308

INTERPRETATION OF HELICOPTER-BORNE ELECTROMAGNETIC SURVEY
ADAMS PLATEAU AREA, BRITISH COLUMBIA
FOR
NORTHERN EXPLORATIONS SYNDICATE

Maps

#1 - Airborne Geophysical Survey
Electromagnetic map
1" = 200 feet to 1 inch

#2 - Interpretational Overlay

#3 - Airborne Electromagnetometer Survey
Profiles

#4 - Airborne magnetometer Survey
using Varian Proton Precession
Magnetometer

SUMMARY

Helicopter-borne electromagnetic surveys in the Adams Plateau area have shown a number of anomalies of interest. A group of anomalies in the northwesterly area seem to be of primary interest, zones D, E and F. Of not quite as good quality geophysically are anomalies G, A, A-2, P and Q. Also of interest in this area are possible extensions to known mineralized zones shown by anomalies A-1 and B.

An area of second priority is the southeasterly area, where zones I, J, K, L, M, N, occur. These conductors are not of as good quality as some of the ones in the northwesterly area, but are worth investigation. The northeasterly area is of lowest priority geophysically.

CONCLUSIONS

The helicopter-borne electromagnetic survey has shown the value of this type of work as a first stage in exploration. The quality of results and correlation with known showings indicate that follow-up ground electromagnetic work, geological examination, stripping and trenching will be required.

RECOMMENDATIONS

It is recommended that consideration be given to the investigation of the northwesterly and southeasterly areas by ground electromagnetic checking and geological examination. The decision on priortiy of area would depend in part on geological considerations and the extent of previous work.

RECOMMENDATIONS (Cont'd)

Preliminary assessment of the northeasterly area could be made by reconnaissance electromagnetic and geological examination. In addition, some of the better fixed-wing airborne magnetic and electromagnetic anomalies not covered by the helicopter survey could also be investigated in this manner, without the benefit of picket lines.

INTRODUCTION

As a follow-up to a fixed-wing airborne magnetic and electromagnetic survey, helicopter-borne electromagnetic surveys were carried out on selected areas on the Adams Plateau, British Columbia. The towed-bird equipment of Hunting Airborne Geophysics Limited was used. A preliminary interpretation based largely on geophysical considerations has been presented (Smellie, 1959 b).

INSTRUMENTATION

The helicopter-borne electromagnetic system of Hunting Airborne Geophysics Limited is mounted in a "bird" towed 100 feet below a Bell G2 helicopter and 100 feet above ground surface. Inside the "bird" is a vertical transmitter coil, with a vertical receiver coil mounted coaxically at a separation of 20 feet. The associated electronic circuitry is used to detect the amplitude of the in-phase and quadrature components of the secondary field at the receiver. These are passed along the connecting cable to a recorder mounted in the helicopter. The operating frequency is 4,000 cycles per second.

LOCATION, ACCESS AND TOPOGRAPHY

The area is located a few miles to the north of Shuswap Lake, between Adams Lake and Scotch Creek. It may be reached by bush road from Squilax on the transcontinental line of the Canadian Pacific Railway. The area is a deeply dissected plateau.

HISTORY OF MINING EXPLORATION

The early history of mining exploration on Adams Plateau is well summarized by W. R. Bacon (B.C. Minister of Mines Annual Report, 1949, page A 132) as follows:

> "As far back as 1893, mineralized bodies were explored near Agate Bay, on the west shore of Adams Lake, but it was not until 1927 that the first recorded discovery of mineral was made on the high plateau area to the east of the lake."
>
> "One of the first discoveries on Adams Plateau, the Lucky Coon, was optioned to The Granby Mining, Smelting and Power Company, Limited, in 1928. After 3,420 feet of trenching, 694 feet of diamond drilling, and 52 feet of drifting had been done, the option was dropped, and it was not until 1948 that another established mining company became interested in the area. In that year Pioneer Gold Mines of B. C. Limited sent a party into the area to prospect systematically for base-metal deposits. During 1949 interest in the area heightened with the optioning and drilling of the Mosquito King property by The Consolidated Mining and Smelting Company."

HISTORY OF MINING EXPLORATION (Cont'd)

The Westville Mining Company also carried out prospecting during 1949. Work by Plateau Metals Limited on the Westville property was carried out between 1951 and 1955 and included geological mapping, electromagnetic and magnetic surveys, prospecting and surface stripping. In 1953, some diamond drilling was done by New Jersey Zinc Exploration Company on fluorite veins on the eastern portion of the property.

