



42C01NW0012 0011 BIRD

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Sault Ste. Marie District (1933)

May 29th, 1933.

Preliminary Report of Mining Claims, A.C. 3001-3002-3003 & 3004 South
Goudreau area - District of Algoma, Ontario.

Introduction

Location-----Title-----Accessibility.

This property comprises a block of Four Claims Being Nos. A.C. 3001-2-3-4- and is located about one-half mile due East of the Section House at Alden, mile 172 on the Algoma Central & Hudson Bay Railway. Alden lies 172 miles due North of the City of Sault Ste. Marie, Ontario.

A winter road has been cut, running almost due East of Mile 171½ for distance of some six miles, to the Michael Boyle property and this road passes near the southern boundary of these claims.

These claims were re-staked by the present Owner in 1932. On completion of the prescribed assessment work, a Patent is granted on the payment of a small fee, per acre, to the Algoma Central and Hudson Bay Railway, Lands Department and is subject to certain Rentals, Royalties and other specifications.

The Algoma District Power Co., Limited, has a Transmission Line running alongside the Right-of-way of the A.C. & H.B. Railway, so that Power is available, when required. The charge for this Power is \$50.00 per H.P. per year.

TOPOGRAPHY. & GENERAL GEOLOGY.

The topography of these claims is that characteristic of the Pre-Cambrian highlands of Canada. Hill and low relief are separated from each other by depressions, which are in places swampy or contain small lakes and Streams. The valleys and swamps are covered with a second growth of mixed northern forest. Few of the trees are suitable for mining purposes but most of them would make fair fuel. Abundance of Water for all mining and domestic purposes.

The fundamental Rocks indicated from the lowest upwards, consist of:-

1. Keewatin lavas and intrusives.
2. Bands of Ironstone, including the Keewatin.
3. Belts of Conglomerate.
4. Algoma Acid Intrusives
5. Keewatin Diabase.

Neither Intrusive or Conglomerate are exposed on this property. The oldest and most extensive rocks in the area are the Keewatin Volcanics and Sediments. They were originally basalt flows,

Tuffs, Agglomerate, Carbonate Beds, Quartzite and Banded Iron Formation in Jasperite. These rocks which are highly folded and intensely sheared form the cover of the Granitic Rocks which outcrop, only here and there as a result of erosion. The strike of these Volcanics is East-West and dip at various angles, to the north. A diabase Dyke cuts through the center of Claims A.C. 3002 & 3004, has a general strike, North-South and is about 50 feet wide and is of no economic importance.

Results of Exploration.

About the center of the East-West line between claims A.C. 3001 & 3003 is seen the first trench, running North-South, some 3 feet wide by Fifty feet long, in the center of this trench is seen the first outcropping of a Pyrite body, some fifteen feet wide. The strike is N-80° E. and dips 55° N. going East, this body may be followed for some 2000 feet in length, where it dips into a Swampy Lake for some 500 feet, where it can be picked up again on the adjoining claim.

This lense has been trenched across at various places, exposing widths from Six to Twenty Feet. The North or hanging wall is sheared Greenstone and the South or footwall, originally Quartzite, has been altered to Sarcetic Schist. In many places the Sulphide has been weathered to Oxide, several feet in depth, while in other places the Oxidation has been worn away, exposing the massive Sulphide, particularly at a point where a small stream crosses the vein, here there is a length of some Ten Feet, width of Fifteen Feet of Massive Sulphide. One hundred feet west of the East N-S. line of claims 3002 and 3004 is a log cabin and back of this, the Oxidation that can be seen, is at least 15 feet deep. About 400 feet East of the center of the claims, the Diabase is seen cutting through the Sulphide, almost at right angle; mention of this was made previously.

CONCLUSIONS.

It is quite evident that further surface exploration would be of little use, due to the intense oxidation, this may extend downward for many feet and until the massive, clean Sulphide is exposed, surface sampling is valueless. It is true that where the massive Sulphide is exposed, an idea of the Sulphur content of samples taken from these places could be made. The best means of proving the extent and value of this body, would be by means of Diamond Drilling. Surface indications are very similar, if not identical with those at the Holdsworth property at Hawk Junction, some six miles South-east. Here similar lenticular lenses of Pyrite have been Diamond drilled, showing a length of 1100 feet, depth by drill to 525 feet and with from 15 to 45 feet. The Sulphur content averaging 45 per cent.

Due to the persistent length and surface widths so far exposed, it is possible that quite a large body of Ore would be proven by Diamond Drilling.

An Electric survey would prove the surface extent of the body.

Respectfully submitted,

B.C. Lamble. P. Eng.
Consulting Mining engineer.
450, Queen Street East,
Sault Ste. Marie. Ontario.

May 29, 1933.

The Marks Property, Alden.

Conclusions and Recommendations.

It is concluded that the amount of pyrite and siderite on the property are too small to warrant further attention. It is therefore recommended that no further work be done on the claim group.

General -

The Marks property consisting of four patented claims numbered 3001 to 3004 inclusive, is located in the northwest corner of Twp. 27 Range 25, approximately one mile southeast of Alden Station. The property is easily accessible by means of a road and trail which lead from mile 171.5 directly to the main showing.

Ten trenches were put down and a small amount of stripping was done along the length of the occurrence, during the early thirties, since when no further work has been done. Three men were engaged for two weeks in prospecting the claim group in early August, 1951. Other than the main showing that was discovered by Holdsworth and restaked by Marks, no further mineral deposits were found.

Geology -

The deposit lies within schistose basic tuffs which strike east-west and dip approximately 50 degrees to the north.

The main showing consists of a lense of lenses of pyrite and pyrrhotite which extend 1500 feet westward from the northeast claim post of claim No. 3004. The maximum width over this length occurs in trench No. 2, 200 feet west of No. 1 post, claim No. 3004, where the occurrence has a horizontal width of 18 feet. In the remaining portion of the lenses, exposed horizontal widths are never greater than 10 feet.

Approximately 500 feet west of the east boundary of claim No. 3004, the occurrence is obscured for approximately 200 feet by a swamp. Immediately west of the swamp a diabase dyke-fault offsets the ore about 200 feet to the north.

The western section of the occurrence usually displays two small pyrite-pyrrhotite lenses which often contain a minor amount of siderite, separated by a 5 to 15 feet of shaly tuffaceous material. The dip of the lenses parallels that of the surrounding tuffs i.e. approximately 50 degrees N.

Three trenches Nos. 1, 2, and 3 were sampled and analyzed from 24 to 26. There is no gold content.

A sketch of the occurrence is appended to this report

C. A. Smith/d

1951/10/10

Alden on A.C.R.

August 29.

Proceed south from Alden one mile.

Proceed around south end of lake and north on east shore to sand beach and ... area directly east of large peak out on A.C.R.

Mileage 172.5. Proceed ... along trail to south east 3.5 ch. trench rock is grey ... acid schist with zones of iron formation. Strike 55° Dip 55° N. Trench extends 560' to large outcrop (round) 80' across. Here is a quartz sill 1' wide - little sign of (1-2?) sulphides. Pillows evident on South side of round outcrop indicating tops to north i.e., rocks are right side up. Occasional small folds and visible plunging in a direction 335° or 84° .

6 ch-trench #2, extends north 70° south 40° , same rock but iron formation more prominent with a more rusted surface, small quartz sills are present and cherty layers about 50' of rock.

7 ch trench #3 extends 30° south Strike 80° Dip 62° N, quartz sills and dikes abundant - particularly in the North end.

8 ch - change bearing to 0° proceed to trail on top of cliff

3 ch - proceed east on trail 4, 5 ch., large outcrop (cleared) on south side of trail extending south 100', 56° 85° irregular zone of quartz up to 5' wide occur. A great deal of work had been done here, including several piles of rock among which are a few samples of black gabbro? in which there are traces of sulphides including bornite and pyrite. There is very little trace of any sulphides in the grey-green acid schists.

11 ch - Beaver Dam

12 ch - East side Beaver Dam (lake to south $250'$ dip stream to north.

24 ch - Trench extending N 35° S 30° N 55° 60° well banded iron formation and grey acid schists and fragment shell quartz veins ... sulphid ... iron formation ...

25 ch - Trench extending ...

26 ch - Trench extending ...

27 ch - Trench extending ...

28 ch - Trench extending ...

29 ch - Trench extending ...

30 ch - Trench extending ...

40' wide trench extends: 35' S 20' N

32.5 ch trench 75' S 20' N Iron formation 15' wide massive sulphides (pyrite) abundant

34 ch trench 30' N 20' S massive pyrite abundant. In Iron formation 20' wide N65 64

33.5 ch outcrop iron formation - 10' dia.

34.5 ch creek 40-41 ch diabase dike st N-S

41 ch clearing with outcrop of iron formation on south side of swampy lake which is 125' wide N-S and extends to the east? It appears to be about 15-20' thick massive sulphides occur on the bottom portions - trail follows outcrop

49 ch trench extends N 50-70' down cliff and 520' width approx. 50' sulphides not very abundant occurring mostly on bottom.

52.5 ch trench extending 50' S 40' S Iron formation approx.

30' wide pyrite bottom half massive in intermittent zones - cherty in upper half.

55.0 ch trench extending S 100' claims posts No. Markes staked August 7/58 Loc. 125 post #3 A3 6205 and post #4 A86206

As: Assays from trenches west of dike of 40 ch Cu. 1.45 Ni. 03 Ag-trace Au-0

Trail to north 1/2 mile high cliff black 2-300' wide follow diabase, find Beaver dam arsenic to east trail starts on height of land and chert east of Beaver Dam at change 12.

A 19' shaft was sunk approx. 500' east of camp on McVeigh Lake. Samples taken here and in trenches to the east.

46
Markes Property. Alder, claims 3,3001-3006, 6205, 6206. Tp. 27. Range 25

Introduction -

Six claims near Alder Sault Ste. Marie. Of these claims, A. 8, 3001-3006, were optioned by A. C. P. in 1951. At that time, the amount of pyrite and siderite on the property was too small to warrant further attention. The same group of four claims was again offered to A. C. P. by W. E. Markes in 1955. The ground was examined by V. R. Veah and, briefly, by A. M. Goodwin. It was found that a rusty ankerite zone lying south of the pyrite band had been opened up by some trenches. Nothing of promise was seen. Mr. Markes was notified that A. C. P. was not interested in further work. In 1958, Mr. Markes acquired two additional claims to the east (A. 8, 6205, 6206) and again offered the group to A. C. P. The group was examined by K. Taylor in August and A. M. Goodwin in November, 1958.

Geology -

Pyrite - A band of iron formation containing lense pyrite zones extends from the east side of claim 3004 westward for at least 1500 feet. The rocks dip approximately 50 degrees north. The maximum width of pyrite, as noted by J. R. Booth, is 18 feet horizontal. The pyrite assays 24 to 26 percent Fe. The pyrite zone can be traced of claim 3001 for roughly 100 feet where it becomes drift covered. So far as known, it has not yet been located elsewhere on claims 6205, 6206.

Copper - A band of quartz-ankerite lies parallel to the iron formation and 400 to 600 feet to the south on the west portion of the group. The band is 10 to 15 feet wide. It is composed of sheared greenstone largely replaced by pale brown, crystalline, rusty weathering ankerite and quartz veins. The quartz contains minor pyrite. As exposed in a pit 600 feet west of Speight Lake, quartz is associated with sparse chalcocyanite. At this pit, the quartz-ankerite zone is 12 feet wide. Chalcocyanite occurs in thin seams and grains intermittently and sparsely over the 12-foot zone. Of the total width of 12 feet, possibly 2 feet aggregate is mineralized. Selected samples of copper-bearing quartz ran approximately 1 percent Cu. The average grade over the full width of 12 feet would be less than 1/10 this amount. So far as known, no other exposures or exposures of better mineralized.

Appraisal -

Pyrite - The change for a considerable widths of pyrite on claims 3001-3006 appear to be negligible. There is no good reason to expect work done on them to the east. However, the claims on claims 6205, 6206 to transportation and with respect

Conclusions:

Preliminary mapping, possibly followed by magnetic and
gravity surveys is recommended in order to test for possible eastward
extension onto claims 6205, 6206 of the known pyrite zone.

A. H. Goodwin.

November 19, 1958.

Janestown, Ontario.

Enclosures -

1. Report by J. P. Booth, 1953.
2. Report by V. R. Vein, 1955.
3. Field notes by K. Taylor, 1958.
4. Correspondence with Mr. Markes, 1955-1958.

SKETCH MAP - ALDEN

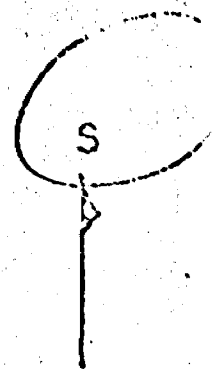
SHOWING

CLAIMS OF WM. MARKE S.

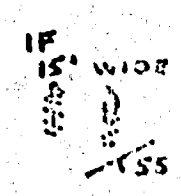
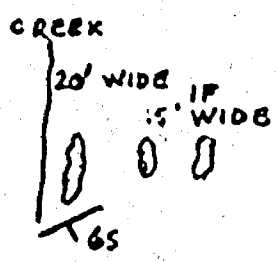
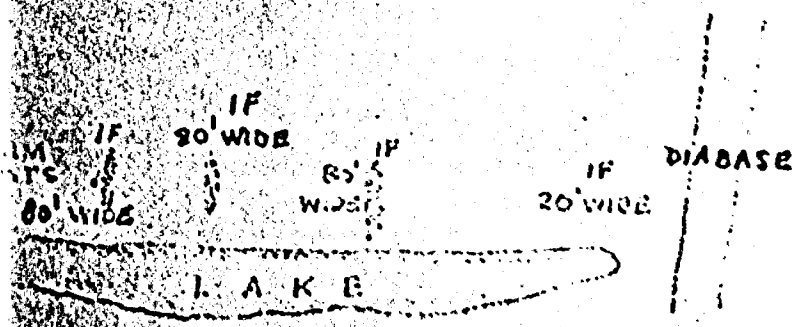
BY K. TAYLOR

AUG. 26, 1958.

COPIED NOV. 61. R. DITTEL



SCALE 1" = 300'



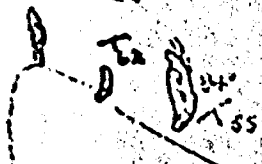
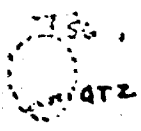
AREA WORKED BY
A.O.P. PREVIOUSLY

LAKE

CU SHOWINGS

MORE TRENCHES

HERE

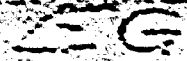


DIABASE DAM

OLD CAMP

ACR APPROX 500' MILEAGE 1925

1/2 MILE TO PRESUMED ARSENIC SHOWING






ALGOMA ORE PROPERTIES LTD.

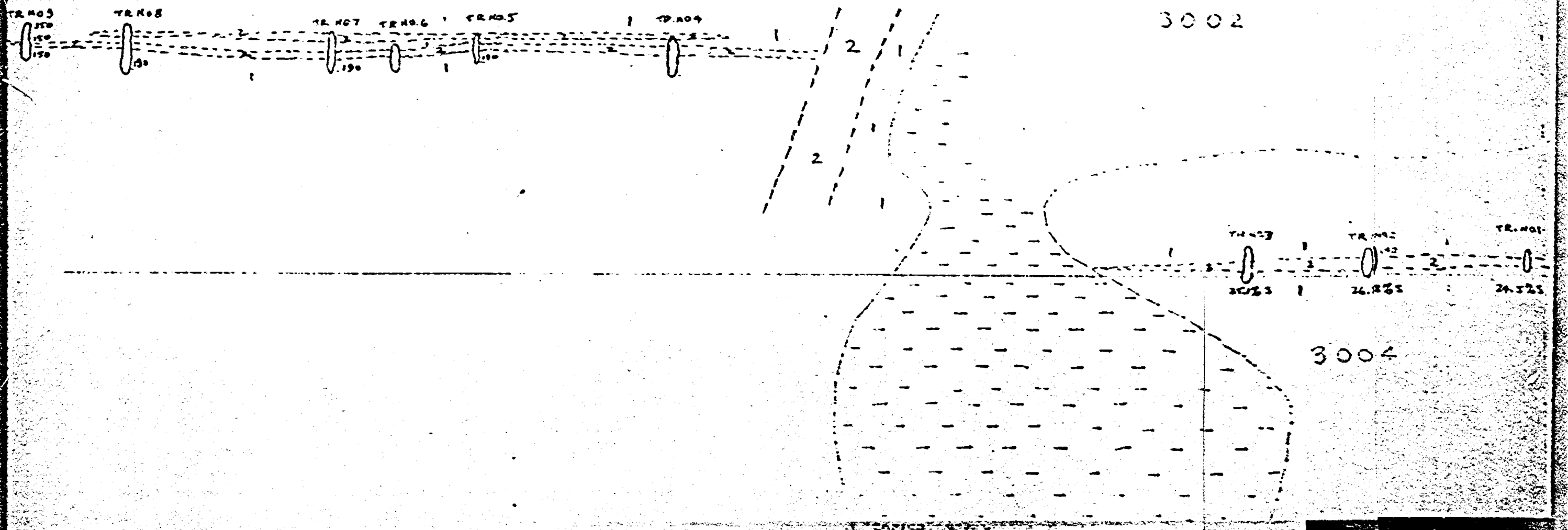
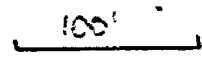
SKETCH OF MARKS CLAIM GROUP - ALDEN.

SCALE 1"=100'

MAPPED BY J. BOOTH

TRACED BY W. LOVE

-  TUFFS
-  PYRITE-PYRROTHITE LENSES
-  DIABASE





42C01NW0012 0011 BIRD

030

PROPERTY OF THE
DEPT. OF MINES

Acme Gas & Oil Co. Limited



*The Prospect of Today
is the Mine of Tomorrow*

Report on Properties Held, Progress and Exploration Planned

August 15th, 1966

RECEIVED
MAR 13 1972
PROPERTY OF THE
DEPT. OF MINES

NOT TO BE REMOVED FROM
THE OFFICE OF THE RESIDENT
GEOLOGIST, ONT. DEPT. OF MINES
SAULT STE. MARIE, ONT.

S 511 5 70

ACME GAS & OIL CO., LIMITED

REPORT ON PROPERTIES HELD, PROGRESS AND EXPLORATION PLANNED

To the Shareholders,
ACME GAS & OIL CO., LIMITED:

This report has been prepared, as a revision of the report of June 14th, 1966, in order to inform you of progress, new property acquisitions, and plans ahead.

Summary:

Acme is actively engaged in mining exploration in Eastern Canada and holds properties as follows:

1. Under a working option granted by Algoma Central Railway, ten townships in the Michipicoten Area of Ontario, located about 120 miles north of Sault Ste. Marie. Acme has arranged to acquire a similar option on two additional townships. Two adjacent areas totalling 54 claims have been staked.
2. In the Timmins Nickel Area, located about 16 miles southeast of Timmins, Ontario, 310 claims in Langmuir, Eldorado and McArthur Townships.
3. In the Bathurst-Newcastle Area of New Brunswick, 1,422 claims including 72 acquired recently.
4. Miscellaneous claims holdings in Ontario and Quebec.

Michipicoten Area — Ontario:

The Company holds ten townships, with a net area of over 350 square miles, located about 20 miles north of Michipicoten Harbour, under the terms of a three-year working option granted by Algoma Central Railway. A geological map showing the location of the ten townships forms part of this report. An agreement with A.C.R. is being prepared covering two additional townships located a short distance east of the group of ten. The ten townships cover for a length of 30 miles (the additional two townships for a further 6 miles) a wide band of geological formations favourable for the deposition of base metals. This geological environment consists of volcanic rocks similar in structure to those found in the Timmins, Noranda and Mattagami camps. Geochemical sampling of silt from streams in four of the townships has indicated numerous areas carrying high copper and zinc values.

The Michipicoten Area was prospected for gold and iron about the turn of the century. Since that time there has been limited exploration except for the work carried out by Algoma Steel Corp. in its search for siderite ore. Previously access to the area under option was difficult until the recent completion of the Trans-Canada highway which crosses the property for a distance of about 12 miles.

An airborne survey consisting of 2,550 line miles, with lines flown at 1/4th mile intervals, has been completed over the greater part of the ten townships. A study of the location of the aerial electromagnetic (E.M.) conductors in conjunction with geological structures and silt sampling results indicates excellent possibilities of proving up at least an orebody with fair chances of finding a number of orebodies which would create a new base metal camp.

A field crew consisting of over 10 men are presently engaged in locating and investigating the airborne E.M. conductors and magnetic anomalies on the ground. Since the area is amenable to geochemical methods concentrations of copper, lead and zinc may be rapidly outlined by soil sampling. A light easily portable Smit-Winkie diamond drill, equipped with a 10 H.P. motor, using very light magnesium-zirconium drill rods, producing "E" core and capable of drilling to a depth of 500 feet, is being used by Acme crews in the initial drilling of E.M. conductors and magnetic anomalies at relatively low cost.

To date 10 short holes totalling 1,140 feet have been drilled to test four conductive areas. No commercial values were obtained but all holes intersected minor copper mineralization.

Work now is being concentrated in the Heart Lake Area of the concession where previous prospecting and trenching uncovered a copper zone 900 feet long containing on an average between .25% and .5% copper. One trench across this zone averaged .51% copper over 42 feet. Another trench partially across the zone returned 1.22% copper over 10 feet. This zone has never been thoroughly explored, particularly to the north where it is still open. It occurs near an area of intense folding and thus could blossom out to major proportions. A grid of lines is now being cut in this area to be followed up by E.M. surveying and drilling.

The property contains a number of iron ranges totalling about 30 miles in length. One larger iron deposit now being explored is in the form of a horseshoe, as shown on Dr. A. M. Goodwin's geological map, about 2 miles long with an average width of 350 feet. Three test trenches have been opened up on the main zone and the three samples averaged 23½% iron content. This material is similar in grade and content to that presently being mined at the Adams mine near Kirkland Lake. On the south contact of the iron formation a high grade iron ore called siderite has been located and Dr. A. M. Goodwin's report on the area states that "a further search might reveal larger siderite zones". This area is on high ground with shallow overburden thus is ideally suited for open pit operation.

In the northeastern part of the area three strong magnetic anomalies covering a length of five miles occur in a known iron formation. Algoma Steel holds a six-claim group on one of these anomalies and the other two anomalies are held by Acme. Samples taken from one of the anomalies on Acme property have been tested and found suitable for pelletization. The Algoma Central Railway is located within seven miles and an old railway roadbed extends to within three miles of these anomalies. These and many other iron bearing areas will be covered by magnetic surveys and where warranted by gravity surveys followed by drilling to test the deposits for tonnage and grade.

The Acme area is about 20 miles by highway and railroad from Michipicoten Harbour which would be a suitable site for a smelter and has docking facilities for ocean going freighters. Hydro-electric power is available from a power line which extends across the easterly part of the Acme property.

Uranium Prospect:

This Company presently has a four-man field crew investigating a uranium prospect in Northern Ontario. A sample obtained from this area, when tested with a geiger counter was shown to be highly radioactive. The general geology of the area from which the sample was obtained resembles that of the Beaverlodge Area which contained a number of uranium producers. It is planned to thoroughly investigate this property.

Timmins Nickel Area — Ontario:

Acme holds over 200 claims in Eldorado Township in the new nickel area located 16 miles southeast of Timmins. Ground geophysical surveys over the north group of claims in Eldorado Township have indicated five E.M. conductors associated with magnetic anomalies. This group is located about 5-6 miles west of the nickel deposit being explored by International Nickel in Langmuir Township.

In McArthur Township in the Timmins Area where Acme holds 102 claims, E.M. and soil sampling surveys were commenced before spring breakup to check two aerial E.M. conductors — 4,000 feet and 5,000 feet long. The E.M. conductors have been located and detailed on the ground and soil samples have been taken over a length of about 7,000 feet on the east side of the river when work was stopped by spring breakup. The results of soil sampling and ground E.M. surveys show nickel-zinc geochemical anomalies related to E.M. conductors checked to date for a length of approximately 5,000 feet with about 3,000 feet of the aerial E.M. conductor west of the river still to be checked.

These aerial E.M. conductors are located about five miles northwest of the Texmont Nickel mine held under option by International Nickel and on the extension of the high magnetic formations on which the Texmont mine is located.

The locations of the properties held in the Timmins Area are shown on the enclosed map.

New Brunswick Area:

Acme holds 1,422 claims in the Bathurst-Newcastle district of New Brunswick, located as shown on a new plan included with this report. Seventy-two claims have been acquired recently at a cost of \$1,900 — 51 claims to fill out a former hole about 1½ miles square in the main group in order to protect the indicated extension of a geochemical anomaly which was located on the boundary of this group and 21 claims to cover several aerial E.M. conductors. The main blocks of claims are located in a relatively unexplored area where geological structures are believed to be as favourable for the deposition of base metal deposits as at the producing mines in New Brunswick. Two samples of float, picked up centrally in the area where Acme holds a block of

claims ten miles long and an average of 6 miles wide, returned assays of 5.1% copper for one and 17.5% lead, 8.8% zinc and 3.6 oz. of silver for the other. Interesting nickel and copper results were secured in soil sampling a limited area about five miles southeast of the main group and this nickel-copper area has been protected by staking for a length of about three miles.

A soil sampling survey has been under way since early in the year on the main block of claims. The results of soil sampling to date, which has covered about 20% of the claims held, show 5 geochemical anomalies. A gossan zone has been located which will be trenched or stripped by bulldozer and sampled. The more favourable soil sampled areas are being tested by geophysical surveys and areas that so warrant will be tested by drilling.

An all season timbering road extends through the main groups of claims with many bush roads suitable for four-wheel vehicles leading off from the main road.

Financial:

The Company's expenditures during the period May 1st to December 31st, 1966 are estimated as follows:

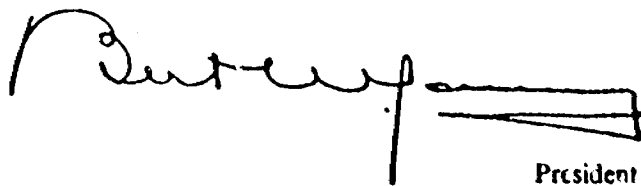
Michipicoten Area -- Total		\$ 200,000
Aerial Survey	\$ 40,000	
Field Crew (8 months x \$10,000)	80,000	
Drilling (16,000 ft. x \$5.00)	80,000	
New Brunswick -- Total		\$ 65,000
Field Crew (8 x \$5,000)	\$ 40,000	
Drilling (5,000 ft. x \$5.00)	25,000	
Timmins Nickel Area -- Total		\$ 20,000
Drilling (3,000 ft. x \$5.00)	\$ 15,000	
Geophysical and to maintain claims	5,000	
Head Office and General Expenses		\$ 15,000
	Total	\$ 300,000

Net Current Assets amounted to \$114,920 as at June 30th, 1966 including investments at market value of \$74,067, mortgage receivable \$57,520 and receivable on sale of oil interests of \$30,027. Expenditures on exploration and administration less royalties and interest income totalled \$141,886 during the first six months of 1966 of which \$80,620 was expended in May and June including \$39,389 representing the cost of the aerial survey.

Under the offering of 700,000 shares made to shareholders in April, 1966, the Company received \$134,739.90 from the subscription of 449,133 shares. On August 2nd, 1966 an offering was made to shareholders of 800,000 shares at 35¢ per share, on the basis of one share for each five shares registered in their names on July 28th, 1966, exercisable on or before August 23rd, 1966. Certain shareholders have agreed to purchase sufficient shares to assure the company of the receipt of a minimum of \$100,000.

The aggressive and persistent exploration program underway will be intensified in the search for mines.

On Behalf of the Board of Directors,



President

80 Richmond St. W.,
Toronto 1, Canada.
August 15th, 1966.

TP. 33

TP. 32

TP. 31

TP. 30

TP. 29

TP. 28

ACME GAS & OIL CO. LIMITED

GEOLOGICAL MAP showing LOCATION of

R XXVII TEN TOWNSHIPS held by ACME in the MICHIPICOTEN AREA, ONTARIO


From Ont. Dept. of Mines Preliminary Geological Map No. P184


R XXVI

R XXV


ACME GAS & OIL CO. LIMITED


EXPLANATION


 Granite, porphyry, syenite

 Sedimentary rocks - greywacke, shale, conglomerate

 Iron formation

 Felsic volcanic rocks

 Intermediate to mafic volcanic rocks


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
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
 Strike and dip of bedding

 Strike and dip of greatality

 11 Axis of antiform - upright, overturned


 11 Axis of syncline - upright, overturned

 1 1 1 Stratigraphic top - pillow, graded bedding, cross bedding

 - - - Structural plunge

 ● Producer

 ○ Past producer

 ● Mineral occurrence

Scale

0 1 2 4 8 16

R XXIV

R XXIII

LAKE SUPERIOR

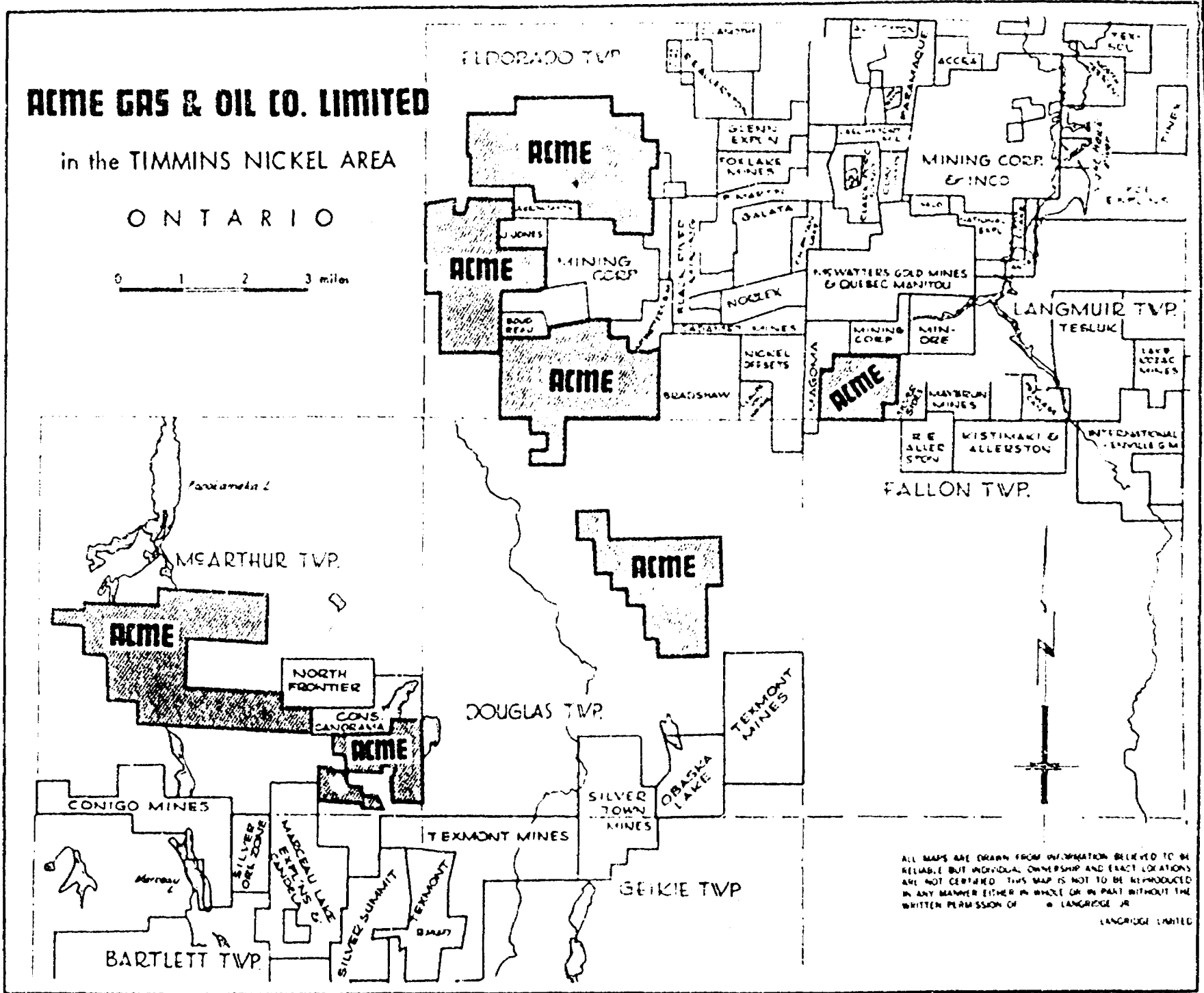


ACME GAS & OIL CO. LIMITED

in the TIMMINS NICKEL AREA

ONTARIO

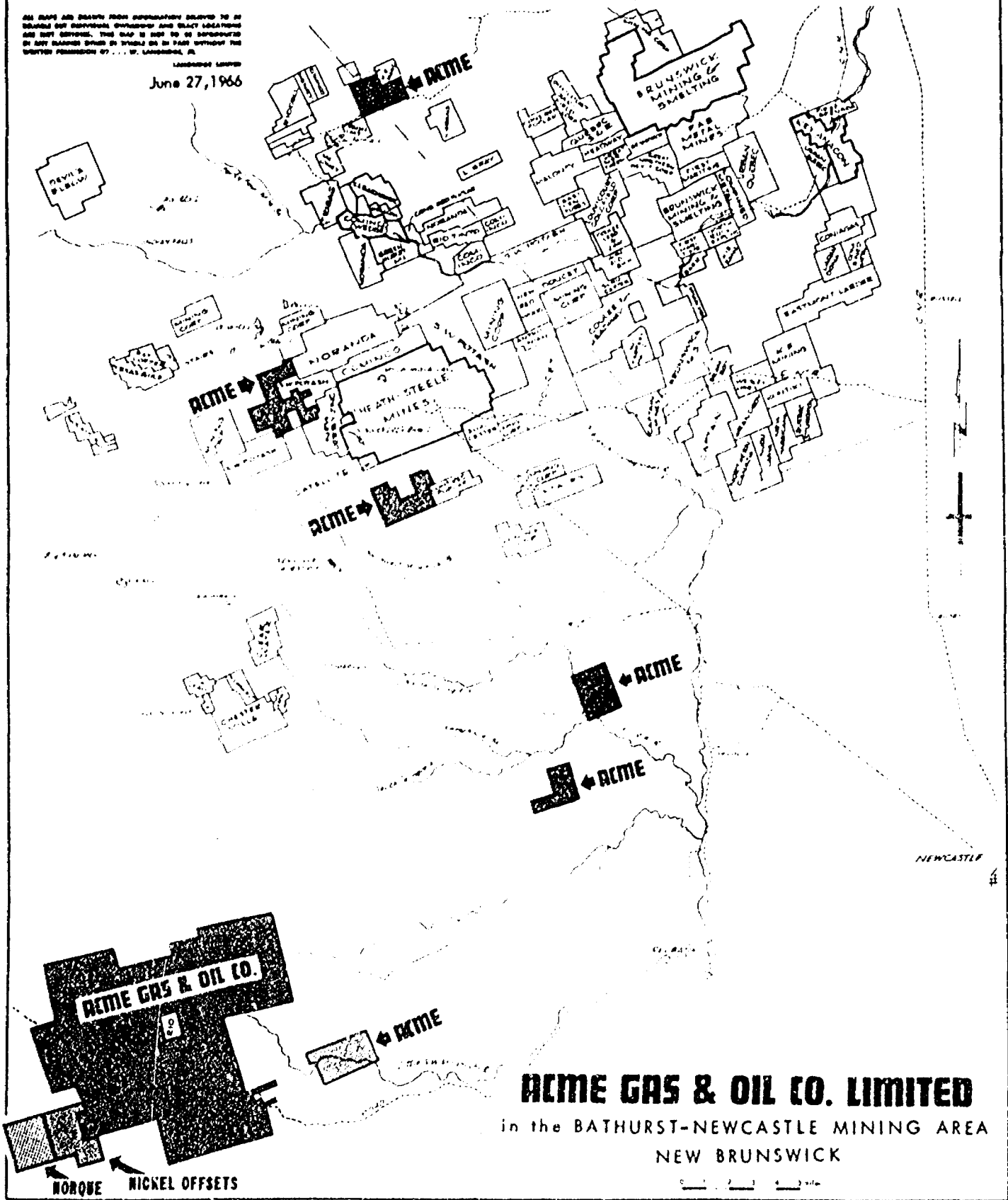
0 1 2 3 miles



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 W. LANGRISH, JR.

LANGRISH LIMITED
 June 27, 1966



ACME GAS & OIL CO. LIMITED

in the BATHURST-NEWCASTLE MINING AREA
 NEW BRUNSWICK

0 1 2 3 4 Kilometers

<u>Grid No.</u>	<u>Title</u>	<u>Scale</u>
1	Electromagnetic Survey	1" = 200'
1	Magnetic Survey	1" = 200'
2	Magnetic Survey	1" = 200'
3	Electromagnetic Survey	1" = 200'
4	Electromagnetic Survey	1" = 200'
5	Electromagnetic Survey	1" = 200'
6	Electromagnetic Survey	1" = 200'
7	Electromagnetic Survey	1" = 200'
8	Electromagnetic Survey East Sheet	1" = 200'
8	Electromagnetic Survey West Sheet	1" = 200'
8	Magnetic Survey East Sheet	1" = 200'
9	Electromagnetic Survey	1" = 200'
10	Electromagnetic Survey	1" = 200'
11	Electromagnetic Survey	1" = 200'
12	Electromagnetic Survey	1" = 200'
12	Magnetic Survey	1" = 200'
13	Electromagnetic Survey	1" = 200'
13	Magnetic Survey	1" = 200'
11, 12, 13	Geochemical Survey	1" = 200'
15	Electromagnetic Survey	1" = 200'
15	Magnetic Survey	1" = 200'
15	Geochemical Survey	1" = 200'
16	Electromagnetic Survey	1" = 200'
16	Magnetic Survey	1" = 200'
16	Geochemical Survey	1" = 200'
17	Electromagnetic Survey	1" = 200'
17	Magnetic Survey	1" = 200'
17	Geochemical Survey	1" = 200'
18	Electromagnetic Survey	1" = 200'
18	Magnetic Survey	1" = 200'
SM	Electromagnetic Survey 200' Sep.	1" = 200'
SM	Electromagnetic Survey 300' Sep.	1" = 200'
SM	Electromagnetic Survey VEM	1" = 200'
SM	Magnetic Survey	1" = 200'
SM	Geological Survey	1" = 200'

SSM-970

ACME GAS & OIL CO., LIMITED

Detail Geophysical - Geochemical Summary
Up to May 1st, 1967

<u>Grid No.</u>	<u>Detail E.M.</u>	<u>V.E.M.</u>	<u>Mag.</u>	<u>Soil Samples</u>	<u>No. Analyzed</u>	<u>Comments</u>
1	14	4	14	700		Drilling required with big drill rig
2			12			Drilling required with big drill rig
3	4.5	1.5	4.8	240		No further work required.
4	10	3		400		No further work required.
5	2.7	1		140		1 "Winkie" hole recommended.
6	5	2.5		250		No further work required.
7	6	3		300		Trenching recommended.
8	35	7	35	1,100		"Winkie" drilling recommended.
9	28	8		1,300		Gravity survey recommended.
10	11.3			600		Gravity survey recommended.
11	5	1		200		
12	17.5	2	15	700		Trenching, drilling & gravity recommended.
13	7.5		7.2	300		Drilling recommended.
14						
15	14.5	4	14.5	350		Drilling recommended.
16	3.5	1	3.5	150		Trenching recommended.
17	3	2	3	120		No further work required.
18	9		9			Drilling recommended.
19	2	1		60		Trenching recommended.
1 SM	9	2	4.5	100		Drilling required with big drill rig.
	<u>187.5</u>	<u>43.0</u>	<u>122.5</u>	<u>7,010</u>		
	(Miles)	(Miles)	(Miles)			

SSM-970

ACME GAS & OIL CO., LIMITED

Drilling Summary 1966-67
Up to May 1st

Hole No.	Location	Depth	Comments
1	S-P Anomaly - Gravel Pit	151.0	
	Twp.30 R.26		
2	Twp.30 R.26 Grid No. 5	141.0	
	L8N-0+35E -45° Grid W.		
3	Twp.30 R.26 Grid No. 5	98.0	
	L4N-1+60E -45° Grid W.		
4	Twp.30 R.26 Grid No. 6	108.0	
	0+50N-0+70E -45° S.True		
5	Twp.30 R.26 Grid No. 6	116.0	
	L18N-1+00W -45° Grid W.		
6	Twp.30 R.26 Grid No. 6	87.0	
	L16N-0+60E -45° Grid W.		
7	Twp.29 R.26 Grid No. 4	139.0	
	L42N-11+00E -45° Grid E		
8	Twp.29 R.26 Grid No. 4	115.0	
	L42N-8+125E -45° Grid E.		
9	Twp.29 R.26 Grid No.4	170.0	
	L24N-4+50E -45° Grid E.		
10	Twp.29 R.26 Grid No. 4	103.0	
	L16N-2+45W -45° Grid W.		
11	Twp.32 R.26 Grid No. 11	216.0	
	L00-0+75E -60° Grid W.		
12	Twp.32 R.26 Grid No. 11	236.5	
	4+25N-0+50W -60° Grid W.		
13	Twp.32 R.26 Grid No. 9	214.0	
	L26E-6+50S -45° Grid N.		
14	Twp.32 R.26 Grid No. 9	40.0	Hole lost in overburden
	2+40W-8+20S -45° N.72° W.		
14A	Twp.32 R.26 Grid No. 9	55.0	Hole lost in overburden
	L00-11+75S -45° S49° W.		
15	Twp.32 R.26 Grid No. 9	184.0	
	10+50W-14+00S -45° N55° E.		
16	Twp.29 R.26 Grid No. 1	53.0	Hole lost in overburden
	L00-13+75W -45° Grid E.		
17	Twp.29 R.26 Grid No. 1	179.0	
	L4N-7+00W -45° Grid E.		
18	Twp.29 R.25 Grid No. 17	121.5	
	L00-0+50E -45° Grid W.		
SM-1	Twp.26 R.26 Sawmill Anomaly	97.0	Hole lost through caving
	L4W-9+00S -45° Grid No.		
SM-2	Twp.26 R.26 Sawmill Anomaly	169.0	Hole stopped - difficulties with drill
	L12E-10+25S -45° Grid N.		

2,793.0

21 Holes

SM-970

ACME GAS & OIL CO., LIMITED

Trenching Summary 1966-67
Up to May 1st.

<u>Trench No.</u>	<u>Location</u>	<u>Approx. Dim. L x W x D</u>	<u>Comments</u>
1	Twp.30 R.26 Grid No.3 L4N - 0+00	15 x 3 x 2	Pyrrhotite - Pyrite
2	Twp.30 R.26 Grid No. 3 5+00N - 0+75W	25 x 3 x 2	Pyrite in shear zone
3	Twp.29 R.26 Grid No. 4 L14N - 0+00	25 x 3 x 3	Graphite & Pyrrhotite
4	Twp.30 R.26 Grid No. 5 L4N 1+10E	20 x 3 x 2	Pyrrhotite & Pyrite
5	Twp.30 R.26 Grid No. 6 L16N - 0+00	20 x 3 x 2	Graphite & Pyrrhotite
6	Twp.30 R.26 Grid No. 6	15 x 3 x 4	Pyrrhotite & Pyrite
7	Along Magpie Rd. between Kapimchigama & Ireland Lakes	20 x 3 x 3	Pyrrhotite - Pyrite Minor Chalcopyrite
8	Along Magpie Rd. between Kapimchigama & Ireland Lakes	25 x 3 x 2	Pyrrhotite - Pyrite Minor Chalcopyrite
9	Twp.29 R.26 Grid No. 1 L00 - 10+50W	100 x 3 x 3	High Grade Magnetic Iron Formation
10	Twp.29 R.26 Grid No. 2 L10W - 3+50N	100 x 3 x 4	High Grade Magnetic Iron Formation
11	Twp.32 R.26 Grid No. 12 17+00W - 4+50S	25 x 3 x 2	Low Grade Magnetic Iron Formation
12	Twp.32 R.26 Grid No. 12 16+00W - 2+60S	25 x 3 x 2	Low Grade Magnetic Iron Formation
13	Twp.32 R.26 Grid No. 12 16+00W - 1+50S	25 x 3 x 2	Low Grade Magnetic Iron Formation
14	Twp.29 R.26 Grid No. 15 L22S - 0+00	100 x 3 x 3	Iron Formation
15	Twp.29 R.26 Grid No. 15 L20S - 1+30W	30 x 3 x 5	Weathered Graphite
16	Twp.29 R.26 Grid No. 15 L20S - 2+00W	30 x 3 x 4	Graphite - Pyrrhotite & Pyrite
17	Twp.29 R.26 Grid No. 15 L20S - 11+00W	20 x 3 x 5	Graphitic Sheared Sed's With Pyrite
18	Twp.26 R.26 Grid No. 1 L20W - 18+00S Sawmill	25 x 3 x 2	Shear with Pyrite Pyrrhotite Minor Chalco.
19	Twp.26 R.26 Grid No. 1 L12W - 8+00S Sawmill	40 x 3 x 2	Pyrrhotite - Minor Chalco.
20	Twp.26 R.26 Grid No. 1 L00 - 7+00S Sawmill	100 x 3 x 2	Pyrrhotite - Pyrite Graphite - Minor Chalco.
21	Twp.26 R.26 Grid No. 1 L12E - 9+00S Sawmill	100 x 3 x 2	Pyrrhotite - Pyrite Graphite - Minor Chalco.
22	Twp.26 R.26 Airborne System NO-50 Cams-Wawa Area Sheet 2	30 x 3 x 2	Pyrrhotite - Pyrite - Graphite Minor Chalco & Gold

GSM-270

ACME GAS & OIL CO., LIMITED

Linecutting Summary 1966-67
Up to May 1st

Grid No.	Location	Baseline Footage	Cross Line Footage	Cut By
1	Twp.29 R.26 Magpie Area	6,400	76,000	Acme Crews
2	Twp.29 R.26 Magpie Area	6,000	64,300	Acme Crews
3	Twp.30 R.26 Kapimchigrama L. Area	3,000	25,600	P. Dupras
4	Twp.29 R.26 Kapimchigama L. Area	6,000	52,900	P. Dupras Acme Crews
5	Twp.30 R.26 Kapimchigama L. Area	1,600	14,400	P. Dupras
6.	Twp.30 R.26 Kapimchigama L. Area	3,200	27,200	P. Dupras
7	Twp.29 & 30 R.26 Kapimchigama L. Area	3,650	31,900	P. Dupras
8	Twp. 29 R.26 Magpie Area	18,850	184,800	P. Dupras
9	Twp.32 & 33 R.26 Paint L. Area	13,200	147,840	P. Dupras
10	Twp.32 R.26 Paint L. Area	7,600	60,100	P. Dupras
11	Twp.32 R.26 Paint L. Area	5,400	26,670	P. Dupras
12	Twp.32 R.26 Paint L. Area	8,400	92,400	P. Dupras Acme Crews
13	Twp.32 R.26 Paint L. Area	4,880	40,000	P. Dupras Acme Crews
14	Twp.32 R.26 Paint L. Area	5,800	48,700	P. Dupras Acme Crews
15	Twp.29 R.26 Magpie Area	6,000	77,000	Acme Crews
16	Twp.29 R.25 Magpie Area	2,000	17,600	Acme Crews
17	Twp.29 R.25 Magpie Area	1,600	15,800	Acme Crews
18	Twp.29 R.26 Magpie Area	7,600	45,900	Acme Crews
19	Twp.32 R.26 Paint L. Area	1,600	11,900	Acme Crews
Saw Mill	Twp.26 R.26 Cawdron L. Area	4,800	23,950	Acme Crews
TOTALS		<u>117,580</u>	<u>1,084,960</u>	

Miles of Baselines 22.2
Miles of Cross Lines 205.5

ACME GAS & OIL CO., LIMITED

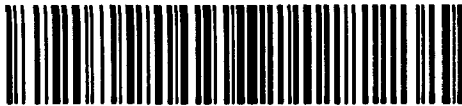
Statement of Exploration & Development Expenditures
 On Optioned Algoma Central Railway "ACR1" Properties
 for the Period February 15th, 1966 to March 31st, 1967

Aerial Surveys	\$ 39,015.00
Ground Geophysical Surveys	23,615.06
Linecutting	17,665.90
Geological Surveys	2,755.10
Soil Testing & Geochemical	7,225.83
Prospecting	3,448.89
Trenching	1,226.25
Diamond Drilling	17,944.87
Assaying	615.50
Equipment Rentals	5,939.19
Insurance	336.21
Field Expenses	4,455.47
Consultants' Fees	5,312.84
Transportation & Travel	9,163.49
Camp Expenses	12,171.74
Board	7,020.59
Group Insurance, Medical	783.54
Licenses & Permits	51.58
Maps, prints, etc.	1,083.46
	<hr/>
	\$ 159,830.51

ACME GAS & OIL CO., LIMITED

Statement of Exploration & Development Expenditure:
On Optioned Algoma Central Railway "ACR2" Properties
for the period October 1st, 1966 to March 31st, 1967

Aerial Surveys	\$ 26,598.00
Ground Geophysical Surveys	722.13
Linecutting	368.98
Soil Testing & Geochemical	188.97
Diamond Drilling	296.21
Equipment Rentals	151.07
Field Expenses	29.17
Consultants' Fees	100.00
Transportation & Travel	87.60
Camp Expenses	245.37
Maps, Prints, etc.	154.88
	<hr/>
	<u>\$ 28,942.38</u>



42C01NW0012 0011 BIRD

040

REPORT ON
AERBORNE GEOPHYSICAL SURVEY
IN THE
KNIFE LAKE, HUSKIE RIVER, AND
TREEBY LAKE AREAS,
DISTRICT OF ALBERTA, CANADA,
FOR
AGAZ GAS AND OIL CO. LTD.
BY
CANADIAN AEREO MINERAL SERVICES LIMITED,
Project No. 6076.

