.	SWL-19,20,23,27-30,82735,36115,36117,36122,36123
	LEA 1-17 - 36260 CAROL 24
WORK DONE BY	R.S. Adamson, P.Eng.
WORK DONE FOR	April Mining Corp. Ltd.
REMARKS.	Two thirds of area is underlain by sandstone argillitic sediments. Magnetic survey was carried out over interesting areas. 3 magnetic areas were outlined. One is very localized, one is outside the April property, & the third may represent a flat lying sulphide body. Recommend IP survey over this anomaly.

RECEIVED

JUL 13 1966

GEOLOGICAL BRANCH

DY F-24, 81882-12805

DEH 4, 6, 8, 10-16, 86401, 86402, 86412, 86414-86420

WHI 56, 59, 69F, 75F-78F, 93F, 98F, 103F, 107F

CUE 65F, 70F

[illegible] REPORT

[illegible] CLAIM GROUP

FOR

ARVIL MINING CORP. LTD.

LOCATION: Mule Lakes in Whitehorse Mining District, Yukon. Latitude 62°10'N, Longitude 133°00'W. Plain Map Sheets 105 K/1 and 2.

CLAIMS COVERED:

PMA	19, 20, 21, 27-30
LGA	1-27
LAC/GL	1-3
NT	1-24
ESA	1, 6, 11, 16-26
WEI	1, 2, 697-727, 752-767, 827, 927, 1077, 1177
GUS	241, 301

SUPERVISION & REPORT BY: E.E. Anderson, P. Geo. Chief of Explorations for ARVIL MINING CORPORATION LIMITED

DATE OF SURVEY: April, [illegible] 1985

WHITEHORSE TEL.: 667-4343, 667-2574
AREA CODE 403, TELEX 036-8338
CABLE ADDRESS: ANVILMINE

VANCOUVER TEL: 683-8304
AREA CODE 604, TELEX 04-52197
CABLE ADDRESS: ANVILMINE

ANVIL MINING CORPORATION LIMITED
P.O. BOX 2470
108 FORMIS BLOCK
WHITEHORSE, YUKON TERRITORY
CANADA

VANCOUVER OFFICE:
810 WEST HASTINGS STREET
VANCOUVER 2, B.C.
CANADA

RECEIVED
MAR 29 1967
MINING
GEOLOGICAL BRANCH
ASSESSMENT REPORT

March 17, 1967

Mr. G. McIntyre
Chief Mining Recorder
Federal Building
Whitehorse,
Yukon Territory

Dear Mr. McIntyre:

The accompanying reports in duplicate to apply as assessment work on the DWA claim group.

The area covered is the claim map sheet 105 N.2 and 3.

Yours truly,

R. J. Tibbo

R. J. Tibbo, P. Eng.
Chief of Exploration for
ANVIL MINING CORP. LTD.

RJT/ew

GEOLOGICAL SURVEY
MAY 1 1967
Resident Geologist
Whitehorse, Y. T.

This report has been examined by the Geological Exploration Unit. Approved as a representation work by:
[illegible]
Approved as representation work to the value of $ 72,000.00
[illegible]
Accepted as representation work on the Yukon Quartz Mining Act
[illegible]
COMMISSIONER OF YUKON

GEOPHYSICAL REPORT

ON

[redacted] CLAIM GROUP

IN

[redacted] YUKON
(62°10'N, 139°00'W)

FOR

[redacted]

BY

[redacted]
[redacted], YUKON

MARCH 1966



REPORT BY: A.S. Mackie, B.A., M.Sc., P. Eng.
Chief Geophysicist for
[redacted]

SURVEY DATES: April 15th to May 31st, 1966

GEOPHYSICAL SURVEY

USA — [illegible]

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Magnetic Profiles

Magnetic Contours

Electromagnetic Profiles

Electromagnetic Contours


DEA CLAIMS
GEOPHYSICAL SURVE
MARCH 1967
105K 2 & 7

INTRODUCTION

An electromagnetic geophysical survey was carried out by Exploration Geophysics (Yukon) Limited for Anvil Mining Corporation Limited on a portion of the DEA Group of mineral claims during the period April 23rd to May 31st, 1964. Included within the DEA Group are DEA, ET, CARL, LEA, PEA mineral claims as well as WEI and SUE fractional mineral claims.

