REPORT ON SURFACE GEOLOGY

FORT SIMPSON AREA

Conducted by

PAN AMERICAN PETROLEUM CORPORATION

on

NORTHWEST TERRITORIES PERMITS

No. 954
No. 955
No. 956
No. 957
No. 958
No. 959
No. 960
No. 961
No. 962

Abstracted for
Geo-Science Data Index

Date _____

Prepared By

S. A. ANTONIUK

January 22nd, 1958

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ENCLOSURE

#1 Traverse Map — In Back Pocket

INTRODUCTION

During the period June 1st to June 7th, 1957 inclusive, a surface geologic party was stationed in Fort Simpson by Pan American Petroleum Corporation to carry on a geologic investigation of Permits 954 to 962 inclusive.

Party chiefs in the field were N.G. Koch and Y. Kawase with assistance given by W.J. Fulop and W.O. Richmond and G. Williams.

Personnel and equipment were flown in by the company-owned Beaver and Otter airplanes. Transportation and aerial reconnaissance were carried on by means of a Bell Model 47 G-2 helicopter, contracted from Spartan Air Services, Ottawa, Ontario.

Bad weather hampered the operation for three of the five available traverse days. One day was spent setting up camp and one day the helicopter was not available for use.

Faunal collections were identified by Drs. P.S. Warren and C.R. Stelck of the Department of Geology, University of Alberta.

OUTCROPS AND TERRAIN

The area worked lies in the flat plains country, thirty-five miles southeast of Fort Simpson. Outcrop density was very poor with only the occasional small outcrop present along streams. Vegetation is heavy and glacial overburden is abundant.

NATURE OF WORK

The prime purpose of the work was to determine whether structural mapping could be performed with the outcrop density available. It was anticipated that some structure could be mapped with Brunton compass and plane table if density was sufficient. Stratigraphy was to be studied only in so far as it aided in structural interpretation.

After two traverses it was decided that the outcrop density was too low and the beds too flat to map any reliable structure in the area. The accuracy of correlation necessary for the project was questionable. It was decided that structure test holes were needed. The party then moved west onto Cli Lake to study stratigraphy in the mountains in an attempt to determine stratigraphic conditions in the subsurface to the east.

STRATIGRAPHY

Includes only beds seen:

Upper Devonian	
Trout River Formation	175 feet
Grumbler Formation	600 feet

The sections as noted in traverse were as follows:

R-1 Approximately 6' section - Grumbler Formation
Light grey, argillaceous, very fossiliferous limestone.
Fauna present:

Vandergrachtella scopulorum	Crickmay
Atrypa rubrimitra	Crickmay
Phillipsastrea maguum	Smith
Coenites sp.	
Cyrtospirifer sp.	
Phillipsastrea whittakeri	Smith
Phillipsastrea vesiculosum	Smith
Ptychophyllum kindlei	Smith

R-2 90' section - High in Grumbler Formation
Light grey, silty limestone; weathers yellowish grey. Thin shale bands present.
Fauna present:

Atrypa ciliipes	Crickmay
Vandergrachtellii sp.	

R-3 100' section (Trout River Formation?)
Very light grey, thin bedded, silty limestone
Fauna present:
Ostracods

BIBLIOGRAPHY

CAMERON, A.E. (1922): Hay and Buffalo Rivers, Great Slave Lake, and Adjacent Country; Summ. Rept., 1921 pp. 1-44 Geol. Surv. Can.

CRICKMAY, C.H. (1957): Elucidation of some Western Canada Devonian Formations; Imperial Oil Publication.

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WHITTAKER, E.J. (1922): Mackenzie River District between Great Slave Lake and Simpsons; Summ. Rept., 1921, pp. 45-55, Geol. Surv. Can.

Respectfully submitted,

PAN AMERICAN PETROLEUM CORPORATION.

By: S.A. Antoniuk

S.A. Antoniuk
P. Eng. (Alberta)

SAA:tro

January 22nd, 1958
Edmonton, Alberta.

MACKENZIE

RIVER

FT. SIMPSON

Martin River

BASE

WESTERLY

WESTERLY

WESTERLY

H.B. LONE MOUNTAIN

H.B. VAIL CR.

Bear Marie Creek

954 955 956 957

958 959 960 961 962

A-1 (GRUMBLER FM)

A-2 (HIGH IN GRUMBLER FM)

A-3 (TROUT RIVER SILT)

Trout River

Redknife River

Poplar River

Blackstone River

RIVER

Mills Lake

Mills Landing

N.W.T.

BRIGGS Test

BARRIE LAKE

1 of

PAN AMERICAN PETROLEUM CORPORATION
NORTH CANADIAN DISTRICT
CANADA

N.W.T.