REPORT ON
AIRDROME GEOPHYSICAL SURVEY
OF THE
WHITE LAKE, MAGPIE RIVER AND TROTSKY LAKE AREAS,
DISTRICT OF ALBERTA, CANADA,

FOR
AGRI GAS AND OIL CO. LTD.

BY
CANADIAN AERO MINERAL SURVEYS LIMITED,

Project No. 6076.

OTISDA, Ontario,
July 27, 1966.

Ralph D. Falconer,
Geophysicist.



42C01NW0012 0011 BIRD

040C

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III. GEOLOGY	3
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(b) Records	
(c) Survey and Map Compilation Procedures	
(d) Data Presentation System	

Accompanying this Report:-

- Five EM Plan Maps at the scale of

1" = 1/2 Mile.

REPORT ON
AIRBORNE GEOPHYSICAL SURVEY
IN THE
KNIFE LAKE, MAGPIE RIVER AND TREEBY LAKE AREAS,
DISTRICT OF ALGOMA, ONTARIO,
FOR
ACME GAS AND OIL CO. LTD.

I. INTRODUCTION

During the periods April 11-17 and May 11-15, 1966, Canadian Aero Mineral Surveys Limited conducted an airborne geophysical survey for Acme Gas and Oil Company Limited. Three areas were surveyed, all in the District of Algoma, Ontario.

The Knife Lake area was approximately 240 square miles and flight lines were spaced at 1/3 mile intervals. Total mileage in this area was 951 miles. Flight direction was north-south (astr.).

The Magpie River area was approximately 335 square miles and flight lines were spaced at 1/3 mile intervals. Total mileage in this area was 1334 miles. Flight direction was N45°E (astr.).

The Treeby Lake area was approximately 4 square miles and flight lines were spaced at 1/3 mile intervals. Total mileage in this area was 32 miles. Flight direction was N50°W (astr.).

The survey was conducted using the Canadian Aero Mineral Surveys Limited Otter aircraft, registration CF-10H, based at Hawe, Ontario. The aircraft is equipped with an electromagnetic unit, magnetometer and scintillation counter. This equipment is described further in Appendix II.

The maps accompanying this report were produced from an airphoto laydown, scale 1" = 1/4 mile. Electromagnetic anomalies and directly coincident magnetic anomalies have been plotted with a symbol corresponding to their rating. All conductive zones have been indicated and numbered. In addition, all magnetic anomalies in excess of 100g have been plotted, with magnitude and shape indicated.

Appendix I contains a complete listing of all anomalies and Appendix II includes a discussion of anomaly choice and rating.

II. SURVEY PERSONNEL

G. A. Curtis	-	Project Manager
D. McDonell	-	Pilot - Navigator
T. Kerpatt	-	Pilot - Navigator
G. DeLuce	-	Pilot
J. Watt	-	Navigator
T. Peacock	-	Operator
R. Irvin	-	Aircraft Engineer
C. Granger	-	Data Reductionist
P. Tallyhoe	-	Data Chief
R. [unclear]	-	[unclear]

III. GEOLOGY

The geology of the three areas shown is described on the Ontario Department of Mines Preliminary Geological Map No. P-184, scale 1" = 2 miles.

The geology of the Knife Lake and Kappio River areas is very complex, with numerous faults, folds and granitic intrusions. The principal rocks are volcanics with numerous bands of iron formation, some of which are possible iron ore. The volcanics are overlain by sediments and the entire assemblage has been folded, followed by granitic intrusions and faulting. The granite cuts off the volcanics and sediments to the north and south and in the Knife Lake area; there is a large granite intrusion in the Kabanung Lake area.

The Treeby Lake area is at the south boundary of the geological map and appears to be in an area of volcanics.

IV. GEOPHYSICAL INTERPRETATION

Each of the areas will be discussed separately. The map sheet on which the conductive zones are located are mentioned to facilitate ready reference.

(a) Knife Lake

The conductive zones outlined by the survey fall into two categories; those associated with iron formation and those not associated with iron formation. The conductive zones associated with iron formation can be recognized by the magnetics associated with the zones and their location, in relation to the known iron formation as shown on the geological map of the area. The conductive zones associated with iron formation will be discussed first, followed by those zones not associated with iron formation.

Zones 1, 1A, 2, 3, 4, 5, 6 and 7 (Sheet 1) are all on the same magnetic trend, which is continuous through all zones, indicating the iron formation is more extensive than mapped. Zones 1 through 6, with the exception of zone 1A, are all weak conductors with direct or nearly direct magnetic correlation, indicating a mixture of conductive magnetite and a small amount of sulphides in the iron formation. Zone 1A appears to be on the south side of the iron formation, with magnetic correlation of line 7 only, probably indicating a small concentration of sulphides developed along the iron formation.

Zones 32 and 33 (Sheet 2) follow a large fold in the iron formation, as shown on the geological map. The anomalies in these zones vary from weak to very strong, as do the magnetics. Generally, the best conductivities correlate with the strongest magnetics, indicating massive sulphides with a high magnetite content

Both zones are caused by a mixture of sulphides and magnetite of varying concentrations.

- Zone 29 (Sheet 2) probably represents a weak extension of zone 32, with lower sulphide and magnetite concentrations.

Zones 37, 40, (Sheet 1), 44, (Sheets 1 and 2), 45, 47 and 50 (Sheet 2) represent the "Jimmy Kash" iron formation as shown on the geological map, plus an extension of the zone to the west. Zones 37, 40 and 50 have strong magnetics and low conductivities, which indicate magnetite with minor sulphides. Zones 44, 45 and 47 also have strong magnetics, but much better conductivities and represent a mixture of sulphides and magnetite, massive in places.

Zone 53 (Sheet 2). This zone represents the "Betty Lake" iron formation as shown on the geological map. Poor conductivities on the west end and slightly better conductivities on the east end suggest that this zone consists of a moderate amount of magnetite at the west end, with sulphides increasing towards the east.

Zones 54 and 55 (Sheet 2) are both single line anomalies on iron formation. They both represent magnetite with little, if any, sulphides.

Zones 57, 58, 59, and 60 (Sheet 2) are on a continuation of the same iron formation as zones 33, 54 and 55. Zones 58, 59 and 60 represent a sulphide and magnetite mixture, massive in places. Zone 57 represents magnetite with a small amount of sulphides.

Zones 63, 64, 65, 66, 67 and 68 (Sheet 2) are all on the same band of iron formation, running westward from "Magnetic Point". Zone 65 indicates sulphides, some massive, with magnetite. The remainder of the zones represent small amounts of sulphides with magnetite.

Zones 19 and 20 (Sheet 1) are both on the same magnetic trend, apparently iron formation. Zone 19 has the strongest magnetics but the most sulphides could be expected in zone 20. These zones are probably an extension of the same iron formation as zones 37, 40, 44, 45, 47 and 50.

Several zones that are probably iron formation were also outlined by the survey. Two factors were considered in calling these zones probable iron formation. The first factor was the relationship between the magnetic amplitude and the apparent conductivity. If the magnetics were stronger than would be expected from a sulphide (pyrrhotite) source as indicated by the electromagnetic response, magnetite is probably present, and these zones are considered as probable iron formation. The other factor considered was the location of the zone in relation to zones of iron formation known either from the geological map or from the survey.

Zone 30 coincides with the "Francis Mine" iron formation as shown on the geological map. The survey shows this zone to be non-magnetic and only moderately conductive. Fine massive, banded, or fractured sulphides without magnetite are the probable cause of this

anomaly. The location of the anomaly on line 70 has been carefully checked and the offset location as plotted appears to be correct.

- Zone 31 is just east of zone 30 and possibly joins it, but unlike zone 30, is magnetic. The magnetic response of the zone is higher than would be expected from the conductivities, so the zone probably consists of a mixture of sulphides and magnetite.

The remainder of the conductive zones in the Knife Lake area do not appear to be caused by iron formation, although some of them are along bands of iron formation.

Zone 8 (Sheet 1) is a short zone of low amplitude anomalies with some direct magnetic correlation. It is in an area of volcanic rocks, and probably represents a weak concentration of sulphides, although the anomalies on line 5 could be caused by some massive sulphides.

Zone 9 (Sheet 1) consists of anomalies on two lines, both with direct magnetic correlation, and represents a short zone of probable semi-massive sulphides. Zone 10 (Sheet 1) an isolated anomaly about $\frac{1}{2}$ mile east of zone 9, is probably an extension of zone 9, although it does not have any direct magnetic correlation. Zones 9 and 10 are just off the west end of a magnetic trend representing iron formation, and could possibly be in a non-magnetic extension of the iron formation.

Zone 12 (Sheet 1) lies on the north side of a band of iron formation and has no direct magnetic correlation. The anomalies

In the zone are fairly small and probably represent a weak sulphide concentration along the iron formation.

Zones 8, 11, 13, 17, 18, 21, 23, 24 (Sheet 1), 26, 27 (Sheets 1 and 2) all are on the trend of the strike in the area and all have the same characteristics; generally no magnetic correlation and conductivities ranging from poor to good. Zones 8, 11, 13, 17 and 18, from the geological map, appear to be in volcanics while the remainder of the zones are in sediments. Weak to semi-massive sulphides can be expected in all zones with zone 27 being the best possibility for massive sulphides. A gap of about 1/4 mile separates zones 26 and 27 from zone 30, which is believed to be non-magnetic iron formation, so it is possible that the mineralization in all or some of these zones is similar to that in zone 30.

Zones 14, 15 and 16 (Sheet 1) are weak, out-of-phase anomalies, and only zone 16 has magnetics associated with it. These anomalies are of the type generally associated with overburden conductors, but due to the general lack of any overburden response in the area and the lack of any topographic features which would cause anomalies, they are possibly weak bedrock conductors.

Zones 22 (Sheet 2), 25 and 28 (Sheet 1) all represent bedrock conductors with no direct magnetic correlation. They are probably caused by banded or fractured sulphides of limited extent.

Zones 34 and 35 (Sheet 2) are both isolated anomalies with direct magnetic correlation. Zone 35 is possibly associated with iron formation. Both zones represent bedrock conductors.

Zone 36 (Sheet 1) is an isolated anomaly with direct magnetic correlation. It lies just south of a band of iron formation but is separated from it, and is a bedrock conductor with a probable sulphide source of limited size.

Zones 38, 39 (Sheet 1), 41 (Sheets 1 and 2), 42, 43 and 46 (Sheet 2) are all zones of weak to good anomalies, some with direct magnetic correlation. They are about 2000 feet south of a band of iron formation. Semi-massive to massive sulphides can be expected in zones 39 and 43, with smaller amounts in the other zones.

Zones 48 and 49 (Sheet 2) are isolated anomalies of similar characteristics to those of zones 38, 39, 41, 42, 43 and 46 and similar sources can be expected.

Zones 51 and 52 (Sheet 2) appear to be located nearly on a fault, with the direction of the zones transverse to the fault direction. Zone 51 has direct magnetic correlation and may be associated with a band of iron formation which stops at the fault. Semi-massive sulphides are probable in both zones.

Zone 56 (Sheet 2) consists of weak anomalies on three lines with no magnetic correlation. The zone has iron formation on three sides of it, and the west end of the zone may run into the iron formations. The probable cause of the anomalies is a weak concentration of sulphides, possibly in a fracture transverse to the iron formation.

Zones 61 and 62 (Sheet 2) consist of weak out-of-phase anomalies except on line 135A in zone 61, where there is also a small in-phase component. The zones have no direct magnetic correlation, but both are on the flanks of a magnetic feature, probably iron formation. The location, over a lake, and strength of the anomalies suggest overburden or surface conductors, but they must be considered as possible weak bedrock conductors, for as mentioned previously, the area is generally free of surface conductors.

(b) Maggie River

Zones 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (Sheet 3), 11, 12, and 13 (Sheet 4) follow along the "Dore River" iron formation as shown on the geological map. The numerous gaps in the conductive zones are possibly caused by small cross faults or fractures. In many of the anomalies in these zones, the peak of the EM anomaly is to the northeast of the peak of the magnetic anomaly. This is caused by the relatively flat dip (30° northeasterly) of the iron formation in this area, which causes the magnetic peaks to be displaced slightly southwest. Probable sulphide concentration in these zones varies from weak to massive, with zones 3, 6, 10, 11 and 13 being the best possibilities for massive sulphides.

Zone 15 (Sheet 3) is iron formation that extends out of the survey area to the west and is faulted to the north on its east end. The anomalies in this zone are very strong, and massive sulphides with magnetite can be expected. The faulted extension of this zone was not detected by the EM survey.

Zones 29, 32, 33, 30, 31 (Sheet 4), 41 (Sheet 3), 36, 39 and 46 (Sheets 3 and 4), follow the "Reynolds", "Godon Lake", "South Evans" and "North Evans" bands of iron formation. Zones 28, 35, and 39 are the strongest EM conductors and massive sulphides with magnetite can be expected. In zones 41 and 46 sulphides with very massive magnetite in places is the probable cause of the anomalies.

Zone 34 (Sheet 4) is a probable weak extension of zone 29.

Non-Iron Formation

Zone 14 (Sheet 3) is an isolated anomaly with direct magnetic correlation. From the geological map, it appears to be on the contact between a band of sediments and volcanics. While the anomaly is not strong, it is a bedrock conductor with a probable sulphide source.

Zone 16 (Sheet 3) consists of anomalies on two lines, both with direct magnetic correlation. The anomalies indicate moderate conductivity, probably banded or fractured sulphides. The conductive zone is in an area of volcanic rocks.

Zone 18 (Sheet 3) is approximately $\frac{1}{2}$ mile long, with anomalies on three lines. Only one anomaly has direct magnetic correlation, but all anomalies have related magnetics. Conductivity is good and a sulphide source is expected.

Zone 19 (Sheet 3) has anomalies on two lines, both indicating low conductivity. They both have direct or related magnetic correlation. Small amounts of sulphides, possibly with some magnetite is the probable cause of this anomaly. The zone is in an area of volcanic rocks.

Zone 20 (Sheet 3) is on a contact between volcanics and sediments. Anomalies on 4 lines, one with direct magnetic correlation make up the zone. Conductivities are low on the northwest end and good on the southeast end of the zone. Sulphides, semi-massive to massive on the southeast end, are the expected source of the anomalies.

Zone 22 (Sheet 3) has anomalies on 4 lines, but 3 of the anomalies are nearly coincident as the lines crossed here. The central part of the zone has good conductivity and direct magnetic correlation. Zone 21, a weak anomaly, probably is connected to zone 22, as both zones are on the folded contact between sediments and volcanics.

Zones 23 and 52 (Sheet 3) are probably parts of one conductor, with one blank line separating them. Conductivities vary throughout the zones, probably representing fractured or stringered sulphides. Only the weak anomaly on line 130 has direct magnetic correlation. The zones are in an area of volcanics.

Zone 26 (Sheet 4) has direct or nearly direct magnetic correlation on anomalies on three lines. Conductivities are low and the zone is in an area of volcanics. The probable source of the anomalies is a zone of weak or fractured sulphides, possibly with some magnetite.

Zone 23 (Sheet 4) has weak anomalies with direct magnetic correlation on two lines in the survey area and extends out of the survey area to the southeast. It is in an area of volcanics and probably represents weak sulphides with some magnetite.

Zone 35 (Sheet 4) was detected on 5 lines and while the anomalies are small, conductivities are good. This indicates the conductor is narrow or buried, or both. There is direct magnetic correlation on one line and the zone is in volcanics, nearly parallel to and less than $\frac{1}{2}$ mile away from a band of iron formation.

Zone 37 (Sheet 4) is a weak, isolated anomaly with no magnetic correlation. It is in the same relative position to the iron formation as zone 35 and probably has a similar source.

Zone 38 (Sheet 3) has anomalies of moderate conductivity and no magnetic correlation on two lines. It is in volcanics and near a small granitic intrusion.

Zone 42 (Sheet 3) varies from poor to good conductivity and anomalies except on line 171 have direct or nearly direct magnetic correlation. From the geological map, the zone appears to be entirely in sedimentary rocks, and a sulphide source is probable, but in all conductive zones in sedimentary rocks, graphite has to be considered a possibility.

Zones 47 (Sheets 3 and 4) and 48 (Sheet 4) are along the southwest flank of the "North Evans" iron formation. Conductivities in the zones range from poor to good and there is no direct magnetic correlation. From the geological map, the zones appear to be nearly along the contact between volcanics and sediments.

Zones 45, (Sheet 3) and 49 are along the northeast side of the "North Evans" iron formation. The anomalies are weak, have no magnetic correlation and probably represent a weak sulphide concentration along a contact between volcanics and sediments.

Zone 53 (Sheet 3) is a weak, isolated anomaly with no magnetic correlation. It is in volcanics and probably represents a small, weak sulphide concentration.

Zone 17 (Sheet 3) is a weak, mostly out-of-phase conductor with no direct magnetic correlation. Three of the anomalies in this zone fall in a small lake and the zone is probably an overburden conductor, but possibly could be a weak sulphide conductor.

Zones 24, 25, 27, 30, 31, 34 and 40 are weak out-of-phase conductors. Zones 34 and 40 have a small direct magnetic correlation. All of these zones are probably overburden conductors, but as there is a general lack of overburden or surface conductors over lakes and swamps in the area, some of these zones could possibly be weak bedrock conductors.

(c) Further East

No anomalies were detected in this area.

V. CONCLUSIONS AND RECOMMENDATIONS

The survey outlined many conductive zones in the Knife Lake and Maggie River areas, many of which are directly associated with mapped zones of iron formation. No anomalies were detected on the Treoby Lake area.

Recommendations for followup work are listed separately for the Knife Lake and Maggie River areas. As the iron formation in the area is apparently quite well known, no specific recommendations are made concerning zones associated with it, but the zones are grouped according to the probable concentration of sulphides in the iron formation.

(a) Knife Lake

Iron formation with massive or nearly massive sulphides:

Zones 7, 52, 33, 44, 45, 59, 60 and 65.

Iron formation with semi-massive to banded or fractured sulphides:

Zones 29, 30, 31, 47 and 50

Iron formation with sulphide stringers:

Zones 1A, 6, 29, 40, 52, 57, 64, 66 and 67

Iron formation with conductive magnetite and minor sulphides:

Zones 1, 2, 3, 4, 5, 19, 37, 50, 54, 55, 63 and 68.

Of the conductive zones not associated with iron formation, several, some with direct magnetic correlation, indicate probable massive to semi-massive sulphides and are first priority targets for ground followup. The zones with direct magnetic correlation are 39 and 43 and those without direct magnetic correlation are 10, 27, 49 and 52.

Many conductive zones representing semi-massive to banded fractured and stringered sulphides were also outlined by the survey. These represent second priority targets for ground followup, but local geological knowledge may raise some of them to first priority targets, as well as establish the order in which they should be checked. The conductive zones with direct magnetic correlation are 8, 9, 34, 35, 36, 41, 46, 43 and 51 and those without direct magnetic correlation are 11, 12, 13, 17, 18, 21, 22, 23, 24, 25, 26, 28, 38, 42 and 56.

Several weak conductive zones, representing probable overburden or possibly minor amounts of sulphides were also outlined in the survey and would only be worthwhile checking if something of interest is known in the immediate area of the zones. These zones are 14, 15, 16, 51 and 52.

(b) Maple River

Iron formation with massive or nearly massive sulphides:
Zones 3, 8, 10, 11, 13, 15, 29, 36 and 39.

Iron formation with semi-massive to banded or fractured sulphides:

Zones 1, 2, 5, 6, and 9

- Iron formation with sulphide stringers:

Zones 12, 32, 46, 50, 51 and 54

Iron formation with conductive magnetite and minor sulphides:

Zones 4, 7, 33 and 41.

Of the conductive zones not associated with iron formation, three zones, two of which have direct magnetic association, indicate probable massive to semi-massive sulphides. Zones 20 and 22 have direct magnetic correlation, while zone 23 does not. These three zones are first priority targets for ground follow-up.

Zones 14, 16, 18, 19, 26, 28, 35, 42 and 52 with direct magnetic correlation and zones 21, 37, 38, 45, 47, 48, 49, and 53 without direct magnetic correlation represent semi-massive to banded, fractured or stringered sulphides. These zones are second priority targets for ground followup, but again, local geological knowledge may upgrade some of them and determine the order in which they should be checked.

Several weak conductive zones, representing probable overburden or possibly weak sulphides were also outlined. These are zones 17, 24, 25, 27, 30, 31, 34 and 40.

(c) Treoby Lake

As no anomalies were detected, no recommendations are made.

Respectfully submitted,

Ralph D. Falconer

CIMNA, Ontario,
July 27, 1966.

Ralph D. Falconer,
Geophysicist.

APPENDIX I

PROJECT NO. 6076 - KNIFE LAKE AREA

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
1 A	1410/4	0/30	120-160	N. edge 500g	3	
2 A	1263/6	30/40	170	Dir. 40g	3	
2 B	1229/35	70/60	130-150	S. Flank 340g	3	Broad
3 A	780/3	40/50	140	nil	3	
3 B	819/24	20/120	120	nil	3	Broad
4 A	0256/59	20/40	160	Dir. 50g	3	
4 B	0293/3	0/20	125	S. edge 400g	3	Broad
4 C	0301/5	0/50	125	N. Flank 550g.	3	
4 AA	126/38	0/120	120-150	Assoc. 300g	3	Broad, tr
5 A	9651/5	140/100	160	S. edge 360g	23	
5 B	9688/91	0/120	140	Assoc. 450g	3	Broad, do
5 C	9707/4	0/40	130	Dir. side peak 150g	3	
6 A	9484/97	0/80	130-180	Dir. 700g	3	Broad, tr
7 A	9098/105	40/70	150	Dir. 40g	3	Broad, do
8 A	8879/86	80/100	170	S. side 1400g	3	Broad
8 B	8871/7	0/60	100	S. edge 1400g	3	Broad
9 A	8411/5	80/60	160	Dir. 40g	3	Double

APPENDIX I

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
9 B	8477/81	40/50	175	S. side 500g	3	
9 AA	8405/8	140/110	145	Dir. 160g	2A	
11 A	7835/40	-/40	100	Dir. 1900g	3	
13 A	7165/8	160/60	135	nil	2B	
15 A	6665/9	0/40	175	S. Flank 5000+g	3	
18 A	5296/300	40/30	140	nil	3	
19 A	5129/33	40/40	170	S. Flank 80g	3	
20 A	4647/53	0/40	145	S. edge 80g	3	Broad
21 A	4474/81	720/30	175	S. side 120g	3	Broad
27 A	3449/56	20/40	125	S. edge 1800g	3	Broad
30 A	4475/8	40/40	150	Dir. 20g	3	
30 B	4468/71	0/40	150	nil	3	Poss. surf.
30 C	4442/7	0/30	155	Dir. 1000g	3	Broad
31 A	4700/5	80/60	145	nil	3	Broad quad
31 B	4741/5	20/40	140	Dir. 700g	3	
32 A	5038/94	0/40	145	nil	3	Broad
33 A	5379/83	110/60	140	nil	3	
33 AA	7978/80	0/10	160	nil	x	
34 A	5750/4	0/30	150	N. Flank 100g	3	

PROJECT NO. 6076 - KNIFE LAKE AREA

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
34 B	5752/7	190/80	140	N. Flank 10g	2B	Multiple
35 A	6326/23	30/20	155	N. edge 150g	3	
35 B	6293/93	0/30	155	nil	3	Poss. surf.
35 C	6289/93	50/60	155	nil	3	
36 A	6488/91	20/20	150	N. Flank 100g	3	
36 B	6529/33	20/60	150	nil	3	
36 C	6579/85	20/40	145	N. edge 40g	3	Broad
37 A	6303/7	0/30	145	Dir. 20g	3	Poss. surf. c
39 A	7644/7	80/90	130	nil	3	
40 AA	7831/2	0/20	155	nil	3	Weak
42 A	9127/30	460/140	150	Dir. 1440g	2A	
43 A	703/6	0/40	150	Dir. 1300g	3	
43 B	793/6	70/50	150	Dir. 1100g	3	
43 AA	7675/8	440/270	140	S. edge 1400g	2B	
44 A	9593/6	20/40	145	N. edge 1200g	3	
44 B	9685/89	40/60	150	Dir. 1700g	3	
45 A	1087/90	40/30	165	N. Flank 40g	3	
45 B	1039/42	250/50	150	Dir. 1100g	2A	

PROJECT NO. 6076 - KNIFE LAKE AREA

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
46 A	199/202	10/40	145	N. edge 50g	3	
46 B	251/4	260/50	150	Dir. 1100g	2A	
47 A	500/3	450/40	150	S. edge 900g	2B	
48 A	1343/6	500/80	140	N. edge 1300g	2B	
49 A	1527/600	20/20	150	Dir. 700g	3	
50 A	1396/9	100/40	150	Dir. 500g	3	
51 A	2242/6	120/60	165	Dir. 600g	2A	Double
53 A	2744/7	220/30	155	nil	3	
54 A	2969/72	30/30	150	nil	3	
54 D	2902/7	40/60	145	nil	3	Double
55 A	3306/11	40/20	160	nil	3	
55 AA	7112/6	0/30	140	nil	3	
55 AB	7116/20	0/50	145	N. edge 120g	3	
56 A	3658/62	60/40	160	nil	3	
56 AA	6745/8	50/50	140	Dir. 200g	3	
56 AB	6809/13	20/30	140	nil	3	
57 A	3381/5	210/40	140	nil	3	
58 A	4191/5	30/40	150	nil	3	
59 AA	6945/8	20/40	140	nil	3	
60 A	4878/31	-/40	130-170	N. Flank 3500g+	3	

APPENDIX I

PROJECT NO. 6076 - KNIFE LAKE AREA

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
60 B	4828/31	0/20	150	nil	x	
60 C	4818/24	40/20	150	nil	3	Broad
60 D	4813/6	0/20	150	Dir. 20g	x	
61 A	4948/51	40/20	125	N. flank 70g	3	
61 B	4968/71	-/40	120-150	N. Flank 5500g	3	
61 C	5021/4	10/20	150	nil	3	
61 D	5029/32	180/40	140	nil	2B	
61 E	5032/5	60/30	150	nil	3	
62 AA	4883/9	90/60	150	nil	3	Broad, dc
62 A	5391/5	50/0	120	nil	3	
62 B	5411/4	40/50	125	N. edge 1400g	3	
62 C	5455/9	60/30	150	nil	3	
62 D	5475/80	30/20	155	nil	3	Double
63 AA	6593/6	0/20	140	nil	3	Weak
63 AB	6578/91	200/100	135	N. Flank 50g	2B	
63 AC	6575/8	20/60	135	nil	3	
64 A	6229/32	210/40	160	N. edge 80g	2B	Double
64 B	6243/6	0/20	170	N. Flank 2000g	3	
64 C	6300/3	400/60	145	nil	2B	

PROJECT NO. 6076 - KNIFE LAKE AREA

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
64 D	6306/9	20/10	140	nil	3	
65 A	6670/3	20/20	145	Dir. 30g	3	Weak
65 B	6656/9	40/20	130	Dir. 800g	3	
65 C	6600/3	120/40	150	N. Flank 40g	3	
65 D	6594/7	60/40	150	S. edge 20g	3	
66 A	6811/5	40/20	170	N. Flank 1100g	3	
66 B	6817/21	30/30	155	nil	3	
67 A	7188/92	120/20	125	nil	x	Weak, poor
67 B	7170/3	40/20	145	Dir. 1500g	3	
67 C	7120/3	50/20	155	nil	3	
68 A	7261/4	50/20	125	S. side 4500g	3	
68 B	7275/8	110/20	170	N. edge 4500g	2B	
68 C	7372/30	40/30	160	nil	3	
68 D	7332/5	10/20	170	nil	3	
69 A	7634/7	100/70	120	Dir. 240g	3	
69 B	7668/71	200/600	150	N. edge 5500g	2B	
69 C	7615/8	220/80	145	nil	2B	
69 D	7612/5	60/30	150	nil	3	
70 A	7838/41	80/20	135	N. edge 70g	3	
70 B	7854/59	1000/110	155	N. Flank 3000+g	1B	

PROJECT NO. 0076 - W. H. I. I. I. I. I.

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
70 C	7902/4	70/20	155	S. edge 60g	3	
70 D	7904/7	280/80	155	Dir. 60g	2A	
70 E	7907/10	30/20	155	N. side 60g	3	
70 AA	6452/8	7/40	135	nil	3	Double
71 A	8259/62	650/60	145	Dir. 1000g	1A	
71 B	8201/14	720/20	125-155	nil	x	V. broad, tr
71 C	8183/7	40/20	150	Dir. side pea. 50g	3	
71 D	8117/20	40/20	125	Dir. 70g	3	
72 A	6317/20	200/90	125	Dir. 30g	2A	
72 B	6302/5	450/160	130	Dir. 2000g	2A	
72 C	6249/61	0/30	140	N. Flank 60g	x	V. broad, tr
72 D	6232/6	0/30	140	S. edge 100g	3	Weak
73 A	8682/5	40/40	125-155	Dir. side peck 100g	3	
73 D	8876/9	380/80	150	Dir. 4000g	2A	
74 A	9003/6	520/60	140	N. edge 900g	2B	
74 B	9151/6	90/10	150	Dir. 300g	x	Broad, pos turbulence
75 A	9416/9	740/60	125	Dir. 3000+g	3	
75 B	9336/9	60/30	165	Dir. 600g	3	
75 C	9302/5	500/290	120	S. Flank 1500g	2B	

PROJECT NO. 6076 - KNIFE I.

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
76 A	9141/4	130/40	130	N. Flank 2000g	3	
76 B	9599/603	40/30	155	nil	3	Double?
76 C	9621/4	120/30	170	Dir. 300g	3	
76 D	9654/9	2500/400	125	Dir. 3000g	2A	
77 A	9960/3	100/60	140	Dir. 1200g	3	
77 B	9901/9	60/60	130-170	nil	3	Broad, mul
77 C	9881/4	0/20	165	Dir. 150g	3	Weak
77 D	9844/9	120/70	180	N. Flank 5600g	2B	Double
78 A	92/6	80/50	130	N. edge 3700g	3	Double
78 B	138/44	720/30	155	nil	3	Double
78 C	170/3	720/10	155	Dir. 40g	3	Weak
78 D	203/8	380/50	185	N. Flank 6000g	2B	Triple
79 A	532/4	1500/240	125	Dir. 9000g	1A	Sharp
79 B	476/83	60/40	150	nil	3	Double
79 C	452/6	120/10	150-175	Dir. 150g	2A	Double
80 A	657/60	60/30	130	N. edge 700g	3	
80 B	707/14	60/60	125	nil	3	Double
80 C	733/41	40/30	150	S. edge 450g	3	
80 D	764/9	450/120	150	N. Flank 5000g	2B	Double

PROJECT NO. 6076 - KILLBE LAKE AREA

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
81 A	1111/3	70/30	170	N. Flank 2000g	3	
81 B	1063/6	30/20	140	nil	3	
81 C	1058/62	110/60	149	nil	3	Double
81 D	1030, 3	200/100	150	S. edge 1300g	2B	
81 E	1004/ 8	440/150	150	N. Flank 7000g	2B	
82 A	1221/4	50/20	150	Dir. 400g	3	
82 B	1289/97	60/30	140	nil	3	Double
82 C	1322/5	540/150	150	Dir. 1800g	1A	
82 D	1349/52	150/40	160	N. Flank 5000g	2B	
82 E	1363/7	50/40	150	Dir. 200g	3	
83 A	1680/3	40/0	120	N. Flank 7000g	3	
83 B	1628/31	300/60	115	S. side 1000g	2B	
83 C	1592/6	0/30	125	N. edge 4000g	3	
83 D	1586/9	80/440	110	S. edge 250g	2B	
83 E	1580/6	+1500/900	100-150	N. edge 5000g	1B	Broad, pr double
83 F	1575/8	160/40	160	N. Flank 5000g	2B	
83 G	1569/73	320/90	160	nil	2B	Double

PROJECT NO. 6076 - KNIFE LAKE AREA

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
84 A	1798/801	80/40	125	N. Flank 2500g	3	
84 B	1852/8	0/20	100	S. Flank 300g	x	Broad, weak
84 C	1882/6	1000/100	170	S. Flank 10,000g	1B	
84 D	1886/90	1500/300	130	N. edge 10,000g	1B	
84 E	1890/900	+1500/70	135	nil	1B	
84 F	1900/4	+1500/60	145	N. edge 1300g	1B	
85 A	2234/6	120/0	165	nil	2B	
85 B	2221/4	-/40	120	Dir. 7000+g	3	
85 C	2170/3	60/80	140	nil	3	
86 A	2308/13	360/90	125	N. Flank 5000g	2B	Double
86 B	2365/8	60/40	150	N. edge 200g	3	
87 A	2637/91	0/30	120-160	N. Flank 150g	3	Weak
88 A	2807/10	-/120	115	N. edge 10,000g	3	
90 A	3566/9	-/40	110	Dir. 2200g	x	
95 A	5001/1	-/30	110-150	Dir. 2000+g	3	Broad, dou
96 A	5044/7	-/260	60	S. edge 7000g	3	
98 A	5531/5	30/40	150	Dir. 700g	3	

PROJECT NO. 6076 - KNIFE LAKE AREA

<u>Locality</u>	<u>Evidence</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetic</u>	<u>Rate</u>	<u>Comments</u>
101 A	6672/3	50/40	175	S. Flank 1700g	3	
102 A	6647/50	0/50	155	Dir. 2800g	3	
103 A	6423/6	40/0	145	N. Flank 2300g	x	Poss. turb
106 A	5828/31	0/20	155	N. Flank 90g	3	Weak
107 A	5623/6	0/20	150	S. edge 1500g	x	
107 B	5471/4	50/50	150	Dir. 100g	3	
108 A	5440/3	200/150	150	N. edge 1700g	2B	
109 A	5096/9	560/330	145	S. edge 1600g	2B	
110 A	5061/4	120/60	150	S. Flank 200g	3	
111 A	4706/11	0/20	165	S. Flank 1300g	3	Broad, do
112 A	4663/8	0/20	155	Dir. 1400g	3	Broad, do
113 A	4308/14	70/60	165	S. edge 3000g	3	Broad, do
114 A	4274/9	0/50	160	N. Flank 4700g	3	Broad
115 A	3912/6	+1500/800	140	N. edge 10,000g	1B	Strong
116 A	3877/81	1500/500	140	N. Flank 7500g	1B	
117 A	3630/3	-/20	150	S. Flank 2700g	3	

PROJECT NO. 6076 - KNIFE LAKE AREA

<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
117 B	3623/6	-/60	145	S. edge 6600g	3	
117 C	3544/7	0/20	160	S. side 3700g	3	
118 A	3401/4	-/40	150	N. Flank 1900g	3	
118 B	3434/7	0/40	150	Dir. 2000g	3	
118 C	3487/90	30/40	145	S. Flank 3000g	3	
119 A	3160/3	30/20	150	S. Flank 100g	3	
119 B	3123/6	80/120	145	Dir. 3200g	3	
119 C	3092/5	40/60	150	S. Flank 2800g	3	
119 D	3083/7	30/40	150	nil	3	Broad
119 E	3040/3	50/40	150	S. Flank 3200g	3	
120 A	2950/4	140/100	150	Dir. 1300g	2A	
120 B	2892/5	60/70	155	N. edge 800g	3	
120 C	2907/10	0/20	145	S. Flank 1400g	3	Weak
120 D	2913/6	0/20	150	N. side 1400g	3	Weak
120 E	2929/32	290/110	150	N. Flank 2700g	2B	
120 F	2932/6	+1500/700	145	Dir. 2700g	1A	Strong

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
121 A	2773/6	20/20	150	Dir. 460g	3	Weak
121 B	2709/12	29/10	155	nil	3	Weak
121 C	2693/6	360/110	155	S. edge 1500g	2B	
122 A	2465/8	160/60	140	N. Flank 300g	2B	
122 B	2522/5	10/10	150	nil	3	Very weak
122 C	2537/40	240/60	170	Dir. 1000g	2A	
123 A	2372/4	20/20	155	nil	3	Weak
123 B	2259/302	340/140	155	S. edge 300g	2B	
124 A	5729/33	900/300	135	Dir. 2200g	1A	
125 A	1894/7	260/70	150	Dir. 1000g	2A	
125 B	1845/9	720/30	145	S. Flank 8500g	3	
126 A	1731/4	40/30	150	Dir. 800g	3	
126 B	1779/82	0/30	150	S. side 10,000+g	3	
127 A	1437/40	70/80	155	S. edge 5000+g	3	
128 A	1334/7	0/40	145	Dir. 4700g	3	
130 A	970/3	260/60	150	N. Flank 1500g	2B	
130 B	1018/21	0/20	145	N. side 2000g	3	Weak, pos surf. cond

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
131 A	716/9	1200/250	150	S. edge 4100g	1B	
131 B	667/70	0/20	145	N. Flank 1300g	3	Poss. surf.
132 A	567/70	1500/300	145	N. Flank 4300g	1B	
133 A	320/3	260/140	150	Dir. 3600g	2A	
133 B	272/6	0/20	140	N. side 403g	3	Weak, poss surf. cond.
134 A	185/8	750/240	150	N. Flank 3000g	1B	
134 B	231/4	0/20	140	N. edge 120g	3	Weak, poss surf. cond.
135 A	9936/40	430/180	140	S. edge 5000g	2B	
135 B	9890/4	0/20	150	S. edge 60g	3	Poss. surf.
135 AA	5608/11	300/140	140	Dir. 4500g	2A	
135 AB	5568/71	30/20	150	N. edge 50g	3	
136 A	9800/3	400/140	145	N. Flank 4000g	2B	

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<u>Anomaly</u>	<u>Miducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Etc</u>	<u>Comments</u>
137 A	7631/6	+1500/600	130	E. edge 2200g	1B	Broad
138 A	7957/62	+1500/700	139	Dir. 2200g	1A	Broad
139 A	8279/82	120/40	150	E. Flank 2900g	3	
139 B	8539/44	+1500/600	140	Dir. 4000g	1A	Broad EM, broader mag
140 A	8843/54	200/160	150	Dir. 4000g	2A	Broad, multi
141 A	9203/7	140/30	150	E. Flank 3500g	3	
142 A	29/32	40/20	160	Dir. 3500g	3	
144 A	944/7	0/30	145	N. edge 1500g	3	
144 B	931/4	40/40	145	Dir. 1500g	3	
144 C	851/7	40/20	150	Dir. 30g	3	
145 A	1034/7	0/30	125	W. Flank 4200g	3	
145 B	1042/6	470/180	140	E. edge 2700g	2B	
146 A	1844/6	0/70	150	Dir. 650g	3	
146 B	1835/8	500/240	145	E. Flank 5000g	2B	
147 A	2792/5	20/40	150	Dir. 300g	3	
147 B	2782/5	530/240	150	E. Flank 9000g	2B	

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetic</u>	<u>Rate</u>	<u>Comments</u>
148 A	1960/3	40/40	155	E. side 7000g	3	
149 A	3125/9	80/80	155	Dir. 150g	3	
150 A	3550/3	30/30	160	Dir. 100g	3	
153 A	4823/7	100/400	135	Dir. 400g	2A	
153 B	5114/7	40/80	150	E. side 300g	3	
153 C	5225/8	0/30	150	Dir. 40g	3	
154 A	5657/60	140/100	160	Dir. 1000g	2A	
154 B	5404/7	720/60	160	nil	3	
155 A	5971/5	0/100	140	E. edge 200g	3	
155 B	6052/5	60/70	150	nil	3	
156 A	6167/70	80/40	140	W. edge 1000g	3	
156 B	5922/6	40/40	145	nil	3	
156 C	5821/5	240/70	150	Dir. 90g	2A	
157 A	6272/9	70/130	125	E. Flank 240g	3	Broad, tri
157 B	6461/5	0/20	150	E. Flank 100g	3	
158 A	7166/73	30/30	145	Dir. 550g	3	Broad
158 B	6934/9	0/40	150	W. Flank 20g	3	
159 A	7274/9	180/100	125	W. Flank 160g	3	Broad, tri

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
160 A	8093/6	70/40	140	Dir. 800g	3	
160 B	7856/9	40/20	140	W. edge 40g	3	
161 A	8213/7	60/40	140	W. Flank 80g	3	
161 B	8408/11	150/60	140	E. Flank 60g	3	
162 A	3784/7	80/30	145	Dir. 150g	3	
166 A	80/4	0/100	125	E. Flank 120g	3	
167 A	1317/20	0/20	150	Dir. 11,000g	3	Weak
168 A	1585/8	20/30	145	E. Flank 100g	3	
168 B	1480/3	20/20	140	Dir. 15,000+g	3	IP suppressed
169 A	2186/9	470/240	130	Dir. 250g	2A	
169 B	2230/13	50/40	150	nil	3	
169 AA	4623/6	120/140	140	W. edge 240g	3	
169 AB	4517/20	40/40	155	Dir. 4000+g	x	
170 A	2539/42	180/90	145	Dir. 200g	2A	
170 B	2480/93	40/30	145	E. side 50g	3	
171 A	2949/55	1500/450	135	E. Flank 2300g	1B	Double

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
175 A	562/6	70/40	145	nil	3	Double
175 B	599/602	180/100	150	W. Flank 1800g	2B	
175 C	622/6	160/100	150	E. Flank 900g	2B 2B	Double Double
175 D	642/6	0/40	145	W. edge 4000+g	3	Double
175 AA	4672/6	100/180	145	W. Flank 5000+g	2B	Double
175 AB	4694/700	330/270	140	E. Flank 4200g	2B	Triple
175 AC	4714/8	20/20	150	W. Flank 6000+g	3	Weak
175 AD	4719/22	20/20	150	W. Flank 6000+g	3	Weak
175 AE	4724/7	0/60	150	E. Flank 6000+g	3	
176 A	832/5	330/90	145	nil	2B	Double
176 B	8229/31	20/20	135	W. Flank 350g	3	Weak
176 C	786/91	240/100	140	W. Side 3300g	2B	Double
176 D	753/63	140/100	145	E. Flank 1700g	3	Triple
176 E	736/9	70/60	145	W. side 10,000+g	3	
176 F	728/31	120/20	150	Dir. 10,000+g	3	

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
171 B	3312/6	50/30	140	Dir. 20g	3	
171 C	3337/40	10/20	160	nil	x	Weak
171 AA	4263/7	40/130	140	W. edge 150g	3	
171 AB	4312/5	0/20	175	E. Flank 30g	3	Weak
171 AC	4433/6	20/20	160	E. edge 60g	3	Weak
172 A	9171/4	0/20	140	Dir. 120g	3	Weak
172 B	9019/22	20/10	150	E. edge 20g	3	Weak
172 C	8997/9000	20/40	140	E. edge 120g	3	
173 A	9730/3	0/20	155	Dir. 60g	x	Weak
173 B	9743/7	60/20	170	Dir. 20g	3	
173 C	9764/7	20/20	145	W. side 1400g	3	
173 D	9783/6	40/20	150	Dir. 40g	3	
174 A	214/7	170/90	145	Dir. 60g	2A	
174 B	211 4	40/30	145	nil	3	
174 C	9929/33	0/30	150	W. edge 1500g	3	
174 D	9913/7	370/180	145	Dir. 100g	2A	Double
174 E	9888/91	30/20	150	W. side 1200g	3	
174 F	9865/9	140/50	145	Dir. side peak 20g	3	

177 A	1235/42	170/110	150	Dir. 350g	2A	Triple
177 B	1469/74	1000/340	150	Dir. 25g	1A	Double
177 C	1496/500	200/100	150	E. Flank 800g	2B	Double
177 D	1519/21	90/60	140	E. edge 24,000g	3	
178 A	1979/81	+1500/800	135	Dir. 750g	1A	
178 B	1976/8	300/450	135	nil	2B	
178 C	1739/43	100/50	145	nil	3	
178 D	1692/5	220/80	150	nil	2B	
178 E	1686/90	60/50	135	W. edge 300g	3	Double
178 F	1649/54	460/180	140	E. edge 4000g	2B	Double
178 G	1627/9	220/80	150	W. edge 21,000g	2B	
178 H	1625/7	170/60	150	E. edge 21,000g	2B	
179 A	2131/4	750/300	140	Dir. 100g	1A	
179 B	2134/6	750/200	140	nil	1B	
179 C	2330/3	60/40	140	E. side 100g	3	
179 D	2371/4	290/90	140	nil	2B	
179 E	2404/9	600/220	135	E. Flank 2300g	2B	Double
179 F	2420/4	30/30	165	W. Flank 18,000g	3	
179 G	2425/8	200/60	150	Dir. 18,000g	2A	

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
180 A	2860/6	110/90	155	Dir. 500g	3	Broad
180 B	2637/41	20/20	140	Dir. 200g	3	Weak
180 C	2590/3	600/180	150	E. edge 250g	1B	
180 D	2586/9	200/60	150	E. Flank 250g	2B	
180 E	2580/3	30/10	145	nil	3	
180 F	2541/6	70/80	160	Dir. 4500g	3	Double
180 G	2523/6	180/70	150	W. side 6500g	2D	Double
180 H	2517/20	190/80	150	E. edge 6500g	2B	
181 A	3439/43	260/100	140	E. edge 250g	2B	
181 B	3675/79	120/30	145	nil	3	
181 C	3689/3	80/40	155	W. Flank 1000g	3	
181 D	3726/30	40/20	160	nil	3	
181 E	3739/42	100/40	175	W. Flank 6000g	3	Double
181 F	3744/7	90/50	145	E. Flank 6000g	3	
181 G	3752/6	20/20	150	nil	3	
182 A	4151/4	400/500	140	Dir. -300g	2A	
182 B	4149/51	170/200	150	nil	2B	
182 C	3889/92	240/60	145	nil	2B	

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetic</u>	<u>Rate</u>	<u>Comments</u>
182 D	3884/89	440/130	140	W. side 1500g	2B	Double
182 E	3830/6	100/60	145	E. side 800g	3	Double
182 F	3815/19	220/40	155	W. Flank 9000g	2B	Double
182 G	3811/4	200/60	150	Dir. 9000g	2A	
182 H	3803/7	30/20	150	E. side 9000g	3	
183 A	4529/34	120/50	150	E. Flank 100g	3	Double
183 B	4539/42	40/30	160	nil	3	
183 C	4569/73	30/20	150	nil	3	
183 D	4589/93	200/160	150	E. Flank 6000g	2B	Triple
183 E	4603/5	40/40	165	W. Flank 6700g	3	
183 F	4607/10	120/40	165	E. edge 6700g	3	
184 A	5019/23	120/300	125	Dir. -500g	2A	Double?
184 B	4761/4	60/40	135	nil	3	
184 C	4755/9	360/80	140	Dir. 40g	2A	
184 D	4686/93	360/180	150	E. edge 3500g	2B	Triple
184 E	4676/9	0/30	165	W. side 5400g	3	
184 F	4671/4	160/30	160	Dir. 5400g	2A	

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Date</u>	<u>Comments</u>
185 A	5156/60	100/120	140	E. edge 750g	3	Broad
185 B	5389/92	470/150	140	Dir. 50g	2A	
185 C	5460/4	900/400	150	E. Flank 1500g	1B	
185 D	5470/3	20/10	165	W. side 4700g	3	
185 E	5470/9	30/40	160	E. Flank 4700g	3	
186 A	5898/901	800/500	135	Dir. 1000g	1A	
186 B	5643/7	450/160	150	Dir. 70g	2A	Double
186 C	5561/5	+1500/800	125	Dir. 3000g	1A	
186 D	5551/4	50/30	155	W. side 5700g	3	
186 E	5540/7	200/100	150	Dir. 5700g	2A	
187 A	6049/53	30/40	150	E. side 400g	3	
187 B	6287/91	50/60	145	nil	3	Double
187 C	6365/8	1000/380	150	E. edge 2700g	1B	
187 D	6378/31	560/120	170	Dir. 1700g	2A	
188 A	6798/801	40/110	150	W. side 250g	3	
188 B	6599/602	10/20	140	nil	3	Weak
188 C	6542/6	50/60	140	Dir. 50g	3	
188 D	6454/6	220/110	140	Dir. 7000g	2A	Sharp

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
188 E	6446/49	60/20	155	W. side 3800g	3	
188 F	6440/3	100/30	150	Dir. 3000g	3	
189 A	6940/5	20/40	150	Dir. 250g	3	Broad
189 B	7184/7	160/60	150	nil	2B	
189 C	7187/89	130/80	150	nil	3	
189 D	7265/3	900/280	150	Dir. 3400g	1A	
189 E	7270/2	20/10	165	W. Flank 5000g	3	Weak
189 F	7276/8	40/20	160	S. Flank 5000g	3	
189 G	7281/3	30/40	150	nil	3	
190 A	7637/91	480/370	145	Dir. 1000g	2A	Double
190 B	7428/33	100/100	150	Dir. 150g	3	Double
190 C	7338/41	500/200	155	Dir. 2400g	1A	
190 D	7333/6	40/20	170	nil	3	
190 E	7327/29	50/20	155	Dir. 9300g	3	
190 F	721/4	40/20	150	E. side 9300g	3	
191 A	7815/91	500/230	150	E. edge 400g	2B	
191 B	8002/7	440/200	150	W. edge 300g	2B	Double
191 C	8150/4	80/20	160	E. Flank 2200g	3	

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetic</u>	<u>Rate</u>	<u>Comments</u>
192 A	8576/79	750/520	140	Dir. 350g	1A	
192 B	8574/6	340/200	145	E. Flank 350g	2B	
192 C	8321/4	20/20	140	nil	3	Weak
192 D	8311/5	700/350	140	W. edge 250g	1B	
192 E	8213/6	650/190	150	Dir. 2300g	1A	
192 F	8203/5	30/20	130	W. edge 7800g	3	Weak
193 A	8684/6	20/50	160	Dir. 850g	3	
193 B	8687/92	1000/580	150	nil	1B	
193 C	8933/7	700/200	165	Dir. 650g	1A	
193 D	9023/5	120/40	155	W. edge 13,000g	3	
193 E	9025/7	230/60	150	E. Flank 13,000g	2B	
193 F	9027/9	70/30	160	E. side 13,000g	3	
194 A	9455/9	+1500/600	140	Dir. 2000g	1A	
194 B	9444/7	0/30	135	Dir. 80g	3	
194 C	9196/9	250/160	140	Dir. side peak 50g	2A	
194 D	9193/6	1000/370	135	Dir. 1300g	1A	
194 E	9027/91	200/50	150	W. edge 13,000g	2B	Double

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<u>Anomaly</u>	<u>Readings</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetic</u>	<u>Rate</u>	<u>Comments</u>
195 A	9569/73	+1500/500	135	E. Flank 900g	1B	
195 B	9809/14	700/300	150	Dir. 250g	2A	Double
196 A	310/5	+1500/550	135	E. side 250g	1B	Broad
196 B	62/4	60/40	155	Dir. 50g	3	
196 C	55/9	+1500/600	145	Dir. 150g	1A	
197 A	423/7	320/160	145	Dir. 1000g	2A	
197 B	656/9	270/80	150	nil	2B	
197 C	659/62	120/100	165	nil	3	Poor chace
197 D	662/5	140/160	160	Dir. 150g	2A	
198 A	1168/72	20/40	140	E. side 500g	3	
198 B	934/7	40/20	145	nil	3	
198 C	923/30	220/70	145	Dir. 60g	2A	Double
198 D	921/5	1500/340	150	Dir. 100g	1A	
198 E	919/21	400/200	140	E. side 100g	2B	
198 F	804/8	50/20	135	Dir. 7400g	3	Broad
199 A	1493/6	30/20	150	nil	3	
199 B	1504/7	900/240	160	Dir. 1200g	1A	
200 A	1799/802	30/20	145	Dir. 40g	3	
200 B	1786/91	850/450	125-170	W. Flank 1100g	1B	Double

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In. Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
201 A	2385/8	30/10	160	W. Flank 30g	3	
201 B	2393/7	140/90	175	W. Flank 1500g	2B	Poor char
201 C	2397/9	200/260	185	Dir. 1500g	2A	
201 D	2399/401	650/400	130	E. edge 1500g	2B	
202 A	2885/8	0/30	145	Dir. 30g	3	
202 B	2675/7	100/20	140	E. Flank 80g	3	
202 C	2667/71	320/300	125	W. Flank 2200g	2B	Double
202 D	2664/7	40/520	110	W. edge 2200g	2B	IP suppressed
206 A	4786/90	0/40	130	nil	3	Weak
207 A	5293/6	0/30	130	W. Flank 850g	3	Weak, poss dir. mag
209 A	6154/7	60/40	150	Dir. side peak 40g	3	
210 A	6446/9	40/30	135	nil	3	
211 A	6961/5	0/60	130	Dir. 100g	3	Double
211 AA	3066/70	320/50	150	W. edge 30g	3	
212 A	7414/8	100/100	140	Dir. 100g	3	Double
217 A	9604/8	0/30	140	nil	3	Broad
217 AA	3163/7	0/20	150	nil	3	

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<u>Anomaly</u>	<u>Fiducials</u>	<u>In-Phase Quad</u>	<u>Altitude</u>	<u>Magnetics</u>	<u>Rate</u>	<u>Comments</u>
219 A	596/8	90/40	150	E. Flank 180g	3	
220 A	919/22	1500/600	140	W. Flank 1000g	1E	
221 A	1492/6	350/240	160	Dir. 900g	2A	
222 A	1808/11	400/440	140	Dir. 1500g	2A	
223 A	2362/4	350/200	140	Dir. 3000g	2A	Sharp
224 A	2673/5	90/100	135	W. edge 2000g	3	
225 A	3174/8	0/20	130	E. edge 160g	x	
225 B	3204/7	340/260	130	Dir. 1500g	2A	Sharp
226 A	3519/22	420/260	130	Dir. 1500g	2A	
229 A	4894/7	30/30	150	W. Flank 480	3	
230 A	5190/201	0/30	155	W. side 1200g	3	
231 A	8887/90	0/50	140	E. edge 450g	3	
232 A	9189/92	0/30	150	Dir. 100g	3	
233 A	9646/9	740/60	150	Dir. 80g.	3	



ACME GAS & OIL CO., LIMITED

Wawa ProjectProgress Report up to August 31st, 1966Men

Crew this fall will consist of 10 men:

- | | |
|------------------|-----------------|
| 1. Bill Myan | - Manager |
| 2. Art O'Donnell | - Geologist |
| 3. A. Gratton | - E.M. and Mag. |
| 4. R. Bessette | - E.M. and Mag. |
| 5. A. Aubie | - Trenching |
| 6. M. Lasechko | - Trenching |
| 7. K. Sampson | - Winkie Drill |
| 8. G. Gratton | - Winkie Drill |
| 9. A. Toechick | - Cook |
| 10. J. Lebarde | - Cook |

It is recommended that Art O'Donnell be based in Wawa for the next two years, with the Winkie drill and trenching program occupying almost all of his time. His family should be moved to Wawa with moving assistance provided by Acme.