Preparatory linecutting was done by contract linecutters of White, Rexford and Kapoy Limited of Whitehorse.

Subsequent to and in conjunction with the electromagnetic survey, a magnetic survey was undertaken over selected electromagnetic anomalies.

Access to the property by all people involved with the survey including linecutting was by helicopter based at FAM2 camp 15 miles northwest of the DEA property. A bombardier tracked vehicle was used for both linecutting and geophysical crews to move about the property which during the project was covered with soft wet snow.

The object of the survey was to followup electromagnetic anomalies detected from an airborne geophysical survey done in late 1963. The area was not flown magnetically. Known massive sulphide bodies in the Anvil district, including the Swim deposit located approximately a mile north of the DEA property, usually express a coincident magnetic and electromagnetic response.

Although a good portion of the DEA claim group was known to be underlain by conductive graphitic phyllites, the hoped for target as a result of the ground geophysical surveys was a more highly conductive anomaly within conductive graphitic terrain that revealed some positive magnetic expression.

All geophysical data is presented in the form of profiles, using a distance scale of 1 inch to 400 feet. Vertical scales are 1 inch to 40 degrees and 1 inch to 200 gammas for electromagnetics and magnetics respectively.

The only available published data of the Anvil Range area is a preliminary 4 mile to the inch map of the regional geology of the Pay River map sheet done by Dr. T.A. Todd ick and L.H. Green of the Canadian Geological Survey.

SURVEY SPECIFICATIONS

Grid System

Three baselines were laid out with a transit. The central baseline trending northeasterly is flanked to the northwest by a parallel baseline 1200 feet away. To the southwest another parallel baseline 2000 feet away was cut and surveyed by transit and chain. Two transects surveyed northwest trending tie lines totalling 5200 feet long, perpendicularly intersect all three baselines.

Picket lines were turned off at 400 foot intervals along the baselines by transit. Stations were established along the picket lines at 100 foot intervals by lips of picket nits and chainage.

Electromagnetic Survey

For the electromagnetic survey a CRONE JEM unit (15 volt) was employed. The instrument is a modification of the original JEM unit designed by Crone in 1963; the power supply has been increased thus increasing effective depth penetration to approximately 300 feet under normal operating conditions using the horizontal loop method. The CRONE measures resultant dip angles of the primary and secondary field, is dual frequency (450 and 1800 c.p.s.) and may be used either as a vertical or horizontal loop system.

In contrast to the magnetometer survey which was run along the baseline as well as the picket lines, only the picket lines were run with the EM. A 400 foot separation of the coils was used and readings were taken at 100 foot station intervals.

Magnetometer Survey

A Sharpe's MF-1 Fluxgate type vertical component magnetometer was used during the entire magnetic survey. This instrument is hand held and needs only coarse levelling and no orientation. The magnetometer has a maximum sensitivity of 20 gamma per scale division on the 1000 gamma range and a readability of 5 gamma per scale division.

Readings were taken at 400 foot intervals along the baseline and 100 foot intervals along picket lines. Prior to the actual survey, readings were taken at the intersection points of each picket line with the baseline. These stations were looped and reread every two hours as a means of controlling drift and diurnal variations.

RESULTS and INTERPRETATION

Electromagnetic survey

Both high and low frequency electromagnetic readings were plotted on a plan of the survey grid (1 inch = 400 feet). Profiles of each line were drawn to a standard scale (see map in folder).

