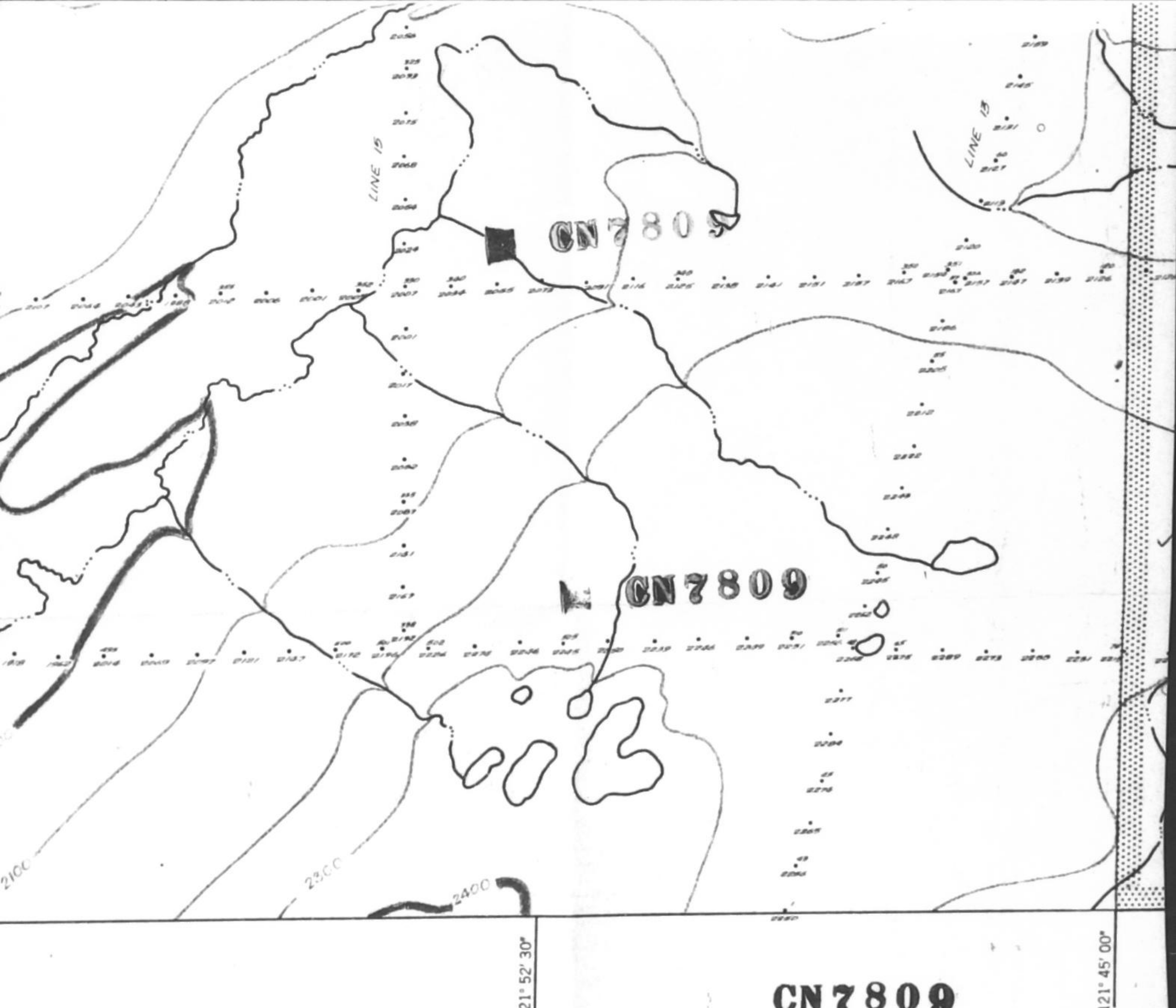

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OUR NO. NWT-101

2 of 2

LINE No.'s	S.P. No.'s
18	[illegible]
16	[illegible]
-	[illegible]
14	[illegible]
-	[illegible]
8	[illegible]
12	[illegible]
6	[illegible]
15	[illegible]
13	[illegible]
23	[illegible]
11	[illegible]
21	[illegible]
9	[illegible]

PAN AMERICAN PETROLEUM CORPORATION
NORTH CANADIAN DISTRICT

NORTH WEST TERRITORIES

AREA: TROUT LAKE — MAP No. CM-20/NW

VELOCITY: — SCALE: 1"=4000'

HORIZON: TOPOGRAPHY

TYPE OF MAP:

PARTY No. U 40 — CONTOUR INTERVAL: 100 FEET

INTERPRETATION BY: G. LONGPHEE

REPORT No. FINAL — DATE: MAY 29, 1959.