AREA FORT SIMPSON

MACKENZIE

RIVER

FT SIMPSON

BASE

Martin River

954 955 956 957

958 959 960 961 962

Bear Marie Creek

A-1 (GRUMBLER FM)

A-2 (HIGH IN GRUMBLER FM)

A-3 (TROUT RIVER SILT)

Trout River

Redknife River

Poplar River

Blackstone River

WINTER TRACTOR ROAD

Trout Lake

Mills Lake

Mills Landing

RIVER

BRIGGS Test

Kokiso River

PAN AMERICAN PETROLEUM CORPORATION NORTH CANADIAN DISTRICT CANADA
N.W.T.
AREA: FORT SIMPSON N.W.T.
MAP No: CONTOUR INTERVAL:
TYPE OF MAP: TRAVERSE MAP
INTERPRETATION BY: S. ANTONIUK
ENCLOSURE No: 1.
DATE: JANUARY 1958 SCALE: 1" = 8 MILES
REMARKS: LEGEND
R-1 - TRAVERSE POINT.
① - HELICOPTER ROUTE

242

clastic (?) ls. facies

Dense banded dolomite

Silurian Absent (Rabbit Lake High)

clastic (?)
ls. facies

Dense banded
dolomite

Silurian Absent
(Rabbit Lake High)

PAN AMERICAN PETROLEUM CORPORATION
NORTH CANADIAN DISTRICT

AREA: Mackenzie Plain, N.W.T.
MAP No. CONTOUR INTERVAL
Ramparts Group Plotting Map
INTERPRETATION BY: L.A. Jones
DRG. BASED ON: Geol. Survey Publication No. 1
DATE: Nov. 28, 1967 SCALE: 1" = 8 miles
REMARKS:

FOLDER FOR

REPORT ON SURFACE GEOLOGY

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(PAN AMERICAN PETROLEUM CORPORATION)

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Enclosures

60-1-4-5

#1	Surface Geological Map	1" = 8 miles	In Separate Folder
#2	Section Location Map	1" = 12 miles	"
#3	Silurian Facies Map	1" = 12 miles	"
#4	Elk Point Facies Distribution Map	1" = 12 miles	"

Abstracted for
Geo-Science Data Index
Date

REPORT ON SURFACE GEOLOGY

MACKENZIE RIVER AREA

Conducted by

S. A. Antoniuk

During the period June 8 to August 5, 1957

on

NORTHWEST TERRITORIES PERMITS

No. 954
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Prepared By

N. G. KOCH
(Surface Geologist)

February 18, 1958

Maps and Cross-Sections
in Separate Folder

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ENCLOSURES

#1	Surface Geological Map	1" = 8 miles	In Separate Folder
#2	Section Location Map	1" = 12 miles	"
#3	Silurian Facies Map	1" = 12 miles	"
#4	Elk Point Facies Distribution Map	1" = 12 miles	"

GEOLOGICAL REPORT FXD-30

INTRODUCTION

During the summer of 1957, surface geological investigations were carried out by Pan American geological parties in the Mackenzie River Area. Stratigraphic work was emphasized and was carried on in the eastern ranges of the Mackenzie Mountains and Franklin Mountains. Structural mapping was done on the Mackenzie Plain where favourable structure for the accumulation of hydrocarbons was located.

The party consisted of nine geologists with S.A. Antoniuk acting as party chief. Sub-party chiefs were N.G. Koch, Y. Kawase, W.J. Fulop, and W.O. Richmond. Assistance was given in the field by G.D. Williams, H. Young, N. White and D. McLean. Supplies and foodstuffs were flown by Canadian Pacific Airlines from Edmonton to Fort Simpson where Pan American's float equipped Otter airplane was available to relay goods to our base camp at Cli Lake. Canada Catering Company of Edmonton supplied the foodstuffs, cooks and kitchen equipment. A Bell model G-2 helicopter was contracted from Spartan Air Services of Ottawa, Ontario. Contact with commercial communication systems at Fort Simpson was maintained by means of a 50-watt two-way radio. Where fly camping was found necessary in cases of excessive distances from base camp, contact with the fly camps to base camp was made by means of 2½-watt model B Chisholm radios.

Fossils collected in the field were identified by Dr. P.S. Warren and Dr. C.R. Stelck of the University of Alberta Geological Department.

OUTCROPS AND TERRAIN

The area worked lies in mountainous country west of the Mackenzie River Plain. Relief up to 5000 feet was encountered in the area. Most of

the ridges were devoid of vegetation and offered good landing spots for a helicopter. Sections measured were fair to good and many could have measured from 2000 feet to 3000 feet in thickness. Nineteen sections were located and studied and a total of 46,558 feet of section was measured.