GENERAL GEOLOGY

From regional mapping immediately to the south by Rice and Jones (1948), it has generally been assumed that the formations of the Adams Plateau area are of the Mount Ida group of Windermere or later age. This work, together with geological mapping by Pioneer Gold Mines of B. C. Limited, Westville Mines Limited and Plateau Metals Limited has shown the sequence to be composed of andesite, tuff, tuffaceous argillite, argillite, quartzite, limestone, chlorite schist and gneiss. There are also conformable rhyolite intrusives, north-south basic dykes and stock-like intrusives. The strike appears to be northeasterly, with dips from 20 to 45 degrees to the northwest. A north-south fault is mapped in the area to the south by Rice and Jones, just west of the north-south portion of Nikwikwaia Creek. This may continue into the Spillman Creek area. Joubin (1948) notes two systems of faulting on the plateau, a north 40° west and north 40° east set.

ECONOMIC GEOLOGY

A number of lead-zinc prospects are known on Adams Plateau. While they are generally conformable to the bedding, most workers have considered them to be localized by fracturing. Strike length is often considerable, but the zones are narrow and high grade. The following brief descriptions of properties are summarized from available reports, including those of the B. C. Minister of Mines. They are not intended as a substitute for a geologist's report, but only for purposes of correlation with the geophysical results.

Lucky Coon:

This is a narrow discontinuous zone extending for 4,000 ft. from the main Lucky Coon showing on the northeast to the main showing on the westerly branch of Spillman Creek at the Elsie adit. It is a replacement of limey, quartz-sericite schists, phyllites and greenstone schists and is typically composed of banded galena, pyrite, arseopyrite and sphalerite in a siliceous gangue. The average thickness of the sulphide lenses is about 1 ft. and sometimes two parallel lenses are present.

King Tut:

This adjoins the Lucky Coon group on the north and east. In 1936, there was one blocked adit, and an accessible adit 3,000 ft. northeast of the Lucky Coon showing, with no known showings between. This open adit encountered a 1½ ft. siliceous band with pyrite, galena and sphalerite. Some 500 ft. further east, two strippings expose a hard siliceous rib 2 - 2½ ft. wide containing mixed sulphides - pyrite, arsenopyrite, galena and sphalerite.

ECONOMIC GEOLOGY (Cont'd)

Speedwell:

On a bench on a steep hillside at 6,000 ft. below and one mile north 40° east from the King Tut adits, are located two adits on decomposed rusty schist and phyllite containing pyrite.

Donnamore:

On a steep hillside sloping into one of the eastern branches of Spillman Creek, between 4,500 and 5,000 ft, three miles N35°E from the Lucky Coon showing, strippings show laminated argillaceous-quartzite rocks containing a strongly silicified band, 6 inches to 2 ft. wide including occasional concentrations of pyrite, galena and sphalerite.

Mosquito King:

The locations of this and the Westville property are shown in the Report of the B. C. Minister of Mines (1949, page A 133). Trenches expose a thinly bedded argillite. Certain beds are intensely silicified and mineralized with pyrrhotite, in places pyrite, sphalerite and galena. The mineralized zone exposed in trenches varies from one to five ft. in width, with values in silver, lead and zinc.

Westville

Showings on the Elk 5 claim and Elk 8 friction are similar to the Mosquito King. Over a lateral distance of 1,200 ft, sphalerite and galena is associated with pyrite, pyrrotite and quartz. The argillaceous beds containing these deposits average N40°E in strike and dip 30°NW. In the northernmost pits, 75 ft. apart, the mineralized bands are 8 ft and 7 ft wide respectively. According to Dr. C. Riley, concentrations of magnetitie occur, sometimes associated with chalcopyrite.

METHODS OF GEOPHYSICAL INTERPRETATION

The e.m. response profile of a conductor is a function of its shape, strike, dip and depth. With a fixed system frequency, the relative magnitudes of the in-phase and quadrature components of the secondary field are functions of conductivity and size. With a low conductivity-size factor, the quadrature response is larger than the in-phase, rising to a maximum at intermediate values and then falling below the in-phase at high conductivity-size factors. Therefore, the ratio of in-phase to quadrature response is an indication of this factor.