REMARKS:

LOOP SURVEY 'TIES' APPROXIMATE 0 ± 1 FOOT.

REPORT OF GEOPHYSICAL AND SEISMOGRAPH REFLECTION SURVEY

Conducted By

United Geophysical Company of Canada

for

Pan American Petroleum Corporation

This Report Covers the Period From August 29, 1958 to February 28, 1960

On and Immediately Off

TROUT LAKE PERMIT NOS. 1569 AND 1570 N.W.T.

Prepared By

M. A. Knock
District Geophysicist

March 18, 1960.

Submitted in accordance with Government Regulations
Under Section 30 of the Territorial Lands Act.

TABLE OF CONTENTS

(Maps are enclosed in envelope at back of report)

T E X T

INTRODUCTION

During the period August 28th, 1958 to February 28th, 1960, a seismograph reflection program was conducted by United Geophysical Company of Canada for Pan American Petroleum Corporation, on and immediately off Trout Lake Permit Nos. 1569 and 1570. United Geophysical Company worked continuously during the months of January to March, 1959, spending approximately 67.4 days in the above-mentioned area.

The lines shot by United Geophysical Company were bulldozed trails cut by a dozing contractor during the winter months of 1959.

United Geophysical Company was under the supervision of George Longphee. The camp was located in the Trout Lake area. The interpretation was carried on simultaneously with the field work and was conducted in the field camp.

Equipment used by United Geophysical Company in this area was truck-mounted. The camp was an expendible plywood camp which was abandoned and left in the area when the winter program was completed.

No unusual operating problems were encountered by this party during their operations in this area.

SEISMIC TECHNIQUE

Shot holes averaged 48 feet in depth. Depth of shot was determined by near-surface lithology with best results obtained when the shot was detonated in either clay or shale.

Normal charge size was approximately 3 pounds per shot or 1 pound per hole. Three-hole patterns were used throughout the area. The spread length from the center hole of one shot point to the center hole of the next shot point was 1900 feet.

The energy was recorded on split spreads as diagrammed on Figure #1. The instruments used were the United Geophysical 1-38A type manufactured by United Geophysical Company. Four Mayhew 1000' drills owned by United Geophysical Company were used in this area.

The reflection method was used to obtain the subsurface data; however, the refraction method was used to correct for near-surface weathering and drift irregularities.

The data that appears on the subsurface maps are vertical two-way times between an arbitrary reference plane and the particular horizon mapped.