NATURE OF WORK

The prime purpose of the work was to obtain as much knowledge as possible of the stratigraphy and structure in the mountains to the west of Pan American's Mackenzie River acreage. An attempt to project such stratigraphy to the east towards the acreage and a study of the relation of the mountain structure to that of the Mackenzie Plain was made. Aerial reconnaissance for determining the position of base camps, locating measurable sections and noting structure present was carried out by Otter and helicopter. Base maps and mosaics obtained from the Department of Mines Technical Surveys were used for plotting. Sections were measured with a one hundred foot tape or five-foot staff. Lithologic logs were made of each section for correlative purposes. Detailed sampling (approximately one sample for 25 feet) of the sections for stratigraphic purposes was carried out. Lithologic logs with annotated faunal identifications and crushed bottled samples have been retained on file for future reference. Dips and strikes were taken on the field by means of Brunton Compasses, and where more detail warranted, elevations were carried out along marker beds by means of Paulin Altimeters.

STRATIGRAPHY

During the field season of 1957, rocks ranging from Cambrian to Carboniferous were examined. Emphasis was placed on beds of Middle Devonian, Silurian, and Ordovician age. Other beds were mapped in a reconnaissance manner.

Table of Formations

Age	Formation or Group	Lithology	Thickness	Remarks
Eocene		Unconsolidated s.s. & clays with lignite.	600-1000'	
Cretaceous		Gry. to blk. sh. fine grained s.s.	4000'	
Upper Devonian	Imperial Fort Crk. Fm.	Grn. f.g.s.s.&sh. Gry. & bit. sh., s.s., ls. bioherm reef.	400-1500' 1600-1800'	
Middle Devonian	Ramparts Fm.	Ls. broken in centre by sh. member.	500-1500'	
	Lone Mt. Fm.	Banded to xlin dol.	0-2700'	
Silurian-Ordovician	Ronning Group	Dol. & ls.	Up to 3000'	Ordovician and Silurian may only be separated on paleontological evidence.
Cambrian		Qtzite, ls. gypsum red, green and black shale.	Base not seen.	

Cambrian

Beds consisting of quartzites, gypsum, red and green shales, and some carbonates compose the Cambrian in this area. Having no effective porosity, these beds were not considered economic and only occasional reconnaissance mapping of Cambrian beds was carried out.

Ordovician-Silurian

Ronning Group - Due to correlation difficulties the Ordovician and Silurian have been grouped together under the term, Ronning Group. The beds consist of carbonates with some sandstone. In this area and west of

125° west longitude the Ronning consists of dense limestones which are occasionally argillaceous. To the east these limestone change to dense banded dolomites having very little porosity. With up to 1500' of Ordovician-Silurian graptolitic shales to the west these carbonate beds appear to be a shelf type with an open sea basin to the west. Contact with the overlying Middle Devonian is thought to be unconformable.

Middle Devonian

Lone Mountain Formation - The Lone Mountain Formation is generally present southwest of a line from Mills Lake to north of this area. Northeast of this line a Post-Silurian Highland at Lone Mountain time is indicated. It can be shown that a pronounced thinning in Lone Mountain beds is present. Roughly paralleling this Post-Silurian Highland is the barrier reef trend as located in outcrop sections. It is in the general vicinity of the Post-Silurian Highland that the Bear Rock formation (a coarse carbonate breccia) is developed. This breccia is probably due to cavernous erosion along the coastline and is probably partly equivalent to both Lone Mountain and Ramparts age.

The Lone Mountain is usually a crystalline dolomite and chances of developing a reservoir are good. For the most part the barrier outcrops in the mountains but in the area east of Iverson Lake the barrier may have porosity under cover in doubly plunging anticlines.

To the southwest, a grey calcareous shale facies was noted. This shale was usually bare of fossils but a few specimens indicating Middle Devonian age were found. Within this shale, coarsely crystalline porous dolomites to limestones were found. On the basis of fauna collected, the Lone Mountain section is shown to be of similar age to the general Presqu'ile-Methy barrier reef of Northwest Alberta. An attempt was made to tie the two areas together using the sparse subsurface control available. With the

reefal development known in the Great Slave Lake Area and with clastic limestones seen in the Briggs Rabbit Lake wells and Imperial Island River #1, the northern barrier trend is projected easterly to the general Great Slave Lake Area. Along this trend island reefs and reef chains are anticipated.

Ramparts

The Ramparts formation is the uppermost formation of Middle Devonian age. Generally the lithology consists of dense argillaceous, slightly bituminous, fossiliferous limestone. Where seen to the west of Cli Lake a prominent scarp of about 700-800 feet high is formed along major rivers where they flow almost perpendicular to the strike. No porosity was observed within the Ramparts formation.

The Slave Point formation of Northwest Alberta is thought to be equivalent to the upper part of the Ramparts formation.