Property CoverageGrid #1.

- Surveys - Sawmill Lake Area
- Mag. coverage complete on 400' lines
 - E.M. coverage complete on 400' lines
 - Soil sampling complete
 - Detail Mag. coverage near iron formation in progress

- Follow up - North Evans range iron formation outcrops near Sawmill Lake - it appears to be of good grade and is approximately 75' wide. Detailed Mag., trenching and sampling required. Previous iron sample sent in by Carl Myan for assay was from here.
- An attempt to trench the South Evans iron formation at a point of 100,000 gamma plus failed to get through 15' plus of sandy overburden. This iron formation must have detailed Mag. and be tested with a big drill.

Grid #2 - Troy Lake Area

- Surveys - Magnetic survey on 200' lines completed.

- Follow up - A series of trenches across the 100,000+ gamma area indicates a width of 75' to 100' of good grade material. Three representative samples assayed over 40% Soluable Iron. Tests should be made for recoverable magnetic iron and feasibility studies initiated. Consideration should be given as to Company formation and financing of development drilling.

Grid #3

- Surveys - Grid cut.
- E.M. completed and two conductors located
- Soil sampled but not assayed

- Follow up - Two trenches cut pyrite and pyrrhotite with traces of Cu in volcanics.
- Two Winkie holes should be drilled .

Grid #4

- Surveys - Grid cut.
- E.M. complete

- Follow up - Two Winkie holes drilled that intersected graphite, pyrrhotite and traces of Cu.
- One trench that cut pyrite and pyrrhotite.
- Two additional Winkie holes should be drilled.

Grid #5

- Surveys - Grid cut
- E.M. complete

- Follow up - Two Winkie holes intersected graphite, pyrite, pyrrhotite with minor Cu. Work completed on this grid.

Grid #6

- Surveys - Grid cut
- E.M. complete

- Follow up - Three Winkie holes drilled intersecting graphite, pyrite, pyrrhotite with traces of Cu.
- Work completed on this grid.

Grid #7

- Surveys - Grid cut
- E.M. complete

- Follow up - No follow up work on this grid. Require two trenches or Winkie holes in order to test conductors.

Grid #8

This is a larger 400' interval grid situated between Grids 1 & 2.

- Surveys - Lines cut
- E.M. partially completed (west end to be covered)
- soil sampled
- Mag. survey yet to be done.

- Follow up - Soil assays indicate anomalous readings coincident with a weak E.M. conductor. Detail soil samples out for assay. No trenching or drilling to date on this grid.

Grid #9 - This is a large grid covering a group of airborne conductors immediately west of the Frances Hill property.

Surveys - Line cut
- E.M. completed
- Mag. survey not yet started
- soil sampling completed but not assayed.

Follow up- One Winkie hole completed intersecting heavy graphite. Two further Winkie holes have run into trouble with heavy overburden. Further drilling to be planned. Magnetic work should be started and studied carefully along with known geology to determine if there are any possible extensions of the Frances iron deposit.

Grid #10 - This grid covers the Frances Hill iron deposit as well as its eastern extension the Brotherton Hill iron range. Extensive folding and faulting are known to occur in this area. The Brotherton Hill according to Goodwin does not hold much potential as an iron prospect.

Surveys - Grid cut otherwise no other work started
- The Frances Hill deposit is open Ontario ground and should be staked.

Grid #11 - This is a large and important grid covering the "Iron Horse shoe" and Heart Lake copper areas. The ground is intensely folded and contains extremely high magnetic and conductive airborne anomalies. Previous work by Jonsmith Mines on the Heart Lake property consisted of trenching and minor drilling - the results are available from the A.C.R. files. Algoma Steel prospected the area for iron. Goodwin recommended further work as follow up on a siderite occurrence that was located. The Acme camp is situated on the southeast corner of this grid on the shore of Paint Lake.

Surveys - Line cutting in progress

Follow up- Two Winkie holes were drilled under Jonsmith trenches containing copper. These holes were disappointing in that copper assays were very low.
- Three grab samples of the iron formation returned an average of 20% soluble iron. Detailed E.M. magnetic and geological surveys are required to fully explore both the iron and copper potential of this grid.

Grid #12 - This grid covers an iron formation that is one of the few areas that Algoma Steel initiated a systematic exploration program. They cut a good base line and turned off cross lines at 200' intervals. They probably did not do further work having lost the claims to us due to lack of sufficient assessment credits. It is probably a good siderite prospect.

Survey - No work has been done in this area to date.

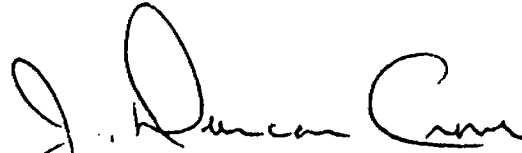
Recommendations

Many soil samples have been taken, yet to date only a few on Grid #8 have been assayed. In the future we will be working on the longer E.M. systems rather than the isolated systems that we have concentrated on up to the present time. Thus the future program will become more dependent on soil sampling and less on E.M. A decision must be made now as to the sending of soil samples out for assay or setting up our own lab in Nawa. In view of the further acquisition of A.C.R. townships and the volume of soil samples involved I feel it is important to set up our own lab and start running our own samples as soon as possible.

Evaluation of the Troy Lake and Sawmill Iron deposits should be made and negotiations opened with Algoma Steel towards development of these properties. Consideration should be given as to the most suitable time to form a company on these properties.

Only two grids (#5 and #6) have been completed to date. The program has sacrificed systematic exploration for rapid coverage in an attempt to obtain favourable results in a hurry. This is not a wise policy to continue. Grids that have been started should be wrapped up before new areas are worked on.

Respectfully submitted,


J. Duncan Crowe,
Consulting Geophysicist.

August 15th, 1966.



ACME GAS & OIL CO., LIMITED



1705 VICTORY BUILDING

80 RICHMOND ST. WEST

*The Prospect of Today
is the Mine of To-morrow*

TORONTO 1, CANADA

ACME GAS & OIL CO., LIMITED PROPOSED 1969 FALL PROGRAM ALGOMA CENTRAL RAILWAY TWP. 26, RANGE 26 & TWP. 27, RANGE 25

The purpose of this program is to systematically locate and check out on the ground the airborne anomalies located near the Forge Lake - Cawdron Lake fault. This major N45°E fault appears related to several gold occurrences.

A camp should be set up on Cawdron Lake providing easy access to most of the airborne anomalies - the anomalies are listed below in order of their priority:

(1) Anomaly #50, 48, 49 & 51

The #50 anomaly has not been surveyed. A sample of pyrite taken by Bill Nyman ran 1.20 oz. gold. A 200' grid should be cut on the anomaly and covered with JEM and RADEM FS. The pyrite exposure should be trenched and assayed. Cover anomalies 48, 49 and 51 in the same manner.

(2) Anomalies 19, 20, 21 & 22 should be located with the RADEM FS. A base line cut down the conductor axis should provide sufficient ground control. If the conductor is exposed or near surface it should be trenched and sampled with assays run for gold, silver, copper and zinc.

(3) The previous trenches on Sawmill anomaly #23 should be sampled and assays run for gold. DDH SM.#2 core should be assayed for gold.

- (4) Examine and roughly map the old gold workings near the southeastern shore of Forge Lake - run pace and compass RADEM FS across these old workings to see if a fault pattern can be detected. Obtain grab samples and assay for gold.
- (5) Anomalies 17 & 18 should be checked out using the base line - reconnaissance method. Magnetometer and RADEM field strength pace and compass surveys should be sufficient to outline the conductor and select zones for trenching.
- (6) Cover anomaly 42 and the A.C.R. portions of 43 & 44 using the reconnaissance method outlined for 17 & 18.
- (7) Trench the massive sulphides towards the west end of anomaly #75 previously covered with reconnaissance EM and soil sampling. Assay for gold.
- (8) Check out anomalies 73, 72, 71 & 70 using the base line method with RADEM FS and magnetometer.

NOTE: With the reconnaissance method proposed the base line should follow the main conductor axis. It should be a cut line chained and picketed. Cross lines at 300 foot intervals should be pace and compass with stations marked by plastic ribbon. Make notes of all readings and draw a plan map of each conductor.

NOTE: With the RADEM FS method readings over the conductor should be taken at very close intervals - as close as 10' apart right over the sulphide zone.

Respectfully submitted,

Sept. 25, 1969.

J. Duncan Crone.

ACME GAS & OIL CO., LIMITED

1705 VICTORY BUILDING

80 RICHMOND ST. WEST



*The Prospect of Today
is the Mine of To-morrow*

TORONTO 1, CANADA

ACME GAS & OIL CO., LIMITED
PROPOSED 1969 FALL PROGRAM
ALGOMA CENTRAL RAILWAY
TWP. 26, RANGE 26 & TWP. 27, RANGE 25

The purpose of this program is to systematically locate and check out on the ground the airborne anomalies located near the Forge Lake - Cawdron Lake fault. This major N45°E fault appears related to several gold occurrences. The chance of base metal mineralization also exists near the rhyolite-andesite contact.

A camp should be set up on Cawdron Lake providing easy access to most of the airborne anomalies - the anomalies are listed below in order of their priority. No previous work has been carried out on any of these anomalies.

Anomaly 50 is an airborne conductor 1/4 mile long. A grab sample of apparently barren pyrite from an exposure on this anomaly ran 1.20 oz. of gold. The zone should be mapped and sampled by a geologist with helper.

A VLF-EM unit should then be used to outline the axis of the conductor. The field strength readings should be recorded. This axis should be blazed and marked with red flagging every 100 ft. Soil samples should be taken every 100 ft. along this line. Every 300 ft. cross lines should be laid out with pace and compass and samples should be taken for a distance of 300 ft. out from the conductor axis at 100 ft. intervals. All samples should be marked. Every second sample should be assayed for Cu, Zn and Ag. If a sample kicks then the surrounding samples should also be assayed. A map of each grid should be made.

Crew for this reconnaissance coverage would consist of two men, one operator to take soil samples and run the VLF-EM, one bushman to blaze the conductor axis and pace and compass the side lines. This would be the standard procedure for the following anomalies.

Geochemical Check of Airborne Conductors

<u>Priority</u>	<u>Anomaly Numbers</u>	<u>Combined Miles of Conductor Axis</u>	<u>Total Soil Samples Taken</u>	<u>Time Estimated (2 Man Crew)</u>
(1)	<u>50,48,49 & 51</u>	1 mile	200	10 days
(2)	<u>19,20,21 & 22</u>	2 miles	400	20 days
(3)	17 & 18	1½ miles	300	15 days
(4)	42, 43 & 44	2 miles	400	20 days
	TOTAL -	6½ miles	1,300	65 days

Since the old claims immediately west of Forge Lake (from which Don Smith of the A.C.R. obtained a 5.40 oz. of gold assay) are now open it is recommended that the geologist also examine these old workings and map them if time permits.

Estimated costs - \$15,000 to \$20,000 for initial program as outlined depending on period work is performed.

Respectfully submitted,

J. Duncan Crone.

October 9, 1969.



42C01NW0012 0011 BIRD

070

REPORT TO

MESPI MINES LIMITED,

1705 Victory Bldg.,

80 Richmond St. W.,

Toronto 1, Ontario.

ON

EXPLORATION ACTIVITIES

Cawdron Lake Area

Township 26, Range 26

Algoma District, Ontario.

Oct. 20 - 27, 1969

Timmins, Ontario,

October 28, 1969.

J. E. Steers,

Consulting Geologist.

INTRODUCTION

During the period October 20 - 27, 1969, inclusive, a five man crew attempted to locate and detail a number of airborne electromagnetic anomalies.

In general the method of approach was to locate the anomalous zone on the ground and establish the conductor axis utilizing a "Radem" VLF unit.

Subsequently a baseline was cut along the conductor axis and the conductive zone was detailed by the VLF unit, soil sampling and magnetometer. Initially it was planned to map the zones in detail, however, extremely wet conditions and a covering of snow precluded detail mapping. Where feasible outcroppings were examined.

The advent of an unusually early freeze-up forced the crew to suspend operations after seven days.

SUMMARY AND CONCLUSIONS

Camps suitable for use at a later date and capable of accommodating five men were constructed and four anomalous systems were located on the ground. In addition old workings at Forge Lake were examined.

Anomaly 50, the first anomaly to be examined was detailed with the VLF unit and a fluxgate magnetometer for a strike length of 1500 feet. Soil samples were taken at 100 foot intervals and a 3'x4'x40' trench was established on line O. Another shallow pit was established on line 3 E.

The cause of the conductor was found to be a pyritic graphitic shale containing disseminated pyrrhotite, chalcopyrite and traces of sphalerite. South of the shale a siliceous (possibly fragmental) zone was encountered which carried disseminated pyrrhotite,

chalcopyrite and traces of sphalerite.

The zone was not completely trrenched because of the time factor involved. The conductive zone is cut on the south by an apparently easterly striking mafic intrusive (likely a diabasic dike or sill). However, the zone is open to the north. It was not possible to establish the width of the shale zone but it is thought that it is comparatively narrow, in the order of 10-15 feet.

ANOMALY 49

This anomaly was located on the ground and partially detailed over a 900 foot strike length. The zone is "open" to the east and west. On line D E the conductor axis occurs on the top of a hill. A grab sample of "B" horizon soil and a sample of highly weathered black slaty material was obtained approximately 75' N of the conductor axis.

Three other zones are indicated, however, it is believed that these "cross-overs" are due to topographic effects.

At one point two outcrops were sampled. Outcroppings south of the axis are dominantly basic lavas probably andesite which are aphanitic to slightly porphyritic.

The small outcrop sampled north of the conductor is a sheared felsic volcanic probably originally a dacite but now a quartz - sericite - chlorite schist.

This conductive zone has a N 80 E strike and occurs in a topographic low. One location was noted where it might be possible to trench this conductive zone. Over much of the area soil sampling would be of little benefit because of the wet swampy overburden.

Anomaly 19 was located and the conductor axis blazed for approximately 300 feet. This zone apparently strikes N-60 E. It is believed that both soil sampling and trenching in this area are feasible.

GENERAL GEOLOGY

The rocks of the region are dominantly intermediate to mafic volcanic rocks with thin intercalated tuffaceous zones and thin sedimentary layers.

It is believed that the rocks generally have an easterly strike, however, most structural features are obscured by a strong lineation which has a N 40 to 50° E strike. North of Cawdron Lake the foliation planes generally dip steeply to the southeast while south of the lake the foliation planes have a dominantly steep northerly dip.

It is believed that Cawdron Lake is the locus of a strong fault zone, possibly a grabben structure which has a strike of about N 50° E.

Generally a series of linear hills and valleys roughly parallel the interpreted fault structure both north and south of the lake.

Maximum relief between the top of a hill and the bottom of a valley is the order of 50 feet, however, the slopes of the hills are not uniform but are a series of steep, step-like scarps which dip towards the lake.

OBSERVATIONS

Most of the rocks observed were andesitic volcanic rocks, however, black, graphite slate was noted in the vicinity of anomalies 50 and 49.

It was not possible to obtain attitudes on rock contacts. Where the slates were exposed they appeared to be relatively flat lying, however, geophysical results indicate that the zones are near vertical. It is felt that the flat attitudes observed are probably due to slumping.

Of the anomalies located it is estimated that soil sampling would probably be only about 50% effective since the topographic lows are usually swamps having a 3 to 4 foot humic layer underlain by wet clays.

SAMPLE NO.	Au	Ag	Cu	Zn	
1810	Tr	Tr	0.02	0.05	Grab, oxidized, sheared felsic volc from 50' S of conductor axis of anomaly 49
1811	0.01	Tr	Tr	0.03	Anomaly 49, "B" horizon soil 50' south of conductor axis
1814	0.01	Tr	0.10	0.02	Anomaly 50, Grab-heavy pyrrhotite from siliceous zone centre of test pit
1815	Tr	Tr	0.16	0.68	Anomaly 50, black slate mineralized with pyrrhotite chalcopyrite, traces sphalerite, heavily leached, oxidized.
1816	nil	Tr	0.08	0.02	Anomaly 50, grab, disseminated pyrrhotite, minor chalcopyrite from siliceous zone in pit.

RECOMMENDATIONS

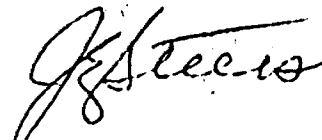
It is recommended that consideration be given to continuing the follow-up program after freeze-up. Otter aircraft are readily available so that snowvehicles could be easily transported to the field. Many anomalous systems could be at least located and preliminary geophysical work performed with relative ease from the established base camp.

It is also recommended that grid lines be cut and chained over the anomalous zones. Lines should be at least 500 feet long on either side of the conductor axis. The nature of the topography and the nature of the bush makes pace and compass work very difficult. In order to maintain control doing pace and compass surveys an operator must walk up one line and return to the baseline on that line. If lines are cut an operator could walk one line and return on another thus halving the walking time on the grid systems.

Although it will not be possible to perform detailed mapping during the winter it is believed that a sufficient number of rock samples could be obtained to greatly aid in the interpretation of the results.

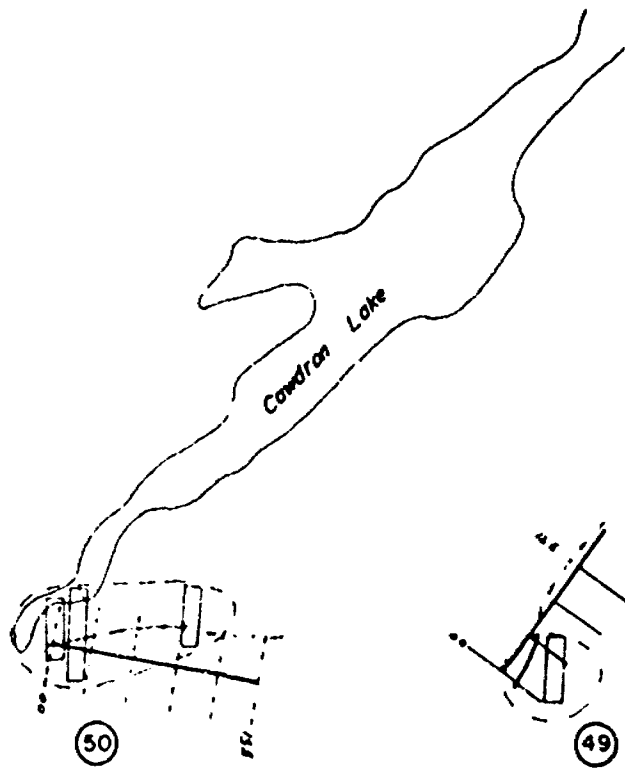
If additional work in the area is contemplated either in summer or winter the field parties should be equipped with air photographs as well as the photomosaic lay down for the area involved.

Respectfully submitted,
SMICLD GEOPHYSICS LIMITED,



J. F. Steers,
Consulting Geologist.

Timmins, Ontario,
October 28, 1969.



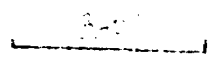
Cawdron Lake Area

Grid Locations

Anomalies 49 & 50

Conductor Axis — —

Scale: 1" = 1320'



SOIL SAMPLE REGISTER

<u>SAMPLE NO.</u>	<u>LOCATION</u>	<u>DESCRIPTION</u>
#1	0E/3S	Sub outcrop
2	0E/2S	Soil
3	0E/ S	Soil
4	0E/00	Trench
5	0E/1N	Clay
6	0E/2N	Base 3 feet scarp
7	3E/3S	Top of "B" horizon
8	3E/2S	
9	3E/1S	Sub outcrop
10	3E/00	
11	2E/00	
12	1E/00	
13	3E/1N	Crest of 30 foot hill
14	3E/2N	Top of "B"
15	3E/3N	Clay sample base of 45' hill
16	4E/00	
17	5E/00	Outcrop, sheared chloritic Va.
18	6E/0N	Clay
19	6E/1N	Outcrop Va
20	6E/2N	Base of scarp
21	6E/1S	Suboutcrop
22	6E/2S	Suboutcrop
23	6E/3S	Suboutcrop
24	7E/00	No sample, swamp
25	8E/00	No sample, swamp
26	9E/00	Suboutcrop, Va
27	9E/1N	No sample, bedrock
28	9E/2N	No sample, bedrock
29	9E/2+50N	Suboutcrop
30	9E/3N	
31	9E/4N	Base of outcrop ridge
32	10E/00	Outcrop, Va
33	11E/00	Low valley between outcrops
34	12E/00	
35	12E/1N	Outcrop, Va
36	12E/2N	Suboutcrop
37	12E/3N	Low outcrops of dacite?
38	12E/4N	20'N of outcrop
39	12E/5N	Outcrop, dacite?
40	Jamieson Copper	Hardpan
41	Jamieson Copper	Hardpan
42	Feldman	Hardpan
43	Feldman	Hardpan

FORGE LAKE GOLD PROPERTYINTRODUCTION

October the 22nd, 1969, in the company of R. Denomme the author visited the old gold workings on the southeast shore of Forge Lake.

Since no maps, reports or airphotographs were available at the time of the examination only the immediate area of the old workings was examined.

An attempt was made to discover what structure was previously mined and grab samples were taken from the wallrocks in the stope and from the dump at the shaft site.

SUMMARY AND CONCLUSIONS

A cursory examination was made of the Forge Lake Property.

Old workings and buildings were observed. It is not likely that any of the old facilities would be of value to new operations.

Gold values could have been obtained from the siliceous bedded iron formation, from gash fractures or from a quartz-carbonate vein system which the author believed occupied a crustal fault in small open anticlinal structure.

If the latter assumption is true all of the vein system from the surface to the first level has been removed.

Previous operators had little hope for re-activating the property as they removed all the equipment of value.

Any values obtained from the dump would have to be highly suspect because of possible contamination from the nearby mill and assay office.

The old core pile located near the office complex consists of approximately 7000 to 10000 feet of EX and AX core. Numerous EX drill casings were noted in the vicinity of the old workings. It must be considered then that a fairly extensive exploration program was carried out.

RECOMMENDATIONS

It is recommended that whatever records exist under the names of Michael Boyle, Missinibi Gold Shore Mines or Towmac Mines be obtained and reviewed.

A crew should be sent into Forge Lake to scale the walls of the stope and subsequently channel sample the pyritic, siliceous zones. At the same time the core pile should be examined and any mineralized zones present should be sampled.

Further work would be contingent on the results obtained from the systematic sampling.

Respectfully submitted,
SHIELD GEOPHYSICS LIMITED,

Timmins, Ontario,
October 28, 1969.

J. E. Steers,
Consulting Geologist.

OBSERVATIONS

At the mine site an old headframe, sill foundations, a dump, an adit and an open stope were observed.

Remnants of the old facilities and living accommodations indicated that probably 35 to 40 men were once employed on this operation.

A core pile with an estimated 7,000 to 10,000 feet of EXT and AXT core was noted.

All equipment of value has been removed and the shells of buildings remaining are beyond repair.

No attempt was made to enter either the inclined shaft or the adit although a cursory examination was made of parts of the open stope where the walls were deemed relatively stable.

In traversing the area beyond the obvious mine workings numerous EX drill casings were seen.

A sample of the pyritic siliceous beds was taken from the stope and a sample of pyritic quartz vein material were assayed with

the following results:

SAMPLE #	Au	Ag	DESCRIPTION
1812	2.54	0.42	Grab sample from siliceous pyritic beds, E wall of stope
1813	0.46	Tr	Grab sample from pyritic quartz vein material on dump.

GENERAL GEOLOGY

Forge Lake appears to be part of the same fault structure on which Cawdron Lake is situated.

The old mine workings appear to have been carried out near the axial plane of an open anticlinal fold occurring in a siliceous banded iron formation.

The only area where it was possible to obtain attitudes was on the east side of the stope. Here the bedding appears to have a strike of N 40 E and a dip of 10° NW.

It is thought that the main structure was probably a quartz-carbonate vein system striking approximately northerly and dipping near vertically. It would appear that the vein system occupied a fault zone at or near the axial plane of the fold structure.

Little vein material or structural evidence remains to be seen in the stope to substantiate the hypothesis.

The banded iron formation consists of siliceous zones containing considerable hematite and white, siliceous to cherty zones containing pyrite and very minor chalcopyrite.

Approximately normal to the bedding planes there are widely spaced "gash" fractures containing quartz carbonate mineralization.

A considerable amount of quartz vein material was found in the dump. Much of the material is mineralized with pyrite.

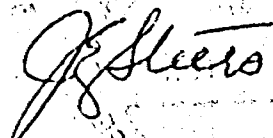
Near the shaft area broken crucibles and test tubes were found in the vicinity of the old assay office. It is possible that any samples taken from the dump surface may have been contaminated from the mill or assay office.

The author found it extremely difficult to obtain reliable data since considerable slumping had occurred in the areas where rock exposure was best.

A portion of the stope where the buck had not been removed and an old raise were not deemed safe for entry at the time of examination.

Respectfully submitted,

SHIELD GEOPHYSICS LIMITED,



J. E. Stears,
Consulting Geologist.

X-RAY ASSAY LABORATORIES

LIMITED

45 LESMILL ROAD

DON MILLS ONTARIO

445-5755

Certificate of Analysis

NO. 3932

TO: Mespi Mines Limited,
80 Richmond St. West, Suite 1705,
TORONTO 1, Ontario.

Re: ACR "Joint Venture"

RECEIVED November 11, 1969

INVOICE NO. 5032

SAMPLE(S) OF soils				SUBMITTED TO US SHOW RESULTS AS FOLLOWS:			
Sample No.	Cu ppm	Zn ppm	Ag ppm	Sample	Cu ppm	Zn ppm	Ag ppm
1	22	31	x	33	11	15	x
2	31	43	x	34	16	17	x
3	54	37	x	35	13	21	x
4	100	250	1	36	14	23	x
5	22	50	x	37	38	50	x
6	20	17	x	38	12	23	x
7	14	20	x	39	16	19	x
8	44		x				
9	12		x				
10	30		x				
11	19	60	x				
12	60	152	x				
13	680	200	3				
14	84	880	x				
15	56	680	x				
16	88	57	x				
17	16	50	x				
18	76	45	x				
19	15	32	x				
20	230	315	2				
21	28	44	x				
22	180	55	x				
23	16	11	x				
24	34	21	x				
26	22	24	x				
29	1160	450	2				
30	54	55	x				
31	44	46	x				
32	20	31	x				

x - less than - 1 ppm Cu, Zn
" " - .3 ppm Ag

X-RAY ASSAY LABORATORIES LIMITED

DATE November 18, 1969

CERTIFIED BY



42C01NW0012 0011 BIRD

090

November 24, 1969

PROGRESS REPORT ON THE A.C.R. JOINT VENTURE - KAWA AREA, ONTARIO

On October 20 a crew was flown into Cawdron Lake, set up camp and proceeded to explore, on the ground, the airborne anomalies. The crew consisted of four Mespi Mines Ltd. field men, and John Steers, Consulting Geologist, from Timmins, Ontario. On October 27 the threat of an early freeze-up forced the men to pull out and return to Timmins. The following is a summary of the information obtained during this period.

ANOMALY # 50

This conductor was detected on three flight lines by the airborne EM survey. A sample of pyrite obtained last year from this location assayed 1.2 ounces of gold.

A base line was blazed out and a 300 ft. line interval reconnaissance grid established. Magnetometer, VLF-EM and soil sampling surveys were conducted over the grid.

The conductor is 1600 ft. long and open at both ends. It is coincident with a 1000 to 3000 gamma magnetic high. Soil samples obtained over the conductor returned high anomalous copper zinc values.

A single JEM profile on Line "O" indicates a dip of 30° to 45° towards the north. The ratio of low to high frequency readings reveals that the conductivity of the zone is excellent.

The conductor occurs on a ridge which is surrounded by swamp. Some outcrop does occur, but geological examination was hampered by several inches of snow.

The conductor was trenched on Line O. Dimensions of the trench were 3 ft. x 4 ft. x 40 ft. Hanging wall of the trench was 15 ft. of graphitic shale exposed at the north end of the trench, underlain by a siliceous fragmental zone. The entire 40 ft. was mineralized with pyrrhotite including some chalcocite and sphalerite. The sulphides are cut off towards the south by a mafic intrusive (probably a dike or sill) but is still open to the north. The sulphides are heavily oxidized, making sampling difficult.

	Au	Ag	Cu	Zn	
#1814	0.01	Tr.	0.10	0.02	centre of trench siliceous zone
#1815	Tr.	Tr.	0.16	0.68	black shale heavily oxidized
#1816	Nil	Tr.	0.03	0.02	siliceous zone disseminated mineralization

Note the lack of gold assays.

SSM-970

November 24, 1969

ANOMALY # 50 (Cont'd)

A second "pot-hole" trench was placed at 1 + 00 N, Line 3 E and uncovered heavily oxidized graphitic shales - no samples were taken.

Complete JEM coverage is recommended.

ANOMALY # 49

This was a one line airborne anomaly. Ground coverage revealed a change in strike from the normal east-west to N 20° E. The conductor was traced for 900 ft. and is open at both ends. The conductor itself occurs in a low swampy area which may be unsuitable for soil sampling. Outcrop northwest of the conductor consists of a sheared felsic volcanic, southeast of the conductor is predominantly basic lavas, probably andesite. One rock sample and one "B" horizon soil sample were taken.

	Au	Ag	Cu	Zn	
#1810	Tr.	Tr.	0.02	0.05	sheared felsic volcanic 50 ft. north of conductor axis
#1811	0.01	Tr.	Tr.	0.03	"B" horizon soil 50 ft. south of conductor axis

JEM and soil sampling are recommended over this conductor.

ANOMALY # 19

This airborne anomaly was detected on three flight lines. It was located on the ground and the conductor axis blazed for 300 ft. Strike is N 60 E. The area appears suitable for soil sampling.

ANOMALY # 20

This airborne anomaly was detected on four flight lines. As with anomaly # 19 it was located on the ground and the direction of its axis established.

FORGE LAKE GOLD PROPERTY

One day was spent by Mr. Steers and Mr. Denomme locating and examining the old Forge Lake Gold mine. A quartz vein sample taken by Donald Smith, geologist for the A.C.R., assayed 3.2 ounces of gold. He suggested that we re-examine this old property.

The only records that we could obtain concerning these workings occur in O.D.M. report Volume XLIV, Part VIII, 1935, Page 19 under Michael - Boyle property.

SSM-970

FORGE LAKE GOLD PROPERTY (Cont'd)

The workings as examined by Mr. Steers seemed to be in the same state as outlined in the O.D.M. report. The area is now heavily covered with bush, indicating no activity for the last 30 to 40 years.

Considerable drill core was observed, but only widely scattered casing could be found.

Mr. Steers' initial impression was that the showing consisted of a small vertical quartz vein which had been completely removed. The workings were in unsafe condition, so only one wall rock sample was taken from a pyritic, siliceous bed. Another pyritic quartz vein sample was taken from the dump.

	Au	Ag	
#1812	2.54	0.42	siliceous pyritic bed E wall of slope
#1813	0.46	Tr.	pyritic quartz vein on dump

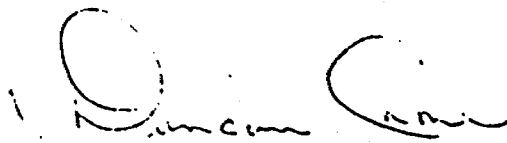
The O.D.M. report mentions that "gold values on the property were reported to be rather low".

An examination and channel sampling of the workings is recommended.

RECOMMENDATIONS

This work appears to provide sufficient encouragement to continue the original program as outlined. This work should be delayed until after breakup.

Respectfully submitted,



J. Duncan Crone,
Geophysicist.

JDC:src

SSM-970



42C01NW0012 0011 BIRD

100

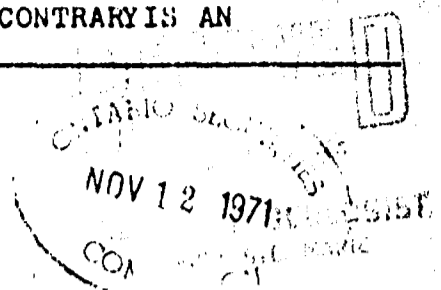
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copy

NEITHER THE ONTARIO SECURITIES COMMISSION NOR THE TORONTO STOCK EXCHANGE HAS IN ANY WAY PASSED UPON THE MERITS OF THE SECURITIES OFFERED HEREUNDER AND ANY REPRESENTATION TO THE CONTRARY IS AN OFFENCE.

STATEMENT OF MATERIAL FACTS

ACME GAS & OIL CO., LIMITED



The shares being offered hereunder are not offered to non-residents of Canada or to residents of any jurisdiction in Canada where such shares may not be lawfully offered for sale and purchase orders will not be accepted from any person or his agent who appears to be or is believed to be a non-resident of Canada or a resident of such a jurisdiction in Canada. For particulars of these offerings see Items 1, 2, 3 and 9 hereof.

NEW OFFERING

OFFERING OF A SUFFICIENT NUMBER OF TREASURY SHARES WITHOUT PAR VALUE (BUT IN ANY EVENT NOT EXCEEDING 513,000 SHARES) IN THE CAPITAL OF ACME GAS & OIL CO., LIMITED TO NET THE COMPANY A MINIMUM OF \$100,000 AND AT A PRICE OF NOT LESS THAN 20 1/2¢ PER SHARE.

Doherty, Roadhouse & McCuaig, Simpson Tower, Toronto, Ontario, as agent for Acme Gas & Oil Co., Limited (the "Company") is offering these shares by means of a fixed price offering through the facilities of The Toronto Stock Exchange at such price as shall be determined by the Company with the approval of The Toronto Stock Exchange. The proceeds of the sale of these shares less normal brokerage commission will accrue to the benefit of the Company's treasury.

This offering will take place on a date to be specified by the Company in consultation with The Toronto Stock Exchange, which date shall be announced by the said Exchange within a period not being less than five business days and not more than twenty-one business days after the date of the mailing of this Statement of Material Facts by the Company. On said date between the hours of 9:00 a.m. and 9:30 a.m., a book will be maintained on the Floor of The Toronto Stock Exchange to receive purchase orders. Under the terms of this offering, Doherty, Roadhouse & McCuaig may reserve no more than 75% of the offered shares for its clients.

This offering is subject to sufficient purchase orders being received to net the Company a minimum of \$100,000. The offering will be withdrawn by the Company if sufficient purchase orders are not received to net the Company \$100,000. The Toronto Stock Exchange may cancel this offering if, in its opinion, bona fide public distribution has not been affected.

SECONDARY OFFERING

OFFERING OF 241,617 PREVIOUSLY ISSUED SHARES WITHOUT PAR VALUE BY SELLING SHAREHOLDERS.

In addition to the shares being offered as aforesaid, Doherty, Roadhouse & McCuaig, acting on behalf of James L. C. Jenner, the President of the Company, V. Noble Harbinson, Dale Corman, Robert Prittie, Wilmot L. Matthews, Bud Boyer, Herbert M. Stanley, Robert Joseph McGowan, Messrs. Lang, Michener, Cranston, Farquharson & Wright and Bradley Bros. Diamond Drilling (collectively called the "Selling Shareholders"), is offering through the facilities of The Toronto Stock Exchange by means of an open market distribution all or any part of 241,617 shares of the Company owned by the Selling Shareholders. For particulars of this offering, see Items 1, 2, 3 and 9 hereof. This offering is restricted

11.
in turn lies just below the younger Carboniferous slates. Historic copper-barite workings are known at Derreennalomane and Mount Gabriel in addition to a number of smaller occurrences on the license areas.

The two licenses are underlain by Devonian sandstones and Carboniferous slates which have been folded along east north-east trending axes. A number of north-south faults occur. The Carboniferous rocks underlie the northern half of prospecting license 738. The southern half of prospecting license 738 and all of prospecting license 739 are underlain by Devonian rocks; outcrop is abundant. On prospecting license 739, an east-north-east synclinal structure traverses the property exposing the under Devonian beds.

Copper (silver) mineralization in the adjoining former property of the Lower Limestone Syndicate consists of narrow copper veins in upper Devonian grits and slates at the intersection of north-south faults and shear zones parallel to the regional strike. Mineralization consists of disseminated chalcocite and tetrahedrite lying within the cleavage planes.

Reference is made to Item 24 concerning other property interests of the Company.

13. Indicate whether any property referred to in Item 12 is without a known ore body or commercial ore or reserves of recoverable oil and gas.

* * * * *

To the knowledge of the signatories hereto, there is no known ore body of commercial ore on any of the mining properties listed in Item 12 hereof.

14. Give brief particulars of the exploration and development work of the issuer during the past year and the results thereof.

* * * * *

During the past year,

- (a) In the Wawa area, geological and geophysical surveying has been performed on behalf of the Company, (\$12,391 in 1970);
- (b) In the Timmins area, the Company maintained its properties in good standing (\$929 in 1970) and diamond drilling was performed on behalf of the Company (\$2,204 in 1970 and \$14,726 from January 1st to March 31st, 1971).

15. Give brief particulars of property proposed to be acquired by the issuer or any affiliate or acquired by the issuer or any affiliate within the previous three years, including the name and address of the vendor and the cost or proposed cost thereof to the issuer or any affiliate, and if any such vendor is or was an insider or promoter of the issuer, or an associate or affiliate of any insider or promoter of the insider so state and indicate the nature of the relationship;

and

17. If the property referred to in Item 15 was or is to be paid for by the issuance of shares of the issuer or any subsidiary, give (a) the number of shares of the issuer and any subsidiary issued to or to be issued to the vendor after giving effect to such transaction, and (b) the number and, if more than 5% of the shares presently outstanding, the percentage of shares of the issuer and any subsidiary

There are no legal proceedings in process to which the Company is a party or of which any of its properties is the subject and no such proceedings are contemplated.

21. Give the aggregate direct remuneration, including amounts for services rendered, paid or payable by the issuer and its subsidiaries during the past year to insiders of the issuer.

* * * * *

During the past year, no direct remuneration including amounts for services rendered, has been paid or payable by the Company to insiders of the Company.

22. Give brief particulars of all options to purchase securities (other than such as are granted or proposed to be granted to shareholders as such on a pro rata basis) outstanding or proposed to be given by the issuer and its subsidiaries to any person or company, naming each such person or company and showing separately all such options outstanding or proposed to be given to the insiders of the issuer or its subsidiaries.

* * * * *

There are no options to purchase securities outstanding or proposed to be given by the Company.

23. State the prices at which shares of the issuer have been issued for cash during the past year. If any shares have been issued for services, state the nature and value of the services and give the name and address of the person or company who received such shares. State the number of shares issued at each price.

* * * * *

Messrs. Lang, Michener, Cranston, Farquharson & Wright, 50 King Street West, Toronto, Ontario have agreed to accept 28,000 shares of the Company in settlement of accounts payable to them in the amount of \$7,000.00 for legal services rendered to the Company and Bradley Bros. Diamond Drilling, P. O. Box 367, Noranda, Quebec have agreed to accept 48,617 shares of the Company in settlement of accounts payable to them in the amount of \$12,154.33 for diamond drilling services rendered to the Company. The agreements provided that the shares be qualified for sale to the public through the facilities of The Toronto Stock Exchange. The agreements were made on the basis of a value per share of approximately 25¢ being the market value of the shares on October 13th, 1971.

24. Give the dates of and parties to and the general nature of every material contract entered into by the issuer or any subsidiary within the preceding two years which is still in effect and is not disclosed in the foregoing.

* * * * *

Under the terms of an agreement No. 1 dated February 15th, 1966 between Algoma Central Railway (A.C.R.) and B. W. Lang, (amended by letter dated May 9th, 1968, and assigned to the Company and further amended by letter agreement dated September 25th, 1969) the Company holds a 5-year plus working option on 10 Townships (being Townships No. 29 to 33 inclusive in Ranges 25 and 26, Sault Ste. Marie Mining

Division of Ontario) with a net area of about 348 square miles after deducting areas of claims and leases held by others. These Townships have been withdrawn from staking until November 30th, 1971. Consideration for the option was \$12,500 paid to A.C.R. The area held under option shall be reduced on or before November 30th, 1971 by the Company giving notice as to the number of 40-acre units or claims which it wishes to hold under option until November 30th, 1972. In order to maintain the option in good standing, it is necessary to expend on exploration by November 30th, 1971, \$50,000 and a further amount by November 30th, 1972 of \$50,000 or a greater sum calculated by multiplying \$100 by the number of 40-acre units which the Company elects on or before November 30th, 1971 to hold under option. Under the terms of an agreement No. 2 dated October 1st, 1966 between A.C.R. and B. W. Lang (amended by letter dated May 9th, 1968, and assigned to the Company and further amended by letter agreement dated September 25th, 1969) the Company holds a 5-year plus working option on 2 Townships (being Townships 26 in Range 26 and No. 27 in Range 25, in the District of Algoma, Ontario) with a net area of about 67 square miles after deducting areas of claims and leases held by others. These Townships have been withdrawn from staking until November 30th, 1971. Consideration paid for the option was \$3,500 paid to A.C.R. The area held under option shall be reduced on or before November 30th, 1971, by giving notice as to the number of 40-acre units or claims which the Company wishes to hold under option until November 30th, 1972. In order to maintain the option in good standing, it is necessary to expend on exploration \$35,000 by September 30th, 1968 which amount was expended by September 30th, 1968 and a further amount by November 30th, 1972 of \$40,000, or a greater sum calculated by multiplying \$100 by the number of 40-acre units which the Company elects on or before November 30th, 1971 to hold under option. For the purpose of determining whether minimum expenditures have been made from time to time it is intended to interpret the two agreements as one by adding together the minimum expenditures required to keep the two options in good standing. The Company may incorporate a new company or companies, from time to time after the Company has expended \$27,000 on the exploration of the 12 Townships, on or before November 30th, 1972 to acquire such of the 40-acre units or claims then held under option as the Company may decide. A.C.R. will issue for the 40-acre units acquired by each new company, a lease for 21 years renewable from time to time, for 21 years if the property is in commercial production but if commercial production is not commenced within 10 years the lease will be transferred back to A.C.R. Vendor's shares shall be issued by each new company and shall be for a number in accordance with the Ontario Securities Commission regulations (10% free and 90% escrowed) of which 25% shall be issued to A.C.R. and 75% to the Company. A.C.R. shall have the right to subscribe from time to time up to a maximum of 25% of the financing of any new company. A.C.R. shall nominate one of the five directors of each company. The Company (and the new companies) agree to ship all freight on A.C.R. railroad and steamships providing rates and services are competitive with others. An agreement made as of the 15th day of August, 1969 between the Company and Occidental Corporation of Canada ("Occidental") whereby Occidental acquired the right to carry on the exploration and development of the Company's property in Drury Township, Ontario, was terminated as of February 16th, 1970, after an expenditure of \$27,092.00 (U.S.). The Company received from Occidental \$7,500.00 (Can.) cash in settlement of the Company's rights under the agreement. The Company regained a one hundred percent (100%) interest in 67 claims and a patented parcel of 160 acres in Drury Township. An agreement dated the 30th day of April, 1969, between the Company and McIntyre Porcupine Mines Limited ("McIntyre") whereby McIntyre acquired the right to carry on exploration and development of the Company's property in Tully Township, Ontario, was terminated as of April 22nd, 1970, after McIntyre had performed geophysical surveying and diamond drilling. The Company has a one hundred percent (100%) interest in its properties in Tully Township, Ontario. Under an agreement dated the 30th day of September, 1969, between the Company, Jorex Limited, Siscoe Mines Limited, Yellowknife Bear Mines Limited, Midcon Oil & Gas Limited, Inter-Rock Oil Co. of Canada Limited and Mespil Mines Limited, the parties agreed to explore and develop the properties optioned to the Company from A.C.R. under the agreements described above. An aggregate of \$12,391.00 was expended by the parties with the exception

of the Company on such exploration and development and the agreement was terminated as of the 5th day of October, 1970. Under a letter agreement dated the 16th day of October, 1970, between the Company and Mespi, the Company granted to Mespi the right to cause a new company to be incorporated in which Mespi would gain an eighty percent (80%) interest and to which would be transferred the Company's properties in Eldorado Township, Ontario, by performing one thousand and eighty feet (1,080') of diamond drilling by the 30th day of April, 1971. Mespi drilled one thousand two hundred and thirty feet (1,230') prior to the 21st day of January, 1971, at a cost of \$16,930.00. The results of the drilling were negative and the agreement was terminated. The Company has a one hundred percent (100%) interest in its remaining 10 claims in Eldorado Township, Ontario.