Respectfully submitted,

PAN AMERICAN PETROLEUM CORPORATION

By: M A Knock

M. A. Knock,
District Geophysicist.

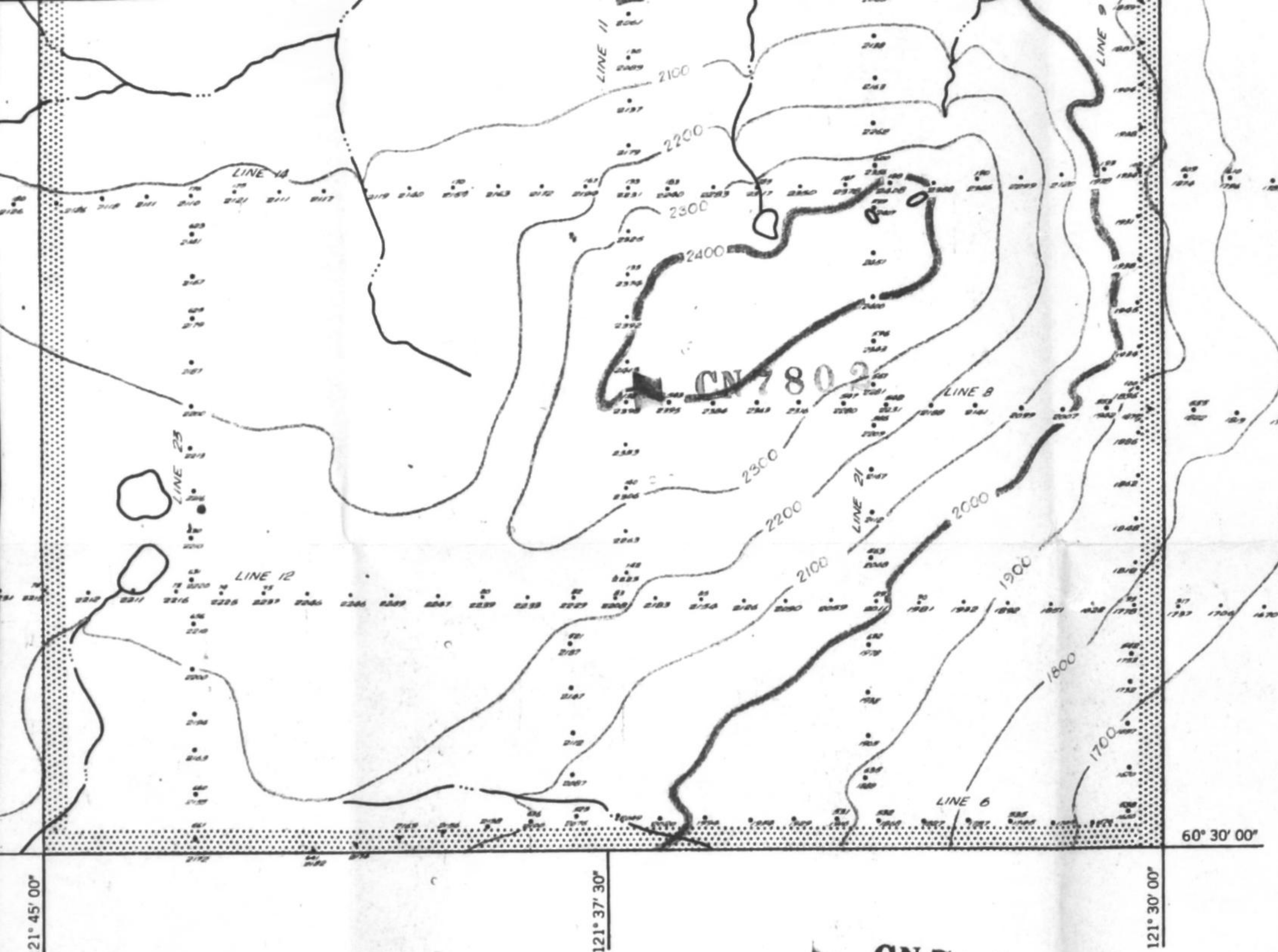
Party: United #40

Area: Trout Lake

Permit: On and Off 1569 and 1570

Spread Length: 1900 ft.

Figure #1



CN7802

PAN AMERICAN PETROLEUM CORPORATION	
NORTH CANADIAN DISTRICT	
NORTH WEST TERRITORIES	
AREA: TROUT LAKE	MAP No. CM-20/NW
VELOCITY:	SCALE: 1"=4000'
HORIZON: TOPOGRAPHY	
TYPE OF MAP:	
PARTY No. U 40	CONTOUR INTERVAL: 100 FEET
INTERPRETATION BY: G. LONGPHEE	
REPORT No. FINAL	DATE: MAY 29, 1959.
REMARKS:	
LOOP SURVEY 'TIES' APPROXIMATE 0±1 FOOT.	

THIS MAP HAS BEEN CHECKED FOR PRESENTATION BY

Name -- Date

LAST DAYS SHOOTING REPORTED March 30, 1959

2 of 2

REPORT OF GEOPHYSICAL AND SEISMOGRAPH REFLECTION SURVEY

Conducted By

United Geophysical Company of Canada

for

Pan American Petroleum Corporation

This Report Covers the Period From August 29, 1958 to February 28, 1960

On and Immediately Off

TROUT LAKE PERMIT NOS. 1569 AND 1570 N.W.T.

Prepared By

M. A. Knock
District Geophysicist

March 18, 1960.

Submitted in accordance with Government Regulations
Under Section 30 of the Territorial Lands Act.