Upper Devonian

The Upper Devonian was not worked in any detail within the area due to lack of good outcrop. It is comprised of the Imperial and Fort Creek formations.

The Fort Creek is a shale divisible into two distinct members. The lower member is characteristically bituminous and contains the Kee Scarp, a local dense limestone unit on which the reef at Norman Wells has grown. Local sand lenses are also found within the lower member which is thought of as being equivalent in age to the Waterways formation in Alberta. The upper member is grey to black with occasional sandstone and limestone developments. It grades upwards into the overlying Imperial formation which consists of green silty sandstones and shales of marine and non-marine origins. The Imperial is probably uppermost Woodbend and Winterburn in age.

Carboniferous

In the extreme south corner of the map area one section of Carboniferous was measured. The section consisted of 400 feet of quartzose, porous sandstone and 1800 feet of tight fragmental limestone and limy shale. Carboniferous exposures die out a short distance north of Grainger River and no further exposures were encountered in the map area.

Cretaceous

Grey to black shales, siltstones and fine grained glauconitic sandstone of marine and non-marine origins comprise the Cretaceous of the Mackenzie basin. These beds are confined to the basin proper and outcrop sporadically along the major streams. These beds were not felt of economic importance and thus no time was spent mapping them. Separation from the Imperial Formation on the basis of lithology is often difficult.

STRUCTURAL GEOLOGY

The area worked may be divided into two structural provinces; the Mackenzie Mountains to the west and the Mackenzie foreland to the east. Occasional isolated mountain ranges rise within the foreland whose muskeg covered flats form the Mackenzie Plain physiographic sub-division. The Mackenzie Mountains are for a large part open folds. Large scale faulting typical of the Rocky Mountains was not observed. Occasional faulting within the Mackenzies was recorded but this was notably rare. The Mackenzie Mountains have no foothills comparable with the Rockies. Instead there is a foreland area in which narrow mountain ridges are separated by wide flat areas for the most part covered by muskeg. The Camsell-Nahanni Range and Franklin Mountains are all examples of these mountain ridges. It is believed that the long narrow ridge of the Nahanni-Camsell range indicates the upthrow side of a large high angle block fault which includes rocks of the basement foreland.

This interpretation has been applied to most features on the foreland. On the Mackenzie Plain some folding of the sediments has taken place between the mountain ridges. This may be an indirect result of basement faulting. This was the region studied from a structural aspect and within this area favourable structures for hydrocarbon accumulation were found.

Direct basement control is believed to be the important factor in development of structure in this area and overthrusting is a minor phenomenon. Surface anticlines have a much greater chance of extending to depth in this area and thus surface structural mapping is definitely of direct use here.

APPENDIX

List of fossils collected - Mackenzie River Area.

Cambrian

No Fossils collected.

Ordovician

Paleophyllum halysitoides
Bighornia sp.
Catenipora acquavalis
Plasmapora
Paleofavosites asfer.
Macleurites
Manipora regularis
Paleophyllum halistoides
Streptelasma trilobatum
Catenipora gracilis
Glossograptus
Diplograptus

Silurian

Halysites magnituba
Diplophyllum verneuilianum
Paleophyllum
Halysites catenularia
Favosites favosus
Lyellia cf. americana
Labechia
Camarotoechia cf. indianensis

Middle Devonian

Favosites cf. alpenensis
Prismatophyllum fisherae (Stumm)
Coenites
Hexagonaria cf. kirki
Productella
Prostus cf. mundulus
Disphyllum coespitosum
Billingsastrea nevadense (Stumm)
Alveolites vellorum
Cystiphyllum americanam
Atrypa andersonensis
Camarotoechia
Schuchertella nevadensis (Merriam)

Middle Devonian (continued)

Atrypa arctica (Warren)
Amboccelia cf. meristoides
Prismatophyllum arctica
Martinia sublineata
Atrypa cf. breverensis
Phillipsastrea verrilli (Meek)
Prismatophyllum arcticum
Elytha undifera (Roemer)
Siphonophrentis cf. gigantea (Lesueur)
Lyathophyllum cf. iowense Stumm
Hexagonaria cf. flexum
Paracyclus elliptica
Actenopteria sp.
Cytogomphoceras
Atrypa borealis
Amplexus sp.
Martinia kirki (Merriam)
Syringopora sp. (Winchell)
Favosites limitaris
Gypidula
Martinia richarsoni
Leioptera sp.
Bythopora

Upper Devonian

Vandergratella
Nuderostra walcotti
Athyris angelica
Caryorhynchus castanea (Meek)
Paracyclus elliptica
Alveolites
Macgeea proteus
Cyrtospirifer whitneyi
Phillipsastrea cf. maconni (Smith)
Atrypa devoniana (Webster)
Phillipsastrea whittakeri
Hexagonaria cf. magna

Carboniferous

Triplophyllites sp.
Fenestellid Bryozoan
Schuchertella
Martinia glabra
Euomphalus sp.
Lingula cf. spatulata

BIBLIOGRAPHY

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Hay and Buffalo Rivers, Great Slave Lake and Adjacent country; A.E. Cameron.