There are no other material contracts entered into within the preceding two years which are still in effect, and which are not disclosed in the foregoing.

25. Give particulars of any other material facts relating to the shares proposed to be offered and not disclosed pursuant to the foregoing items.

* * * * *

As far as the undersigned are aware, there are no other material facts which are not disclosed in the foregoing items.

DIAMOND DRILL HOLE RECORD, DDH No 1

PROPERTY Self Potential Gravel Pit

CLAIM Township 30 Range 26

SHEET No. 1

LATITUDE _____ BEARING _____

STARTED June 9/66

DEPARTURE _____

DIP. -45°

COMPLETED June 10/66

ELEVATION _____

HORIZ. _____ VERT. _____

DEPTH 151.0'

DRILLED BY C. Nyman

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
0- 60.0	Greyish black fine grained intermediate volcanic. Approximately 4-5% pyrrhotite (most prominent) pyrite and occasional chalcopyrite which occurs in dissemination, along schistosity planes and hair like tension fractures moderate to light shearing at 25° to 70° to the core.									
60.0- 89.0	Andesite with flakes of biotite giving the core a peppery appearance sparse disseminated pyrrhotite to 79.0. 79.0-89.0 stringers and disseminated pyrrhotite also sparse chalcopyrite and pyrite.									
89.0-106.0	Conductor. Rhyolite to intermediate volcanics dark to light grey in colour with narrow stringers and disseminated pyrrhotite and pyrite. Occasional specks of chalcopyrite - core angles 20 to 30°.					Cu.	Au.	Ag.	Zn.	
106.0-110.0	30% mineralization, pyrrhotite, pyrite with minor chalcopyrite in stringers and dissemination.		106	110	4.0					
110.0-151.0	Intermediate volcanics with sparse disseminated pyrrhotite and pyrite also in narrow stringers parallel to the schistosity planes core angles 20 to 25°									
	132.0-133.0 heavy pyrrhotite with minor chalcopyrite.									
	133.0-151.0 sparse pyrrhotite mineralization angles 25° to the core.									



110

ENGINEER: W.E. Nyman



INTERMEDIATE VOLCANIC

ANDESITE

INTERMEDIATE VOLCANIC
CU. ZN. AU. AG.

4.0'

INTERMEDIATE VOLCANIC

151.0'

D. D. H. NO 1

GRAVEL PIT

SCALE 1" = 40.0'

40'

DIAMOND DRILL HOLE RECORD, DDH No 2

PROPERTY Grid No. 5

CLAIM Township 30 Range 26

SHEET No. 1

LATITUDE 8 + 00 N

BEARING S. 70° W

STARTED

DEPARTURE 0 + 35° E

DIP. -45°

COMPLETED

ELEVATION

HORIZ.

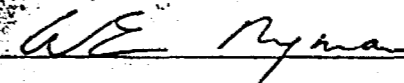
VERT.

DEPTH 141.0

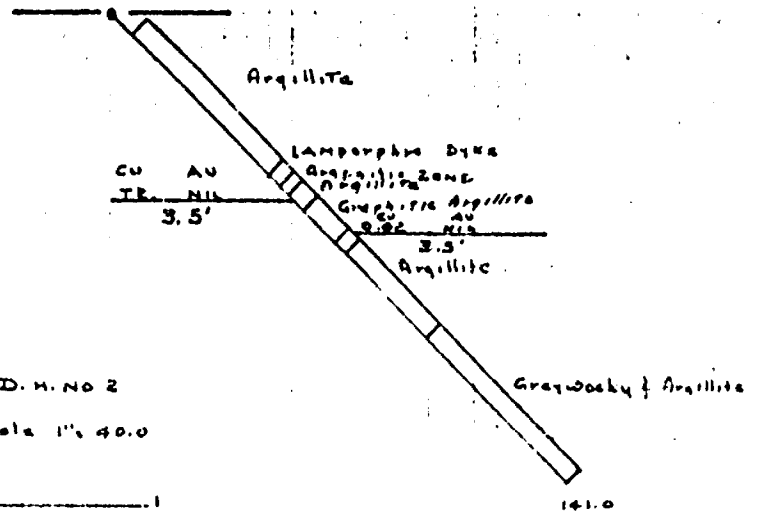
DRILLED BY

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
0- 6.5	Overburden									
6.5- 49.0	Black Argillite core angles at 75° to 80° also narrow bands of greywacky. 40.0-42.0 sparse pyrite mineralization.									
49.0- 52.6	Lamporpbre dyke with approximately 10% pyrite pyrrhotite mineralization. Hanging wall 80° to core also slightly graphitic.									
52.6- 55.0	Conductor. Graphitic zone heavily mineralized for 6" on the foot wall. Mainly pyrite and pyrrhotite with sparse chalcopyrite.									
55.0- 56.0	Dyke as above.					Cu.	Au.			
56.0- 59.6	Graphitic zone with approximately 50% mineralization - about 1.0' ground core. Mineralization mainly pyrrhotite and pyrite with splashes of chalcopyrite.	20609	56.0	59.6	3.5	Tr.	Nil			
59.6- 69.0	Argillite (black) Ls 80° to core minor pyrite pyrrhotite mineralization									
69.0- 72.5	Graphitic Argillite with Po. - pyrite and sparse chalco mineralization.	20610	69.0	72.5	3.5	0.02	Nil			
72.5- 93.0	Argillite places pyrrhotite mineralization with disseminated and narrow stringers.									
98.0-141.0	Interbedded argillite and greywackv (more predominant). Core angles at 75° sparse mineralization.									

ENGINEER:

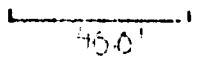


S. 70° W.



D.D. H. NO 2

Scale 1" = 40.0



DIAMOND DRILL HOLE RECORD, DDH No 3

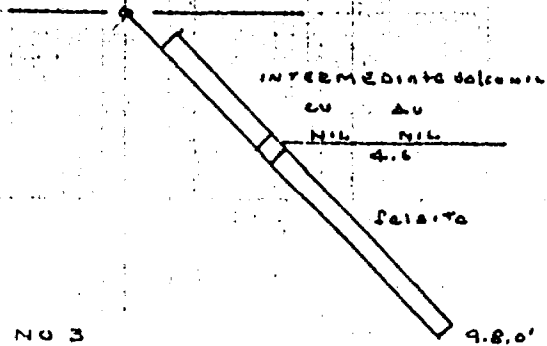
PROPERTY Grid #5 CLAIM Township 30 Range 26 SHEET No.
 LATITUDE 4 + 00 N BEARING S-70°W STARTED
 DEPARTURE 1 + 60 E DIP. -45° COMPLETED
 ELEVATION HORIZ. VERT. DEPTH 98.0'

DRILLED BY

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
0-11.0'	Overburden									
11.0-41.0	Massive intermediate volcanic with fine grained disseminated pyrrhotite (Conductor) felsite with approximately 25% mineralization - mainly pyrrhotite with pyrite and sparse chalcopyrite.	20608	41.0	45.6	4.6'	Au. Nil	Cu. Nil			
41.0-45.6										
45.6-98.0	Felsite massive with 3% fine grained pyrrhotite up to 57.0' which becomes more abundant at 62.0' places up to 10% pyrrhotite with occasional sights of copper (chalcopyrite). Last 2.0' of core becoming coarser in texture possible nearing contact. Also a banding at 80° to core.									
	98.0' End of D.D.H. No. 3									

ENGINEER: W.E. Pyman

S 70° W



D.D.H. NO 3

SCALE 1"=40.0'

400'

DIAMOND DRILL HOLE RECORD, DDH No 4

 PROPERTY Grid No. 6

 CLAIM Township 30 Range 26

 SHEET No. 1

 LATITUDE 0 + 40 N

 BEARING 180°

STARTED _____

 DEPARTURE 0 + 65 E

 DIP. -45

COMPLETED _____

ELEVATION _____

HORIZ. _____

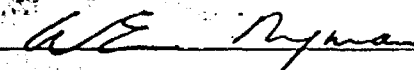
VERT. _____

 DEPTH 107.5

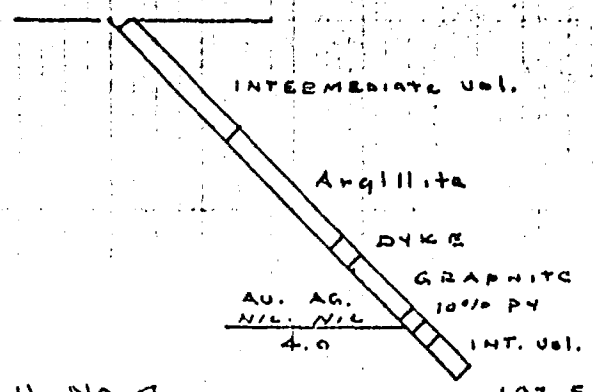
DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
0- 3.0	Overburden									
3.0- 37.0	Massive fine grained intermediate volcanics greyish green in colour also occasional sparse pyrrhotite, pyrite mineralization.									
37.0- 69.0	Argillite with narrow bands of grey-wacky core Ls @ 75'									
	55.0-69.0 graphitic argillite slightly mineralized mainly pyrite and pyrrhotite with sparse chaloopyrite. Mineralization occurs mainly in narrow stringers parallel to the schistosity.									
69.0- 74.5	Massive intermediate dyke with 5% fine grained disseminated pyrite throughout the core.									
74.5- 90.0	Graphitic zone (conductor) with pyrite and pyrrhotite with sparse chaloopyrite mineralization									
	81.5 2" massive pyrite and Po. Rest of section light in sulphides. Foot wall contact 40° to core.									
90.0- 98.0	10% pyrite mineralization in intermediate volcanics assay 1st 4.0' for gold.	20611	90.0	94.0		Au. Nil	Ag. Nil			
98.0-107.5	Core becoming more rhyolitic in texture - however does not contain the mineralization as the above section.									
	107.5 End of D.D.H. No. 4									

ENGINEER:



80°



D.D.H. No 4
Scale 1" = 40.0'

40.0'

DIAMOND DRILL HOLE RECORD, DDH No. 5

PROPERTY Grid No. 6 Radford Lake

CLAIM Township 30 Range 26

SHEET No. _____

LATITUDE 18 + 00 N

BEARING S.40°W

STARTED _____

DEPARTURE 1 + 00 W

DIP. -45

COMPLETED _____

ELEVATION _____

HORIZ. _____

VERT. _____

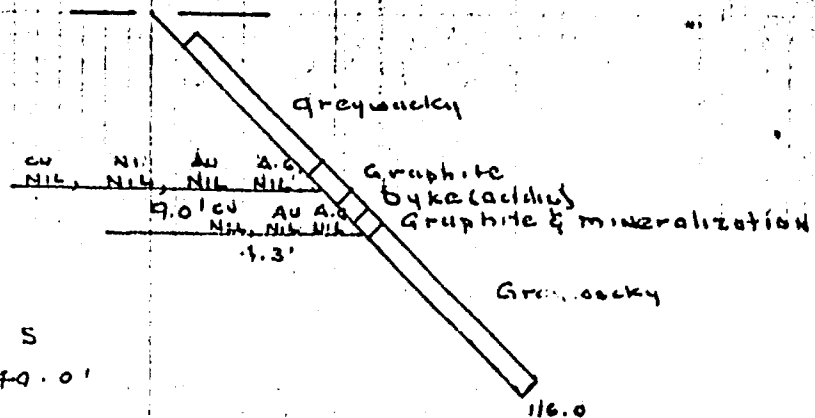
DEPTH 116.0

DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES			ECONOMIC GEOLOGY MINERALIZATION
0- 10.0	Overburden								
10.0- 49.0	Grey green greywacky with 2-3% fine grained disseminated pyrrhotite.								
	12.0-14.0 75% quartz with disseminated pyrrhotite and crystals of magnetite.								
	48.0-49.0 mainly quartz foot wall 45° to core.								
49.0- 58.0	Conductor - graphite with pyrrhotite and chalcopyrite mineralization - 5.8' of core recovered 53.0-57.5 massive to near massive pyrrhotite with sparse chalcopyrite. Foot wall 60° to core.								
58.0- 63.0	Acidic dyke (massive greyish green in colour) with approximately 4% disseminated pyrrhotite.								
63.0- 67.3	Conductor - 63.0-64.0 near massive pyrrhotite and pyrite with splashes of chalcopyrite.	Z0607	63.0	67.3	4.3	Cu. Nil	Am. Nil	A.G. Nil	
	64.0-67.3 graphite with heavy pyrite - Po. mineralization sparse chalcopyrite								
	Core Ls @ 75° to core.								
67.3-116.0	Greywacky with minor f.g. disseminated pyrrhotite with sparse chalcopyrite (occasional)								
	116.0 End D.D.H. No. 5.								

ENGINEER: W.E. Ryan

S. 40° W



D. D. W. No 5
Scale 1" = 40.0'

40.0'

DIAMOND DRILL HOLE RECORD, DDH No. 6

PROPERTY Grid No. 6 Radford Lake

CLAIM Township 30 R-26

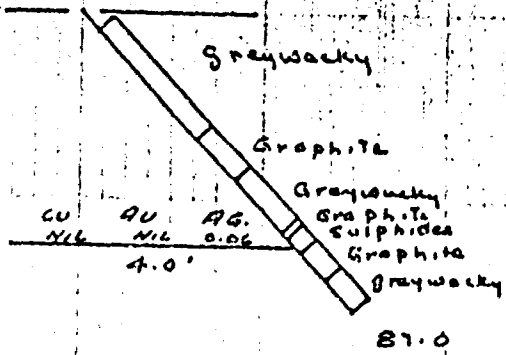
SHEET No. _____

LATITUDE 16 + 00 N BEARING S. 40°W STARTED _____
 DEPARTURE 0 + 55 E DIP. -45 COMPLETED _____
 ELEVATION _____ HORIZ. _____ VERT. _____ DEPTH 87.0

DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES			ECONOMIC GEOLOGY MINERALIZATION
						Cu.	Au.	A.G.	
0-6.0	Casing								
6.0-37.0	Greywacky - grey green in colour. 26.0-37.0 several narrow stringer and disseminated pyrrhotite. Core becoming darker as approaching the graphite contact.								
37.0-49.0	Conductor (graphite zone) with narrow bands of greywacky. Mineralization both stringers and disseminated and nodular pyrite and Po. Sparse chalcopyrite.								
49.0-64.0	Mineralized greywacky with occasional graphitic bands approximately 10% pyrite and pyrrhotite - sparse chalcopyrite.								
64.0-66.0	10% mineralized graphite mainly pyrite and pyrrhotite.								
66.0-70.0	Heavy mineralized greywacky with pyrite and pyrrhotite and chalcopyrite occasional graphite band.	20612	66.0	70.0	4.0	Nil	Nil	0.06	
70.0-78.0	Mineralized graphite with approximately 5.0' of ground core. Mainly pyrite and pyrrhotite in stringers and dissemination.								
78.0-87.0	Greywacky with sparse disseminated mineralization.								
	84.0-85.0 narrow band of argillite.								
	87.0 End of D.D.H. No. 6								

ENGINEER: *W.E. Pyra*



D.D. H. No 6

SCALE 1" = 40.0'

40.0'

DIAMOND DRILL HOLE RECORD, DDH No. 7

PROPERTY Grid No. 4 - Twp. 29 R-26 CLAIM _____ SHEET No. 1
 LATITUDE 42 + 00 N BEARING N. 60°E STARTED _____
 DEPARTURE 8 + 00 E DIP. -45 COMPLETED _____
 ELEVATION _____ HORIZ. _____ VERT. _____ DEPTH 139.0
 DRILLED BY C. Nyman

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
0-15.0	Pillow Lava - light in colour.									
15.0-101.9	Rhyolite, hard and massive grey green in colour. Sparse mineralization.									
101.0-103.2	Conductor - heavy pyrrhotite - pyrite mineralization with graphite - also splashes of chalcopyrite est. .5 to .75 % cu. over section.									
103.2-139.0	Massive intermediate volcanic (andesite)									
139.0	End of D.D.H. No. 7.									

ENGINEER: W.E. Nyman

N. 60° E.

Pillow Lava

INTERMEDIATE Volcanics

CONDUCTOR - Graphite - Pyrrhotite

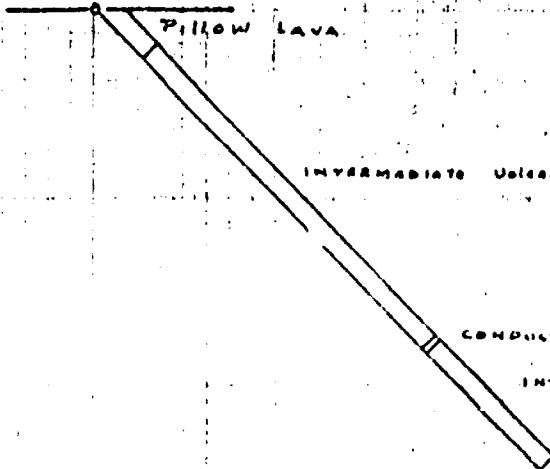
INTERMEDIATE Volcanics

139.0'

D. D. H. No. 7

SCALE 1" = 40.0'

40.0'



DIAMOND DRILL HOLE RECORD, DDH No. 8

PROPERTY Grid No. 4 Twp. 29 R. 26 CLAIM _____ SHEET No. 1
 LATITUDE 42 + 00' N BEARING N. 60° E STARTED _____
 DEPARTURE 5 + 50' E DIP. -45° COMPLETED _____
 ELEVATION _____ HORIZ. _____ VERT. _____ DEPTH 115.0

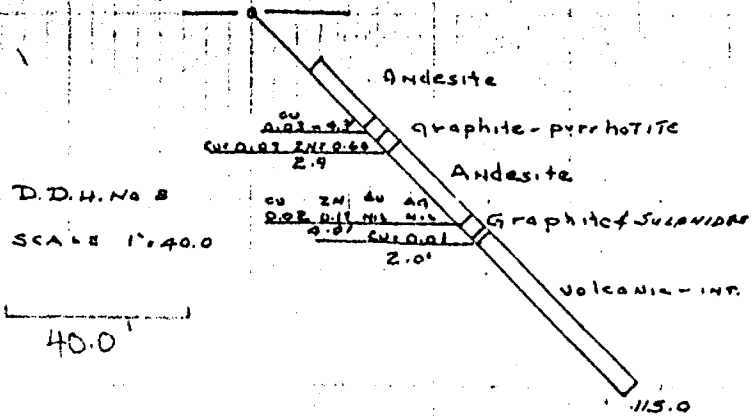
DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
						Cu.	Zn.	Au.	Ag.	
0-18.0	Overburden									
18-39.0	Massive slightly altered greenish grey andesite.									
	32.5-39.0 fine grained disseminated pyrrhotite with occasional sparse chalcopyrite - 4% mineralization from 34.0-39.0 narrow stringers of pyrrhotite with splashes of chalcopyrite.	20602	34.7	39.0	4.3	0.03				
39.0-41.9	At 38.0' 4" of ground core Conductor graphite - Hanging wall 650 to core foot wall 75° - 20% pyrrhotite mineralization with pyrite and splashes of chalcopyrite.	20603	39.0	41.9	2.9	0.07	0.60			
41.9-64.5	Massive andesite - grey green. Some sparse pyrrhotite 1.0' past the foot wall of the graphite.									
64.5-68.5	Heavily mineralized Graphite - mainly pyrrhotite with splashes of chalcopyrite (50% mineralization) - some quartz mixed in with the graphite. Last 13' 75% mineralization. - Est. .1% Cu.	20604 20605	64.5 68.5	68.5 70.5	4.0 2.0	0.02 0.01	0.17	Nil	Nil	
68.5-70.5										
70.5-115.0	Massive hard intermediate volcanic. First 2" fine grained disseminated pyrrhotite with splashes of chalcopyrite									
	92.0 minor chalcopyrite with Po. Minor pyrrhotite mineralization can be observed throughout the section of core however is estimated less than 1%.									

115.0 End of D.D.H. No. 8.

ENGINEER: W.E. Nyman

N. 60° E



DIAMOND DRILL HOLE RECORD, DDH No. 9

PROPERTY _____

CLAIM _____

SHEET No. 1

LATITUDE 24 10 14

BEARING _____

STARTED _____

DEPARTURE 450 E

DIP. _____

COMPLETED _____

ELEVATION _____

HORIZ. _____ VERT. _____

DEPTH _____

DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
0-70.0	massive intermediate volcanic, gray green in color. 16.5-17.3 minor pyrite and chalcopyrite in a slightly brecciated zone also minor quartz. 46.0-47.6 minor mineralization 49.5-51.5 stringers of pyrite with quartz and minor chalcopyrite, also disseminated mineralization. est 0.25% Cu.	20613	49.5	51.5	2.0	NIL	NIL			
70.0-91.5	fine grained ^{Andesite} granodiorite									
91.5-93.0	Conductor: mineralized with sparse pyrite, and pyrite and chalcopyrite.									
93.0-126.5	fine grained ^{intermediate} granodiorite from 121.0 core now sealed									

ENGINEER: *A. J. [Signature]*

DIAMOND DRILL HOLE RECORD, DDH No. 9

PROPERTY _____

CLAIM _____

 SHEET No. 2

LATITUDE _____

BEARING _____

STARTED _____

DEPARTURE _____

DIP. _____

COMPLETED _____

ELEVATION _____

HORIZ. _____ VERT. _____

DEPTH _____

DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
	123.5 - 124.5 broken core									
	with pyrite, pyrrhotite									
	mineralization, also visible									
	although sparse chalcopyrite.									
126.5 - 130.3	Graphite, hanging wall									
	irregular, foot wall									
	ground - sparse pyrite,									
	pyrrhotite and chalcopyrite									
	mineralization.									
130.3 - 133.5	Intermediate volcanics									
	1st 6 inches 15% pyrrhotite									
	with minor pyrite & specks									
	of chalcopyrite									
133.5 - 140.7	Graphite with occasional									
	minor pyrite & pyrrhotite									
	Sturgeco Contact irregular.									

ENGINEER: _____

DIAMOND DRILL HOLE RECORD, DDH No. 9

PROPERTY _____

CLAIM _____

SHEET No. 2

LATITUDE _____

BEARING _____

STARTED _____

DEPARTURE _____

DIP. _____

COMPLETED _____

ELEVATION _____

HORIZ. _____

VERT. _____

DEPTH _____

DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
	123.5 - 124.5 broken core with pyrite, pyrrhotite mineralization, also visible although sparse chalcopyrite.									
126.5 - 130.3	Graphite, hanging wall irregular, part wall ground - sparse pyrite, pyrrhotite and chalcopyrite mineralization.									
130.3 - 133.5	26 mediate volcanics 1st 6 inches 15% pyrrhotite with minor pyrite & specks of chalcopyrite									
133.5 - 140.7	Graphite with occasional minor pyrite & pyrrhotite stunges contact irregular.									

ENGINEER: _____

DIAMOND DRILL HOLE RECORD, DDH No. 9

PROPERTY _____

CLAIM _____

 SHEET No. 3

LATITUDE _____

BEARING _____

STARTED _____

DEPARTURE _____

DIP. _____

COMPLETED _____

ELEVATION _____

HORIZ. _____

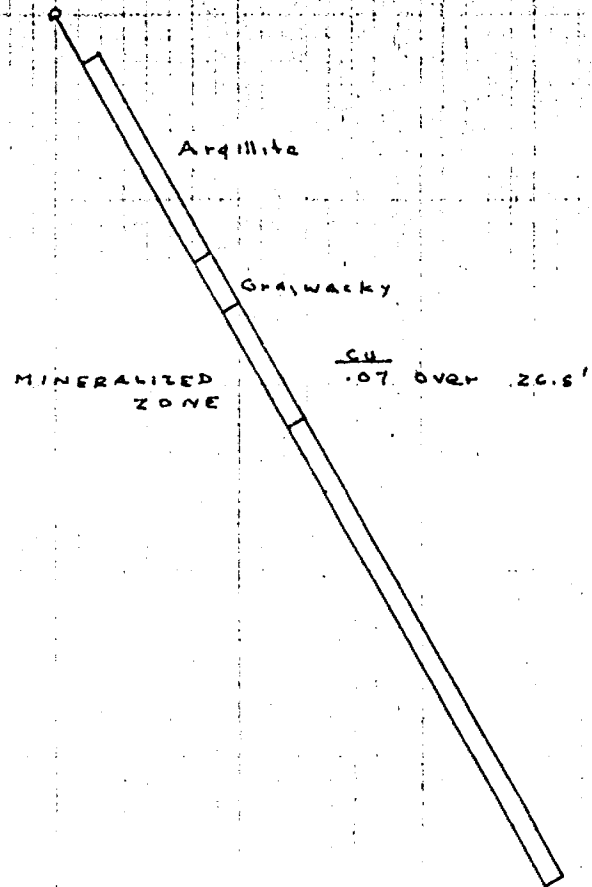
VERT. _____

DEPTH _____

DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES			ECONOMIC GEOLOGY MINERALIZATION
146.7-145.0	Intermediate volcanic as above								
145.0-147.5	Graphite with approximately 20% Sulphides mainly pyrite, pyrrhotite with sparse chalcopyrite.								
147.5-170.0	Massive intermediate Volcanics grey, green to red.								
170.0	End of D.D.H. No 9								

ENGINEER: _____



Scale 1" = 400'

400'

216.0 END OF D.D.H. NO 11

DIAMOND DRILL HOLE RECORD, DDH No. 10

PROPERTY Grid 6 Twp 29 R-26 CLAIM _____

SHEET No. _____

LATITUDE 16 40 01 BEARING _____ STARTED _____

DEPARTURE 2 + 45 W DIP. - 45 COMPLETED _____

ELEVATION _____ HORIZ. _____ VERT. _____ DEPTH _____

DRILLED BY G. GENTON (WINKER)

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
0-15.0	CASING									
15.0-50.0	Andesite Sparsely - gray green in color (massive) sparse sparse disseminated sulphides									
50.0-56.5	Conductor: - Graphite with minor pyrite pyrrhotite mineralization. 2.0' ground core									
56.5 ^{103.0}	massive intermediate volcanics gray-green in color - occasional narrow quartz stringers									
	103.0 End of d. d. H. No. 10									

ENGINEER: *[Signature]*

DIAMOND DRILL HOLE RECORD, DDH No. _____

PROPERTY HEART LAKE

CLAIM _____

SHEET No. 1

LATITUDE _____ BEARING _____ STARTED _____

DEPARTURE _____ DIP _____ COMPLETED _____

ELEVATION _____ HORIZ. _____ VERT. _____ DEPTH _____

DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES			ECONOMIC GEOLOGY MINERALIZATION
0-12.0	Overburden.								
12.0-19.0	slightly chloritized sediments (argillite to graywacke), with quartz and carbonate stringers. 14.0-19.0 heavy magnetite mineralization with pyrite, and pyrrhotite and sparse chalcopyrite mineralization.								
19.0-61.5	chloritized argillite with sparse sulphides and magnetite - pyrite the main mineralization with occasional specks of chalcopyrite. L ^s 30° to low.								

ENGINEER: _____

DIAMOND DRILL HOLE RECORD, DDH No _____

PROPERTY HART LAMB

CLAIM _____

SHEET No. 2

LATITUDE _____ BEARING _____

STARTED _____

DEPARTURE _____

DIP. 60°

COMPLETED _____

ELEVATION _____

HORIZ. _____ VERT. _____

DEPTH _____

DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
						CU	AU	AG	ZN	
61.5-74.5	Greywacke (peppery appearance) with narrow bands of argillite. white carbon pyrite mineralization.									
74.5-77.0	Chloritized sediments - heavy magnetite mineralization - 6% pyrite sparse chalcopyrite. Con. 45 - 45°	20614	74.5	77.0	2.5'	.05	NIL	.40	-	
77.0-80.0	S. lified sediments with occasional bands of argillite - places chloritized. 6% pyrite with sparse chalcopyrite	20616	77.0	80.0	3.0	.03	NIL	.08	-	
80.0-830	s. lified & chloritized sediments - narrow bands of unaltered argillite chalcopyrite associated with quartz also pyrite with									

ENGINEER: _____

DIAMOND DRILL HOLE RECORD, DDH No. 11

PROPERTY _____

CLAIM _____

SHEET No. 3

LATITUDE _____ BEARING _____ STARTED _____

DEPARTURE _____ DIP. _____ COMPLETED _____

ELEVATION _____ HORIZ. _____ VERT. _____ DEPTH _____

DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
						CU	AU	AG	ZN	
	pyrite and magnetite possible sphalerite - 15% Sulphides cov 15 @ 40°	20616	80.0	83.0	3.0	.20	NIL	NIL	NIL	
83.0-86.0	Silified Sediments - 40% mineralized pyrite & pyrrhotite with possible 1% Cu-sphalerite Sphalerite also magnetite	20617	83.0	86.0	3.0	.10	NIL	.35	NIL	
86.0-89.0	Silified Sediments with remnants of argillite chloridized - 30% sulphides mainly pyrite with specks of chalcopyrite	20618	86.0	87.0 87.0	3.0	.05	NIL	NIL	NIL	
89.0-92.0	Silified Sediments 8% Sulphides Mainly pyrite with pyrrhotite Chalcopyrite in cross Abundant Slight chalcidized also magnetite & possible sphalerite	20619	89.0	92.0	3.0	.12	NIL	NIL	TR.	

ENGINEER: _____

DIAMOND DRILL HOLE RECORD, DDH No

PROPERTY _____

CLAIM _____

 SHEET No. 9

LATITUDE _____

BEARING _____

STARTED _____

DEPARTURE _____

DIP. _____

COMPLETED _____

ELEVATION _____

HORIZ. _____

VERT. _____

DEPTH _____

DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
						CU	DU	AG.	ZN	
92.0-95.0	Silified Sediments with chloritized bands, mainly pyrite & pyrrhotite minor magnetite	20620	92.0	95.0	3.0	.04	NIL	NIL		
95.0-98.0	Chloritized Argillite, slightly silified. Sparse minor magnetite dip 45° to core	20621	95.0	98.0	3.0	.01	NIL	.07		
98.0-102.0	Silified & chloritized sediments with pyrite pyrrhotite & magnetite minor magnetite pyrite Cu & Zn 25% to core	20622	98.0	102.0	3.0	0.25	NIL	NIL	NIL	
102.0-115.0	Chloritized Argillite 15% Sparse pyrite in Shungite & dissemination, 114-115 30% pyrite with trace Fe.									
115.0-210.0	Silified sediments - slightly chloritized									

ENGINEER: _____

DIAMOND DRILL HOLE RECORD, DDH No

PROPERTY _____

CLAIM _____

SHEET No. 5

LATITUDE _____

BEARING _____

STARTED _____

DEPARTURE _____

DIP. _____

COMPLETED _____

ELEVATION _____

HORIZ. _____

VERT. _____

DEPTH _____

DRILLED BY _____

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
	which contains minor magnetite									
	124.0 minor chalcopyrite in									
	quartz. from 138.0 massive									
	massive quartz carbonate stringer									
	throughout the core - See									
	magnetite when core is split									
	177.5 - 179.5 quartz carbonate									
	parallel to schistosity with									
	minor pyrite mineralization.									
	194.0 minor arsenic acid									
	pyrite over 8"									
	210.0 pit wall contact gradational									
	@ 45°									
210.0-216.0	altered sediment - slightly									
	coarser in texture from the									
	above section.									

216.0 END of D.O.N. No 11.

ENGINEER: *[Signature]*

DIAMOND DRILL HOLE RECORD, DDH No SM-1

PROPERTY Grid No. 1 - A.C.R. 2

CLAIM Sawmill Anomaly

SHEET No. 1

LATITUDE _____

BEARING Grid N

STARTED _____

DEPARTURE P 4W 9+00 S

DIP. -45°

COMPLETED _____

ELEVATION _____

HORIZ. _____ VERT. _____

DEPTH 94'

DRILLED BY G. Gratton

Acme Gas & Oil Co., Limited

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
0-15	Overburden									
15-22	Fine grained grey to buff acid volcanics 5% disseminated pyrrhotite and pyrite.									
22-63	Fine grained grey to buff micaceous greywacke.									
63-86	Dark grey to black graphitic sediments. Numerous quartz, pyrite and pyrrhotite stringers.									Conductor
86-94	Fine grained dark grey to buff coloured acid volcanics. Minor disseminated pyrrhotite.									
	94' End of Hole									
	Hole stopped by caving at 86'									

ENGINEER: W. E. Nyman W. E. Nyman

DIAMOND DRILL HOLE RECORD, DDH No. SM-2

PROPERTY Grid No. 1 - ACR 2

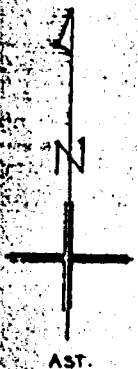
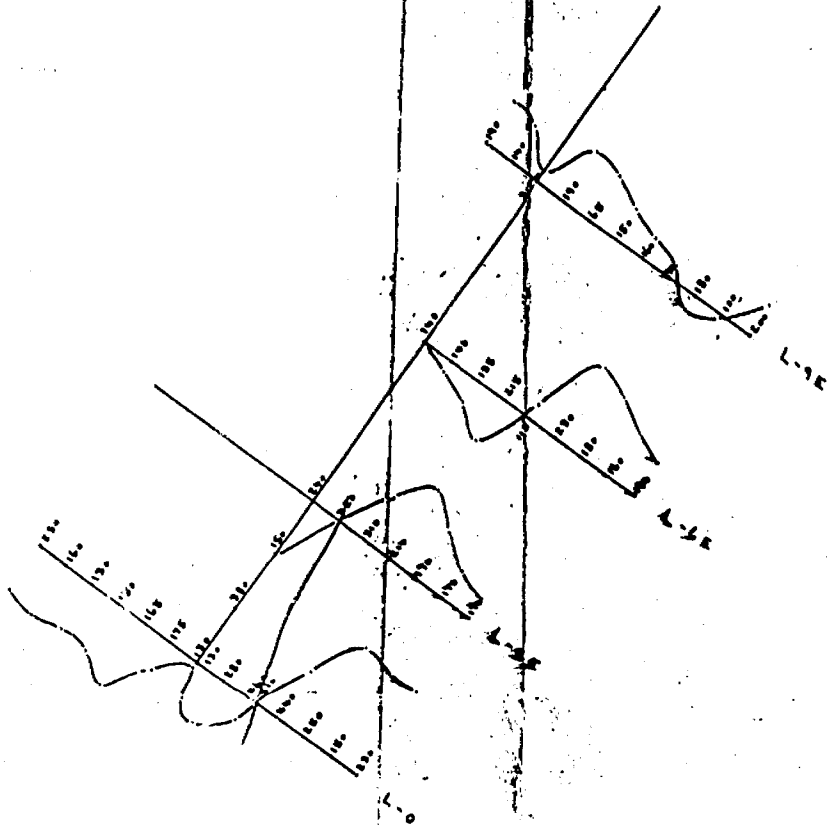
CLAIM Sawmill Anomaly

SHEET No. 1

LATITUDE _____ BEARING Grid N. STARTED _____
 DEPARTURE P 12E 10+25S DIP. -45° COMPLETED _____
 ELEVATION _____ HORIZ. _____ VERT. _____ DEPTH 169'
 DRILLED BY G. Gratton Acme Gas & Oil Co., Limited

DEPTH - FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	VALUES				ECONOMIC GEOLOGY MINERALIZATION
0- 25	Fine grained, greenish grey, calcareous, intermediate volcanics. Minor cubical pyrite occurs throughout.									
25- 70	Very fine grained dense, cherty in places, acid volcanics. 10% average disseminated pyrrhotite, pyrite, very minor chalcopryrite occurs throughout section. Massive 1" pyrrhotite stringers at 51'-53'-54'	101	31.8	30.0	4.2					
		102	46.0	50.0	4.0					
		103	50.0	54.0	4.0					
		104	60.0	64.0	4.0					
70-124	Fine grained grey to buff coloured micaceous greywacke.									
124-153	1' section 20% pyrrhotite 83.5'-84.5'									
	Fine grained, brecciated and crenulated, dark grey to black graphitic sediments.	105	124	127	3'					Conductor
	Numerous quartz, pyrite and pyrrhotite stringers.	106	127	130	3'					
		107	140	144	4'					
53-169	147'-148' quartz-carbonate stringer	108	144	148	4'					
	Fine grained dark grey to buff coloured acid volcanics. Minor disseminated pyrrhotite.									
	169' End of Hole									

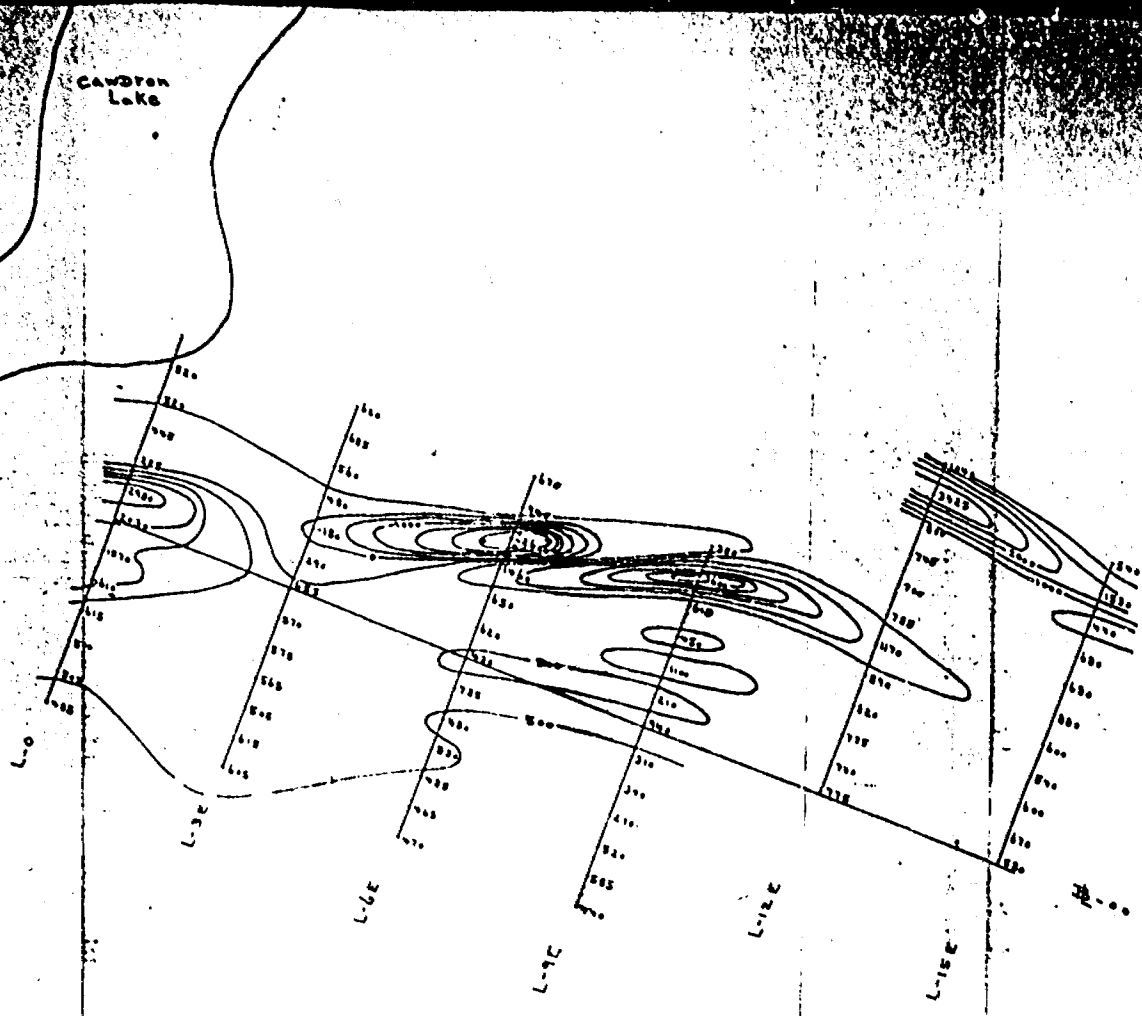
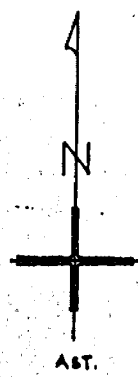
ENGINEER: *W. E. Nyman* W. E. Nyman



L.C.R. Twp. 26
 dome Gas & Oil LTS:
 Radom V.L.P. Survey
 A.C.M. 744
 Map Scale: 1"=500'
 Profile Scale: 1"=40'
 Trans. Sta. C.M.
 F.S. plotted of station

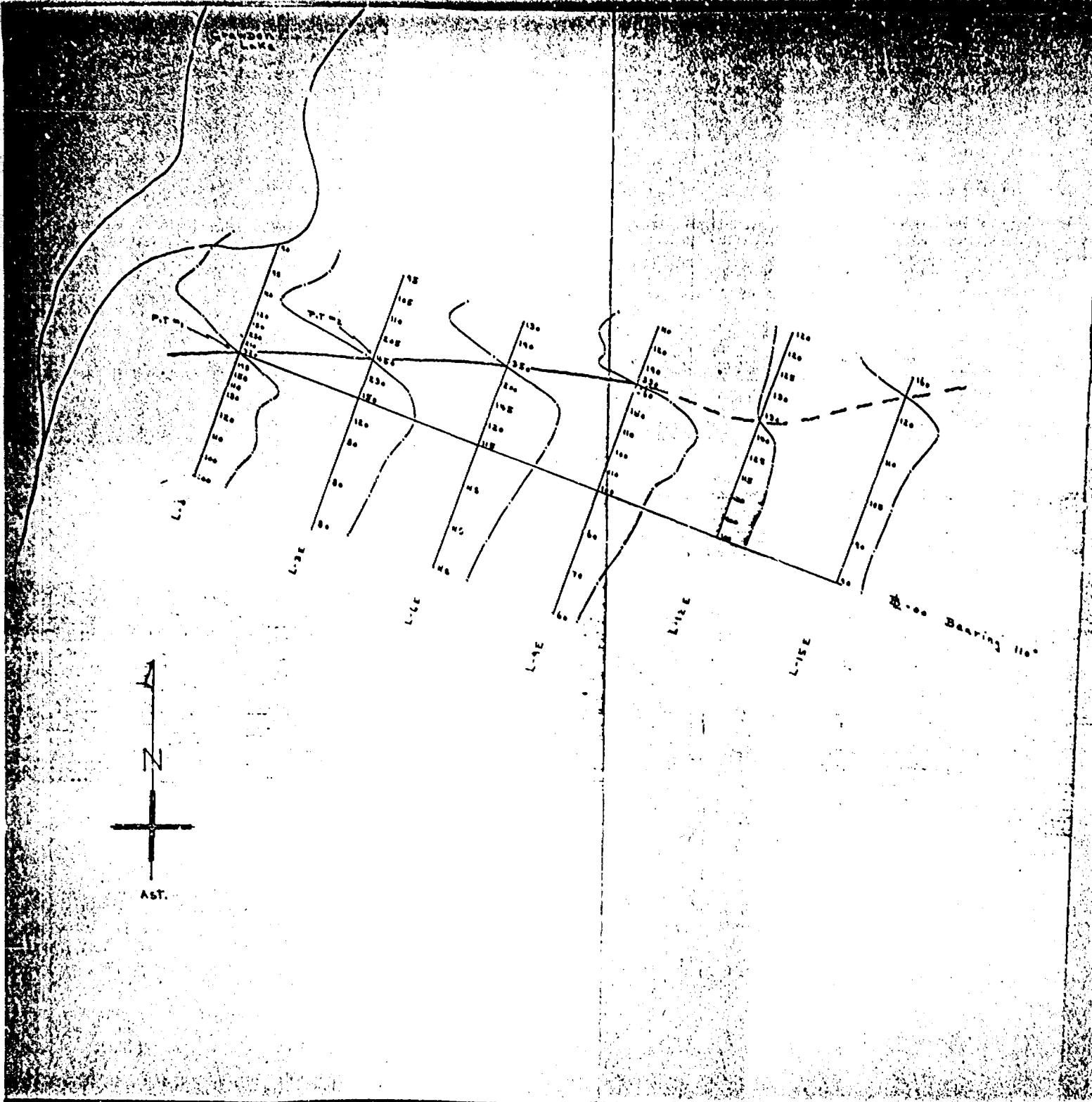
300'

CAWDFEN
Lake



A.C.R. Twp. 26
Acme Gas & Oil Ltd.
Magnetic Survey
A.E.M. 50
Map scale: 1"=200'

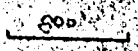
600'



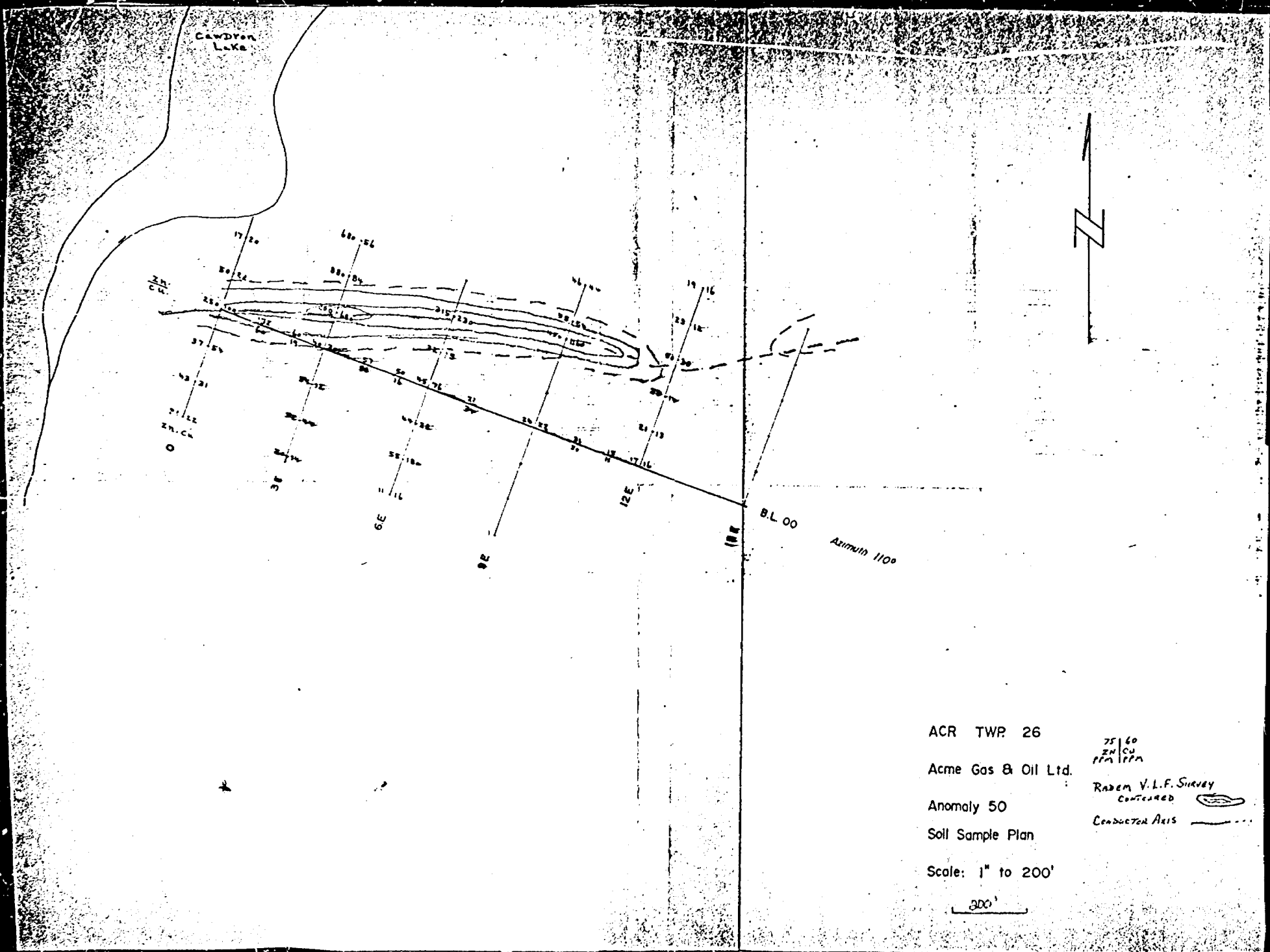
AST.