The plan provided by Hunting Airborne Geophysics Limited shows contours of the in-phase component in units of 10^{-5} of the primary field, while spot values of the peak quadrature anomaly are also shown. On the author's accompanying interpretational overlay, the anomaly maximum and half-maximum points are shown, and the ratio of in-phase to quadrature response. Anomalies not well resolved from neighbouring ones cannot always be plotted in this manner. Sometimes only the peak values or the outer half-maximum points are shown, and the ratio estimates are correspondingly inaccurate. The positions of the half-maximum points give a quick indication of the anomaly asymmetry, which leads to an estimate of probable direction of dip. The horizontal distances maximum to half-maximum are small for a narrow conductor normal to the flight-line and increase with a strike nearer the flight-line direction as well as a greater lateral extent.

CORRELATION WITH PREVIOUS RESULTS

Two sets of earlier geophysical data are available, the magnetic and electromagnetic surveys on ground held by Plateau Metals Limited in 1951 and 1953, and the fixed-wing airborne magnetic and electromagnetic survey carried out by Spartan Air Services Limited (Smellie, 1959a). Only the electromagnetic surveys will be considered here.

a) Ground electromagnetic:

This survey was carried out by McPhar Geophysics Limited in 1951, and showed three main anomalies on which further investigation was recommended. Since results of any further investigation are not at hand, it can only be said that the e.m. anomalies appear to be due to extended conductors dipping to the northwest, probably at moderate angles, and of uncertain quality. The response is not particularly strong. Therefore, it is not surprising that no helicopter electromagnetic response occurs at the corresponding positions in the neighbourhood of fiducial 3130 on line 14.

b) Airborne electromagnetic:

The fixed-wing survey did not have the resolution and was not as amenable to accurate interpretation as the helicopter e.m. survey. However, it is interesting to note the correspondence between the "A" group of helicopter e.m. anomalies and zone K on T-7 of the fixed-wing (airborne e.m.) survey. Similarly, zones "B" to "E" of the helicopter e.m. appear to correspond with the other amplitude 16 anomaly on T-7 of the a.e.m.

CORRELATION WITH PREVIOUS RESULTS (Cont'd)

b) Airborne electromagnetic: (Cont'd)

The a.e.m. anomalies in the southern portions of T-17, T-18 and T-19 appear to mark the anomalous area of h.e.m. zones "I", "J", "K", "L" and "M", although with considerably less resolution. The anomaly of amplitude 5 on T-15 and of amplitude 17 on T-14 of the a.e.m. correlate with h.e.m. zone "H". It must be added, of course, that there were a.e.m. anomalies that did not appear on the h.e.m. survey.

CORRELATION WITH KNOWN MINERALIZATION

Position correlation of electromagnetic anomalies with known mineralization is limited in accuracy by the base map. Bearing this in mind, the following are made:

Lucky Coon:

The main Lucky Coon zone appears to correlate with e.m. zone "B" on lines 6 and 7. The amplitudes of in-phase response are 4½ and 3, the ratio R of in-phase to quadrature response 2.

King Tut:

The main showings appear to be marked by zone "A-1" on lines 3 and 4, the amplitude about 1½ and ratio 4. The weak anomalies immediately to the east of the zone may represent the sulphide zone uncovered by stripping.

Speedwell:

A very weak response on line 3 to the west of the surveyed block boundary (not plotted) is at about the correct location for the Speedwell showing.

CORRELATION WITH KNOWN MINERALIZATION (Cont'd)

Westville:

E.m. zone "H" on line 16 does not correlate exactly in position with the Westville showings, but may be due to them. Lack of positional correlation can be caused by distortion of the base map photos.

DISCUSSION OF RESULTS

The helicopter electromagnetic results have shown definite responses over known sulphide zones and in addition have indicated other areas of interest.

Generally speaking, any of the anomalies of good ratio are considered worthy of investigation, with first priority to be given to the best ratio anomalies. Anomalies on adjacent lines that seem to be of similar type are joined by dashed lines. In practice, there may not be continuity of the conductor.

Zone A-1

This anomaly has a ratio of 4 and is relatively localized. As observed earlier, the King Tut showins appear to be marked by this zone on lines 3 and 4. The cause of the anomalies on lines 1 and 2 is unknown, and appears to be worth investigation.

Zones A, A-2

These anomalies are partially resolved from zone A-1, and are considered good prospects.

DISCUSSION OF RESULTS (Cont'd)

Zone B

This anomaly shows a ratio up to 2 and is reasonably localized. The main Lucky Coon zone appears to correlate with this zone on lines 6 and 7, so that extensions or other possible zones are indicated on lines 5 and 8.

Zone C

This anomaly is strongly asymmetric and of moderate ratio. It appears to be due to a horizon with a low northwest dip and may be caused by graphite, although this will have to be established by ground checking.

Zone D

This is of good ratio, strong amplitude and localized and is considered a good prospect.