Upon examination of the profiled electromagnetic results, two thirds of the surveyed area is revealed to be underlain by conductive terrain. This is consistent with the airborne survey. The largest nonconductive area lies on the eastern part of the surveyed grid. The conductive-nonconductive contact trends southerly from the northeast end of line 2E to east of line 4W where it is sharply truncated, possibly by a northeast striking fault structure. The contact is characterized by a conductive embayment in the nonconductive terrain. The highly conductive embayment measures 1000 feet by 1000 feet in area.

The remaining non-conductive area lies between lines 12 west and 40 west and from the central baseline southwest for approximately 500 feet.

Regional mapping and limited diamond drilling carried out subsequent to this geophysical survey has indicated that the broad conductive area represents underlying graphitic sediments with a regional southwesterly dip.

Magnetic Survey

Magnetometer surveying was undertaken on a selective basis over those parts of the grid which were considered to be either geologically unique or else highly conductive.

Analysis of the magnetic results reveal three distinct areas of positive magnetic expression, one apparently related to the weakly non-conductive area, a second extending south from the NWH property of Kerr-Addison Mines Ltd., and a third located between lines 2+ East and 4+ East immediately north of the south baseline.

The first magnetic area is very localized, occurring essentially on one line, line 20 East. The second area has residual values up to 700 gammas. This anomaly has not been fully defined in view of its location primarily on ground belonging to parties other than Anvil Mining Corporation. The third area has a residual anomaly of 100 gammas within a partially defined area of 1,000 feet by 1,400 feet. The broad nature of this third anomaly is suggestive of a flat lying body lying within or beneath graphitic sedimentary rocks.

CONCLUSIONS and RECOMMENDATIONS

Massive sulphide replacement bodies in the Anvil district typically respond both magnetically and electromagnetically in view of their texture and pyrrhotite or magnetite content. On the geophysical surveyed part of the USA mineral claim group, because of the relatively large area of conductivity, isolation of a unique conductor which would reflect an underlying flat lying sulphide body is not possible by electromagnetic means only. Hence advantage must be taken of possible associated magnetite and/or pyrrhotite by use of the magnetometer.

An electromagnetic target worthy of drilling consideration would have been the conductive embayment because of its apparent geological uniqueness. However, it has no magnetic response. Subsequent to the geophysical survey a single diamond drill hole penetrated graphitic phyllites at station 300 north on line 44 east. In addition an induced polarization survey was carried out over this line and across the embayment with no response.

Only one of the magnetic anomalies has sufficient areal extent to possibly represent a flat lying sulphide body of some economic significance. Hence, the third magnetic anomaly embraced by lines 24 east and 44 East presents the only target worthy of further investigation as a result of the geophysical survey.

On this basis, an induced polarization survey is recommended over lines 28 West and 36 East from the Central baseline to the South baseline.

R. S. Adamson

Robert S. Adamson, P. Eng.
Chief of Exploration for
AVIS MINING LTD.

APPENDIX I (1)

STATEMENT OF COSTS — DEE CLAIM GROUP

(A) Linecutting		$ 6,557.28
Contract: Walter Hosford & Sopoy Ltd.		
Invoice	$ 5,957.28	
Transportation, helicopter	$ 600.00	
Fare to Swiss Lakes, return	$ 6,557.28	
6 hours at $100 per hour		
(B) Contract Geophysics		$ 6,047.50
Exploration Geophysics (Yukon) Ltd. - Invoices		
Invoice submitted	$ 3,797.50	
Maintenance 1½ man days @ $	$ 1,000.00	
Transportation, helicopter	$ 600.00	
Fare to Swiss Lakes, return		
6 hours at $100 per hour		
Transportation, Commander		
26 days @ $ per day	$ 650.00	
	$ 6,047.50	
(C) Compilation of Report		
Writing (R.S. Adamson)	$ 45.00	$ 110.00
Typing, draughting, etc.	$ 65.00	
	$ 110.00	
(D) Supervision		
R.S. Adamson 1 day @ $45	$ 45.00	$ 105.00
D. Hayne 2 days @ $30	$ 60.00	
	$ 105.00	
		$12,814.78