Mackenzie River District between Great Slave Lake and Simpson; E.J. Whittaker.

Expl. East of Mackenzie River between Simpson and Wrigley; M.J. Williams.

North Nahanni and Root Rivers Area and Caribou Island Mackenzie River District; G.S. Hume.

Geological Structure of the Mackenzie River Region; D.B. Dowling.

KINGSTON, D.R. (1951): Stratigraphic Reconnaissance along Upper South Nahanni River, N.W.T.; A.A.P.G. November, 1951.

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----(1950): The Late Middle Devonian Unconformity in Northwestern Canada; ibid P. 139

----(1956): Devonian faunas of Western Canada; Geol. Assoc. Canada Special Paper #1.

Respectfully submitted,

PAN AMERICAN PETROLEUM CORPORATION.

By: N.G. Koch

N.G. Koch
(Surface Geologist)

NGK:tro

February 18th, 1958,
Edmonton, Alberta.

POST SILURIAN HIGHLAND

CALC. SHALE FACIES

DEVIE DOLOMITE ZONES

CLASTIC Ls. FACIES

ELK POINT EVAPORITES

PRESQUILLE BARRIER

ERODED AT SURFACE

PROVINCE OF BRITISH COLUMBIA

PETITOT RIVER

FORT NELSON RIVER

LIARD RIVER

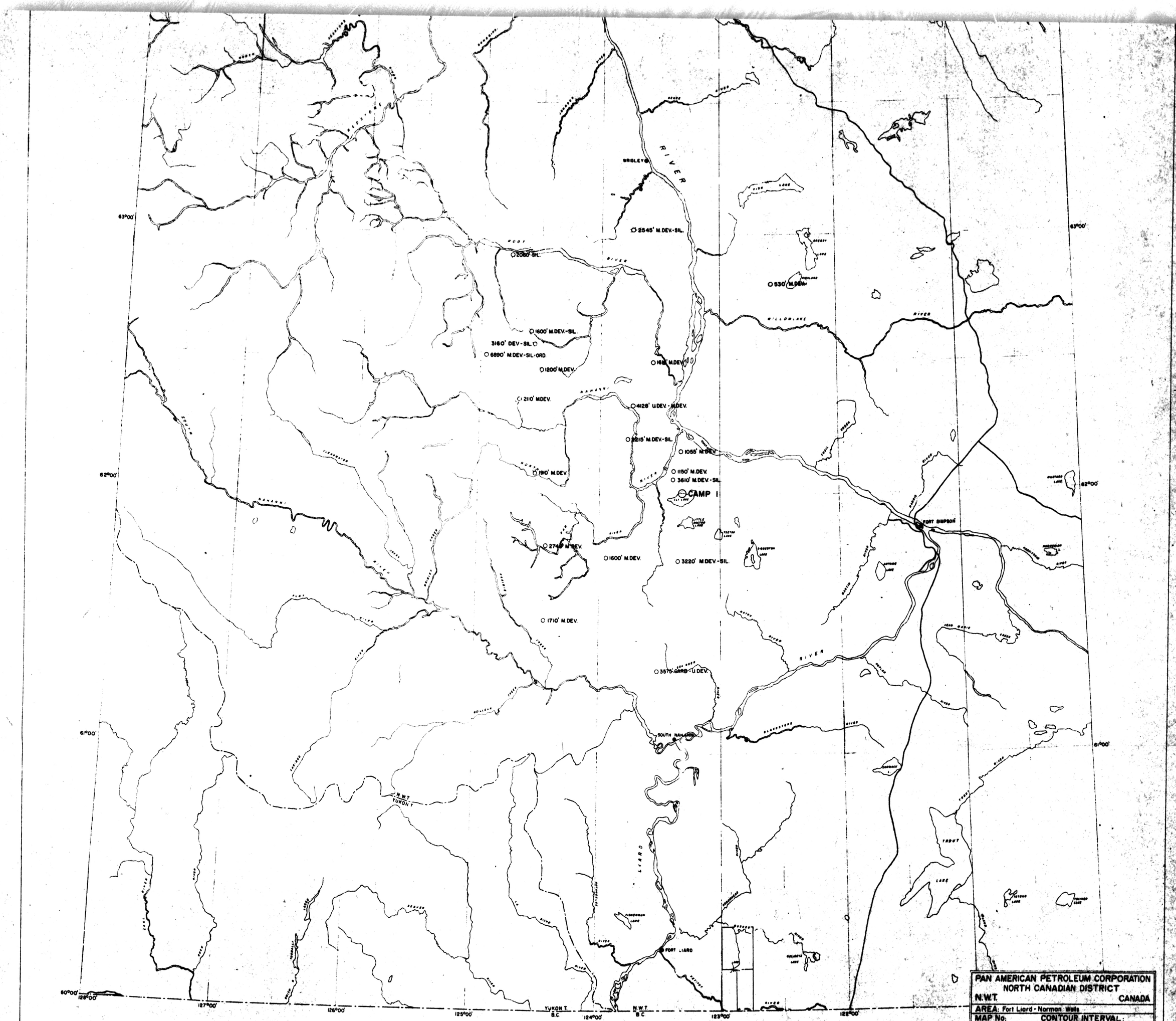
ALASKA HIGHWAY

FORT NELSON

SLAVE

GREAT

PAN AMERICAN PETROLEUM CORPORATION	
NORTH CANADIAN DISTRICT	
NORTHWEST TERRITORIES	CANADA
AREA: Mc KENZIE RIVER	
MAP No:	CONTOUR INTERVAL: 100'
TYPE OF MAP:	BIOHERM & FACIES OF "ELK POINT" BEDS (MID. DEVONIAN)
INTERPRETATION BY: S.A. ANTONIW	
GEO. REPORT FXD-20	ENCLOSURE No. 4
DATE: Nov. 25, 1967	SCALE: 1" = 12 Miles
REMARKS:	AREA OF INTEREST



PAN AMERICAN PETROLEUM CORPORATION NORTH CANADIAN DISTRICT	
N.W.T.	CANADA
AREA: Fort Liard - Norman Wells	
MAP No:	CONTOUR INTERVAL:
TYPE OF MAP: Section Location Map	
INTERPRETATION BY: N.G. Koch	
GEOL. REPORT FXD-30	ENCLOSURE No: 2
DATE: Dec. 21, 1957	SCALE: 1" = 12 miles
REMARKS:	

WRIGLEY

FORT SIMPSON

FORT LIARD

MACKENZIE RIVER

LIARD RIVER

WILLOW LAKE RIVER

TROUT LAKE

63°00'

62°00'

61°00'

127°00'

126°00'

125°00'

124°00'

123°00'

122°00'

121°00'

N.W.T.
YUKON T.

YUKON T.
B.C.

N.W.T.
B.C.

Du

Dm-D

K

C

LEGEND

Cretaceous	K
Carboniferous	C
Upper Devonian	
Middle Devonian, Silurian, Ordovician	
Cambrian	

SAN AMERICAN PETROLEUM CORPORATION
NORTH CANADIAN DISTRICT
CALGARY, ALBERTA

AREA FORT LIARD - NORMAN WELLS

CONTOUR MAP

Scale: 1 inch = 8 miles

RMW 10

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S. A. ANTONIUK

January 22nd, 1958

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Grumbler Formation	600 feet

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Fauna present:

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Atrypa rubrimitra	Crickmay
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Coenites sp.	
Cyrtospirifer sp.	
Phillipsastrea whittakeri	Smith
Phillipsastrea vesiculosum	Smith
Ptychophyllum kindlei	Smith

R-2 90' section - High in Grumbler Formation

Light grey, silty limestone; weathers yellowish grey. Thin shale bands present.

Fauna present:

Atrypa ciliipes	Crickmay
Vandergrachtellii sp.	

R-3 100' section (Trout River Formation?)

Very light grey, thin bedded, silty limestone

Fauna present:

Ostracods

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By: S.A. Antoniuk

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SAA:tro

January 22nd, 1958
Edmonton, Alberta.