Zones E and F

These anomalies are of moderate to good ratio, good amplitude and well localized and are considered good prospects.

Zone G

This anomaly is of moderate to good ratio and amplitude and worthy of investigation.

Zone P

This is of moderate ratio and amplitude, with a flanking zone to the west.

Zone Q

This is of moderate ratio and amplitude. Its asymmetry indicates a possible dip to the northeast.

DISCUSSION OF RESULTS (Cont'd)

Zones I, J, K, L, M, N

These anomalies are all of moderate to good ratio and amplitude and worthy of investigation.

Zone H

This anomaly is of good ratio and appears at least on line 16 to be composed of more than one conductor. The relationship of this to Westville showings is uncertain.

Other anomalies appear in the northeasterly area, none of which appear to be of as good quality as the above.

LIMITATIONS OF THE INTERPRETATION

In the analysis of the present data, only anomalies of good amplitude and ratio were singled out on the interpretational overlay. It may turn out as work progresses that some of the weaker anomalies may be worth investigation. By concentrating on the stronger responses to begin with, it is felt that attention will be focussed on zones of reasonable size and good conductivity.

Another limitation is that the effective subsurface penetration of the instrument is probably of the order of 50 feet.

REFERENCES

Joubin, P., 1948 - Summary report on Adams Plateau project, Chase, B. C. unpublished report for Pioneer Gold Mines of B. C. Limited, September 11, 1958.

McPhar Geophysics Limited, 1951 - Report on geophysical surveys of the Westville property, Adams Plateau, B. C., for Plateau Metals Limited, unpublished report, August 9, 1951.

Rice, H.M.A. and Jones, A.G., 1948 - Salmon Area map area, British Columbia: Geol. Surv. Can. paper 48-4.

Smellie, D.W., 1959a - Interpretation of airborne geophysical surveys, Adams Plateau area, British Columbia, for Northern Explorations Syndicate, February 28, 1959.

Smellie, D.W., 1959b - Preliminary interpretation of helicopter-borne electromagnetic survey, Adams Plateau area, British Columbia, for Northern Explorations Syndicate, May 14, 1959.

Respectfully submitted,

D. W. Smellie, P.Eng.

June 17, 1959

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MEMORANDUM

TO.....

.....

.....

FROM THE

DEPARTMENT OF MINES
AND PETROLEUM RESOURCES

VICTORIA, B.C., September 13, 1960.

WHEN REPLYING PLEASE REFER TO FILE No.....

Two maps: 1 Magnetometer
1 Electromagnetic

by Spartan Airways, done before the Bell, Buzz, and Blip claims, Adams Plateau, were located, enclosed in an envelope given J.F. Egdell "For Hartley Sargent" were filed with report No. 308. On September 13th, at the request of Dr. C.S. Riley, I gave the envelope and contents to Mr. Corbett of McIntyre Porcupine Mines. To be returned in due course.

Maps returned Sept 19/60 HS

Maps wanted

H. Sargent,
Chief, Mineralogical Branch.

TELEPHONE
PA. 5832 - PA. 7857

CHRISTOPHER RILEY,
CONSULTING GEOLOGIST

711 - 525 SEYMOUR STREET
VANCOUVER 2. B.C.

102 - 402 West Pender st.,
March 28th., 1960

The Chief Gold Commissioner,
Department of Mines,
Victoria, B. C.

Dear Sir,

Enclosed herewith are two copies of the invoices of the aerial geophysical program carried out on the Adams Plateau, as described in the enclosed report:

Flying and geophysical survey costs	April 30th	2268.20
	April 30th	1274.00
	May 19th.	4751.70
Consulting fees	Ap. 17th	500.00
	May 14th.	150.00
	June 17th.	430.00
	Ap 17	33.34
		$9407.24

Very truly yours,

C. Riley

C. Riley

[illegible] WEST [illegible]
VANCOUVER 3, B.C.

30th April 1959

Northern Explorations Syndicate

Magnum Copper Limited,
700 Burrard Building,
1030 West Georgia Street,
Vancouver 5, B.C.

IN ACCOUNT WITH

THE PHOTOGRAPHIC SURVEY CORPORATION
LIMITED
WESTERN DIVISION
AIR SURVEY ENGINEERS

PROJECT No. 59-25 AUTHORITY: P.O. M-34 TERMS NET CASH

TO:

Progress:
Helicopter E.M. survey, Adams Plateau area:

1. Helicopter charter to your account per statemnnt Okanagan Helicopters Ltd. attached $2,268.20

2. Data reduction and plotting invoice to follow.

ORDER No N/B4
RECEIVED BY A. Allan
DATE
CHECKED WITH ORDER
EXTENSIONS AND ADD
PRICES APPROVED A. Allan
APPROVED FOR PAYMENT
CHARGED TO Northern Expl.