APPENDIX I (ii)

PERSONNEL

(A) Linecutting - White, Hanford & Impey Ltd.
Contract

(B) Geophysics - Exploration Geophysics (Yukon) Ltd.
Contract

W. Cannon	Party Chief	Box 1188	Whitehorse,	Yukon
D. Gamble	"	"	"	"
J. Gerrine	"	"	"	"
V. Lund	"	"	"	"
E. Milne	"	"	"	"
J. Rollins	"	"	"	"
B. Shillington	"	"	"	"
W. Cannon	"	"	"	"
C. Grady	"	"	"	"
A. Watson	"	"	"	"

(C) Compilation of Report

J. A. Jamieson, Exploration Chief, Box 2470, Whitehorse, Yukon

(D) Supervision

J. A. Jamieson, Exploration Chief, Box 2470, Whitehorse, Yukon
D. Hayes, Geologist, Box 2422, Whitehorse, Yukon

APPENDIX I (iii)

A F F I D A V I T

STATEMENT OF COSTS
Geophysical Report
April 23rd to May 31st, 1966

I, Robert E. Adamson, Chief of Exploration for ANVIL MINING CORPORATION LIMITED, have compiled the statement of costs as presented in this report, "Geophysical Survey of Sam Claim Group", SO MAKE OATH AND SAY AS FOLLOWS:

That to the best of my knowledge and belief, the statement of costs as presented is true and an accurate representation of expenditures to be applied as representative work on the Sam Group of mineral claims.

Robert E. Adamson, B.A.Sc., Chief of Exploration for ANVIL MINING CORP. LTD.

DATED this 7th day of March, 1967, in the City of Whitehorse in the Yukon Territory.

A Commissioner for taking Affidavits in and for the Yukon Territory.

May 1968

PROGRESS INVOICE FOR LINE CUTTING CONTRACT

WITH: ARVIN MINING CORPORATION LIMITED
BOX 2475
WHITEHORSE, Y.T.

RE: LINECUTTING CONTRACT 1 April - 30 April 1968

AREA	BASE LINE	PICKET LINE	PRICE	EXTENSION
GAL	------	197,000/- 24.05 mi.	$ 27.50	$ 1063.68
SWIM LAKE	31,152'- 9.69 mi.		$250.00	2422.50
W K [illegible]				DY-LEA
SWIM LAKE		240,800- 45.61 mi.	$ 77.50	3534.78 DY-LEA

TOTAL DUE AT PAR IN WHITEHORSE $ 7021.16

Yours truly, Arvin Mining Ltd

[signature]

P.O. BOX 2404 PHONE 667-2707

EXPLORATION GEOPHYSICS (Yukon) LTD.

WHITEHORSE, Y.T.

27 May, 1966

INVOICE: Submitted to Amvil Mining Corporation.

FOR: Electromagnetic and Magnetic Surveys performed April 27th to May 15th, 1966.

LOCATION: DY-LEA claim groups (File No.)

DATE	MAGNETOMETER SURVEY LINES	MAGNETOMETER SURVEY FOOTAGE	ELECTROMAGNETIC SURVEY LINES	ELECTROMAGNETIC SURVEY FOOTAGE	OTHER
April 27	Base Line	3000	Nil		
28	Nil			2400	Grid Location ref.(D. Mayes)
29	Base Line	10000	Nil		EM Crew standby broken snow shoe
30	Nil		Nil		EM & Mag. standb broken snow shoes
May 1	100,96,92	15,200	100E	3,500	
2	92,88	11,700	100E,96E	5,200	
3	84E	8,200	92,96E	6,600	
4	76,80E	11,200	92W & 92E	4,000	
5	4,8,12S	10,000	88N&S, 84N,84S	11,300	
6	12E	12,400	84E, 80E	6,[illegible]	
7	20,16,12, 8,4	13,100	80E,76E	7,800	
8	76,72,68	14,700	Nil		
9	68,64,60	18,800	80E, 76E, 72E	11,500	
10	52,56	9,200	68E, 64E	14,300	
11	Nil		60E, 56E	14,700	Camp move-1 Man
12	Nil		Nil		Camp move-3 Men
13	Nil		56E, 48E	4,600	Fixed Bombadier 1-Man
14	Nil		44E	800	hauled gas & oil 2-Men
15	56,52,48,42,	19,200	44E, 40E	2,[illegible]00	
TOTAL FOOTAGE		157,700		113,000	