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Page

(Maps are enclosed in envelope at back of report)

TEXT

INTRODUCTION

During the period August 28th, 1958 to February 28th, 1960, a seismograph reflection program was conducted by United Geophysical Company of Canada for Pan American Petroleum Corporation, on and immediately off Trout Lake Permit Nos. 1569 and 1570. United Geophysical Company worked continuously during the months of January to March, 1959, spending approximately 67.4 days in the above-mentioned area.

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The reflection method was used to obtain the subsurface data; however, the refraction method was used to correct for near-surface weathering and drift irregularities.

The data that appears on the subsurface maps are vertical two-way times between an arbitrary reference plane and the particular horizon mapped.

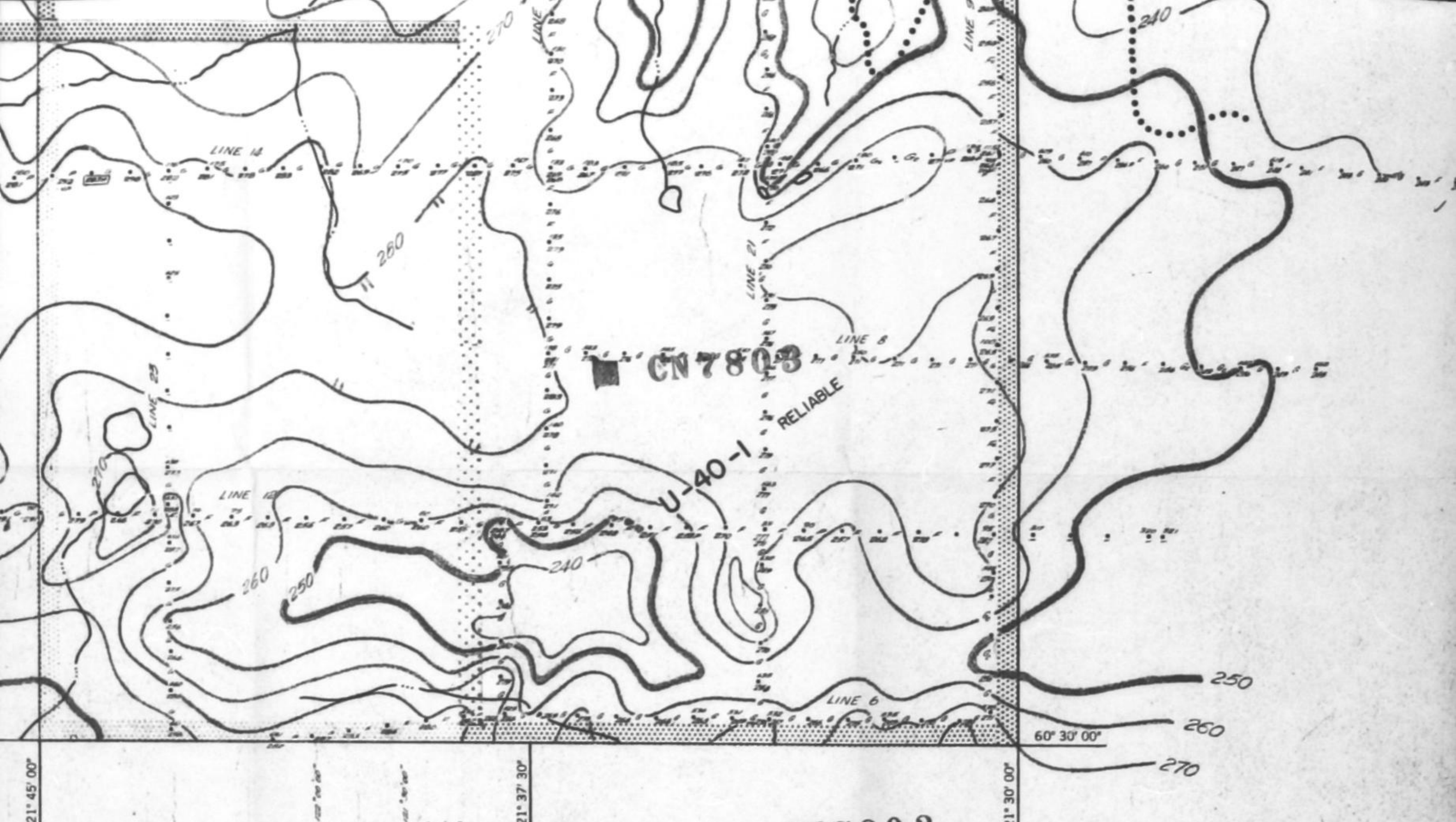
Respectfully submitted,

PAN AMERICAN PETROLEUM CORPORATION

By: M. A. Knock

M. A. Knock,

District Geophysicist.