A/R Charter

Paid by Cheque No. 7
MAY - 7 1959

E. & O. E.

INVOICE No. 2317

Ck. [illegible] Contracting

THE OKANAGAN GROUP

206

OKANAGAN HELICOPTERS LTD. — VANCOUVER AIRPORT, BRITISH COLUMBIA — PHONE CR 8-5502
502 COMMONWEALTH BLDG., OTTAWA, ONT — PHONE CE 4-8708
AGAR HELICOPTER CONSULTANTS LTD. — VANCOUVER AIRPORT, BRITISH COLUMBIA — PHONE CR 8-5502
CANADIAN HELICOPTERS LIMITED — ISLAND AIRPORT, TORONTO, ONTARIO — PHONE EM 6-8145
UNITED HELICOPTERS LIMITED — TORBAY AIRPORT, ST. JOHNS, NFLD. — PHONE 92877

INVOICE TO:

VANCOUVER AIRPORT, B.C.

Magnum Copper Ltd.,
700 Burrard Building,
Vancouver, B.C.

R-15/M

DATE April 30, 1959.

ORDER NO.

1959 To: Charter of Helicopter CF-ETQ
Flying as per attached Flight Reports:

Flying April 15 - 22, 1959 11 hours & 05 minutes @ $108.00 per hour		$1,197.00
Crew Expenses - April 16 - 21, 1959 -		
Hotel & Meals	$72.00	
Travel	5.00	77.00
		$1,274.00

Paid by Cheque No. [illegible]

APR 3 1959

19th May 1959

Magnum Copper Limited,
700 Burrard Building,
1030 West Georgia Street,
Vancouver, B.C.

RECEIVED MAY 2 1 1959

THE PHOTOGRAPHIC SURVEY CORPORATION
LIMITED
WESTERN DIVISION
AIR SURVEY ENGINEERS

PROJECT No. 59-25 AUTHORITY P.O. M-34 TERMS NET CASH

TO:

Completion:
Helicopter E.M. survey with ½-mile spacing, flown 100 feet A.G. or as close as possible to this, consistent with safety, in the vicinity of Kamloops, B.C.

Completed and delivered	$4,700.00
11% Federal Sales Tax on $470.00	51.70
	$4,751.70

ORDER No.
RECEIVED BY H Allan
DATE May 20/59
CHECKED WITH ORDER
EXTENSIONS CHECKED
PRICE APPROVED H Allan
APPROVED FOR PAYMENT H Allan
CHARGED TO Northern Exp. Syndicate (Adams Plateau Project)

INVOICE No. 2333

(ENG. CONTRACTING)

Paid by Cheque No. [illegible]
MAY 20 1959

DONALD W. SMELLIE, P.ENG.
CONSULTING GEOPHYSICIST

Room 1821, 44 King St. West
Toronto, Canada
Telephone: Empire 8-2357

12 Whitehall
London S. W. 1. England
Trafalgar 4451

1158 West Broadway
Vancouver, Canada
Bayview 6864

Home: Telephone 78
Camp, Ontario

April 17, 1959.

In account with NORTHERN EXPLORATIONS SYNDICATE

5 days @ $100.....	$500.00
Less advance payment, your cheque #11.....	200.00
	$300.00

21 Apr. 1/59

Re: Consulting Fees $ 300.00

DONALD W. SMELLIE, P.ENG.
CONSULTING GEOPHYSICIST

ROOM 1821, 44 KING ST. WEST
TORONTO, CANADA
TELEPHONE: EMPIRE 8-2357

1156 WEST BROADWAY
VANCOUVER, CANADA
BAYVIEW 6584

HOME: TELEPHONE 78
CARP, ONTARIO

April 17, 1959.

In account with NORTHERN EXPLORATIONS SYNDICATE

Travel expenses ex Vancouver, April 5-10, 1959.