A.C.R. Twp. 26

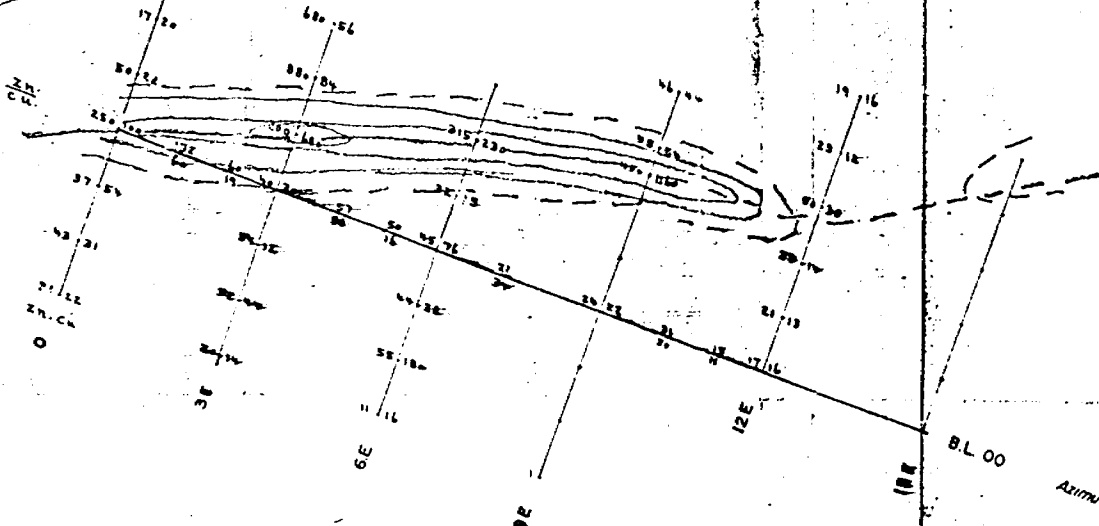
Acme Gas & Oil L.S.
 Radem V.L.P. Survey
 A.E.M. '50
 Map scale: 1"=200'
 Profile scale: 1"=40'
 Trans. Sta. C.M.
 F.B. plotted at station



Drawn by T.C.D.

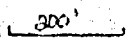


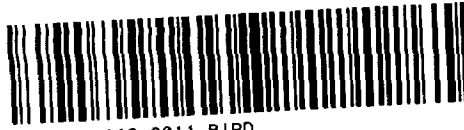
Cawdon
Lake



ACR TWP 26
 Acme Gas & Oil Ltd.
 Anomaly 50
 Soil Sample Plan
 Scale: 1" to 200'

75 | 60
 Zn | Cu
 ppm | ppm
 Radem V.L.F. Survey
 Contoured
 Conductor Axis





42C01NW0012 0011 BIRD

120

ALGOMA CENTRAL RAILWAY OPTION AGREEMENTS

OPTION ON 12 TOWNSHIPS IN ALGOMA AREA NEAR WAWA, ONTARIO

SUMMARY OF MAIN PROVISIONS IN TWO OPTION AGREEMENTS:

Under the terms of an agreement No. 1 dated February 15th, 1966 between Algoma Central Railway (A.C.R.) and B. W. Lang (amended by letter dated May 9th, 1968, and assigned to Acme) Acme holds a 3-year plus working option on 10 Townships (being Townships No. 29 to 33 inclusive in Ranges 25 and 26, Sault Ste. Marie Mining Division in Ontario) with a net area of about 348 square miles after deducting areas of claims and leases held by others. These Townships have been withdrawn from staking until November 30th, 1969. Consideration for the option was \$12,500 paid to Algoma Central Railway. The area held under option shall be reduced on or before November 30th, 1969 by Acme giving notice as to the number of 40-acre units or claims which it wishes to hold under option until November 30th, 1970.

In order to maintain the option in good standing, it is necessary to expend on exploration by May 31st, 1968, \$150,000 and a further amount by May 31st, 1970 of \$50,000 or a greater sum calculated by multiplying \$100 by the number of 40-acre units which Acme elects on or before November 30th, 1969 to hold under option.

Under the terms of an agreement No. 2 dated October 1st, 1966 between Algoma Central Railway (A.C.R.) and B. W. Lang, (amended by letter dated May 9th, 1968, and assigned to Acme), Acme holds a 3-year plus working option on 2 Townships (being Townships 26 in Range 26 and No. 27 in Range 25, in the District of Algoma, Ontario) with a net area of about 67 square miles after deducting areas of claims and leases held by others. These Townships have been withdrawn from staking until November 30th, 1969. Consideration paid for the option was \$3,500 paid to Algoma Central Railway. The area held under option shall be reduced on or before November 30th, 1969 by giving notice as to the number of 40-acre units or claims which Acme wishes to hold under option until November 30th, 1970.

In order to maintain the option in good standing, it is necessary to expend on exploration \$35,000 by September 30th, 1968 and a further amount by November 30th, 1970 of \$40,000 or a greater sum calculated by multiplying \$100 by the number of 40-acre units which Acme elects on or before November 30th, 1969 to hold under option.

For the purpose of determining whether minimum expenditures have been made from time to time it is intended to interpret the two agreements as one by adding together the minimum expenditures required to keep the two options in good standing.

Acme may incorporate a new company or companies, from time to time after Acme has expended \$275,000 plus on the exploration of the 12 Townships, on or before November 30th, 1970 to acquire such of the 40-acre units or claims then held under option as Acme may decide. A.C.R. will issue for the 40-acre units acquired by each new company a Lease for 21 years renewable, from time to time, for 21 years if the property is in commercial production but if commercial production is not commenced within 10 years the Lease will be transferred back to A.C.R.

Vendors shares issued by each new Company shall be for a number in accordance with Ontario Securities Commission regulations (10% free and 90% escrowed) of which 25% shall be issued to A.C.R. and 75% to Acme. A.C.R. Shall have the right to subscribe from time to time up to a maximum of 25% of the financing of any new company. A.C.R. shall nominate one of the five directors of each company. Acme (and the new companies) agree to ship all freight on A.C.R. railroad and steamships providing rates and services are competitive with others.

Acme has expended on exploration and development \$255,652 or considerably in excess of the minimum of \$185,000 required to be expended under the two agreements by 1968.

Total expenditures under the terms of the agreements amount to \$271,652 up to March 31st, 1969, including \$16,000 paid to A.C.R.

Toronto, Ontario,
May 14th, 1969.

ACHE GAS & OIL CO., LIMITED

Expenditures under option agreements with Algoma Central Railway

A.C.R. No. 1 Option Agreement dated February 15th, 1966:

Expenditures for the period May 1st, 1966 to December 31st, 1967	\$ 183,536.36
Expenditures made January 1st, 1968 to August 31st, 1968	<u>1,868.01</u>
	\$ 185,404.37
Paid to A.C.R. upon signing agreement	12,500.00
Cost of Equipment purchased	<u>14,836.16</u>
Total Expenditures to August 31st, 1968 on A.C.R. No. 1 Option	<u>\$ 212,740.53</u>

A.C.R. No. 2 Option Agreement dated October 1st, 1966:

Expenditures to October 1st, 1967	\$ 48,370.70
Expenditures for period October 1st to December 31st, 1967	2,085.25
Expenditures for period January 1st to August 31st, 1968	197.46
Paid upon signing agreement	<u>3,500.00</u>
Total Expenditures to August 31st, 1968 on A.C.R. No. 2 Option	<u>\$ 54,153.41</u>
Total on No. 1 and No. 2 Options	<u>\$ 266,893.94</u>

Cost of Aerial Surveys - Included in above totals:

A.C.R.1 - Aerial Survey	\$ 30,911.00
A.C.R.2 - Aerial Survey	<u>26,598.00</u>
	<u>\$ 65,509.00</u>

Compte de l'Etat de l'Etat

<i>Compte de l'Etat de l'Etat</i>				
<i>ACR - 1967</i>				
<i>Expenditures pour le projet</i>	<i>May 1st 1967</i>	<i>to</i>	<i>December 31/67</i>	<i>123,636.36</i>
<i>Expenditures made for the project</i>	<i>March 1st 1967</i>	<i>to</i>	<i>December 31/67</i>	<i>2,272.05</i>
				<i>125,908.41</i>
<i>Cost of equipment purchased</i>				<i>14,836.16</i>
<i>Total expenditures to December 31st 1967 on ACR</i>				<i>140,744.57</i>
<i>ACR - 1968</i>				
<i>Expenditures to December 1st 1967</i>				<i>48,370.70</i>
<i>Expenditures for project Oct. 1st 1967</i>	<i>to</i>	<i>Dec. 31/67</i>		<i>2,085.25</i>
<i>Total Expenditures to December 31st, 1967 on ACR</i>				<i>50,455.95</i>
				<i>250,200.52</i>
<i>ACR - 1968 - revised survey</i>			<i>38,911.00</i>	
<i>ACR - 1968 - revised survey</i>			<i>26,598.00</i>	
			<i>65,509.00</i>	

L

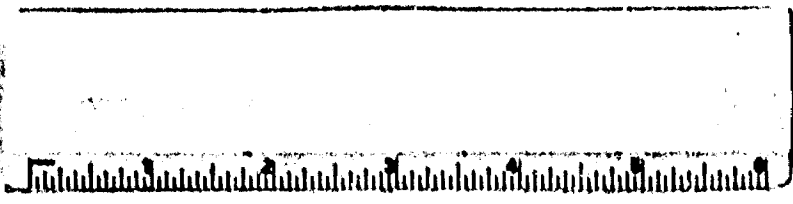
ACME GAS & OIL CO., LIMITED

Expenditures:

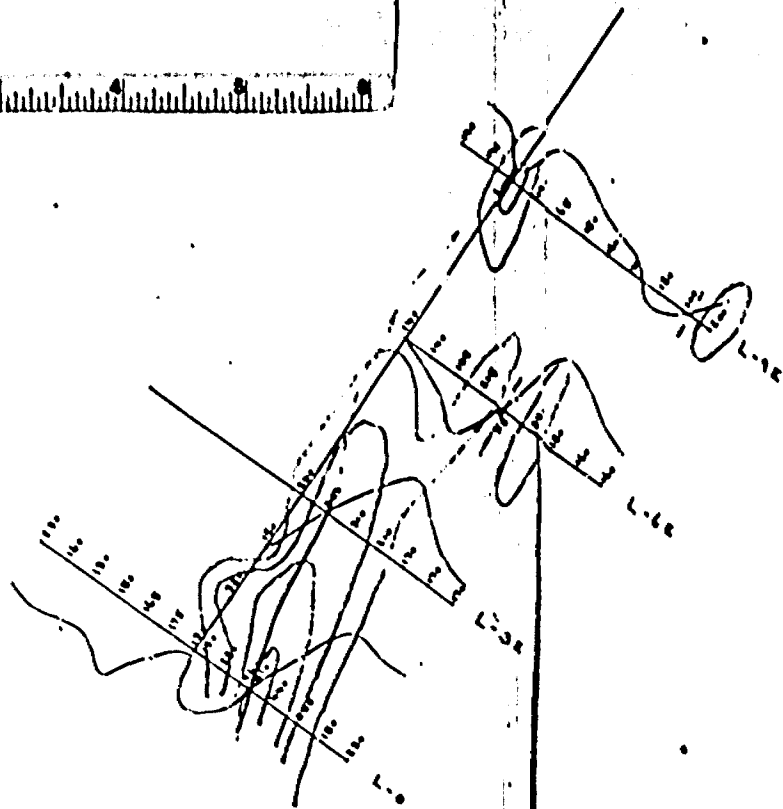
A.C.R.1 - to December 31st, 1967	\$ 183,536.36	
- January 1st to August 31st, 1968	<u>1,868.01</u>	\$ 185,404.37

A.C.R.2 - to December 31st, 1967	\$ 50,455.95	
- January 1st to August 31st, 1968	<u>197.46</u>	<u>50,653.41</u>
		<u>\$ 236,057.78</u>

CANDYAN
LAKE

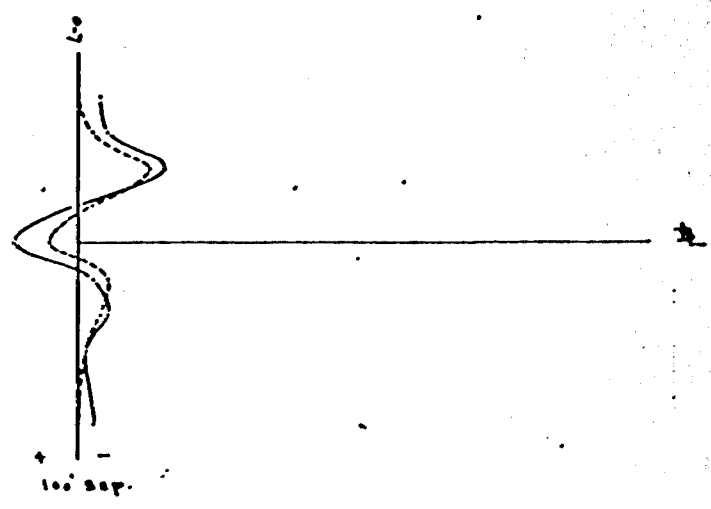
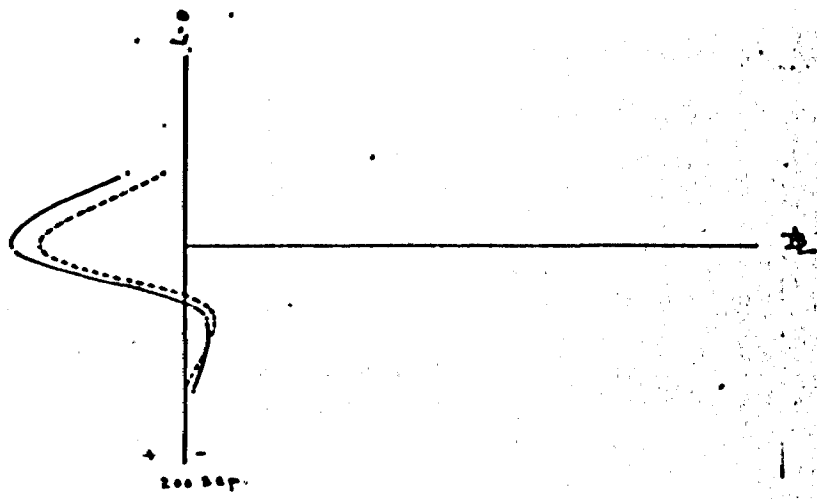


ACR TWP. 26 (Bid Top.)
Acme Gas & Oil Ltd
Anomaly 50
Soil Sample Plan
Scale: 1" to 200'



A&T.

2000 Top 26
Some Gas & Oil Lts.
Modern VLP Survey
A.E.M. '44
Map Scale: 1" = 100'
Profile Scale: 1" = 100'
Texas Sta. C.M.
V.S. plotted at 2000



A.C.R. Twp. 26
 Acme Gas & Oil L.S.
 Crane J.E.M.
 Test Profiles

Map scale: 1"=200'
 Profile " 1"=20'



A.C. & H.B. GRANT.

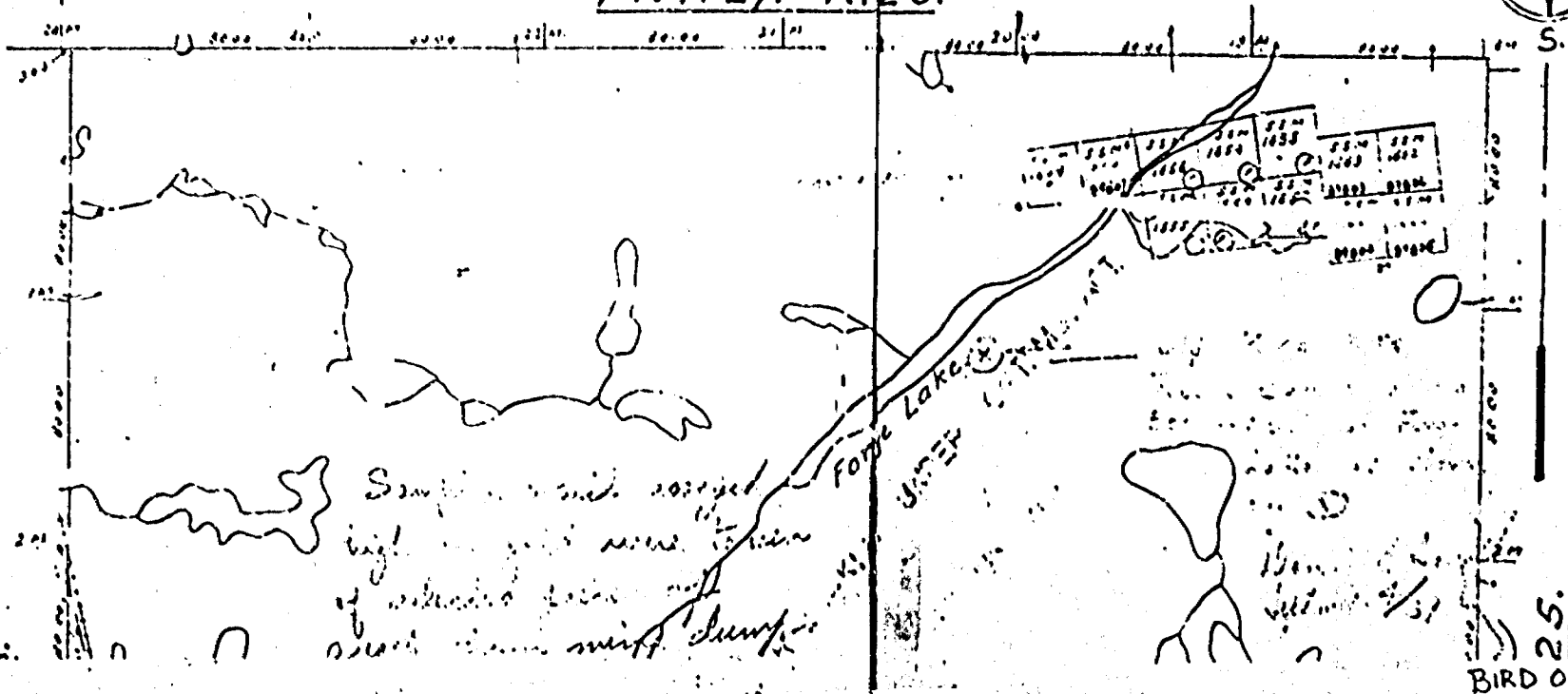
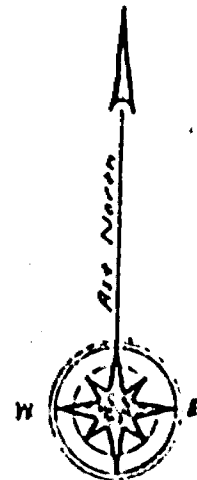
PLAN OF

TWP. 27. R. 25.

SAULT STE MARIE MINING DIVISION
DISTRICT OF ALGOMA.

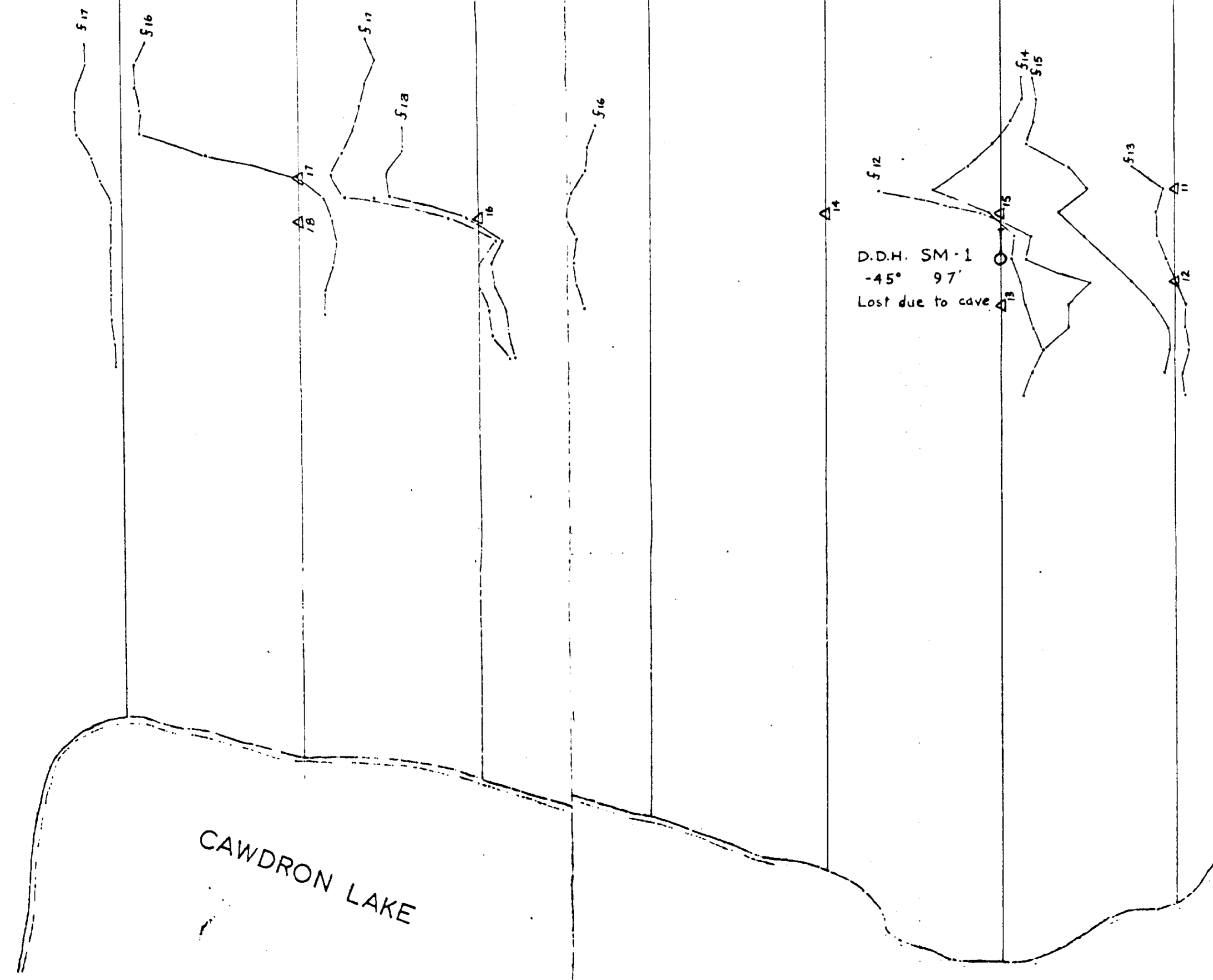
— Scale, 40 chains to an inch. —

TWP 27 - R. 26.



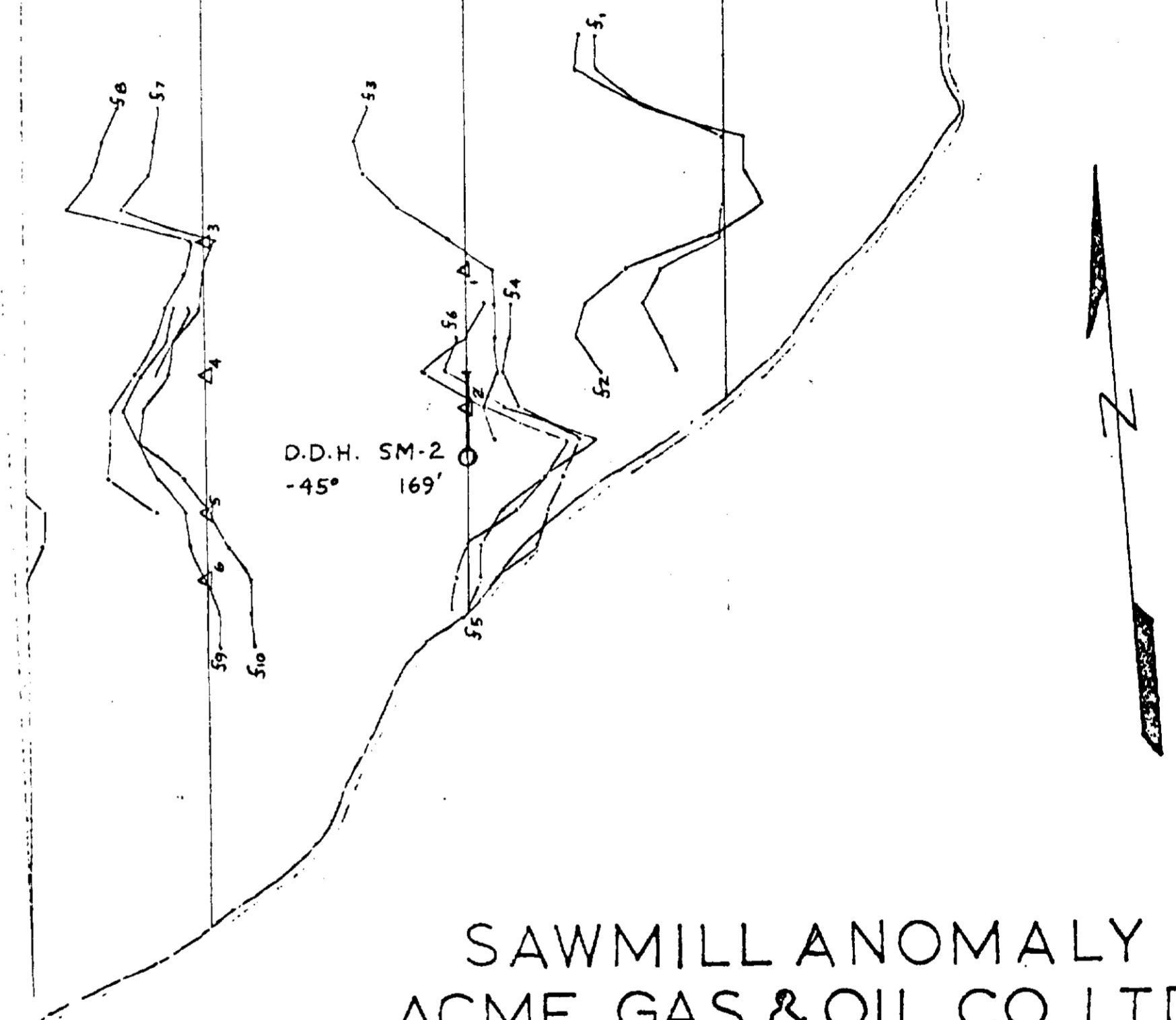
25
BIRD 0011 25

32 W 28 W 24 W 20 W 16 W 12 W 8 W 4 W 00



CAWDRON LAKE

8 E 12 E 16 E



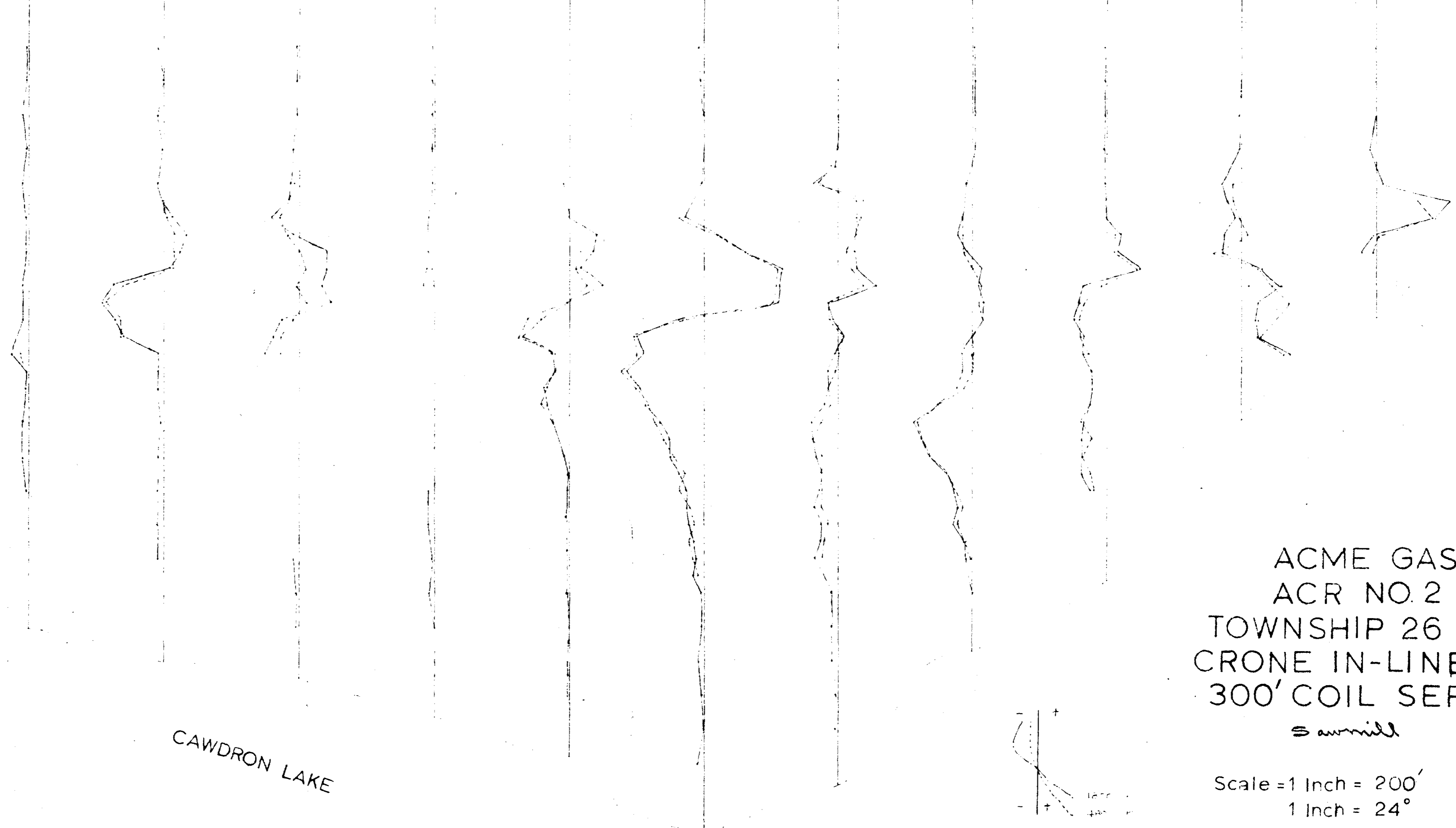
SAWMILL ANOMALY
ACME GAS & OIL CO LTD
ACR NO.2 GRID NO.1
TOWNSHIP 26 RANGE 26
VERTICAL LOOP SURVEY

SCALE=1 Inch=200 FEET
1 INCH=24°

BIRD 0011-1



32W 28W 24W 20W 16W 12W 8W 4W 00 4E 8E 12E 16E



CAWDRON LAKE

ACME GAS & OIL LTD
ACR NO.2 GRID NO.1
TOWNSHIP 26 RANGE 26
CRONE IN-LINE SURVEY
300' COIL SEPARATION

S. Arnold

Scale = 1 Inch = 200'
1 Inch = 24°



BIRD 0011-2

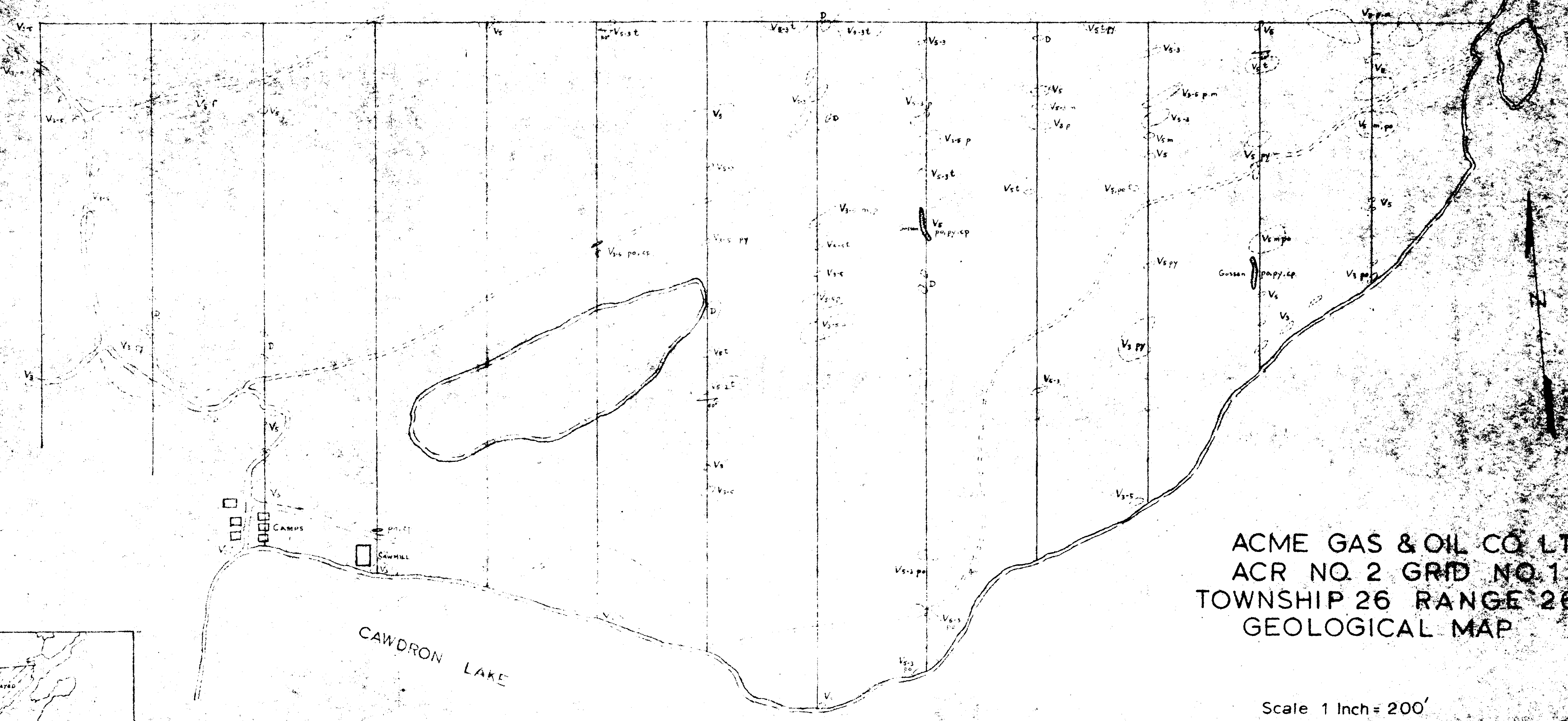
LEGEND

- D Diabase
- V_i Intermediate Volcanics
- V_f Acid Volcanics

SYMBOLS

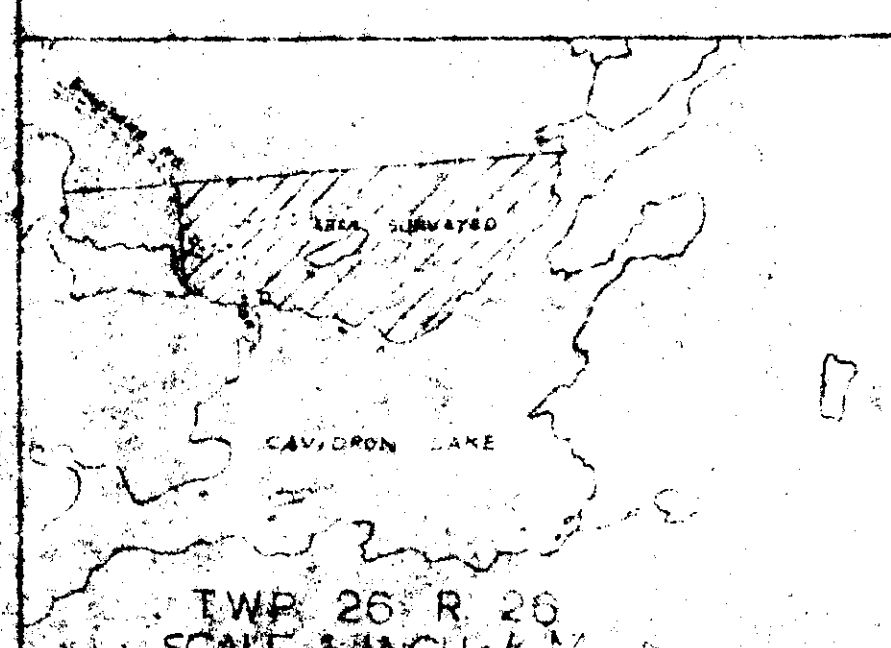
- outcrop area
- trace
- schistosity
- trail
- 400' road
- f - fragmental
- p - porphyritic
- m - micaceous
- t - tuffaceous
- po - pyrrhotite
- py - pyrite
- cp - chalcopyrite

32W 28W 24W 20W 16W 12W 8W 4W 00 4E 8E 12E 16E

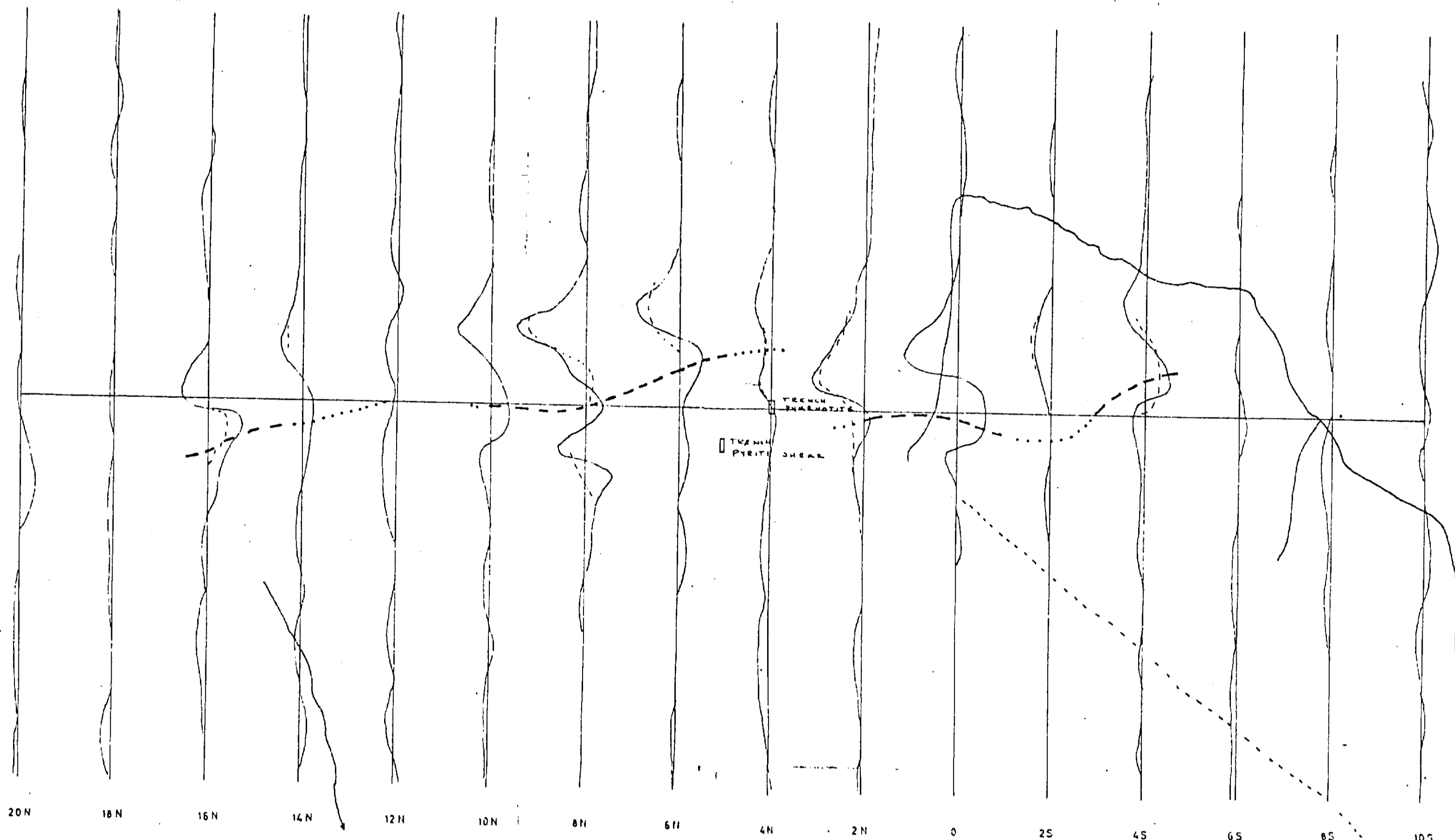


ACME GAS & OIL CO LTD
 ACR NO 2 GRID NO 1
 TOWNSHIP 26 RANGE 26
 GEOLOGICAL MAP

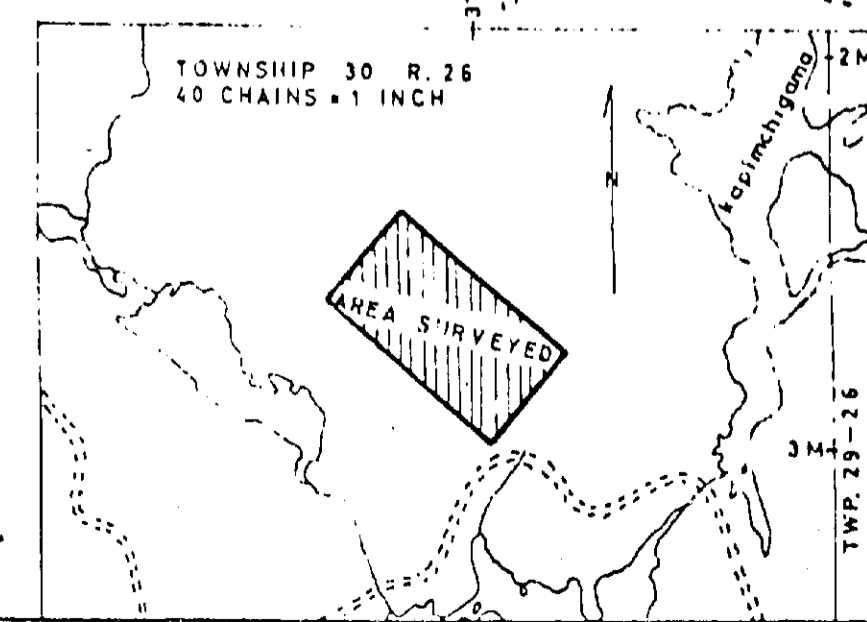
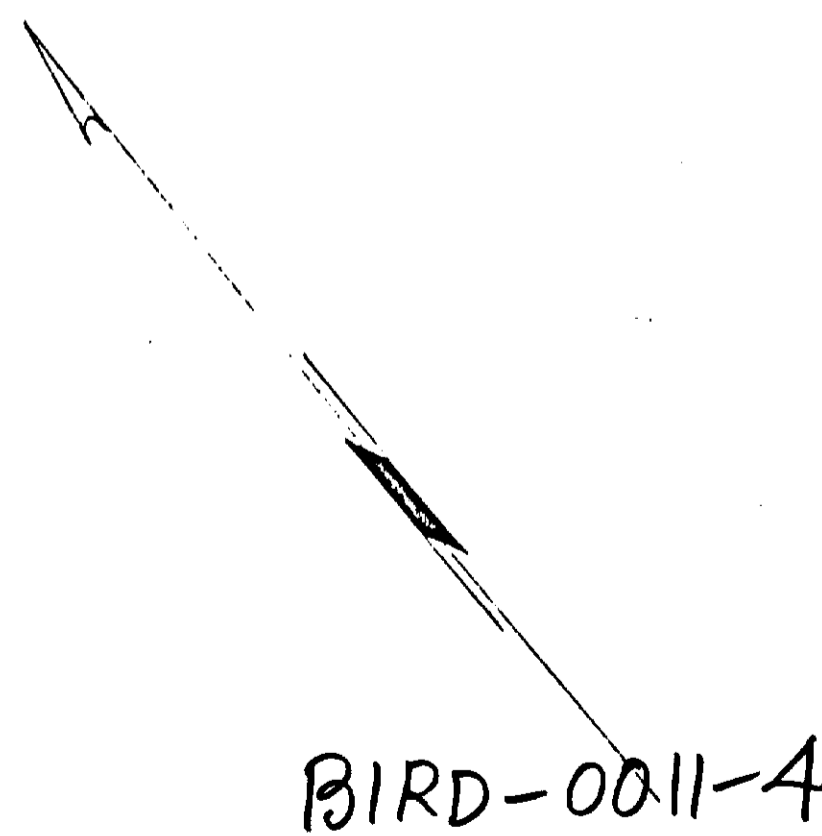
Scale 1 Inch = 200'

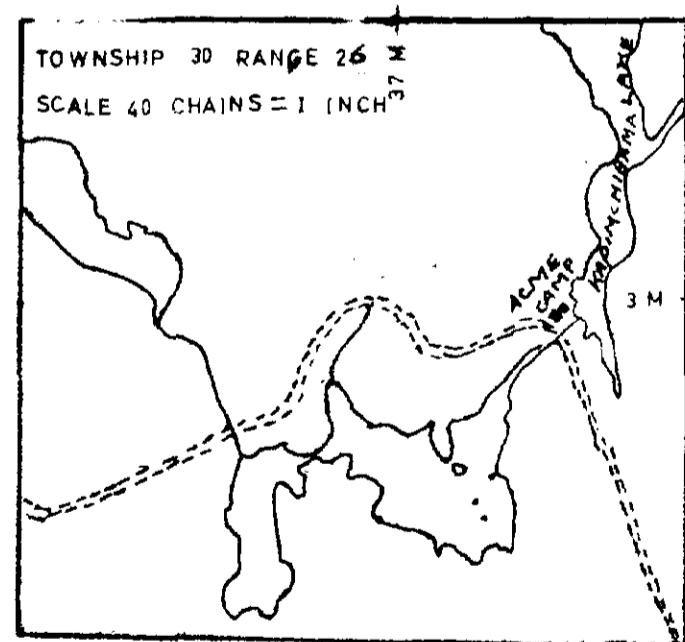
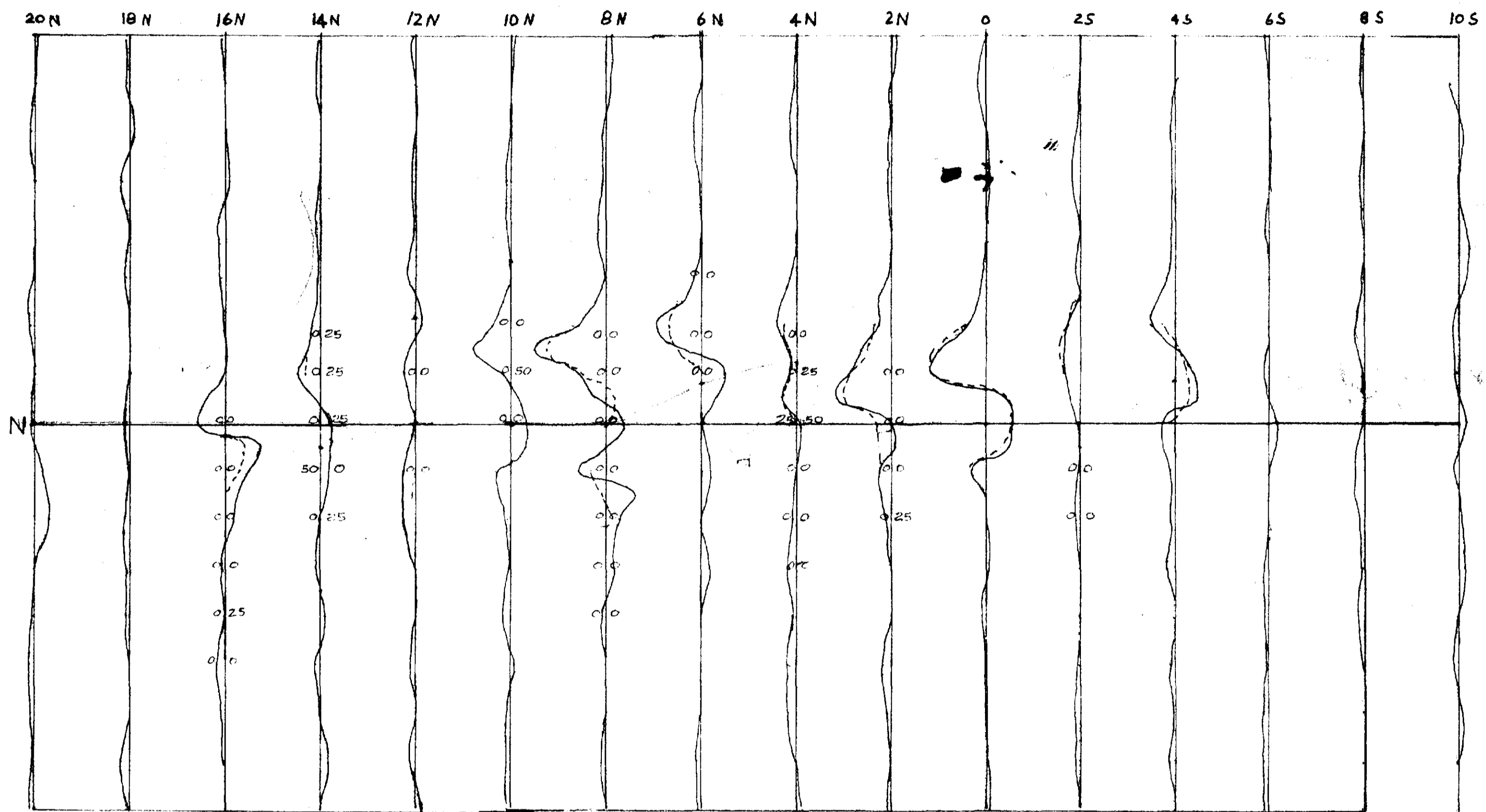