TOTAL LINE MILES---29.9 Line Miles----- 21.4 Line Miles

P.O. BOX 2484 PHONE 667-2741

EXPLORATION GEOPHYSICS (Yukon) LTD.

WHITEHORSE, Y.T.

27 May, 1966

CHARGES:

Magnetometer Survey	29.5 LM @ $30.50/LM	$ 897.00
Electromagnetic Survey	21.4 LM @ $47.50/LM	$1016.50
Standby charges	April 27th---1 Man	$ 20.00
	April 29th---2 Men	$ 40.00
	April 30th---3 Men	$ 60.00
	May 11th---1 Man	$ 20.00
	May 12th---3 Men	$ 60.00
	May 13th---1 Man	$ 20.00
	May 14th---2 Men	$ 40.00
TOTAL THIS INVOICE		$2173.50

Approved K.S. Thomson

P.O. NUMBER .....
PRICE CHECKED .....
QUANTITY CHECKED .....
EXTENSIONS CHECKED CB
ACCOUNT FOR 24020 .....
APPROVED FOR PAYMENT .....

Requisitioned by K.S.T.
June 2, 1966

P.O. BOX 2480 PHONE 667-2797

EXPLORATION GEOPHYSICS (Yukon) LTD.

WHITEHORSE, Y.T.

10 June '66

PROGRESS INVOICE

WITH: ANVIL MINING CORPORATION LIMITED
WHITEHORSE Y.T.

TO: MAGNETOMETER AND ELECTROMAGNETIC GROUND SURVEYS ON DY-LEA GROUP

DATE	A PARTY MAG. LINE	CREW	FEET	B PARTY LINE	CREW	FEET	A PARTY E.M. LINE	CREW	FEET	B PARTY LINE	CREW	FEET
MAY 16	48E	Gehring		--	--	--	44E	Gamble		4E	Hollins	
	44E						40E	Milne		8E	Shilling	
	40E						36E			12E		
	36E		18,900				32E		11,200			12,600
MAY 17	44E	"					32E	"		8E	"	
	40E						36E		6,700	12E		
	36E									16E		
	32E									20E		11,800
	28E		18,300									
May 18	28E	"		12E	Gamble		28E	"		16E	"	
	24E			16E			24E		6,100	24E		
	20E		14,300	8E						28E		7,100
				20E		15,400				00		
MAY 19	4E	Gehring		--	--	--	04E	Milne		00	"	
	8E	Gamble						Lunde	3,100			2,400
	12E		9,800									
MAY 20	44E	"		--	--	--	24E	Milne		4W	"	
	48E							Lunde		8W		
	52E		13,700					Gamble		12W		
									12,400			12,400
MAY 21	64E	"		N I L			R A I N & S N O W					
	60E		7,200									
MAY 22	44E	Gehring		--	--	--	48 W	Milne				
	48E						44 W	Lunde		32W	"	
	52E		11,000				41 W			28W		
							36W		14,000			8,700
TOTAL (MAG)			93,200	plus		15,400	(E.M.)		53,300	plus		55,000

Magnetometer charges: 108,600'
20.57/miles @ $30.00: $ 617.10

E.M. charges : 41,900
21.2 miles @ $ 47.50 : $ 1007.0

TOTAL AMOUNT THIS INVOICE: $ 617.10 plus $ 1007.00 ..... $ 1624.1

Department of Indian Affairs and Northern Development | Resource and Economic Development Group | Ministère des Affaires indiennes et du Nord canadien | Bureau des ressources et du développement économique

Box 1767,
Whitehorse, Y.T.,
May 15, 1967.