Hotel- Kamloops....	$10.13
Living expenses, Adams L...	18.00
Meals.....	5.21
	$33.34

approved Apr 20/59
[illegible]

Chg: ~~Adams~~ ~~Travel~~ $ 33.34
Consulting fees
& Expenses

DONALD W. SMELLIE, P.ENG.
CONSULTING GEOPHYSICIST

ROOM 1821, 44 KING ST. WEST
TORONTO, CANADA
TELEPHONE: EMPIRE 8-2357

1198 WEST BROADWAY
VANCOUVER, CANADA
BAYVIEW 8964

4 WHITEHALL
LONDON S. W. 1, ENGLAND
TRAFALGAR 4481

HOME TELEPHONE 78
CARP, ONTARIO

May 14, 1959.

In account with NORTHERN EXPLORATIONS SYNDICATE

1.5 days @ $100.....$150.00

Approved for payment
H Allen
May 18/59.

DONALD W. SMELLIE, P.ENG.
CONSULTING GEOPHYSICIST
ROOM 800, 347 BAY STREET
TORONTO, CANADA
TELEPHONE: EMPIRE 4-8633

12 WHITEHALL
LONDON S.W.1, ENGLAND
TRAFALGAR 4461

1128 WEST BROADWAY
VANCOUVER, CANADA
BAYVIEW 6584

June 17th, 1959

In account with:

NORTHERN EXPLORATIONS SYNDICATE

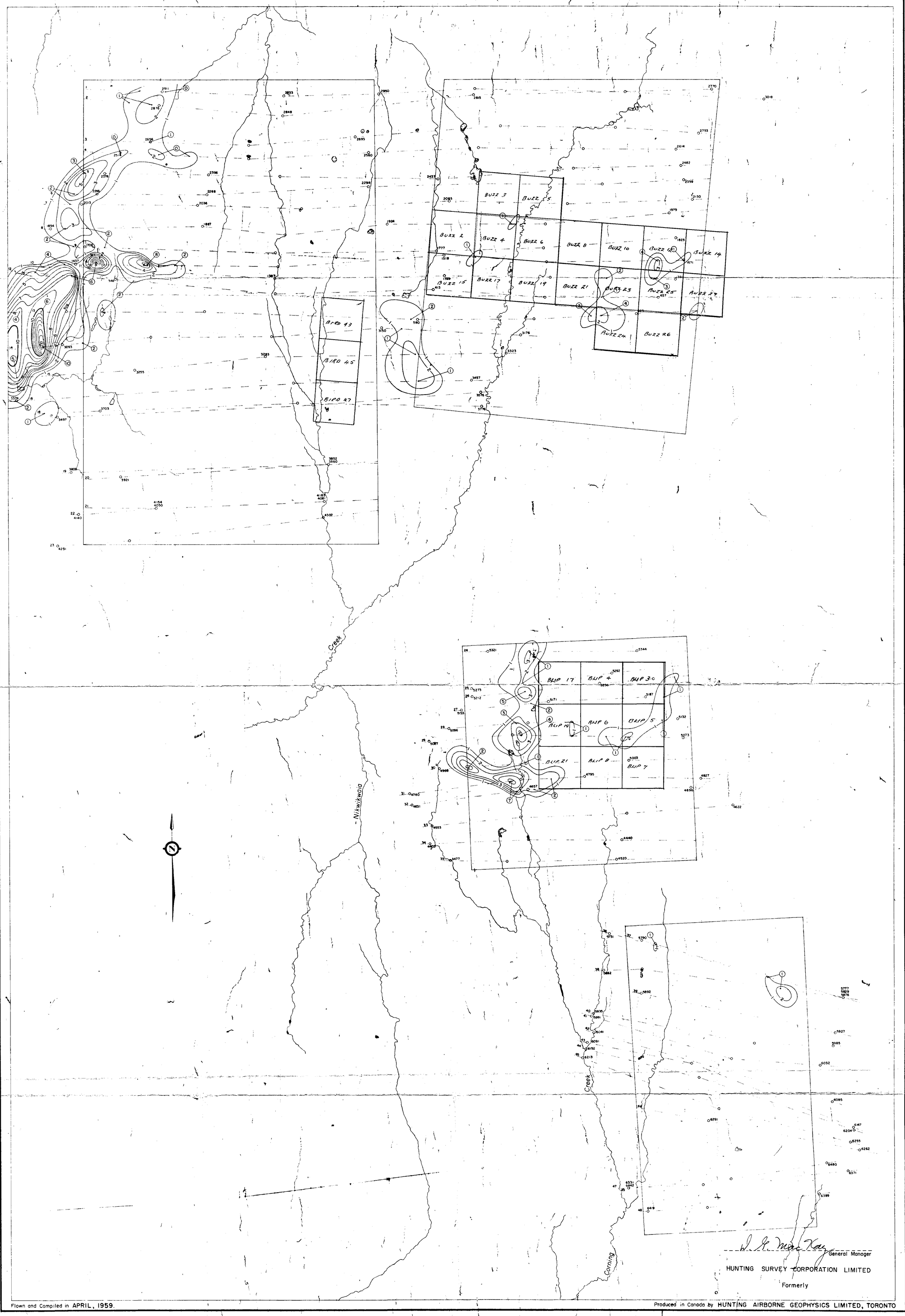
4.3 days @ $100.00 ..... $430.00

(Final report, h.e.m., Adams Plateau)