BIRD 0011-3



GRID NUMBER 3
 ELECTRO-MAGNETIC SURVEY
 ACME GAS & OIL CO. LTD.
 TOWNSHIP 30 RANGE 26
 MICHIPICOTON AREA ONTARIO
 INSTRUMENT: CRONE J.E.M.
 200 FOOT SEPARATION
 SCALE 1 INCH = 200 FEET



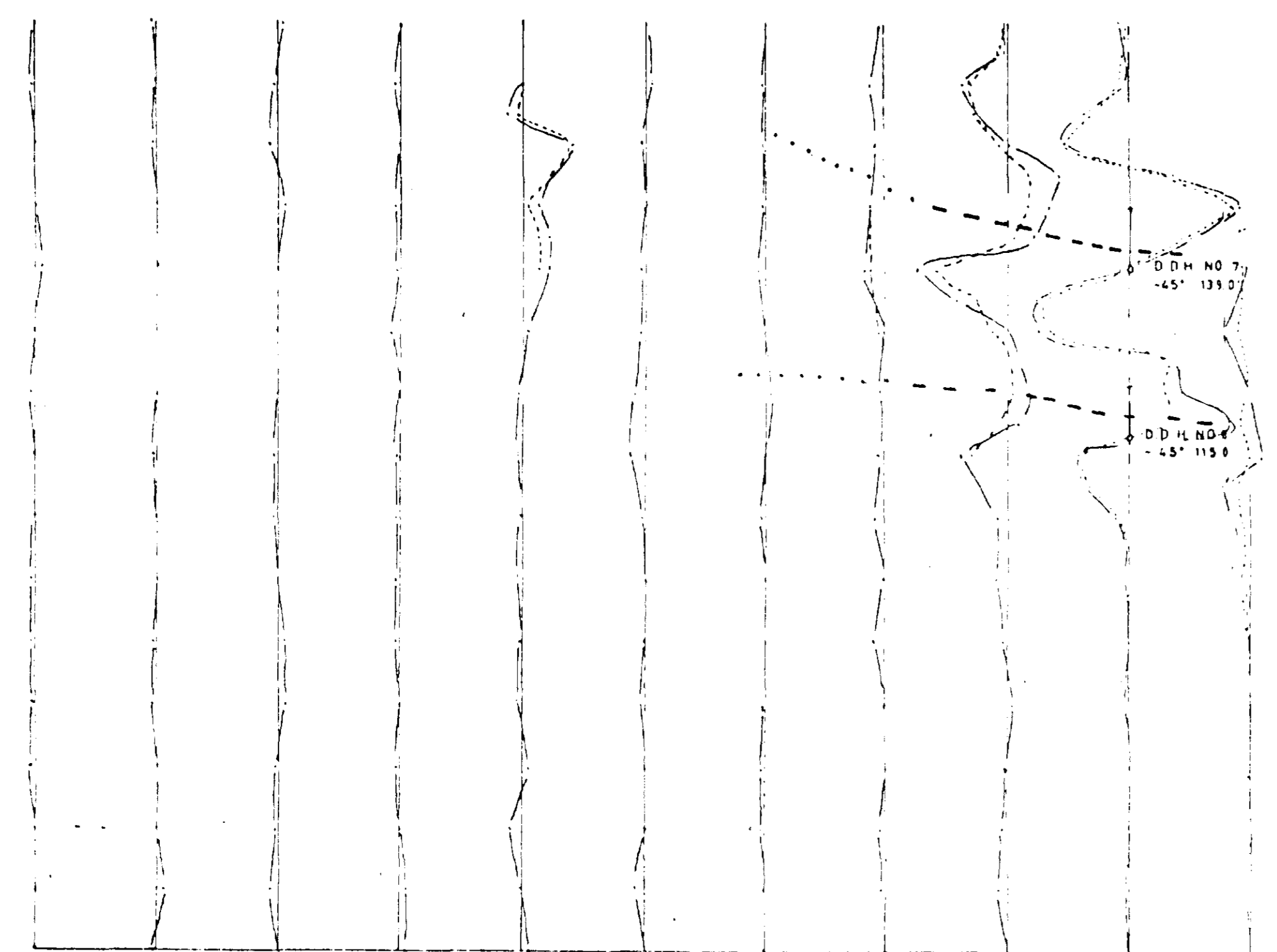


GRID NUMBER 3
 ELECTRO-MAGNETIC SURVEY
 ACME GAS & OIL CO LTD
 TOWNSHIP 30 RANGE 26
 MICHIPICOTON AREA ONTARIO
 INSTRUMENT: CRONE J.E.M.
 200 FOOT SEPARATION
 SCALE 1 INCH = 200 FEET = 24°

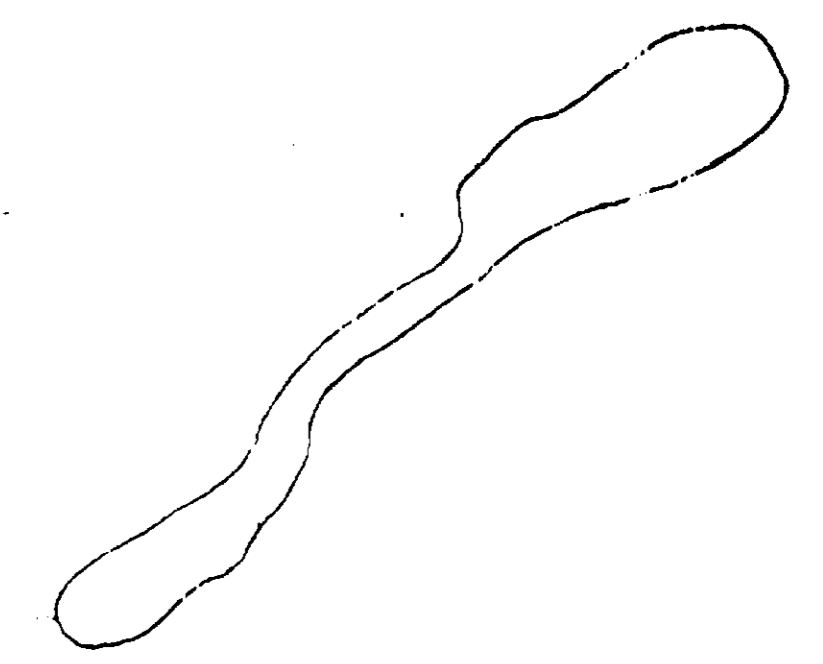
BIRD-0011-5



60N 58N 56N 54N 52N 50N 48N 46N 44N 42N

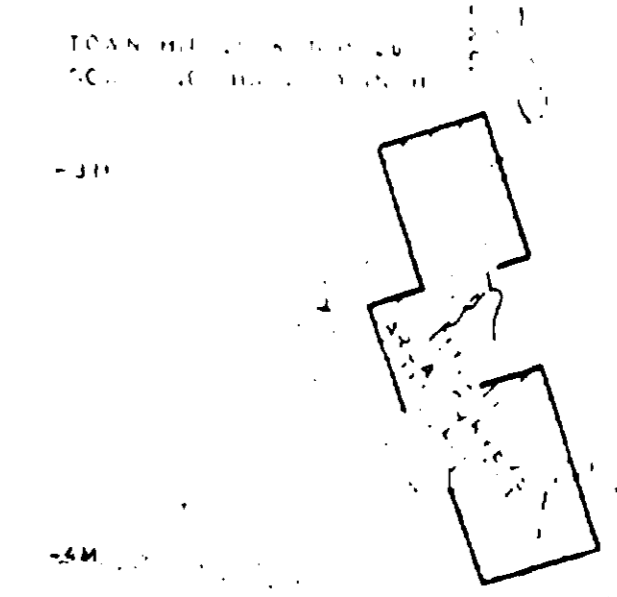


38N 36N 34N 32N 30N 28N 26N 24N 22N 20N 18N 16N 14N



GRID NUMBER 4
ELECTRO-MAGNETIC SURVEY
ACME GAS & OIL CO. LTD.
TOWNSHIP 29 RANGE 26
MICHIPICOTON AREA ONTARIO
INSTRUMENT: CRONE J.E.M.
200 FOOT SEPARATION
SCALE 1 INCH = 200 FEET

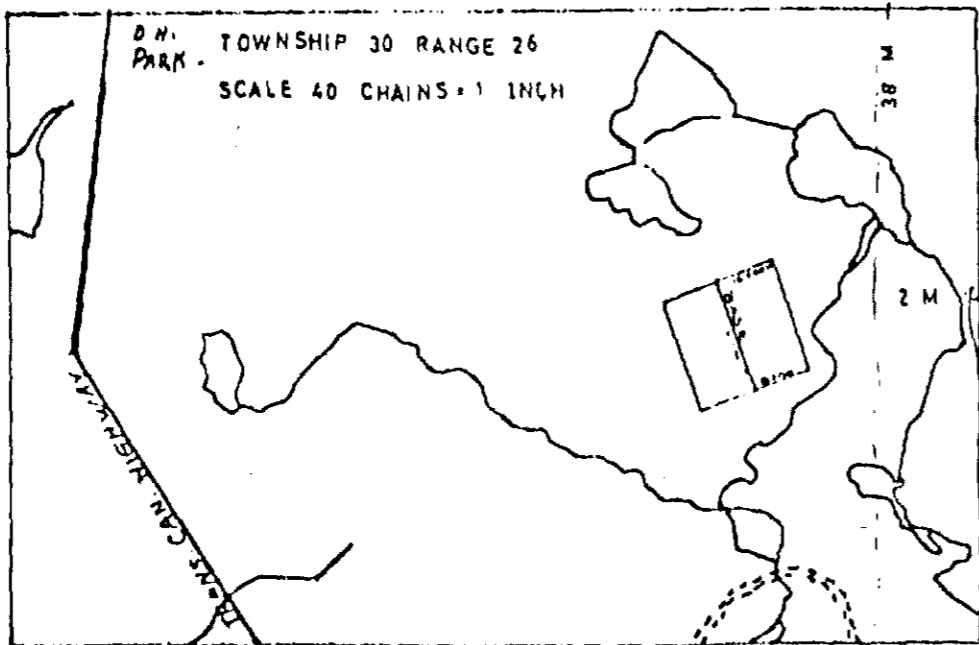
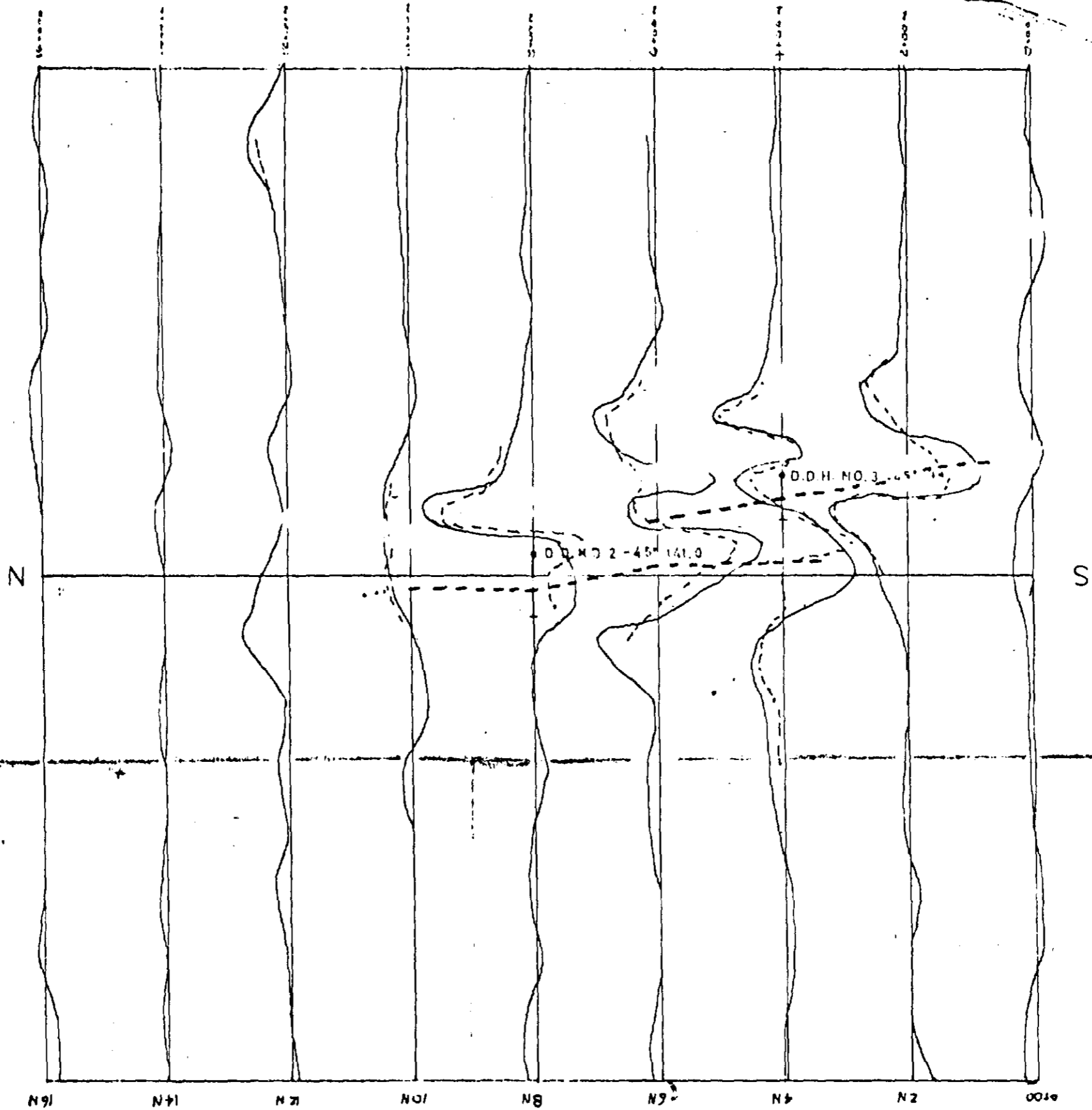
NOTE: CONDUCTOR PLOTTED FROM VERTICAL DATA



BIRD 0611-6



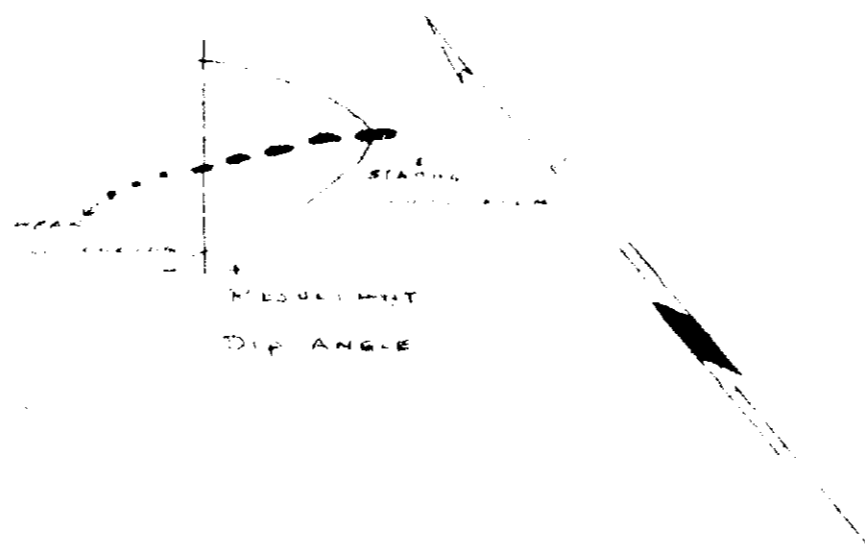
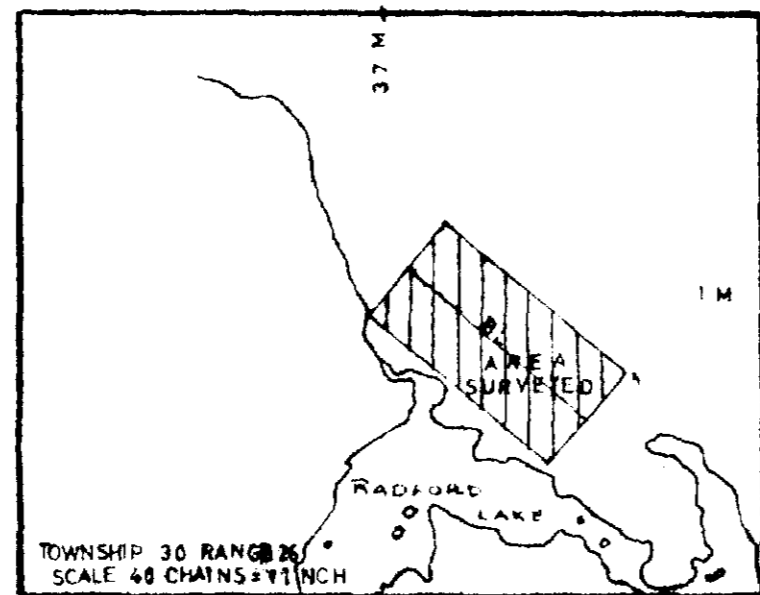
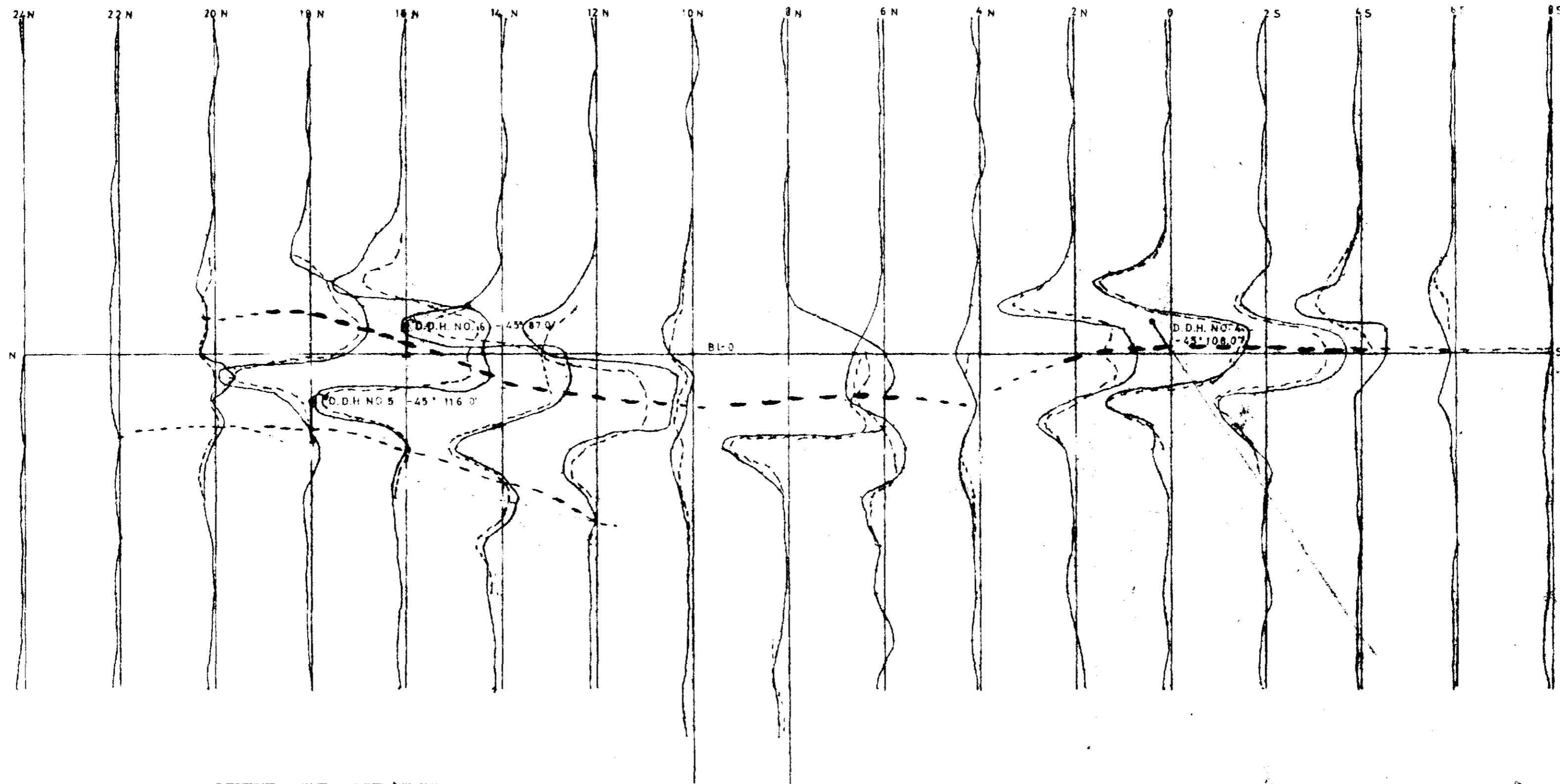
#4 JEM



GRID NUMBER 5
 ELECTRO-MAGNETIC SURVEY
 ACME GAS & OIL CO LTD
 TOWNSHIP 30 RANGE 26
 MICHIPICOTON AREA ONTARIO
 INSTRUMENT: CRONE J.E.M.
 200 FOOT SEPARATION
 SCALE 1 INCH = 200 FEET = 24°

BIRD-0011-7



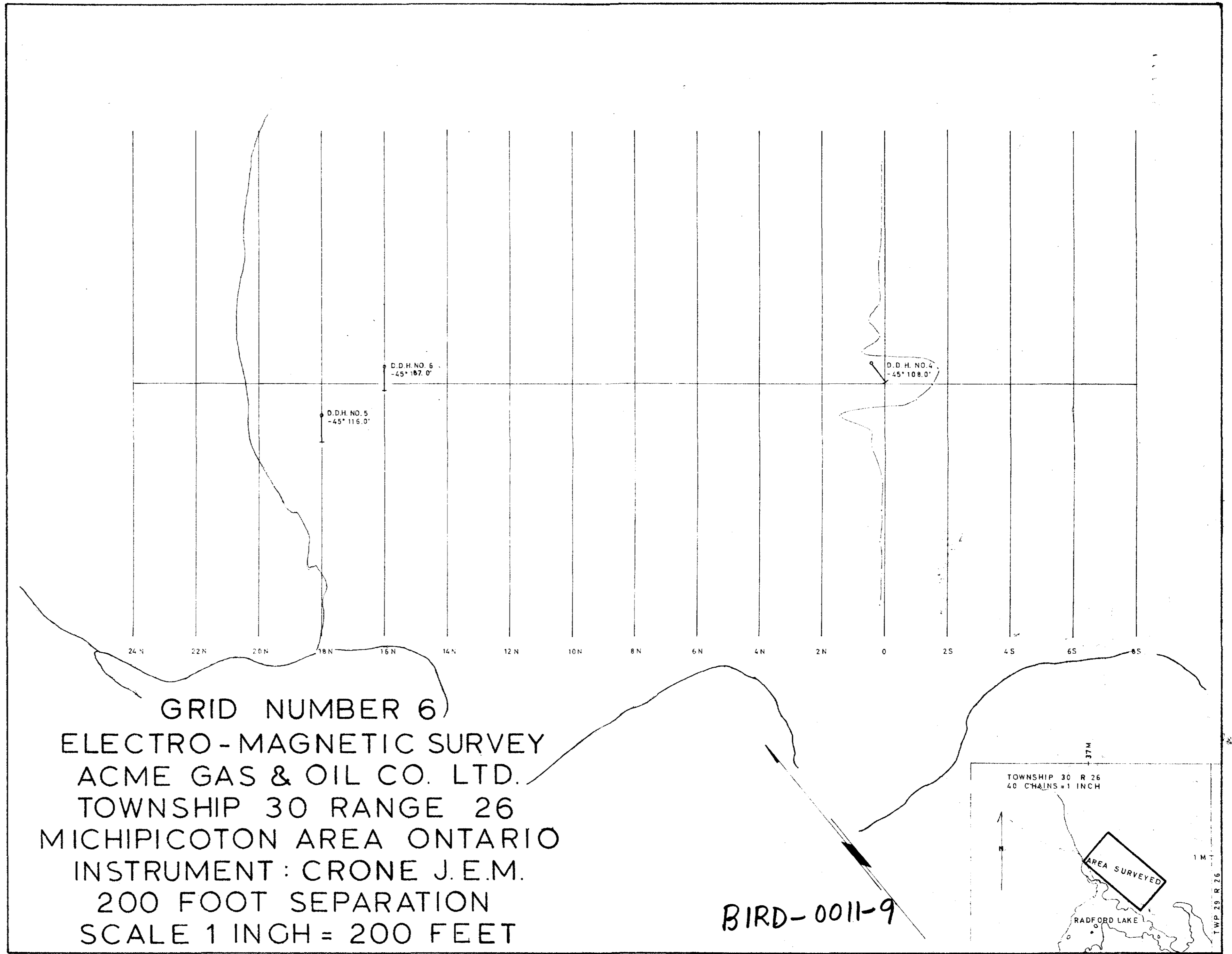


GRID NUMBER 6
 ELECTRO-MAGNETIC SURVEY
 ACME GAS & OIL CO LTD
 TOWNSHIP 30 RANGE 26
 MICHIPICOTON AREA ONTARIO.
 INSTRUMENT CRONE J.E.M.
 200 FOOT SEPARATION
 SCALE 1 INCH= 200 FEET=24°

BIRD-0011-8



0011-9



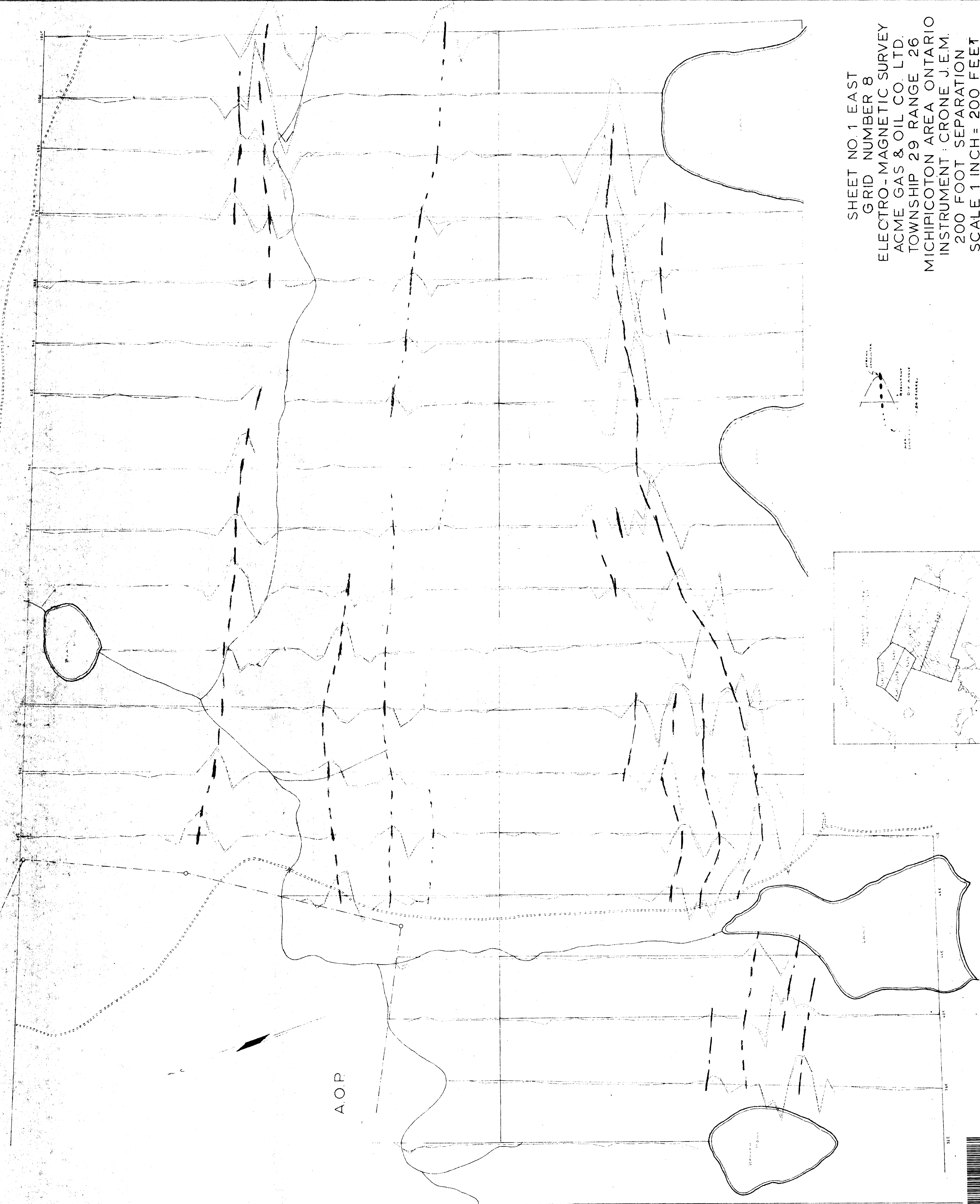
GRID NUMBER 6)
 ELECTRO-MAGNETIC SURVEY
 ACME GAS & OIL CO. LTD.
 TOWNSHIP 30 RANGE 26
 MICHIPICOTON AREA ONTARIO
 INSTRUMENT: CRONE J.E.M.
 200 FOOT SEPARATION
 SCALE 1 INCH = 200 FEET

BIRD-0011-9

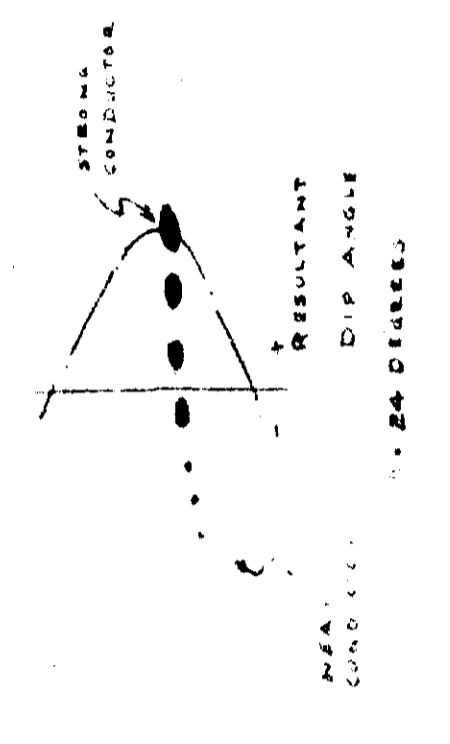
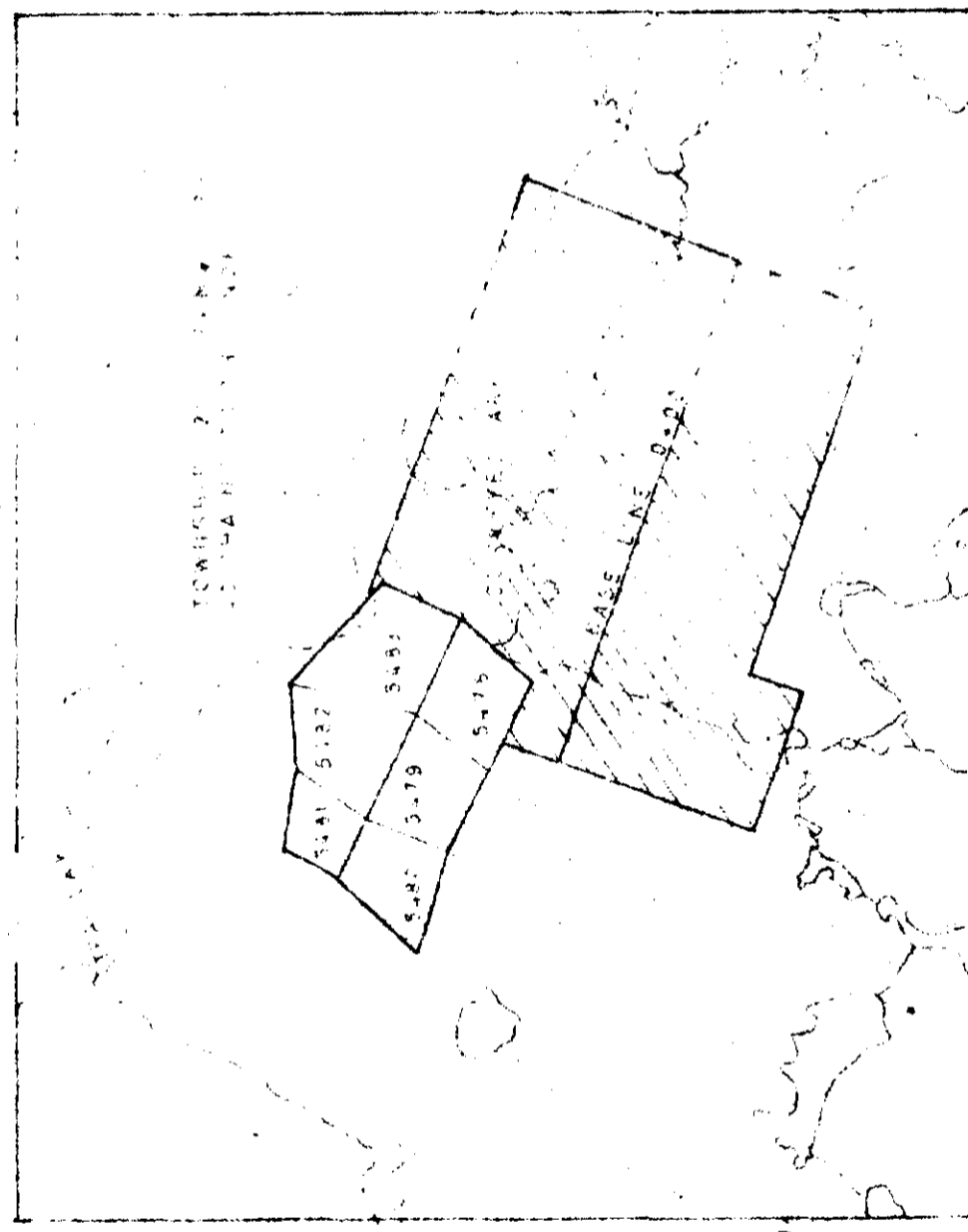


45031N6012 0011 BIRD

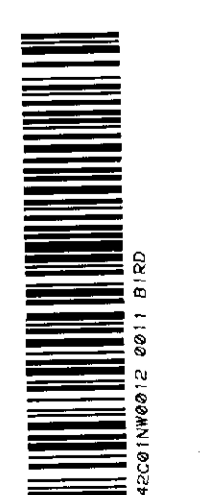
280



SHEET NO. 1 EAST
 GRID NUMBER 8
 ELECTRO - MAGNETIC SURVEY
 ACME GAS & OIL CO. LTD.
 TOWNSHIP 29 RANGE 26
 MICHIPICOTON AREA ONTARIO
 INSTRUMENT : CRONE J.E.M.
 200 FOOT SEPARATION
 SCALE 1 INCH = 200 FEET



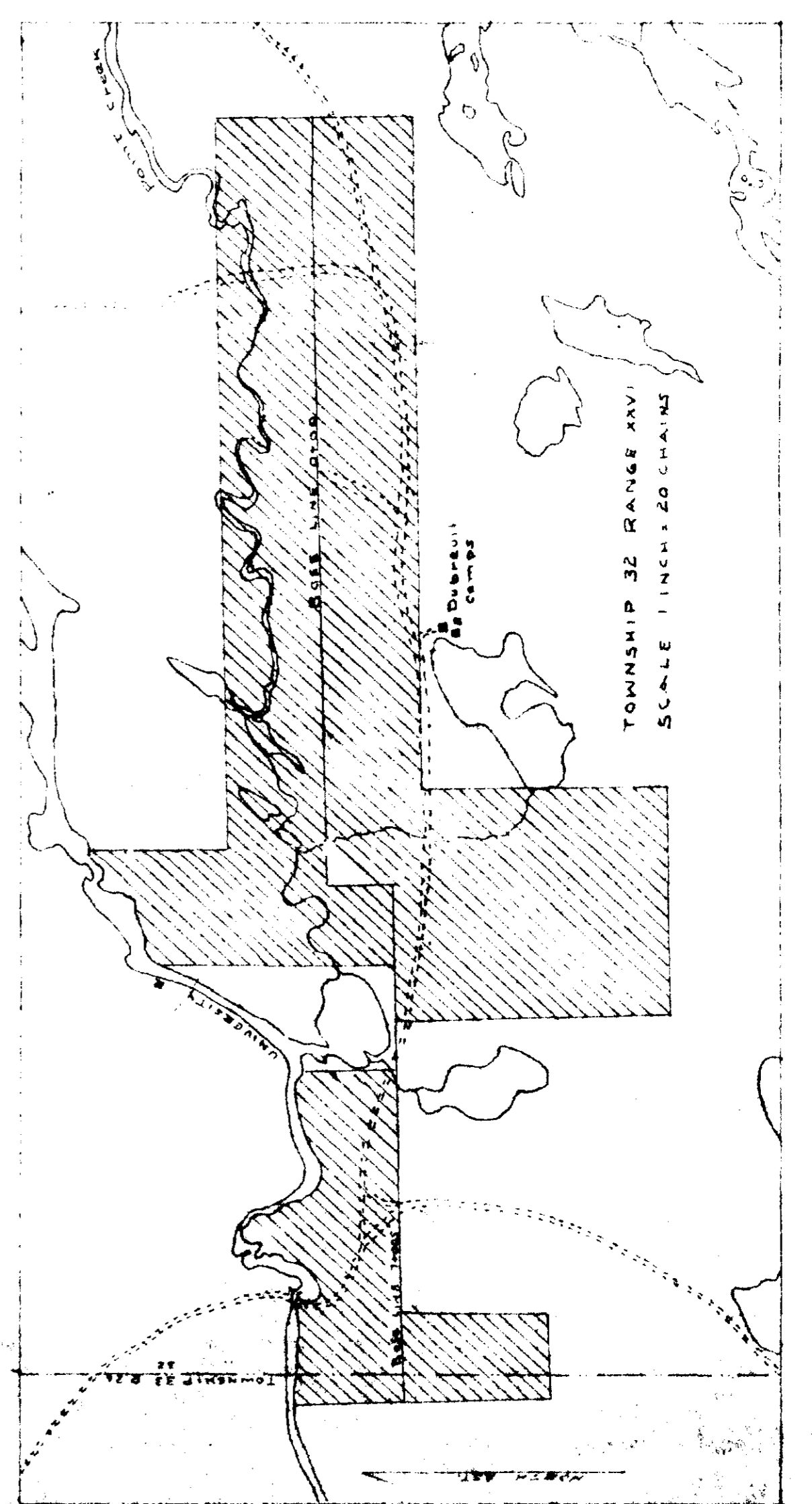
A.O.P.



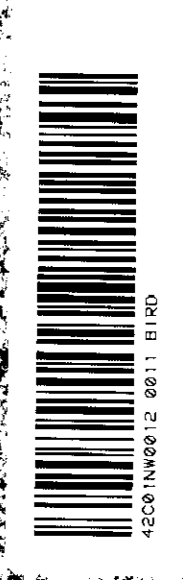
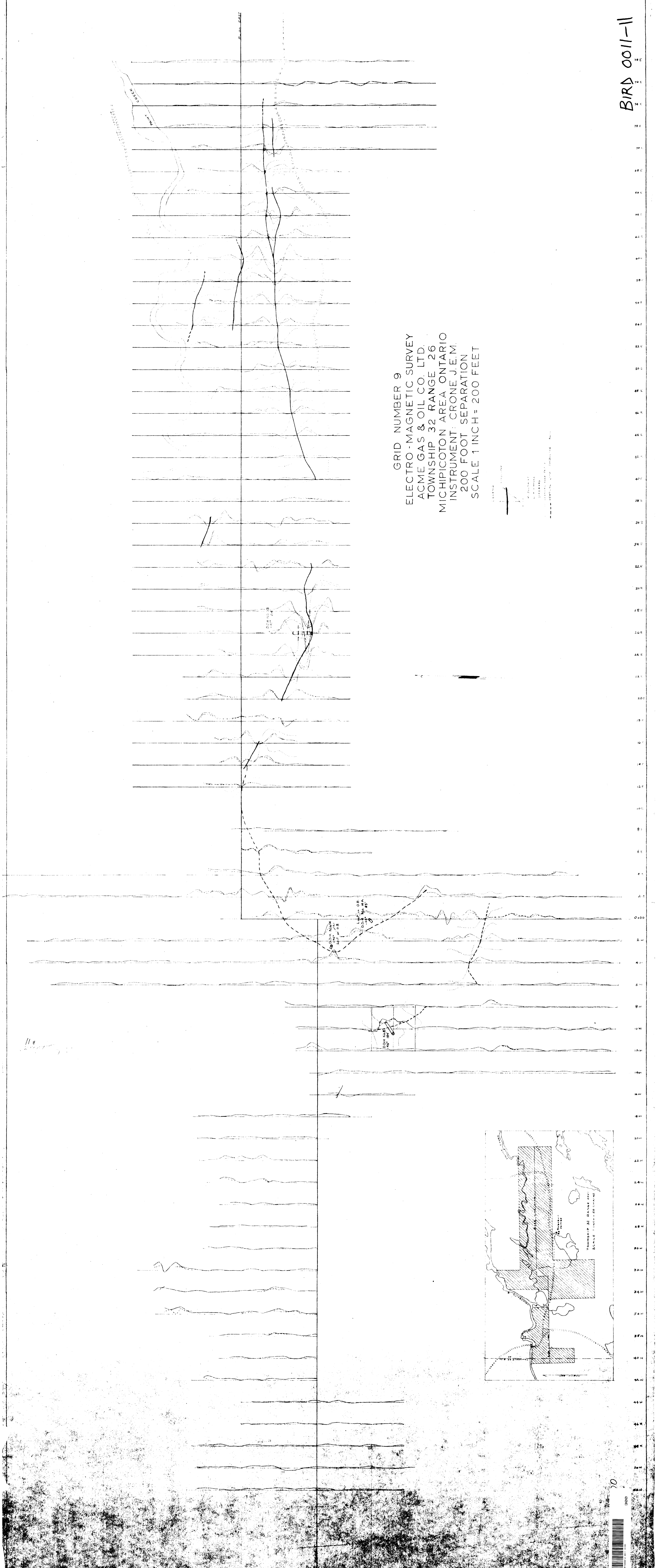
290

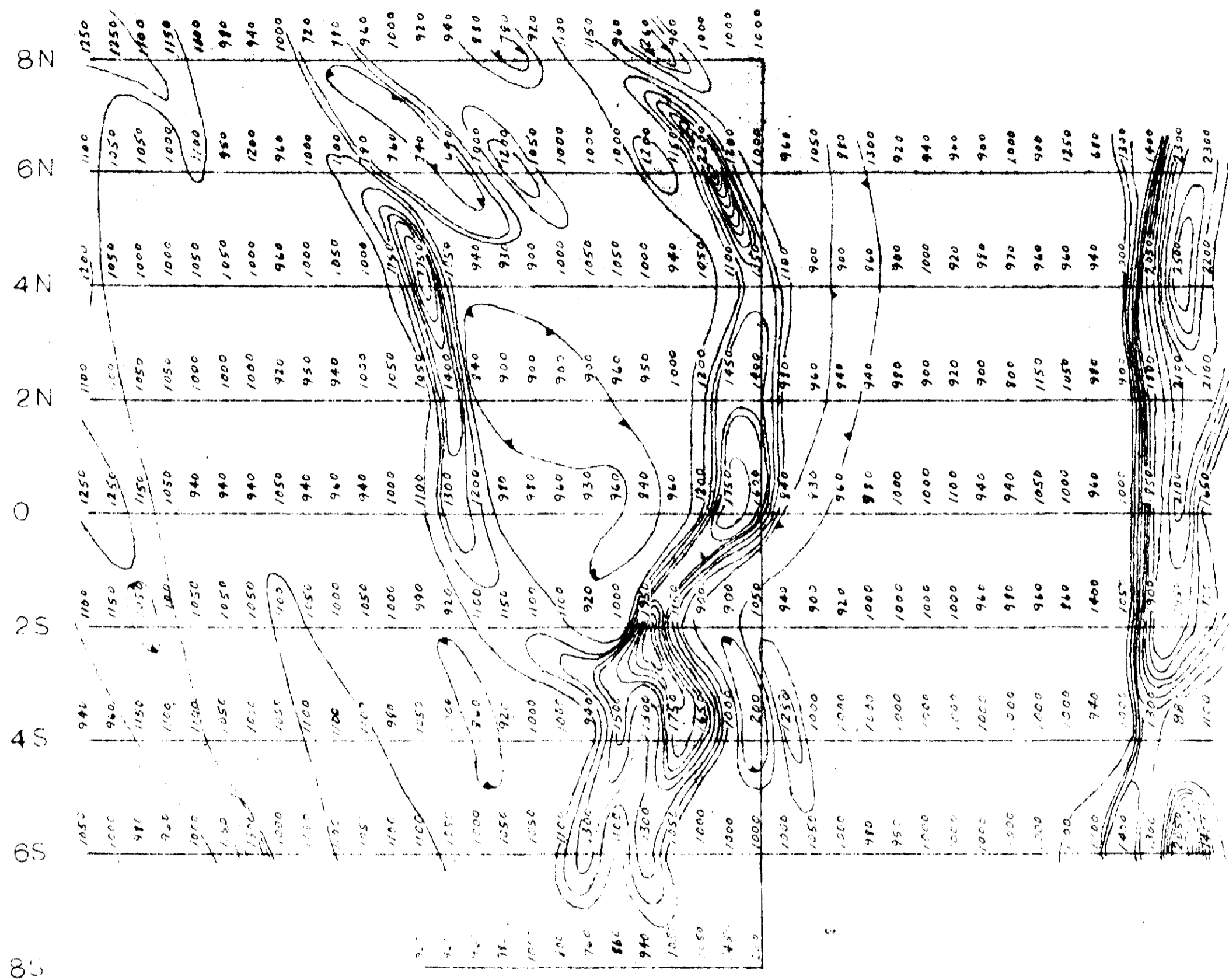
BIRD - cell #10

GRID NUMBER 9
ELECTRO-MAGNETIC SURVEY
ACME GAS & OIL CO. LTD.
TOWNSHIP 32 RANGE 26
MICHIPICOTON AREA ONTARIO
INSTRUMENT: CRONE J.E.M.
200 FOOT SEPARATION
SCALE 1 INCH = 200 FEET



LEGEND
CIRCUIT 1
CIRCUIT 2
CIRCUIT 3
CIRCUIT 4
CIRCUIT 5
CIRCUIT 6
CIRCUIT 7
CIRCUIT 8
CIRCUIT 9
CIRCUIT 10
CIRCUIT 11
CIRCUIT 12
CIRCUIT 13
CIRCUIT 14
CIRCUIT 15
CIRCUIT 16
CIRCUIT 17
CIRCUIT 18
CIRCUIT 19
CIRCUIT 20
CIRCUIT 21
CIRCUIT 22
CIRCUIT 23
CIRCUIT 24
CIRCUIT 25
CIRCUIT 26
CIRCUIT 27
CIRCUIT 28
CIRCUIT 29
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CIRCUIT 36
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CIRCUIT 45
CIRCUIT 46
CIRCUIT 47
CIRCUIT 48
CIRCUIT 49
CIRCUIT 50

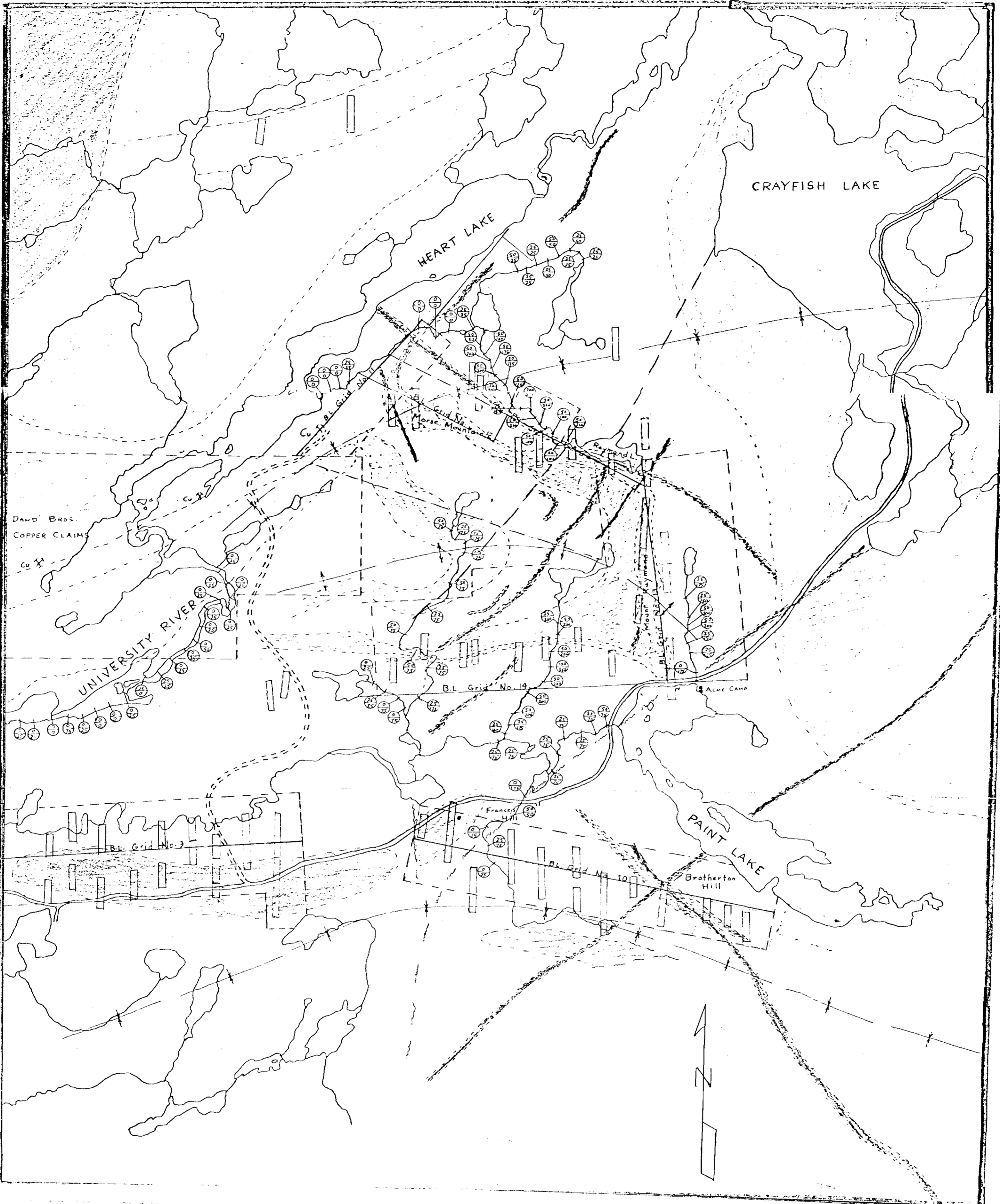




ACME GAS & OIL CO. LTD.
 GRID NO.17 ACR1
 TWP. 29 R.25
 MAGNETOMETER SURVEY.