RESTRICTED

Mr. G. A. McINTYRE
MINING RECORDER
WHITEHORSE MINING DISTRICT

M.I. M-252

our file/notre dossier
your file/votre dossier
date

Geophysical Report on DEA Claim Group for Anvil Mining Corp. Ltd. by R. G. Adamson April 25 to May 31, 1966

On the recommendation of the Resident Geologist and the Resident Mining Inspector I hereby authorize you to accept this report as representation work under Section 53 (4) of the Yukon Quartz Mining Act to the value of Twelve Thousand Eight Hundred Fourteen Dollars and Seventy Eight Cents ($12,814.78).

Original signed by
Commissioner J. Smith

James S 1th,
Commissioner.

HON/BAM

cc: Chief, Resource Management Division
Attention: Geological Evaluation Unit

Central Mining Records - Whitehorse

Resident Geologist

1867 | 1967



ANVIL MINING CORP.
WHITEHORSE

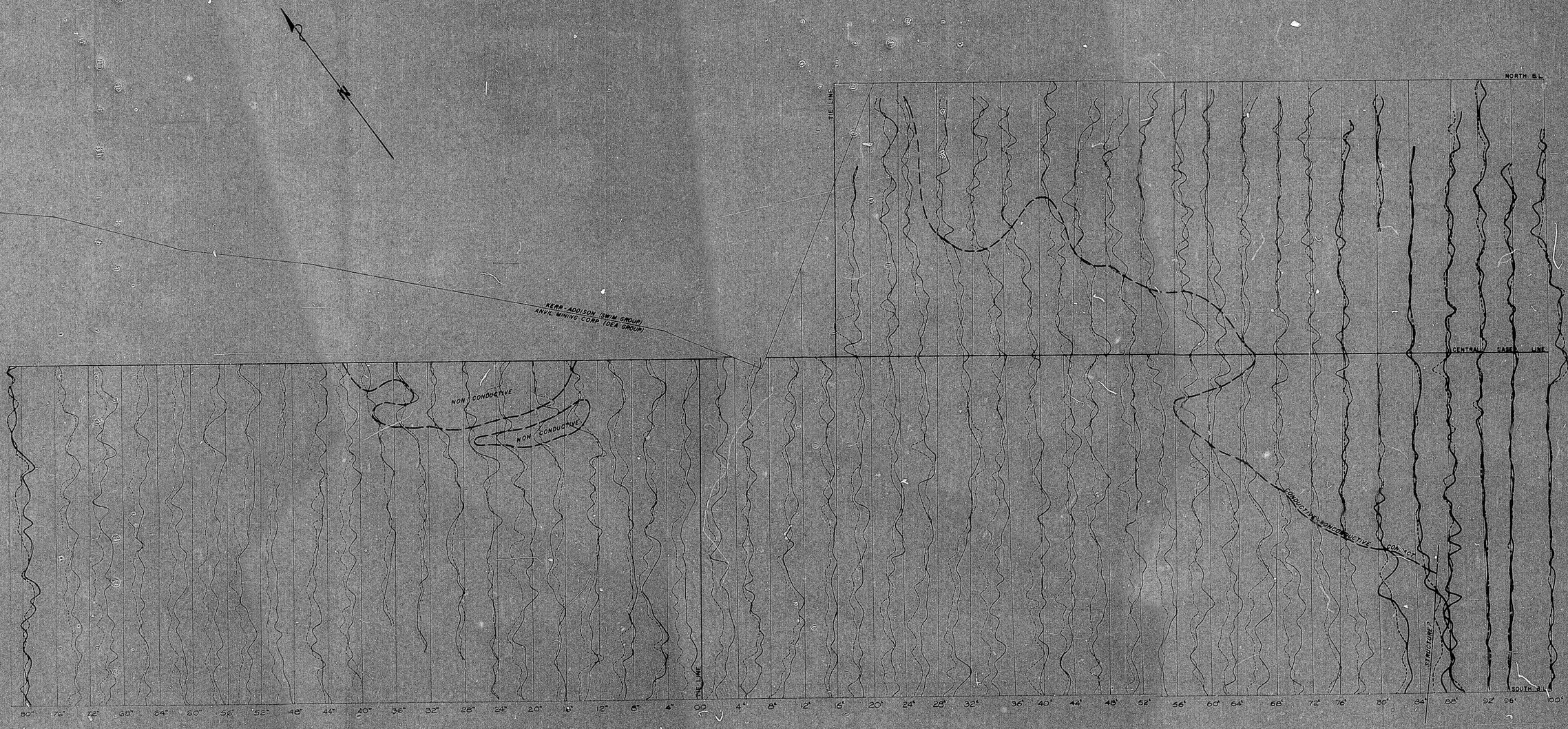
DY LEA GROUP

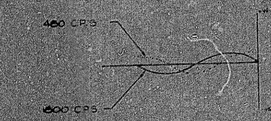
ELECTROMAGNETIC SURVEY BY
EXPLORATION GEOPHYSICS (YUKON) LTD

SURVEY DATE	APRIL 23	MAY 31 1966
OPERATORS	CRADY, ROLLINS & WILLINGTON	DANIELS
INST. TYPE	CRONE DUAL FREQUENCY	2.4 & 9
COIL SPACING	200'	
CONTOUR INTERVAL	25 MICHELLES	

DATE AUG. 4 1966
SCALE 1"=400'
DRN. D.J.G.