NORTHERN SYNDICATE

AIRBORNE GEOPHYSICAL SURVEY

ELECTROMAGNETIC MAP



Flown and Compiled in APRIL, 1959.

Produced in Canada by HUNTING AIRBORNE GEOPHYSICS LIMITED, TORONTO

W. A. MacKay
General Manager
HUNTING SURVEY CORPORATION LIMITED
Formerly

ELECTROMAGNETIC CONTOUR
MEAN FLIGHT LINE SPACING ..... 660 FEET
BIRD TERRAIN CLEARANCE ..... 100 FEET
FIDUCIAL POINTS ..... 3690 O
FLIGHT LINES ..... 1 TO 49

IN PHASE AMPLITUDE OF RESULTANT FIELD IS CONTOURED AT INTERVALS EQUAL TO .001 % OF PRIMARY FIELD. OUT OF PHASE AMPLITUDE IS READ AT POINTS CORRESPONDING TO MAXIMA OF IN PHASE COMPONENTS.
POSITIVE AMPLITUDE IS SHOWN THUS ..... (3)
NEGATIVE AMPLITUDE IS SHOWN THUS ..... -2

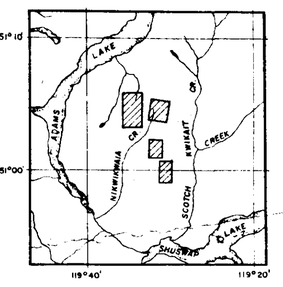
ADAMS PLATEAU AREA, BRITISH COLUMBIA

SCALE
1000 FEET 0 1000 2000 3000 4000 5000 FEET
1320 Feet to 1 Inch

NOTE - Base map liable to variation as planimetry drawn from uncontrolled mosaic

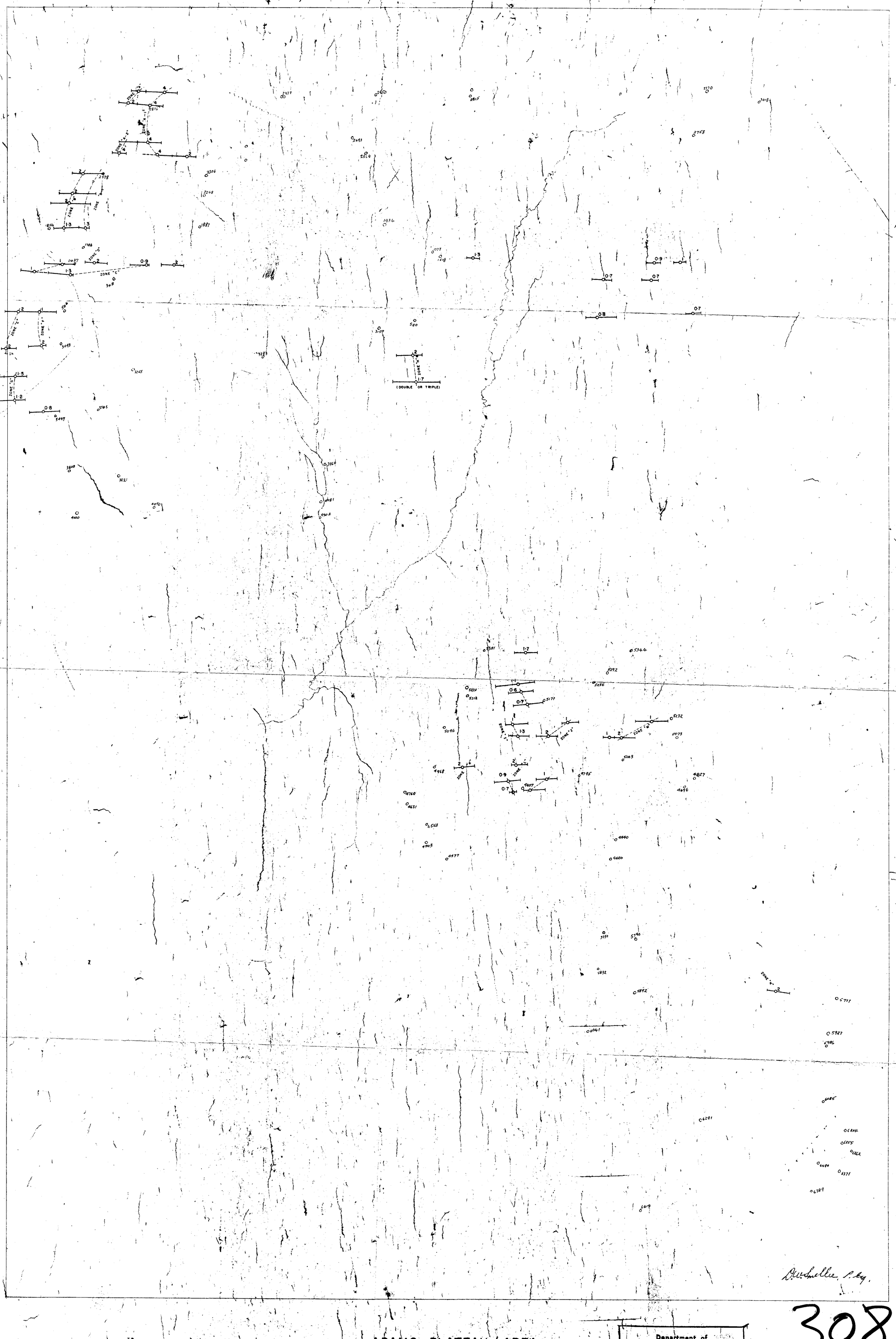
Department of Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 308 MAP #1