SCALE 1" = 200'
 CONTOUR INTERVAL 100'





LEGEND

Intrusive Series

- Diabase
- Granite
- Diorite

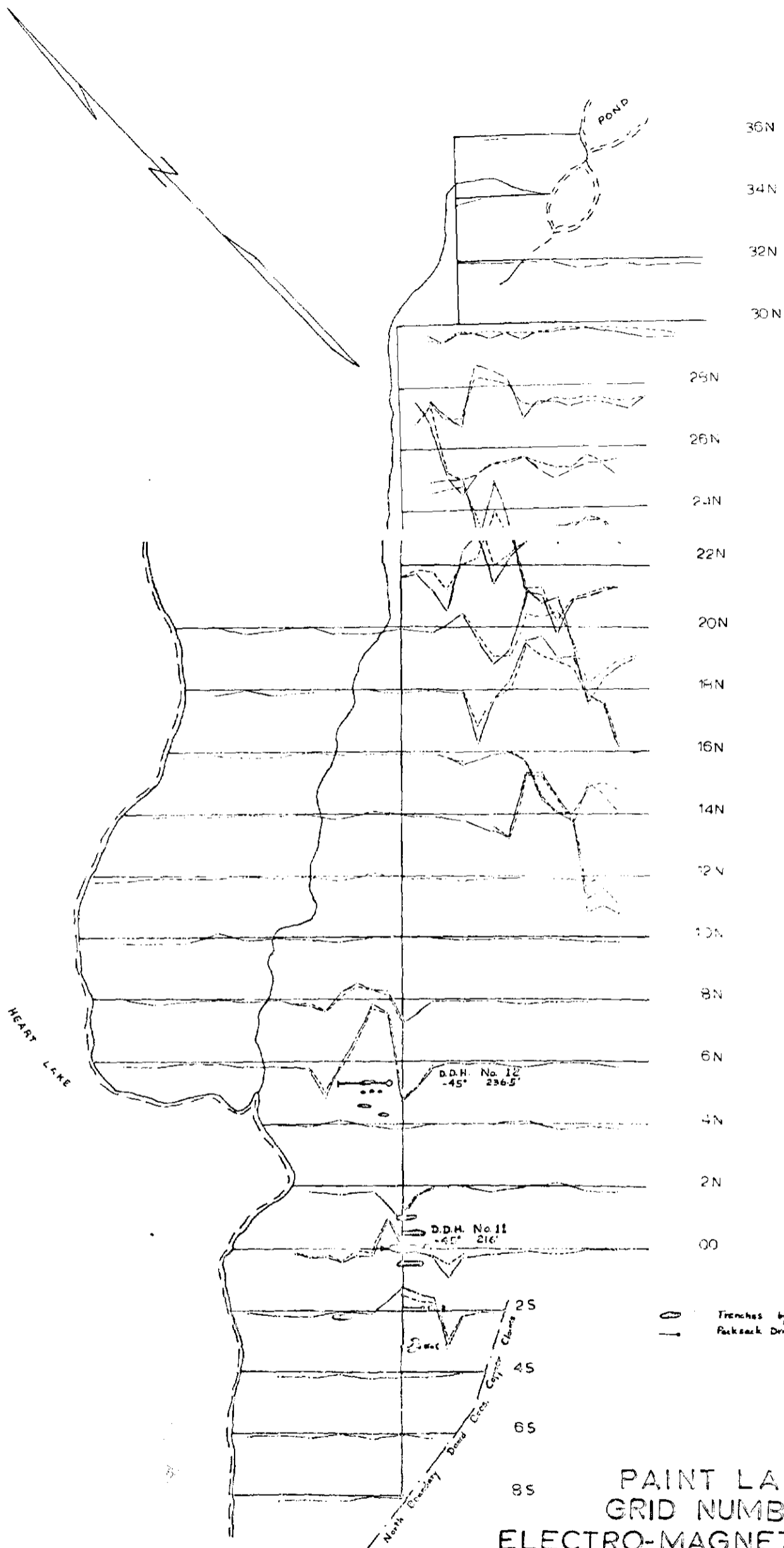
Michipicoten Series

- Sediments
- Iron Formation
- Acid Volcanics
- Basic Volcanics

- Axis of Syncline
- Axis of Anticline
- Indicated Fault
- Silt Sample $\frac{\text{ppm Cu}}{\text{ppm Zn}}$
- Airborne EM Anomaly
- Linear From Air Photos

ACME GAS & OIL CO. LTD
 PAINT LAKE AREA
 COMPILATION
 SCALE 1 INCH = 1,320'





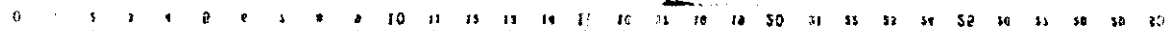
PAINT LAKE AREA
 GRID NUMBER 11
 ELECTRO-MAGNETIC SURVEY
 ACME GAS & OIL CO.
 TOWNSHIP 32 RANGE 26
 MICHIPICOTON AREA ONTARIO
 INSTRUMENT: CRONE
 200 FOOT SEPARATION
 SCALE 1 INCH = 200 FEET
 = 24°

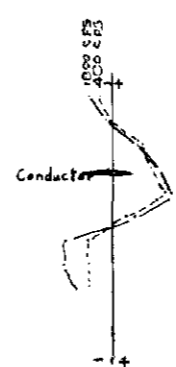
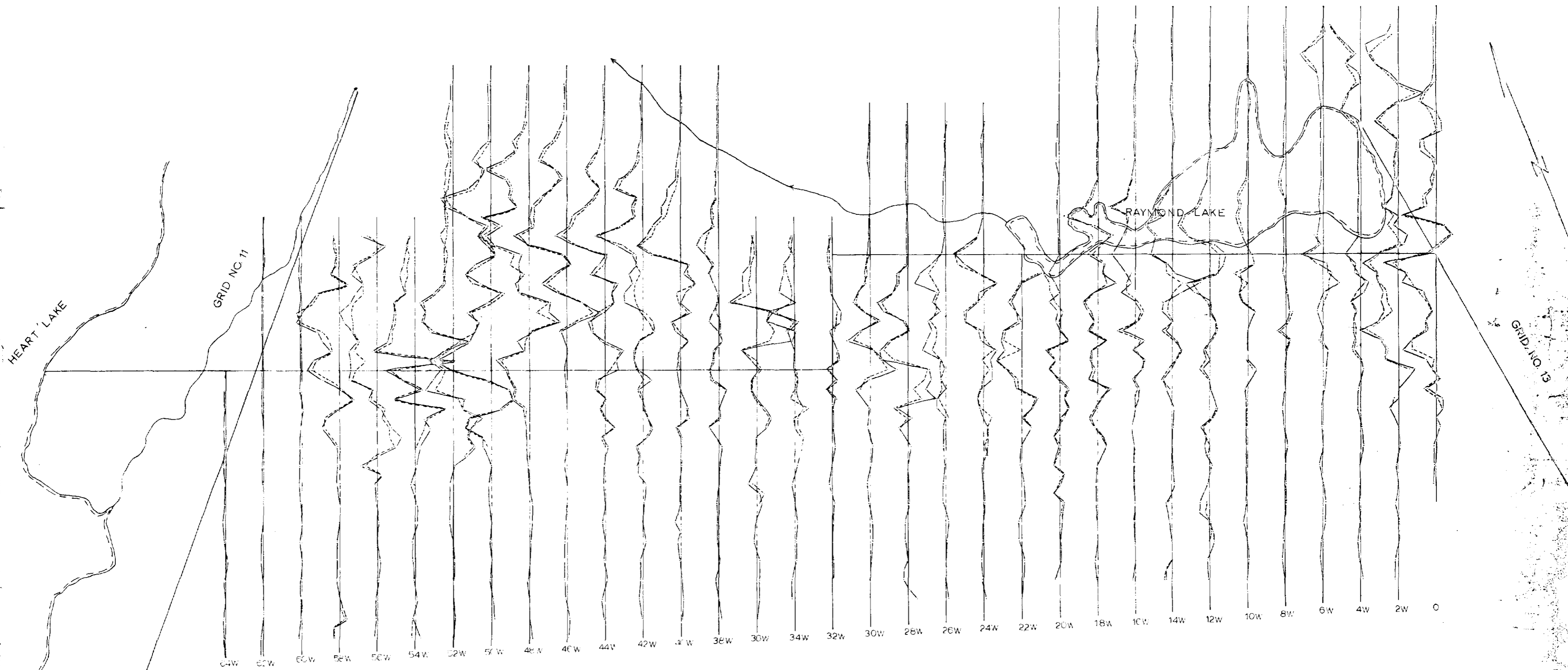


42C01N0012 0011 BIRD

330

BIRD 0011-19





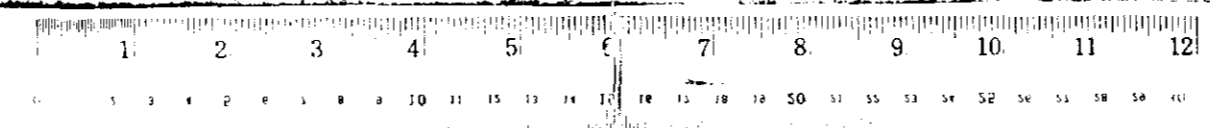
ACME GAS & OIL CO. LTD.
 PAINT LAKE AREA
 GRID NO 12-ACR 1
 CRONE IN-LINE ELECTRO-MAGNETIC SURV
 200' COIL SEPARATION

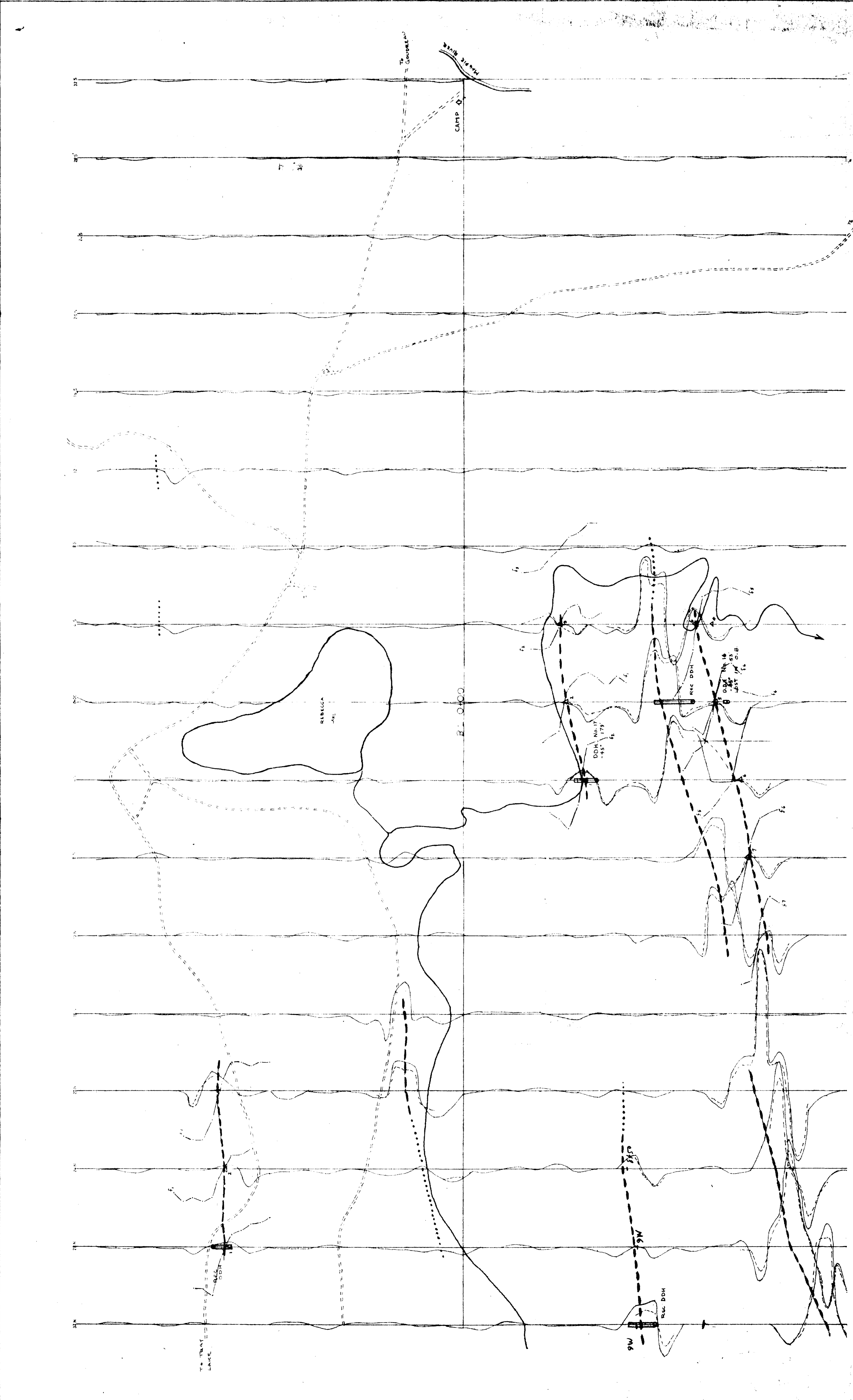
SCALE 1 INCH = 200'
 = 32'



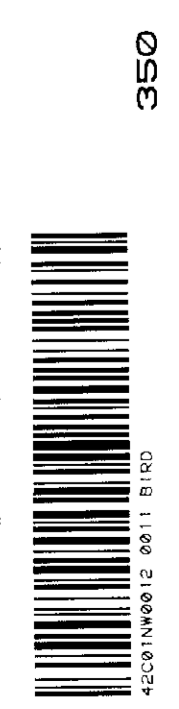
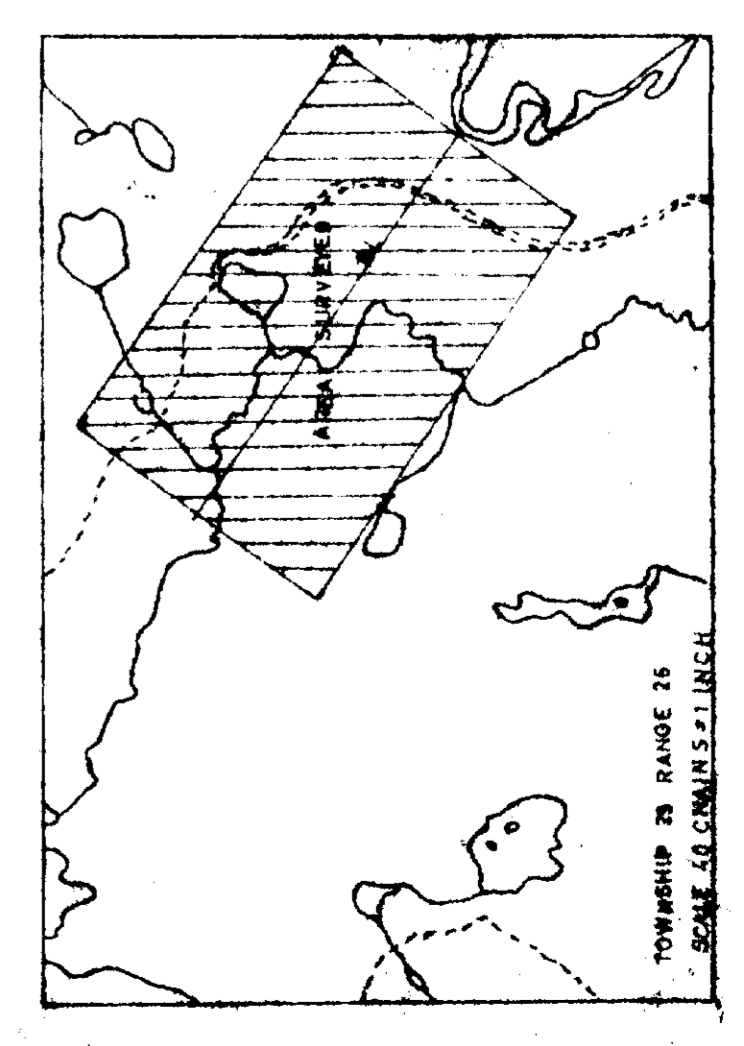
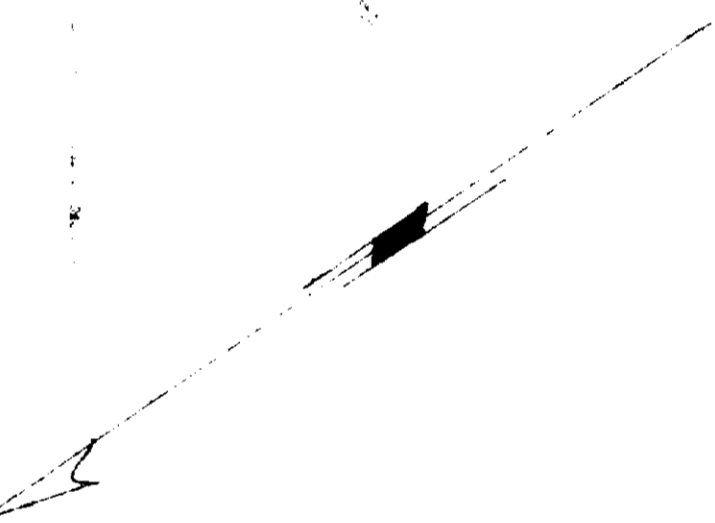
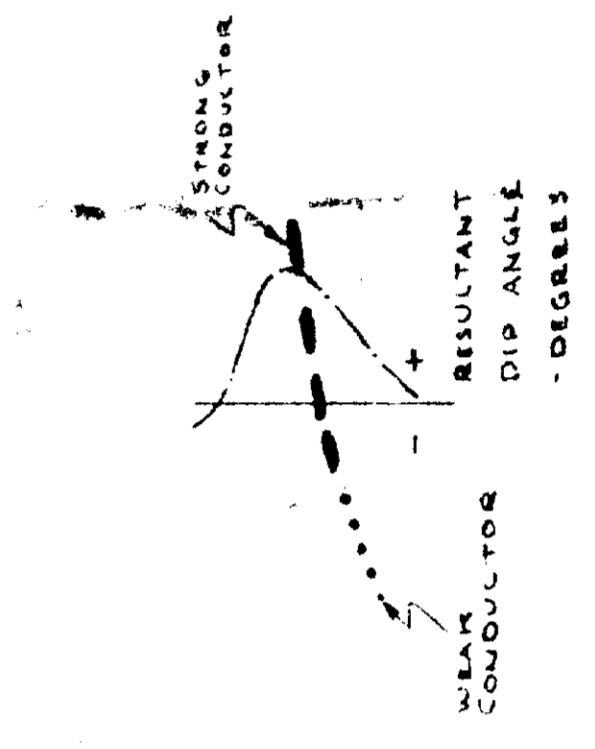
340

BIRD 15

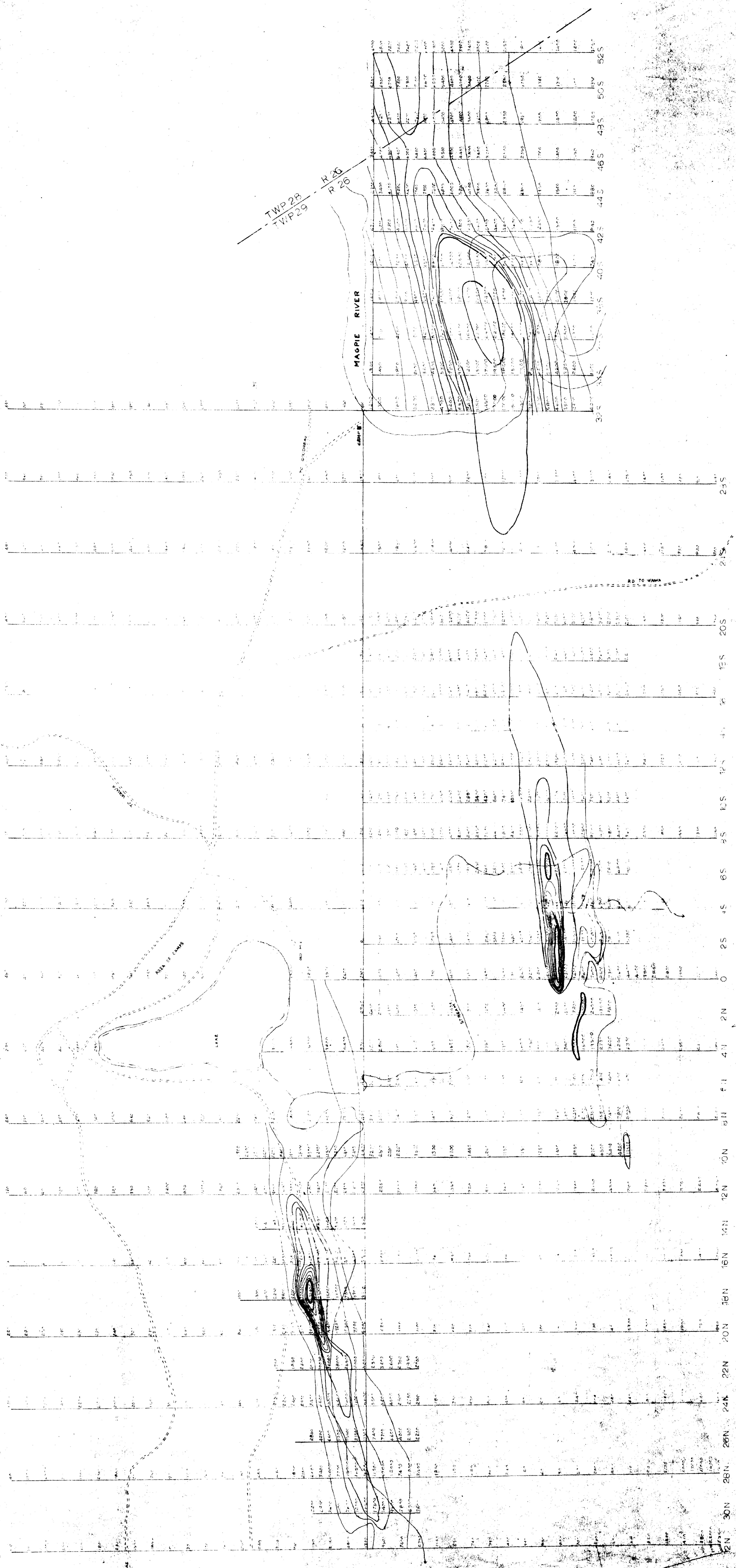




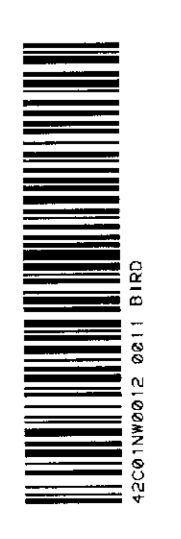
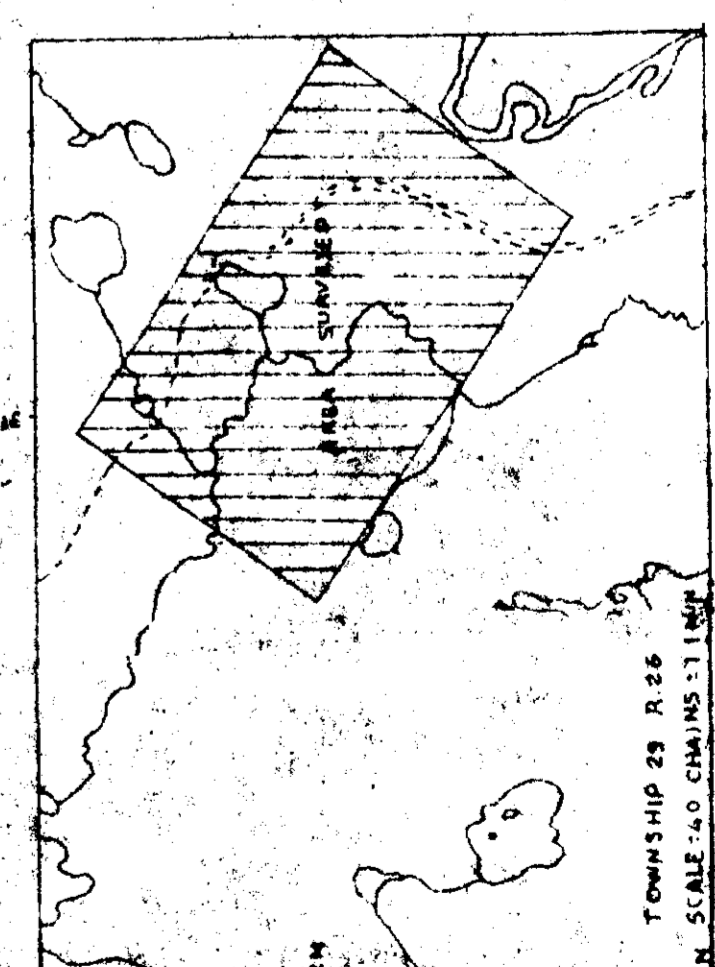
MAGPIE GRID NO 1
 ELECTRO-MAGNETIC SURVEY
 ACME GAS & OIL CO LTD
 TOWNSHIP 29 RANGE 26
 MICHIPICOTON AREA ONTARIO
 INSTRUMENT: CRONE J.E.M.
 200 FOOT SEPARATION
 SCALE 1 INCH = 200 = 24°



BIRD 0011-16

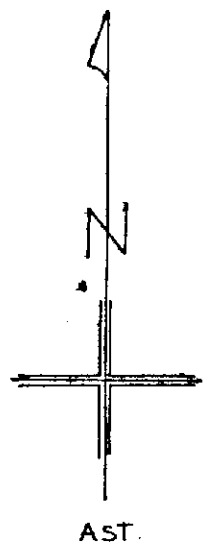
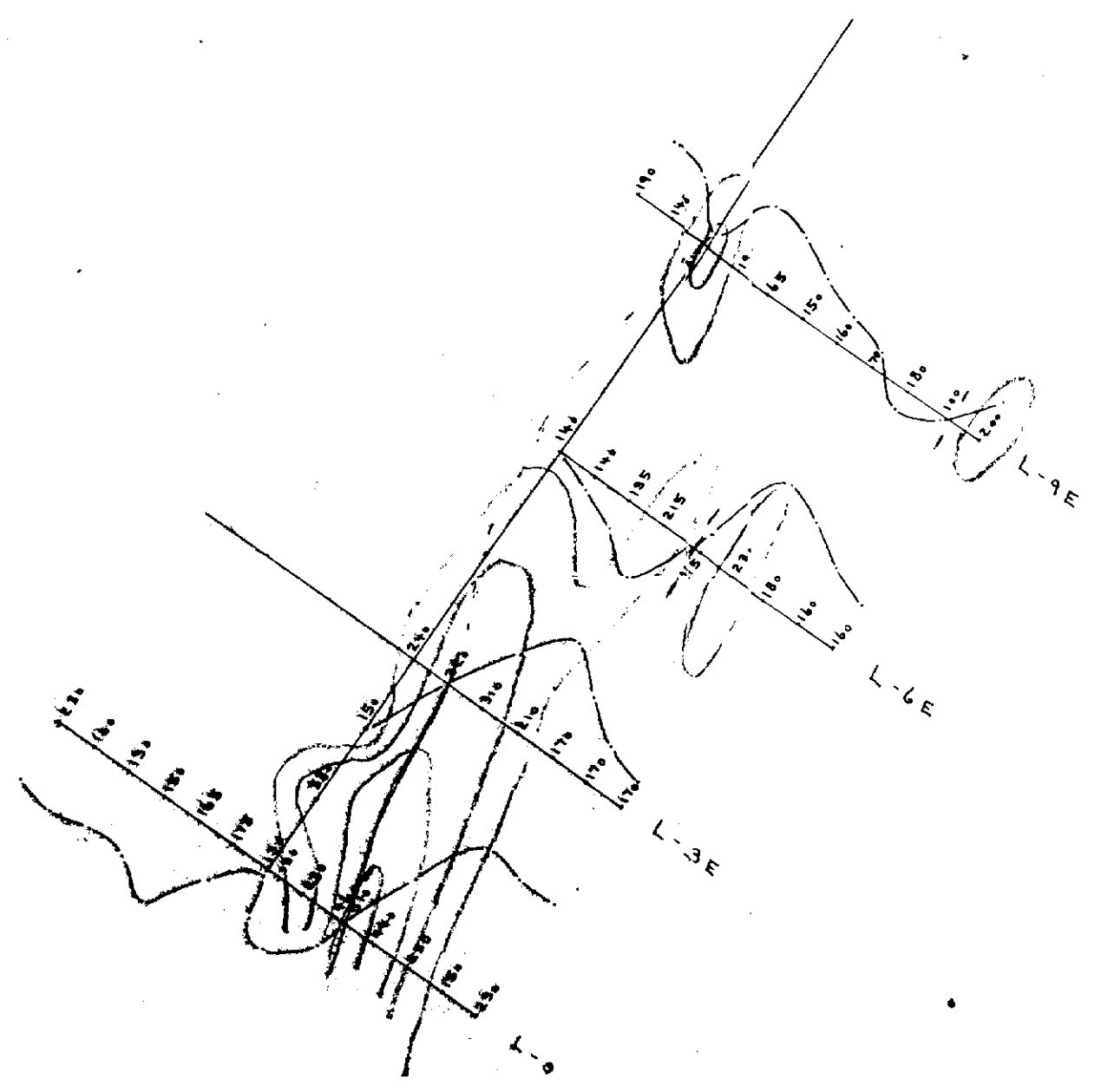


MAGPIE GRID NO. 1
 MAGNETOMETER SURVEY
 ACME GAS & OIL CO. LTD.
 TWP. 29 N. R. 26
 WAWA ONT.
 SCALE = 1" = 200'



360

BRD-001-17



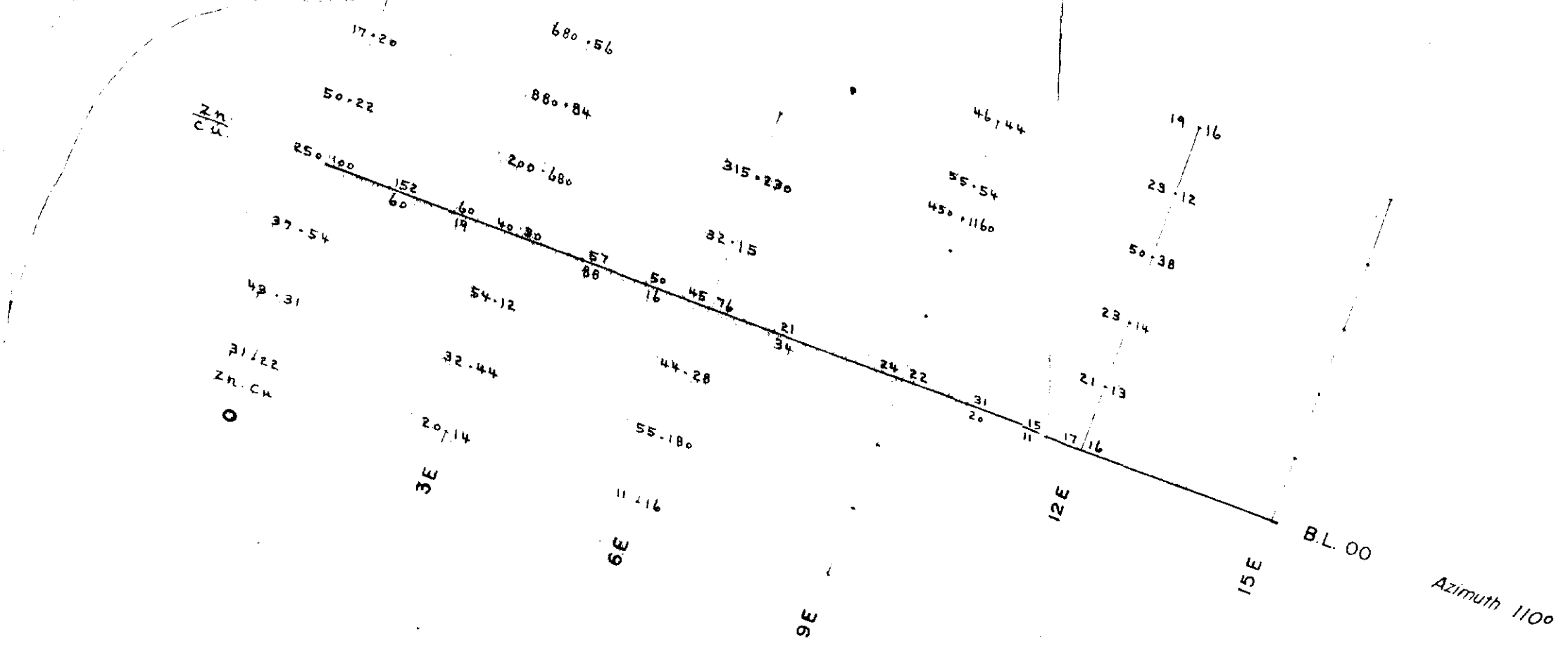
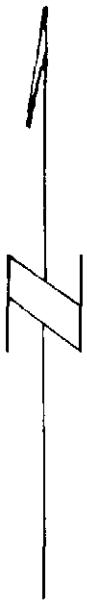
Q.C.R. Twp. #26
 Acme Gas & Oil LTS.
 Radem V.L.F. Survey
 A.E.M. #49
 Map scale: 1"=200'
 Profile scale: 1"=40'
 Trans. Sta. C.M.
 F.S. plotted at station



370

15
Bird-0011

Cawdron
Lake



ACR TWP. 26 (Bird Twp.)

Acme Gas & Oil Ltd.

Anomaly 50

Soil Sample Plan

Scale: 1" to 200'



42C01NW0012 0011 BIRD

380

#19

Bird-0011

A.C. & H.B. GRANT.

PLAN OF

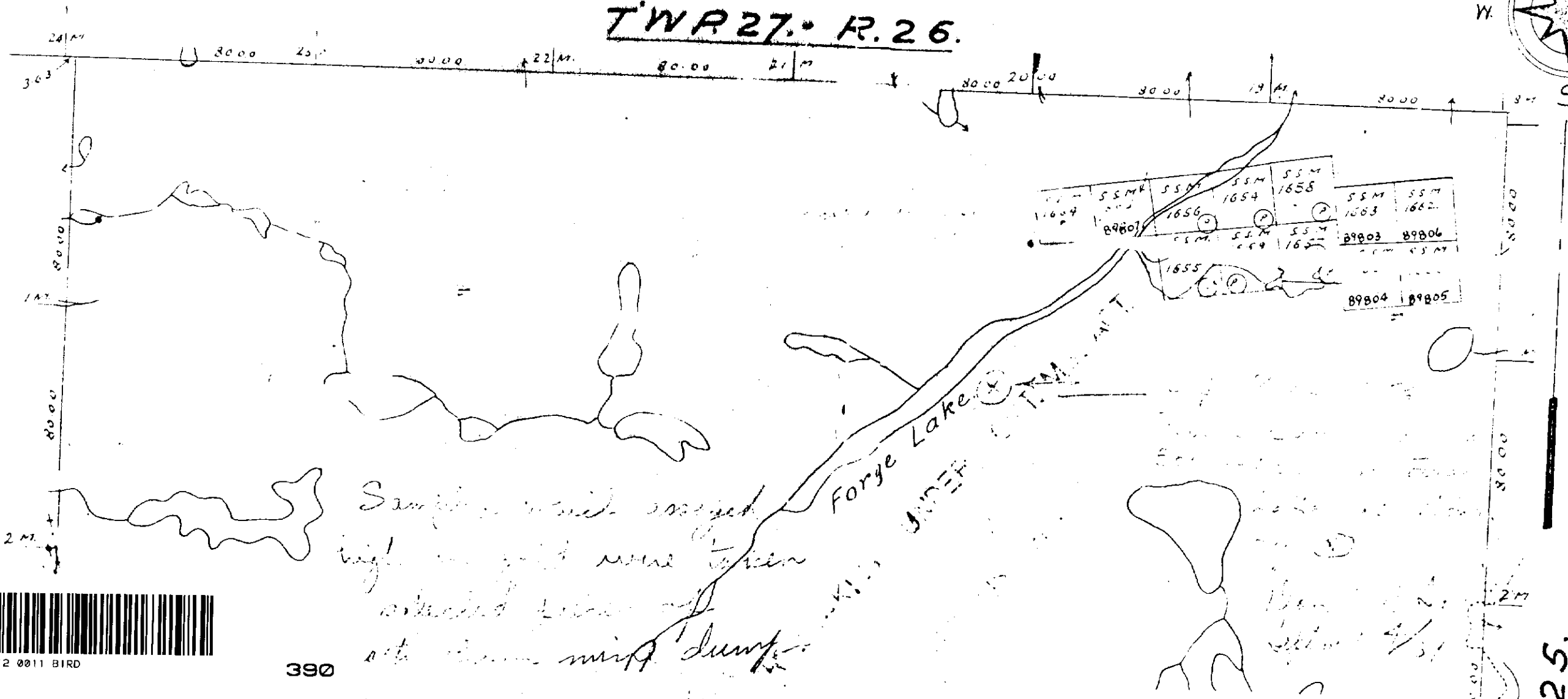
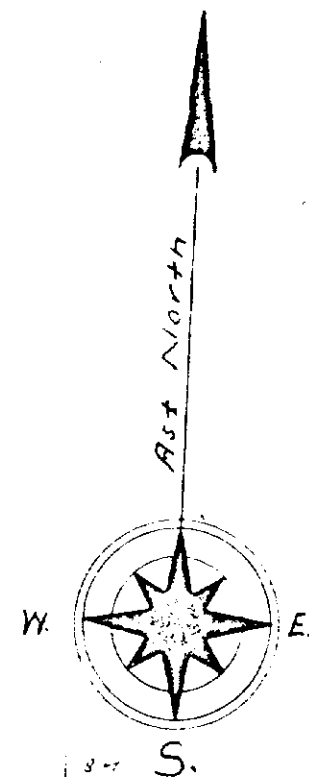
TWP. 27. R. 25.

SAULT STE MARIE MINING DIVISION.

DISTRICT OF ALGONA.

— Scale, 40 chains to an inch. —

TWP 27. R. 26.



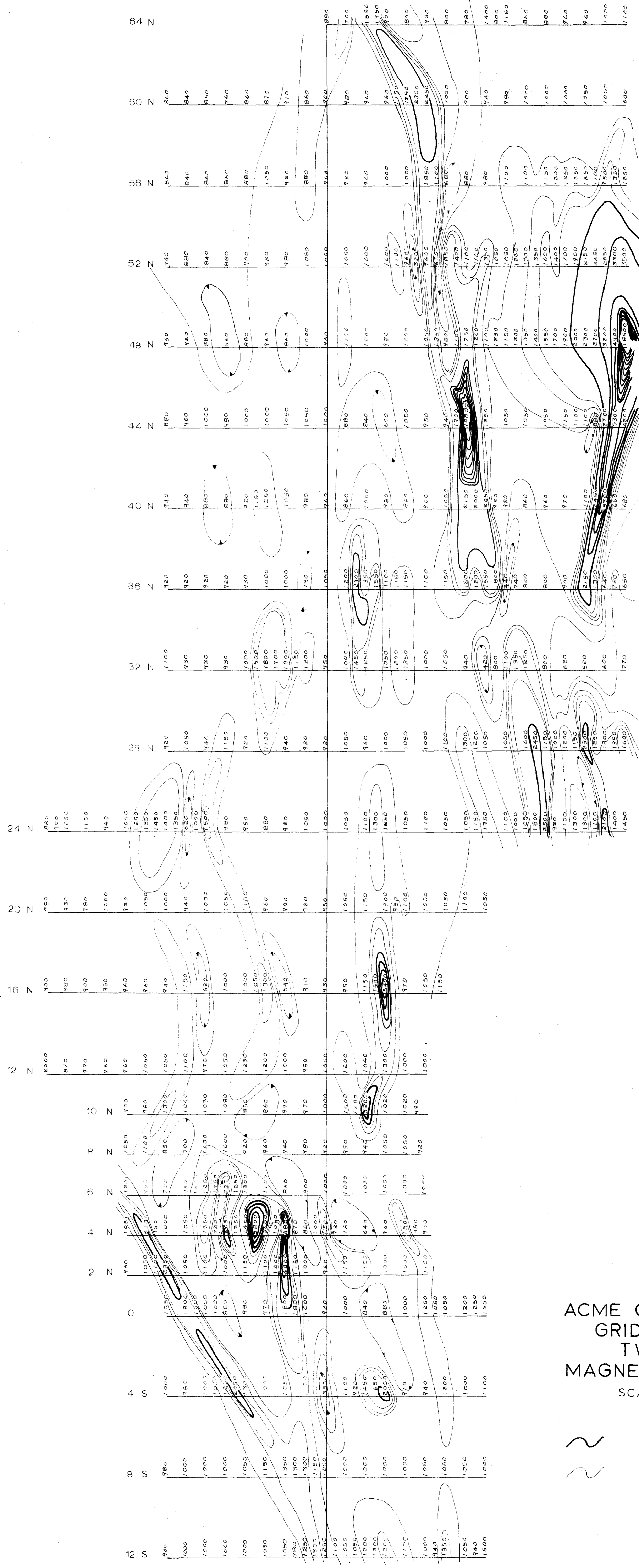
Sample which assayed high in gold were taken outside of dump at same mine dump.





42C01NW0012 0011 BIRD

390

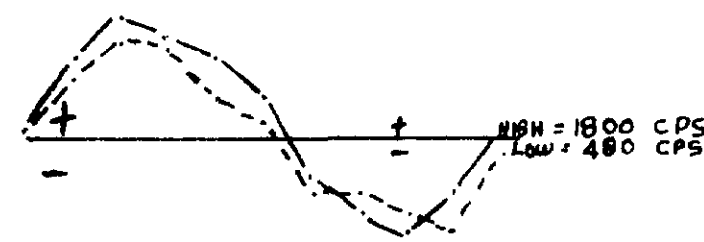
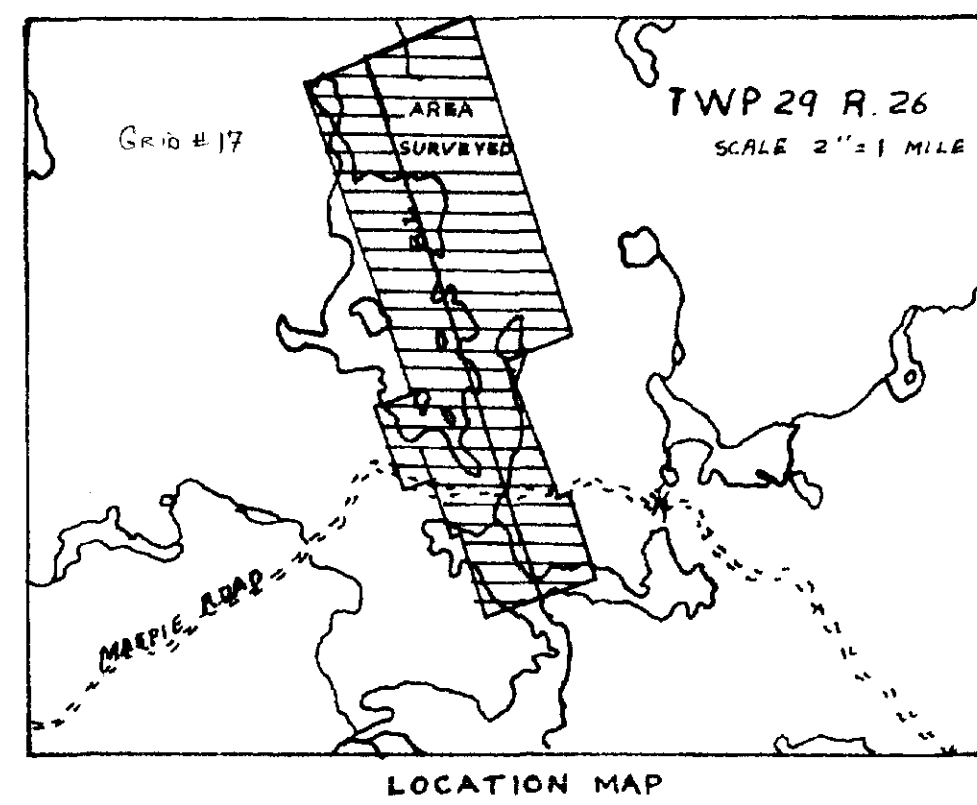
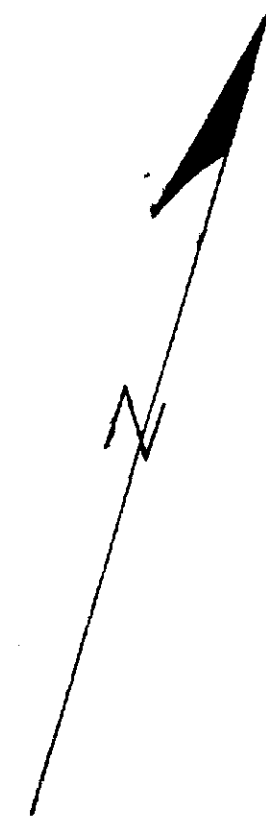
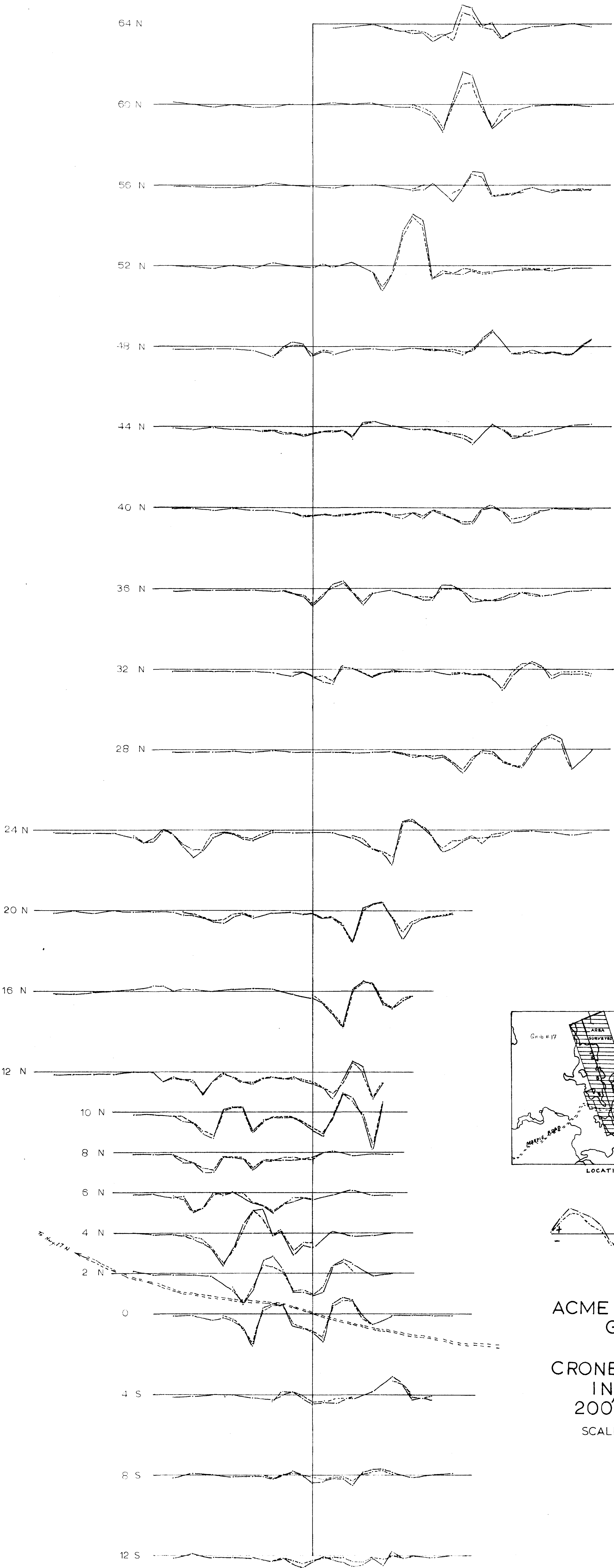
25.