PLOTTED
INTERPRETED H. CANNON

DWG. No.
EWX-34
CONTOURS





ANVIL MINING CORP.
WHITEHORSE

DY-LEA GROUP
ELECTROMAGNETIC SURVEY
EXPLORATION BY GEOPHYSICS (YUKON) LTD.

SURVEY DATE	APRIL 25 MAY 31 1966
OPERATORS	GAMBLE, LUND, CANNON, MILNE
PROFILE SCALE	1"=40'
RDG INTERVAL	100'
INST SPACING	400'

DATE	AUG. 23, 1966
SCALE	1"=400'
DRN.	W. CANNON
PLOTTED	
INTERPRETED	W. CANNON

DWG. No. EWX-35
PROFILES

NORTH BASE LINE

N

TIE LINE

TIE LINE

CENTRAL BASE LINE

SOUTH BASE LINE

32W 28W 24W 20W 16W 12W 8W 4W 0 4E 8E 12E 16E 20E 24E 28E 32E 36E 40E 44E 48E 52E 56E

EXPLORATION GEOPHYSICS (YUKON) LTD.

DEA GROUP

MAGNETIC PROFILES

MAGNETIC DATUM LEVEL 500 ϒ

PROFILE SCALE 1" = 200 ϒ

HORIZONTAL SCALE 1" = 40

DRAWN BY: W. CANNON

SURVEY: APRIL 25. - MAY 31. 1965

DATE: MARCH 1967

EWB-36

NORTH BASE LINE

CENTRAL BASE LINE

SOUTH BASE LINE

N

32W 28W 24W 20W 16W 12W 8W 4W 0 4E 8E 12E 16E 20E 24E 28E 32E 36E 40E 44E 48E 52E 56E 60E 64E 68E

EXPLORATION GEOPHYSICS (YUKON) LTD.

DEA GROUP

MAGNETIC CONTOURS

MAGNETIC DATUM LEVEL: 500 g

CONTOUR INTERVAL: 100 g

HORIZONTAL SCALE: 1" = 500'

DRAWN BY: W. CANNON

SURVEY: APRIL 25. - MAY 31, 1966

DATE: MARCH 1967

EWB-37