60-1-4-4

AEROMAGNETIC SURVEY OF NORTHWEST TERRITORIES, CANADA

BY

AEROMAGNETIC SURVEYS LIMITED

STRUCTURAL CONTOUR MAP

ON THE

BASEMENT SURFACE

DRAWN FROM MAGNETIC DEPTH ESTIMATES

-110 MAGNETIC DEPTH ESTIMATES
(HUNDREDS OF FEET)
GOOD FAIR POOR
S LOCAL BASEMENT RELIEF

2000 FEET = CONTOUR INTERVAL

AREAS OF POSSIBLE LOCAL BASEMENT RELIEF
G=GOOD F=FAIR P=POOR

FAULT

BY

GRAVITY METER EXPLORATION COMPANY
HOUSTON, TEXAS

REPORTS FEB. 26 1953
JUL. 24 1953
JUL. 30 1953
AUG. 8 1953

SCALE IN MILES

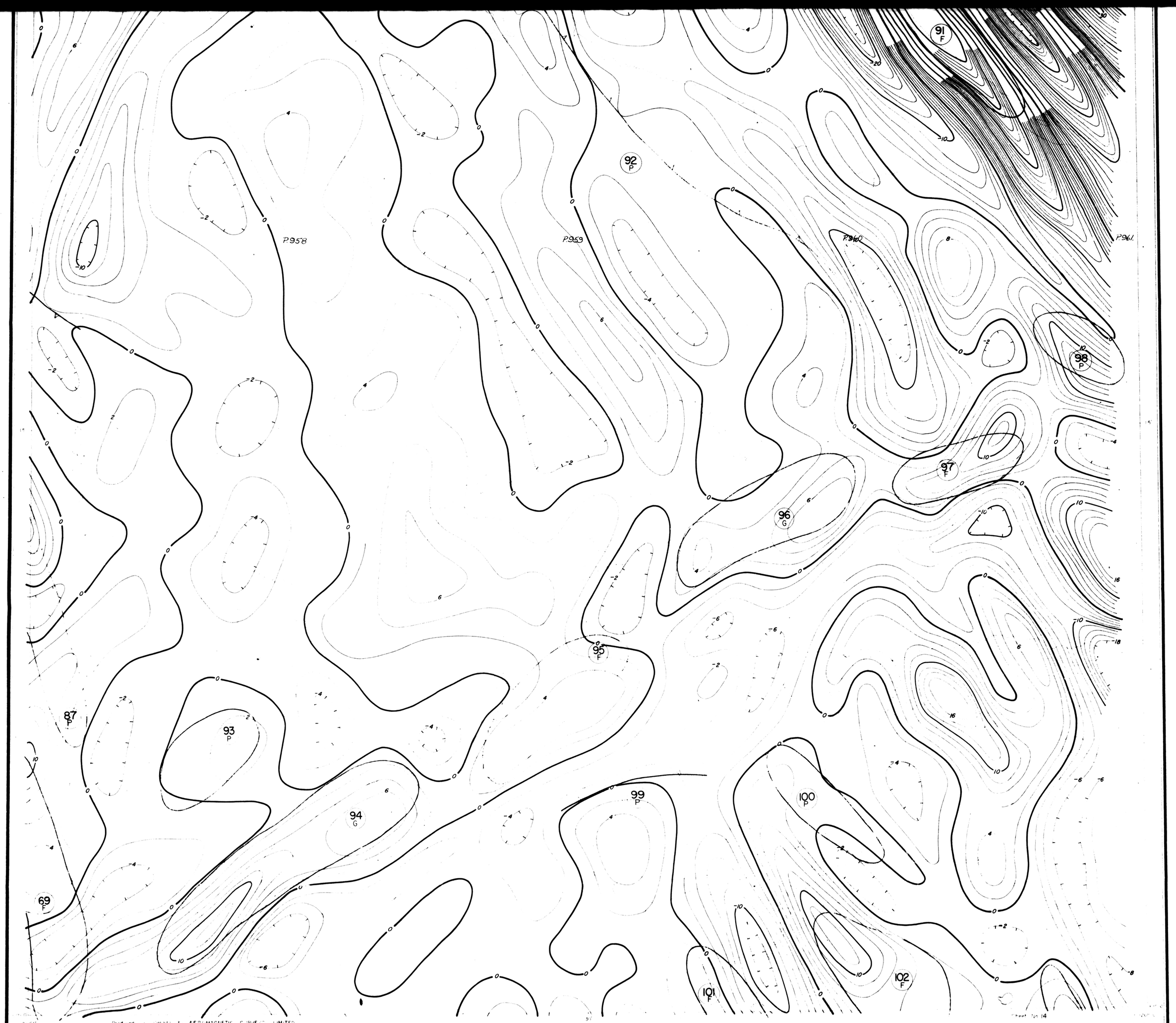
0 5 6 10 12 15 18 20 24 25 30

121°00'

120°00'

122°00'

60°00'



60-1-4-4

SCALE

1 Inch to 1 Mile

SECOND VERTICAL DERIVATIVE MAP

CONTOUR INTERVAL 2×10^{-15} C.G.S.