ACME GAS & OIL CO. LTD.
 GRID NO 18 ACR 1
 TWP 29 R 26
 MAGNETOMETER SURVEY
 SCALE 1" = 200'

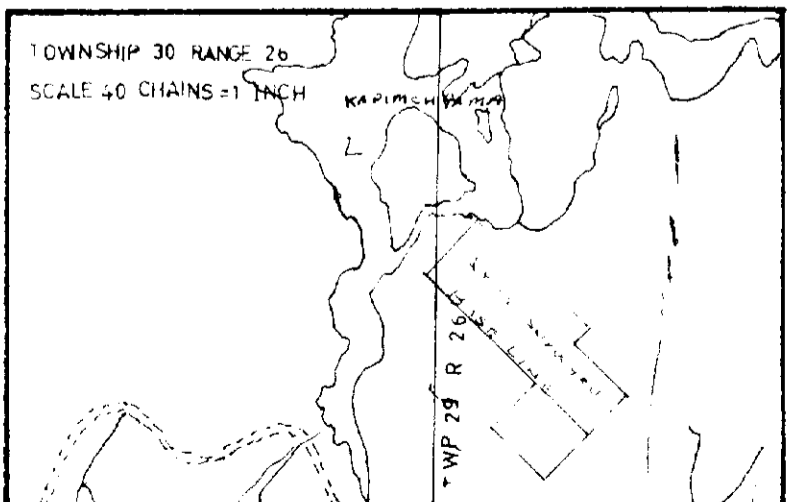
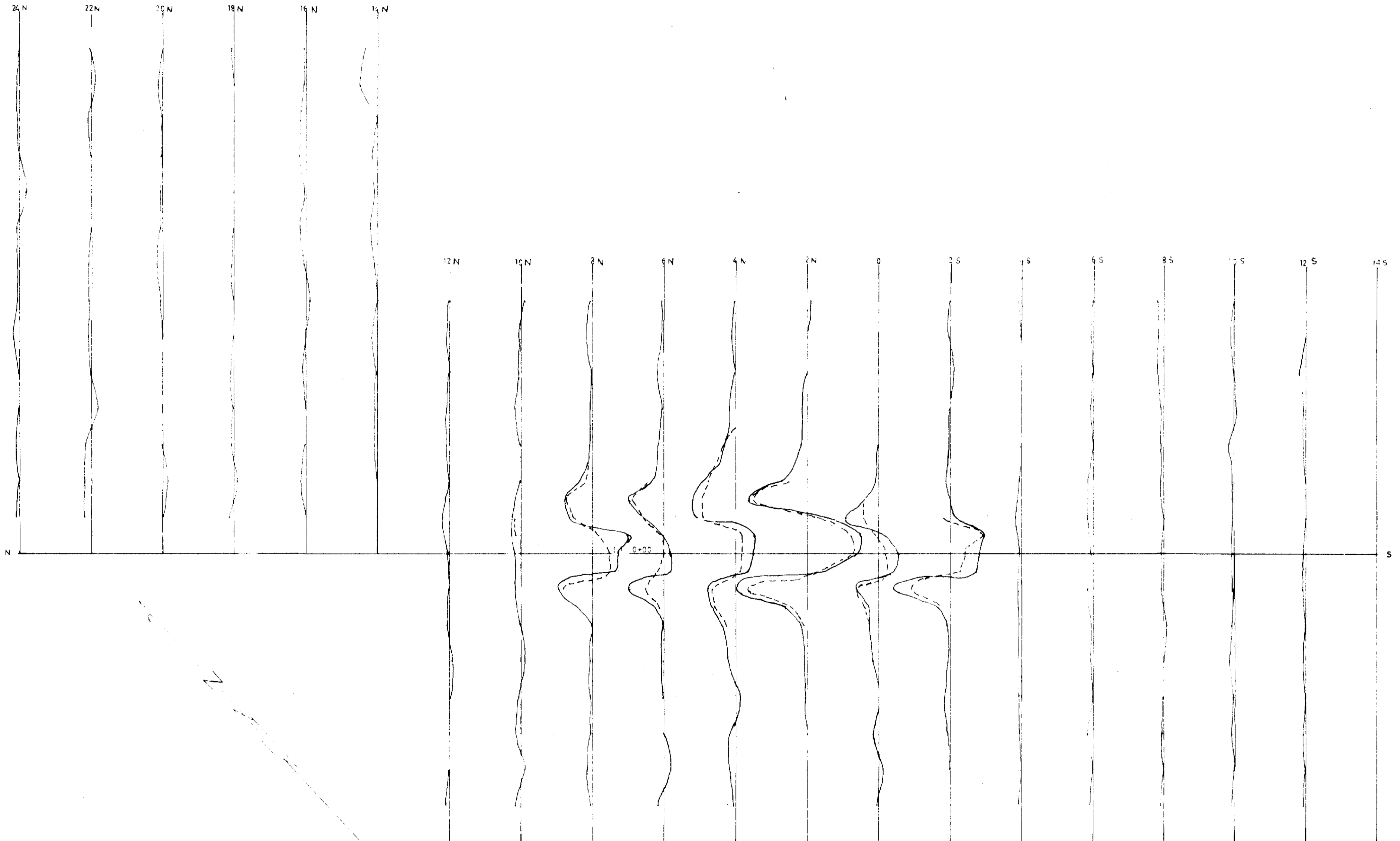
 1000' Contour
 200' Contour
 From 500 - 1500'





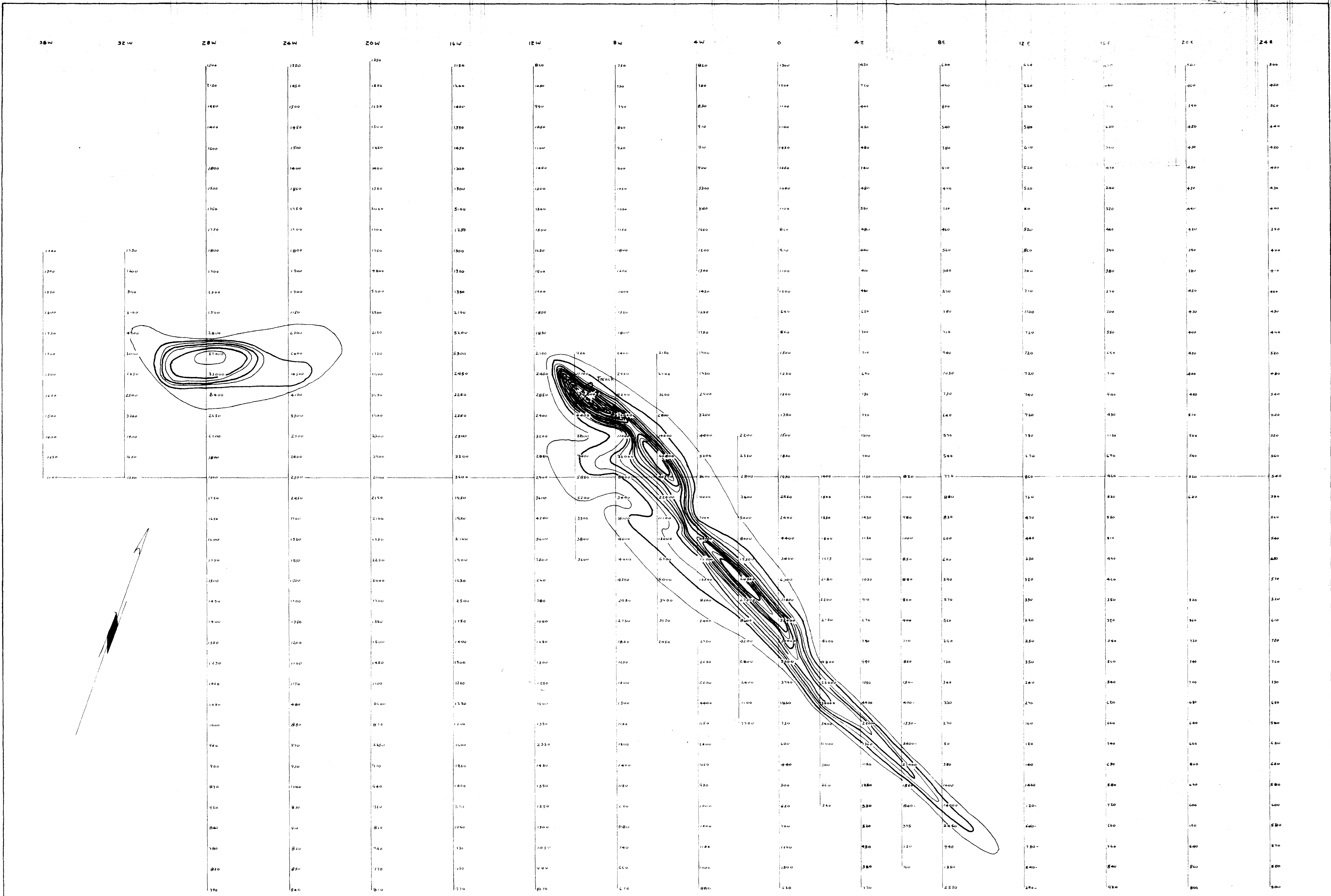
ACME GAS & OIL CO. LTD.
 GRID NO.18 ACR 1
 TWP. 29 R. 26
 CRONE ELECTROMAGNETIC
 IN-LINE SURVEY
 200' COIL SEPARATION
 SCALE 1" = 200'
 = 30'





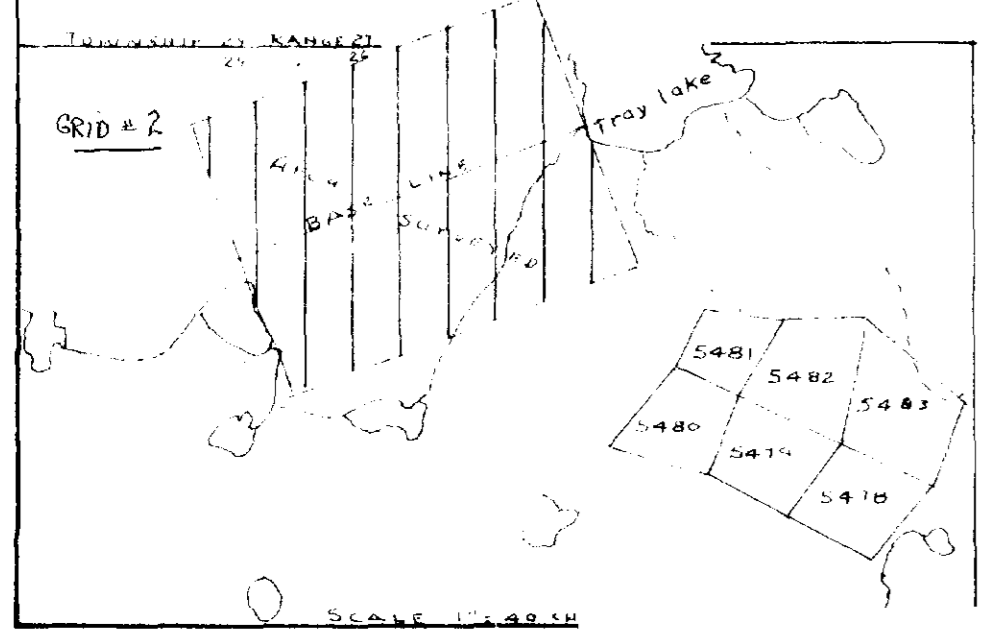
GRID NUMBER 7
 ELECTRO-MAGNETIC SURVEY
 ACME GAS & OIL CO L.T.D.
 TOWNSHIP 30 & 29 RANGE 26
 MICHIPICOTON AREA ONTARIO
 INSTRUMENT: CRONE J.E.M.
 200 FOOT SEPARATION
 SCALE 1 INCH = 200 FEET = 24°

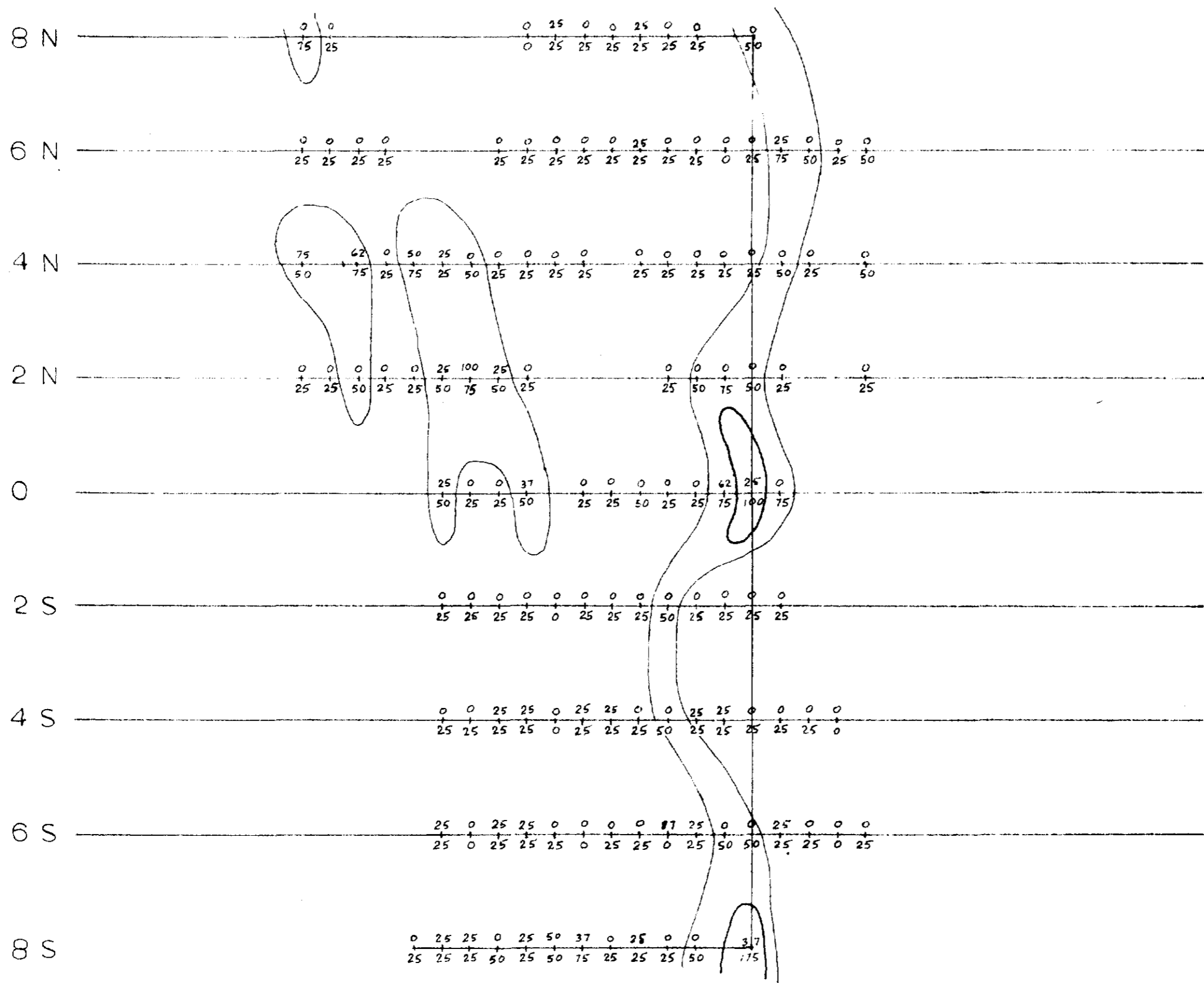




GRID NUMBER 2
 MAGNETOMETER SURVEY
 ACME GAS & OIL COMPANY
 TOWNSHIP 29 RANGE 26
 MICHIPICOTON AREA ONTARIO
 SCALE 1 INCH = 200 FEET

— 5000 γ CONTOUR
 — 10000 γ CONTOUR



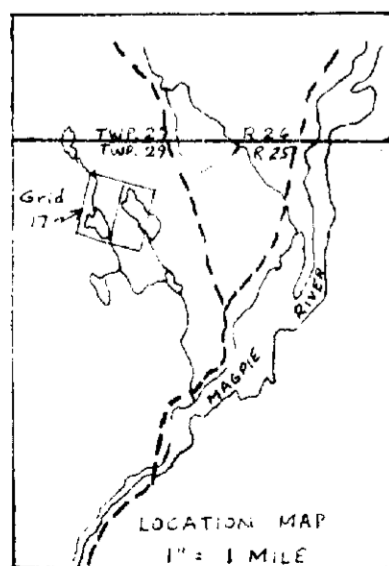
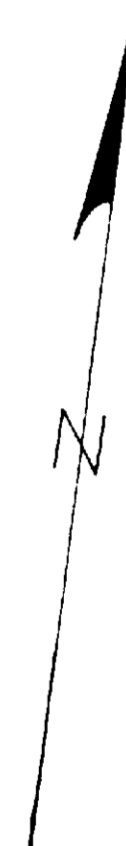
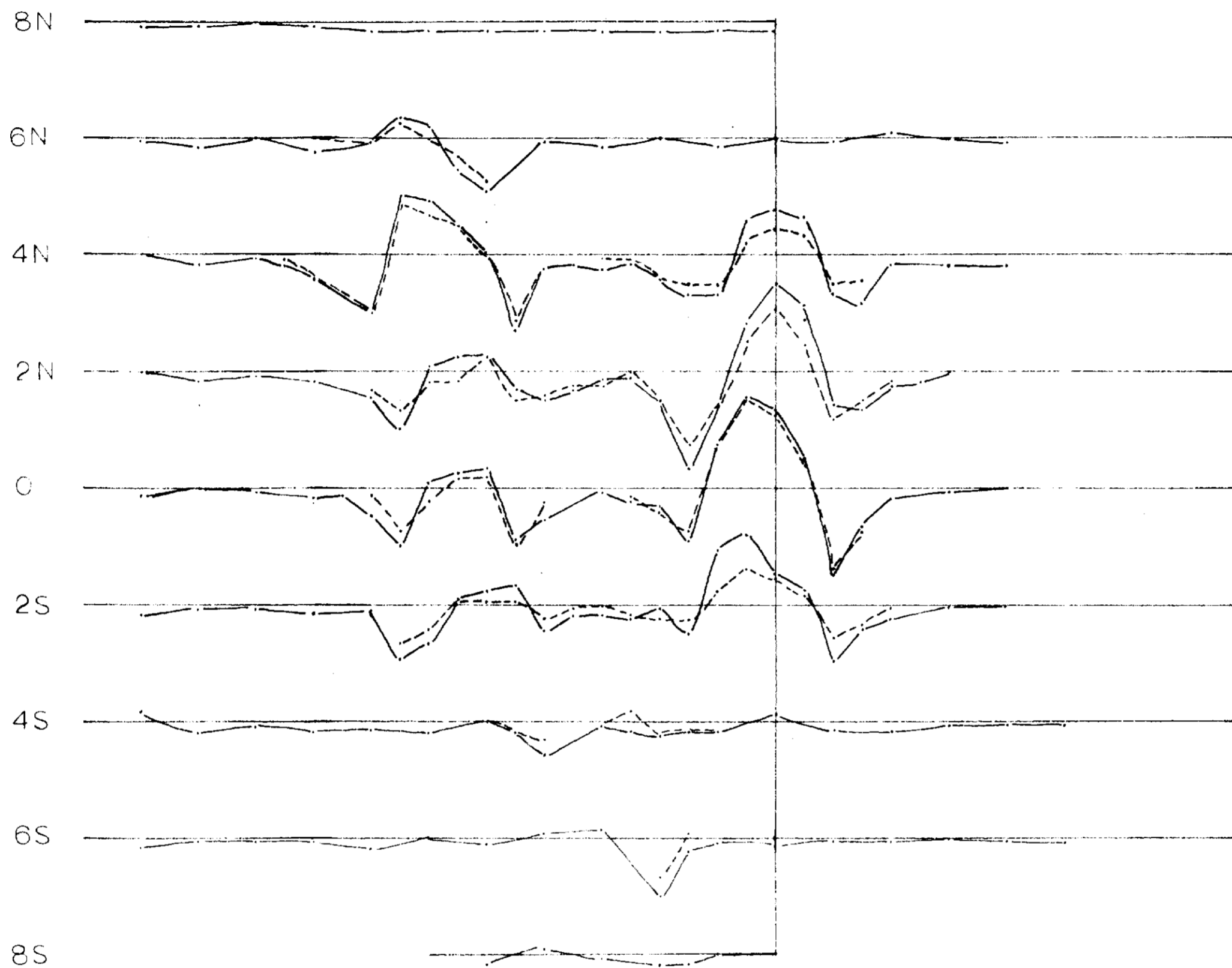


ACME GAS & OIL CO. LTD.
 GRID NO. 17 ACR 1
 TWP. 29 R. 25
 GEOCHEMICAL SURVEY
 SCALE 1" = 200'

○ 50 ppm Zn Contour
 ○ 100 ppm Zn Contour
 $\frac{37}{50}$ ppm Cu
 ppm Zn



42C01NW0012 0011 BIRD



ACME GAS & OIL CO. LTD.
 GRID NO.17 ACR 1
 TWP.29 R.25
 CRONE ELECTROMAGNETIC
 IN-LINE SURVEY
 200' COIL SEPARATION

SCALE 1" = 200'
 = 24°

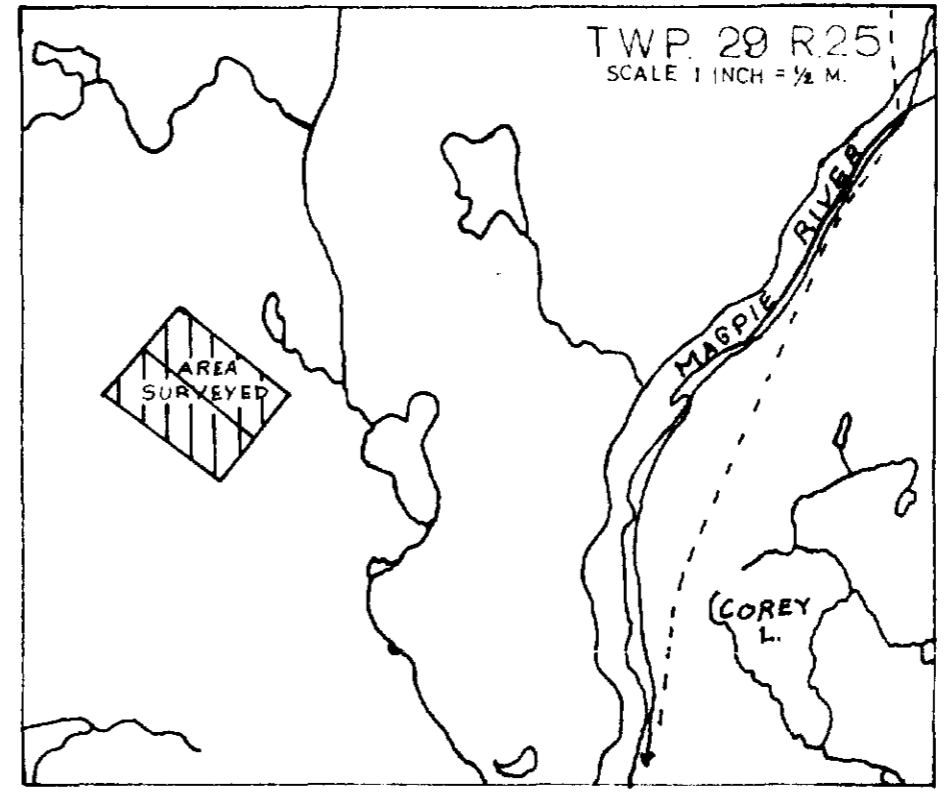
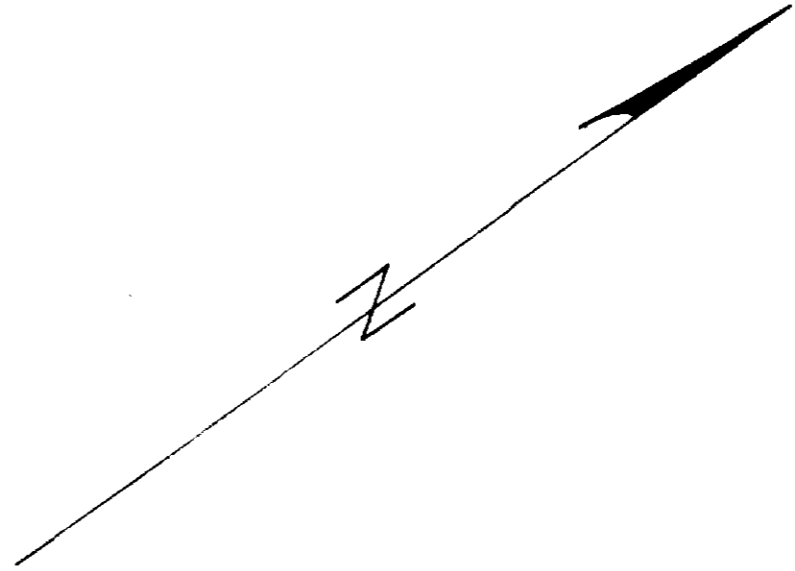
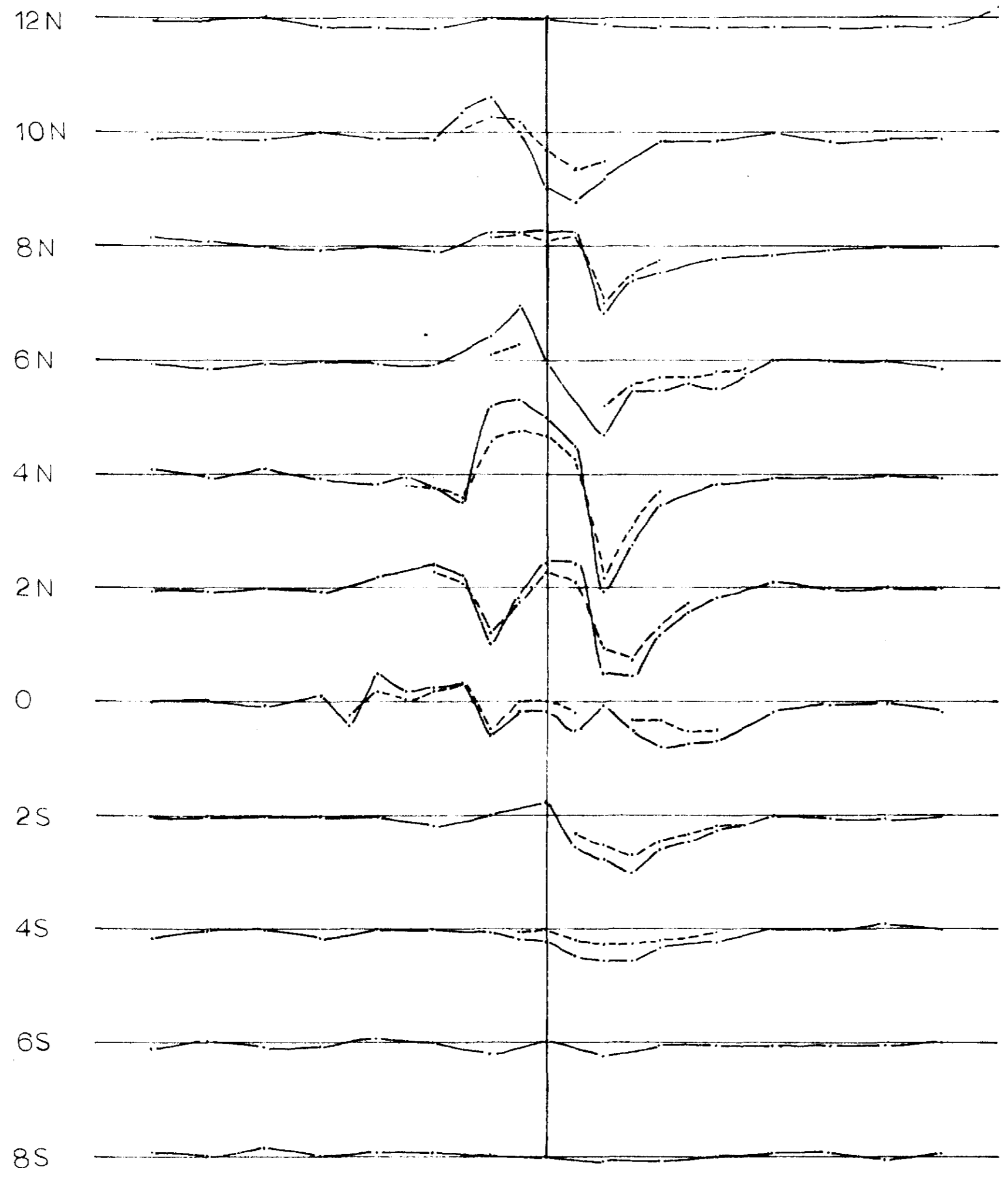


42C01NW0012 0011 BIRD

450

BIRD 0011 #31

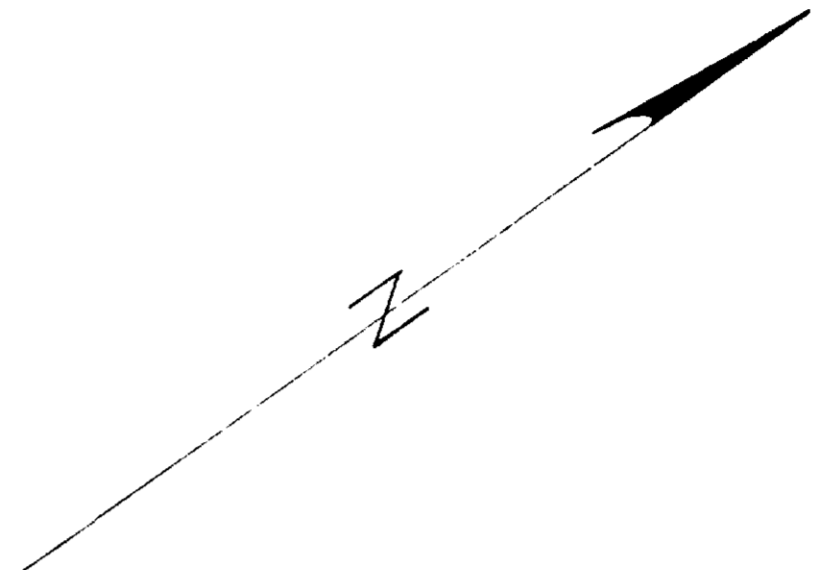
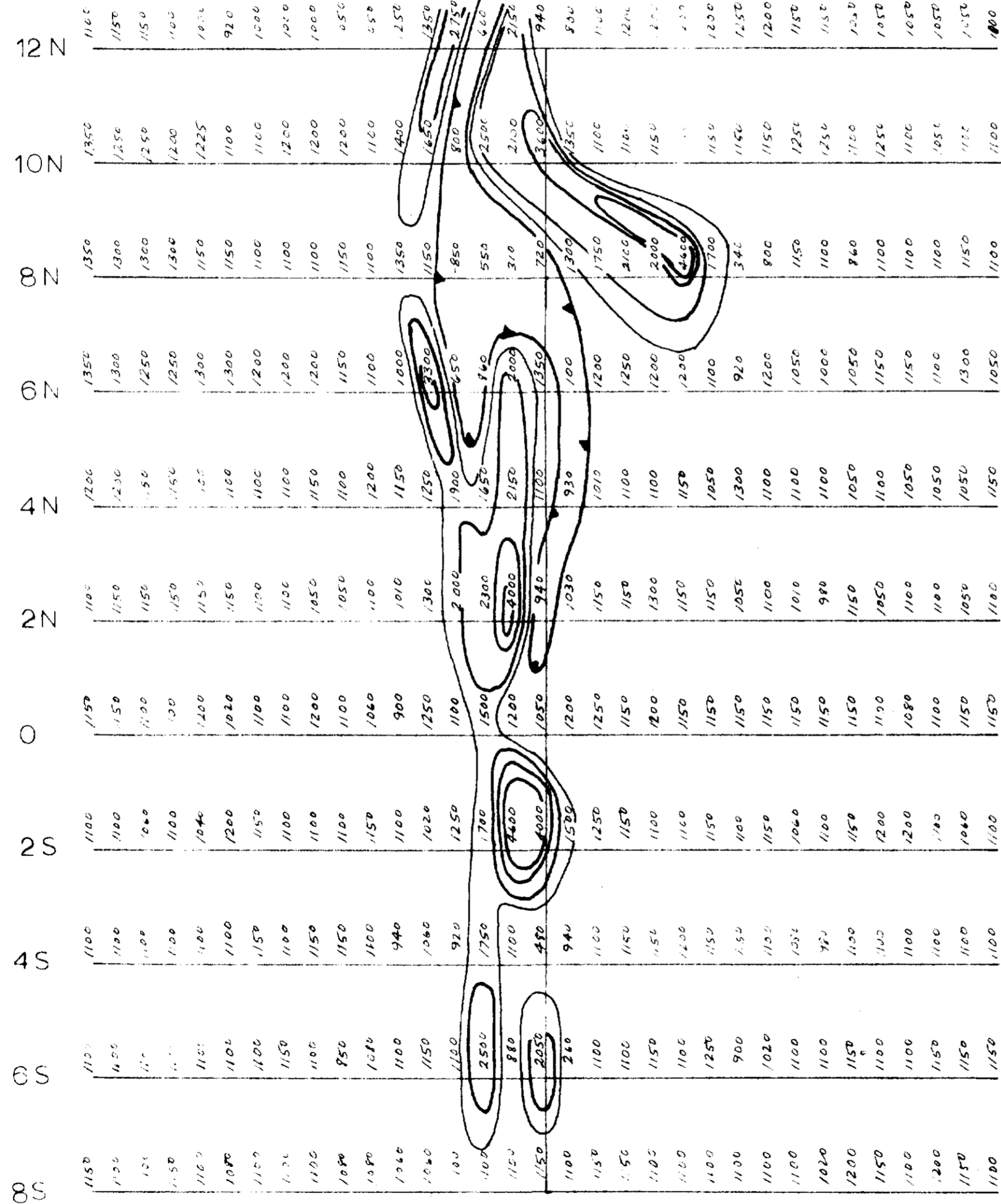
#17 JEM



ACME GAS & OIL CO LTD
 GRID NUMBER 16 ACR 1
 TWP. 29 R. 25
 CRONE ELECTRO-MAGNETIC
 IN-LINE SURVEY
 200' COIL SEPARATION

SCALE 1 INCH = 200'
 = 24"



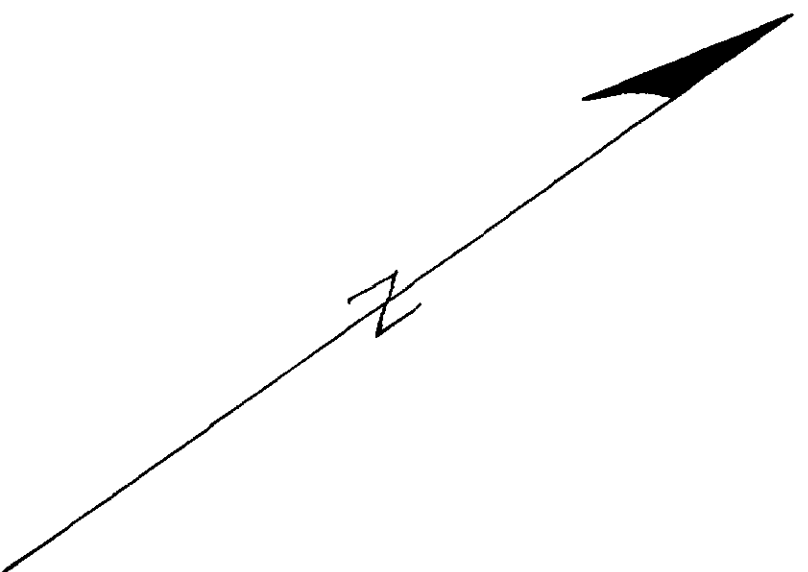
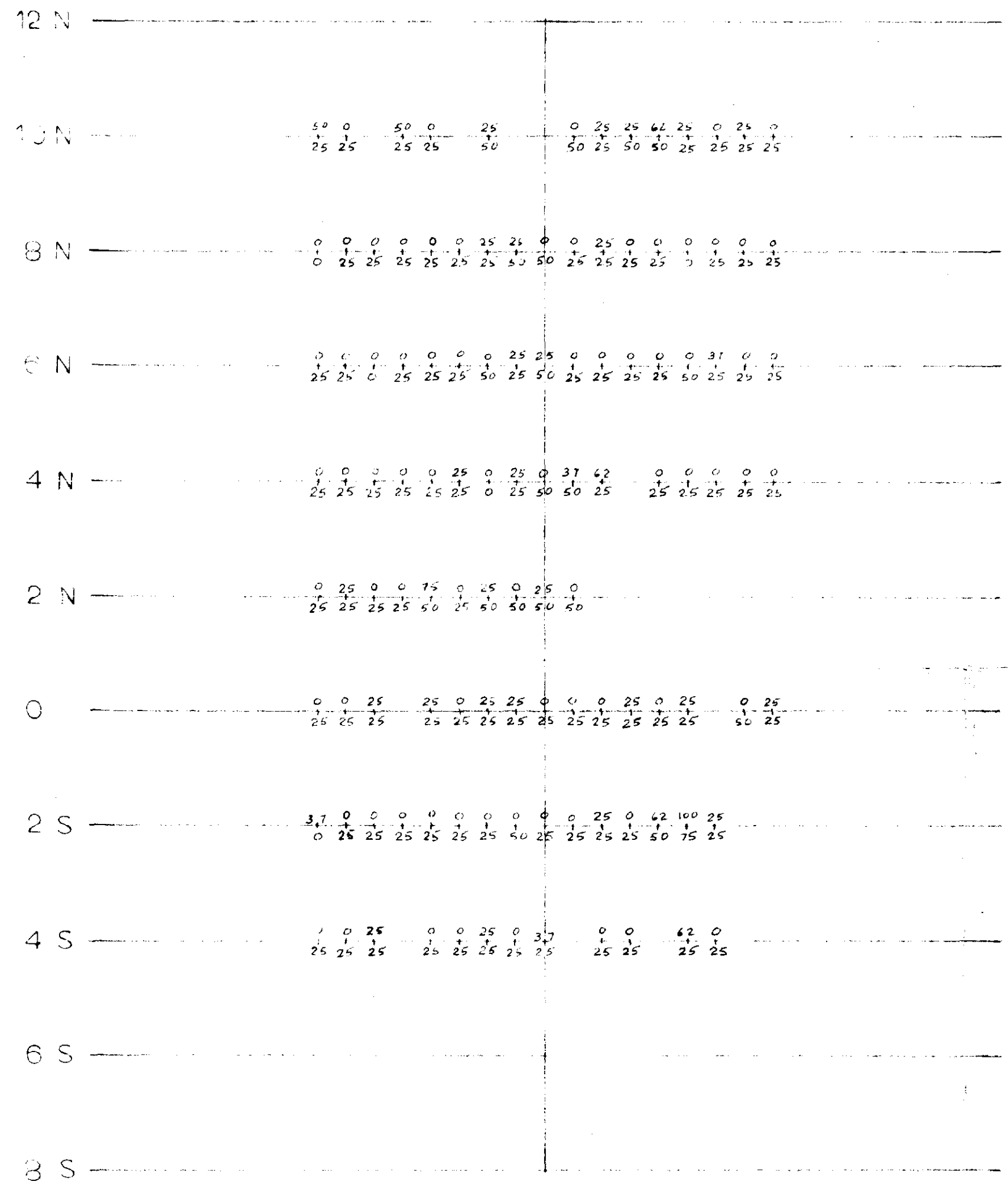


ACME GAS & OIL CO. LTD.
 GRID NO.16 ACR 1
 TWP.29 R.25
 MAGNETOMETER SURVEY

SCALE 1" = 200'
 ~~~~~ 500 γ CONTOUR  
 ~~~~~ 1000 γ CONTOUR



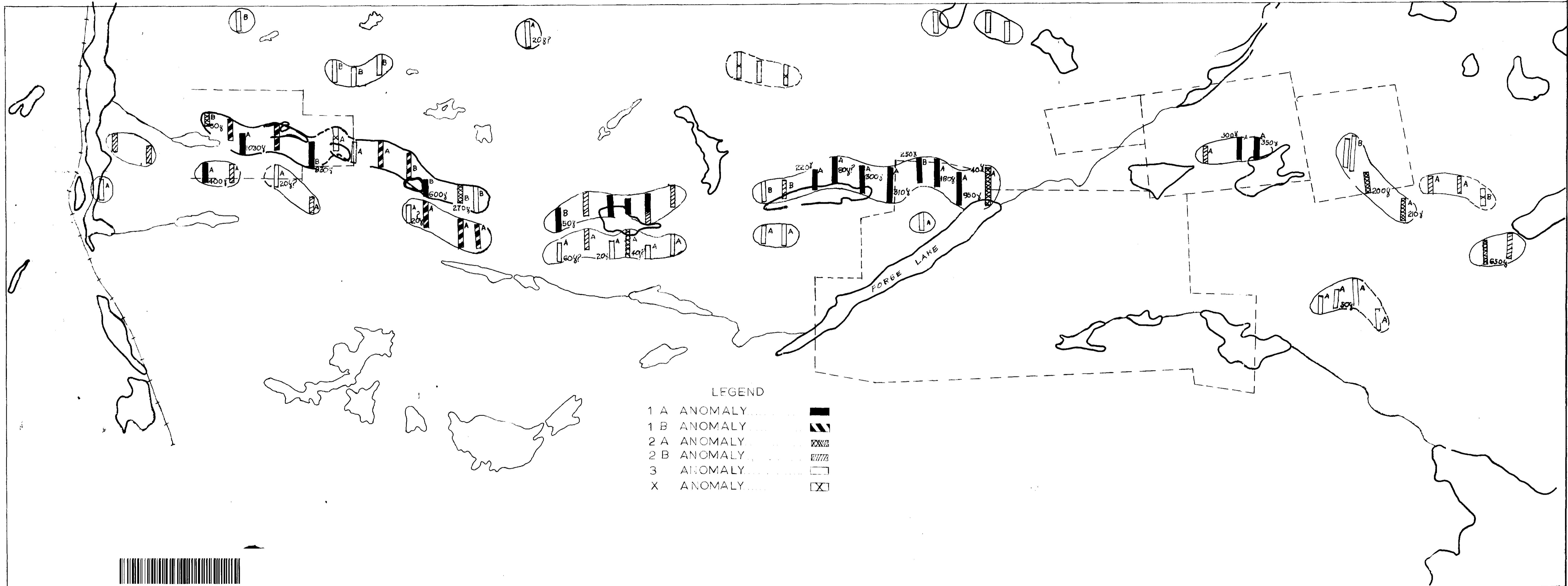
42C01NW0012 0011 BIRD



ACME GAS & OIL CO. LTD.
 GRID NO.16 ACR1
 TWP. 29 R. 25
 GEOCHEMICAL SURVEY
 SCALE 1" = 200'

0 ppm Cu
 50 ppm Zn





LEGEND

- 1 A ANOMALY
- 1 B ANOMALY
- 2 A ANOMALY
- 2 B ANOMALY
- 3 ANOMALY
- X ANOMALY



490

SCALE: 1 INCH = 1/4 MILE

BIRD0011-20

02A

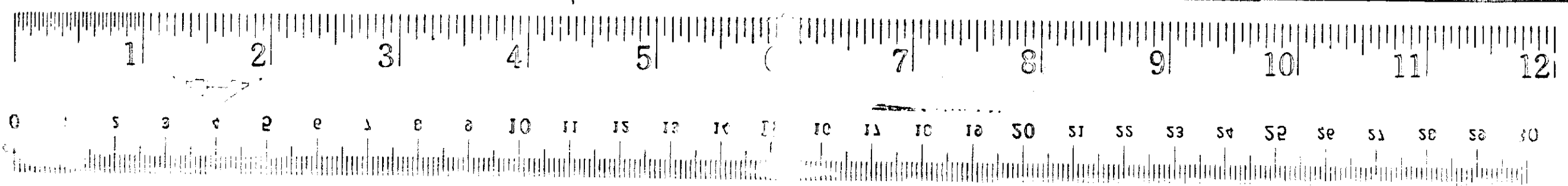


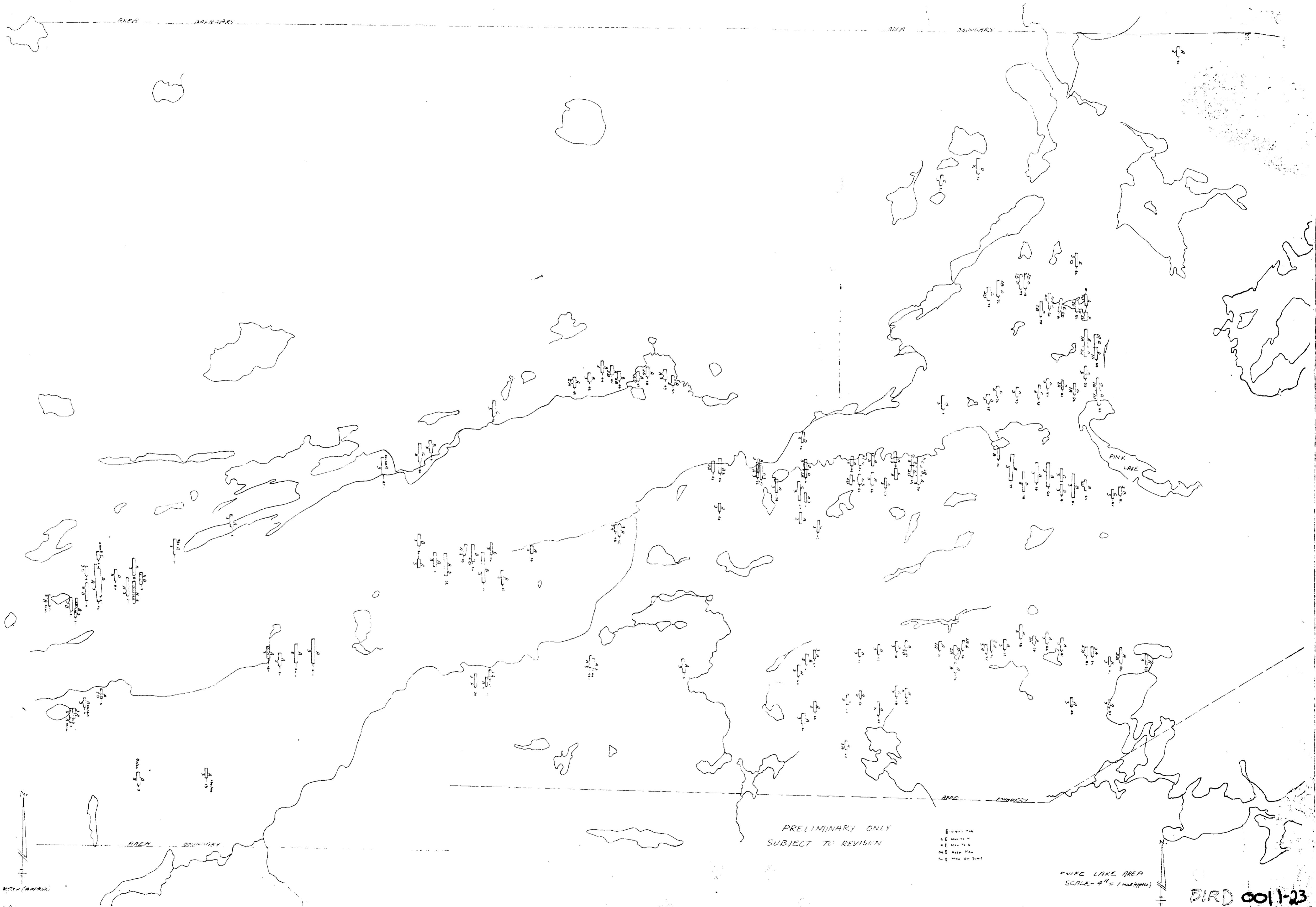
TWP. 29 R. 25
1" = 1220' approx.

BIRD coll-21



500





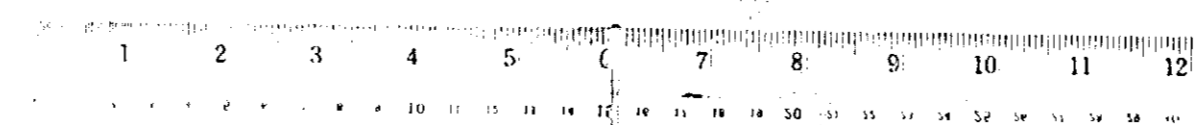
PINK LAKE

PRELIMINARY ONLY
SUBJECT TO REVISION

- B. MARITIMA
- L. MARITIMA
- P. MARITIMA
- S. MARITIMA

KNIFE LAKE AREA
SCALE - 1" = 1 MILE (APPROX)

BIRD 0011-23





BIRD 0511-244