308



NORTHERN EXPLORATION SYNDICATE

INTERPRETATIONAL OVERLAY



ELECTROMAGNETIC ANOMALY MAX. ○ } HALF-MAX. PTS.

RATIO OF IN-PHASE TO QUADRATURE RESPONSE 2

ADAMS PLATEAU AREA

BRITISH COLUMBIA

308

DONALD W. SMELLIE, P. ENG.
MAY, 1959

D.W. Smellie, P. Eng.

ADAMS LAKE

SPILLMAN CREEK

NIKWIKWAIA LAKES

NIKWIKWAIA CREEK

PISIMA L.

PISIMA CREEK

KWIKOIT CR.

SCOTCH CREEK

T-1 T-2 T-3 T-4 T-5 T-6 T-7 T-8 T-9 T-10 T-11 T-12 T-13 T-14 T-15 T-16 T-17 T-18 T-19 T-26 T-27

PLANIMETRY BASED ON AN UNCONTROLLED MOSAIC

AIRBORNE ELECTROMAGNETOMETER SURVEY

ADAMS PLATEAU

BRITISH COLUMBIA

DR. C. RILEY

LEGEND

MEAN TERRAIN CLEARANCE	500 FEET
MEAN TRAVERSE INTERVAL	1/4 MILE
LENGTH AND PEAK OF ANOMALY	—●—
LENGTH AND PEAK OF POSSIBLE ANOMALY	- - -○- - -
FLAT RESPONSE	———
RELATIVE AMPLITUDE OF RESPONSE (e.g.)	3
(10 = 1% OF PRIMARY FIELD)	

SCALE (APPROXIMATE)

1/2 MILE 0 2 MILES

SHAPE OF RECORDED RESPONSE

A
B
C
D

SPARTAN AIR SERVICES LIMITED

ADAMS LAKE

SPILLMAN CREEK

PISIMA L

PISIMA CREEK

KWIKOIT CR

NIKWIKWAIA LAKES

NIKWIKWAIA CREEK

SCOTCH CREEK

BROKEN CONTOURS ARE APPROXIMATE

PLANIMETRY BASED ON AN UNCONTROLLED MOSAIC

AIRBORNE MAGNETOMETER SURVEY
USING
VARIAN PROTON PRECESSION MAGNETOMETER

ADAMS PLATEAU

BRITISH COLUMBIA

DR. C. RILEY

SCALE (APPROXIMATE)

1/2 MILE 0 1 2 MILES

LEGEND

MEAN TRAVERSE INTERVAL	1320 FEET
MEAN TERRAIN CLEARANCE	500 FEET
20 GAMMA CONTOUR	
100 GAMMA CONTOUR	
500 GAMMA CONTOUR	
MAGNETIC LOW	
ABSOLUTE MAGNETIC FIELD STRENGTH	58,000

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SPARTAN AIR SERVICES LIMITED