CALCULATED BY

GRAVITY METER EXPLORATION COMPANY

HOUSTON, TEXAS REPORT: , 1953

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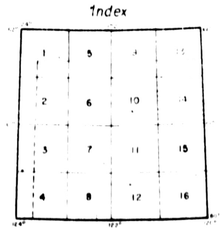
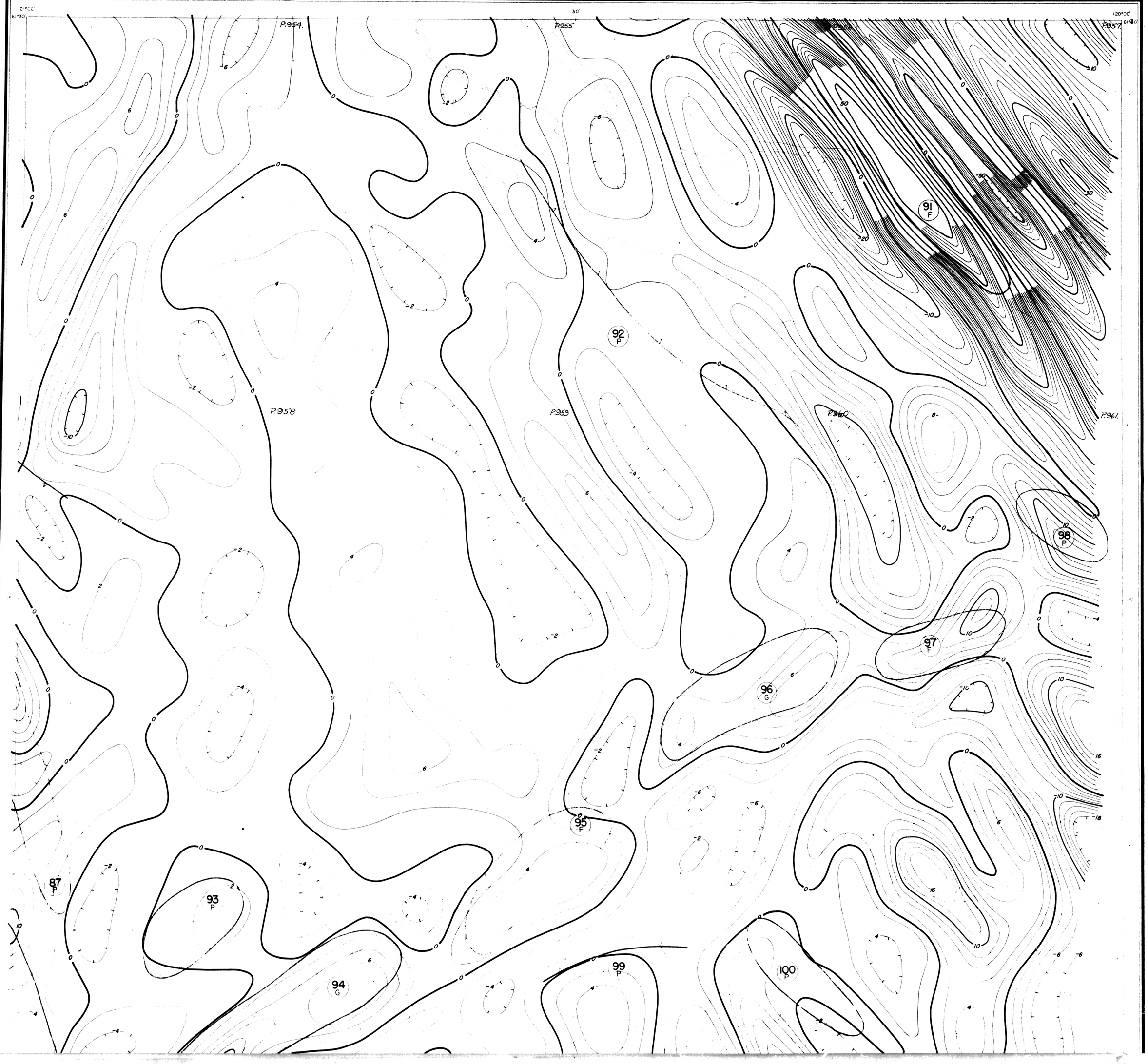


SIMPSON – LIARD AREA, N.W.T.

1952 AEROMAGNETIC SURVEY



Creek

RIVER

P958

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McGill Lake

Deep Lake

River

Trout

91 F

92 P

93 P

94 G

95 F

96 G

97 F

98 P

99 P

100 P

101 F

102 F

87 P

69 F

MEAN FLIGHT LINE SPACING 1/2 MILES

ALTITUDE 3500 FEET ABOVE SEA LEVEL

500 GAMMA CONTOUR

100 GAMMA CONTOUR

20 GAMMA CONTOUR

10 GAMMA CONTOUR

MAGNETIC LOW

FLIGHT LINES 92 TO 93

SCALE

1 Inch to 1 Mile

Produced in Canada by AERONAGNETIC SURVEYS LIMITED

Sheet No 14

60-1-9-4

RESIDUAL MAGNETIC ANOMALIES
CONTOUR INTERVAL 5 GAMMA

LOCAL AREA OF INTEREST
FAULT

INTERPRETED BY
GRAVITY METER EXPLORATION COMPANY
HOUSTON, TEXAS REPORT: AUGUST 8, 1953

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SIMPSON – LIARD AREA, N.W.T.

1952 AEROMAGNETIC SURVEY