CN7803

VR = 9000'/sec.
Replacement
Velocity to Plane

Grid Scale
1" = 16 miles
Same Scale as
RRS Map

Two-way time dip(ms/mi) [illegible] to Seismic Time Structure
Maps due to tilt of Regional Reference Surface

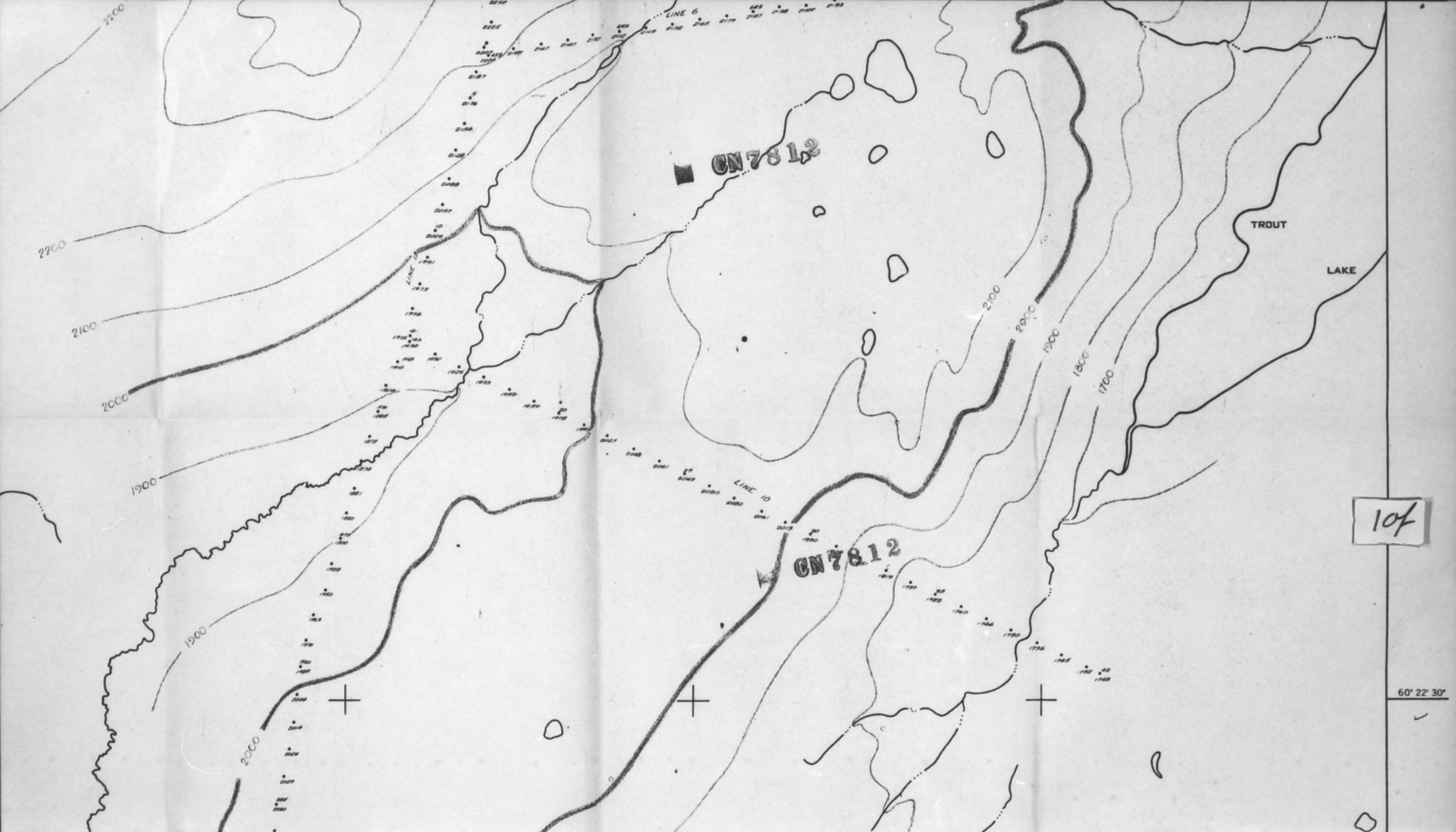
THIS MAP HAS BEEN CHECKED FOR PRESENTATION BY

Name -- Date

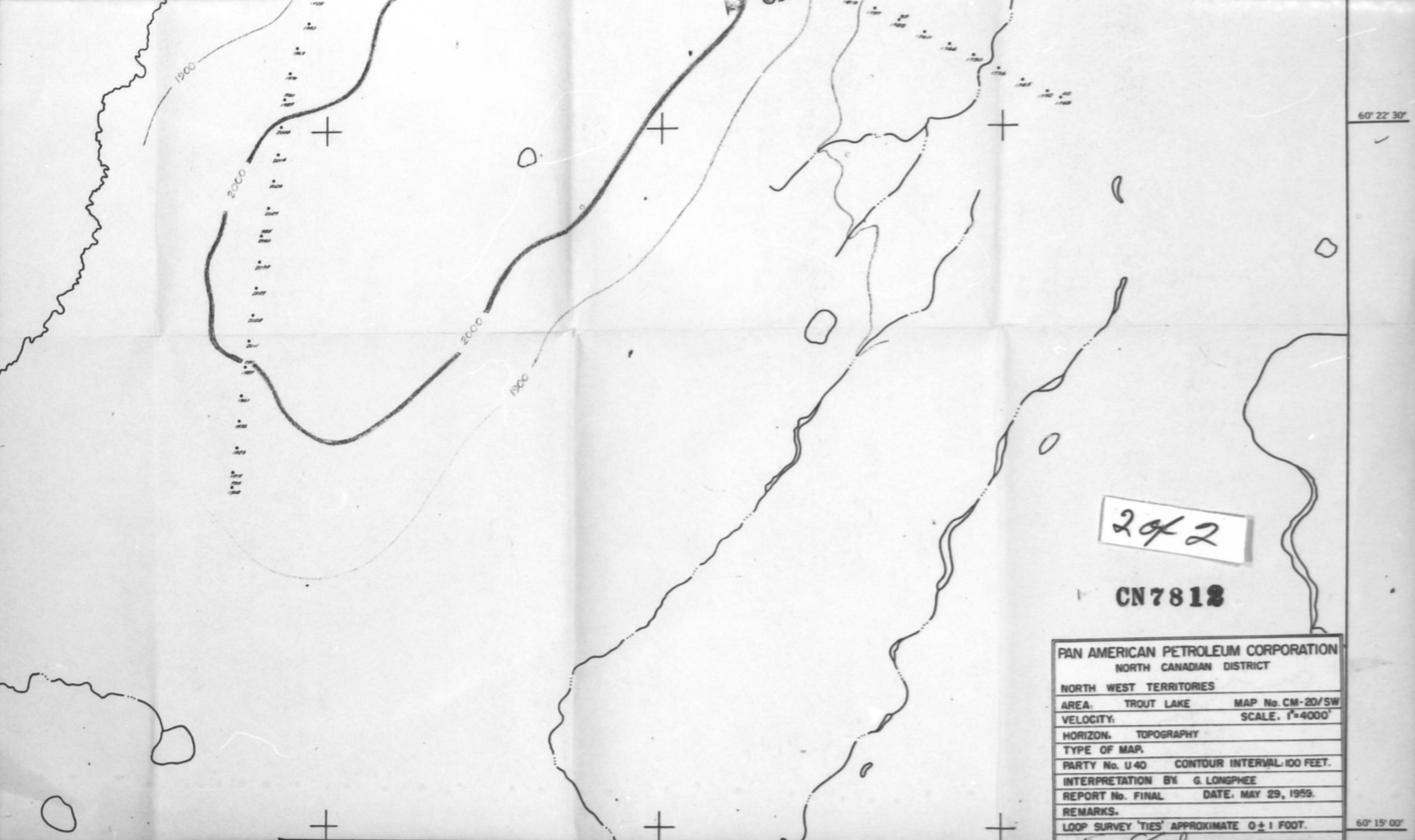
LAST DAYS SHOOTING REPORTED *March 30, 1959*

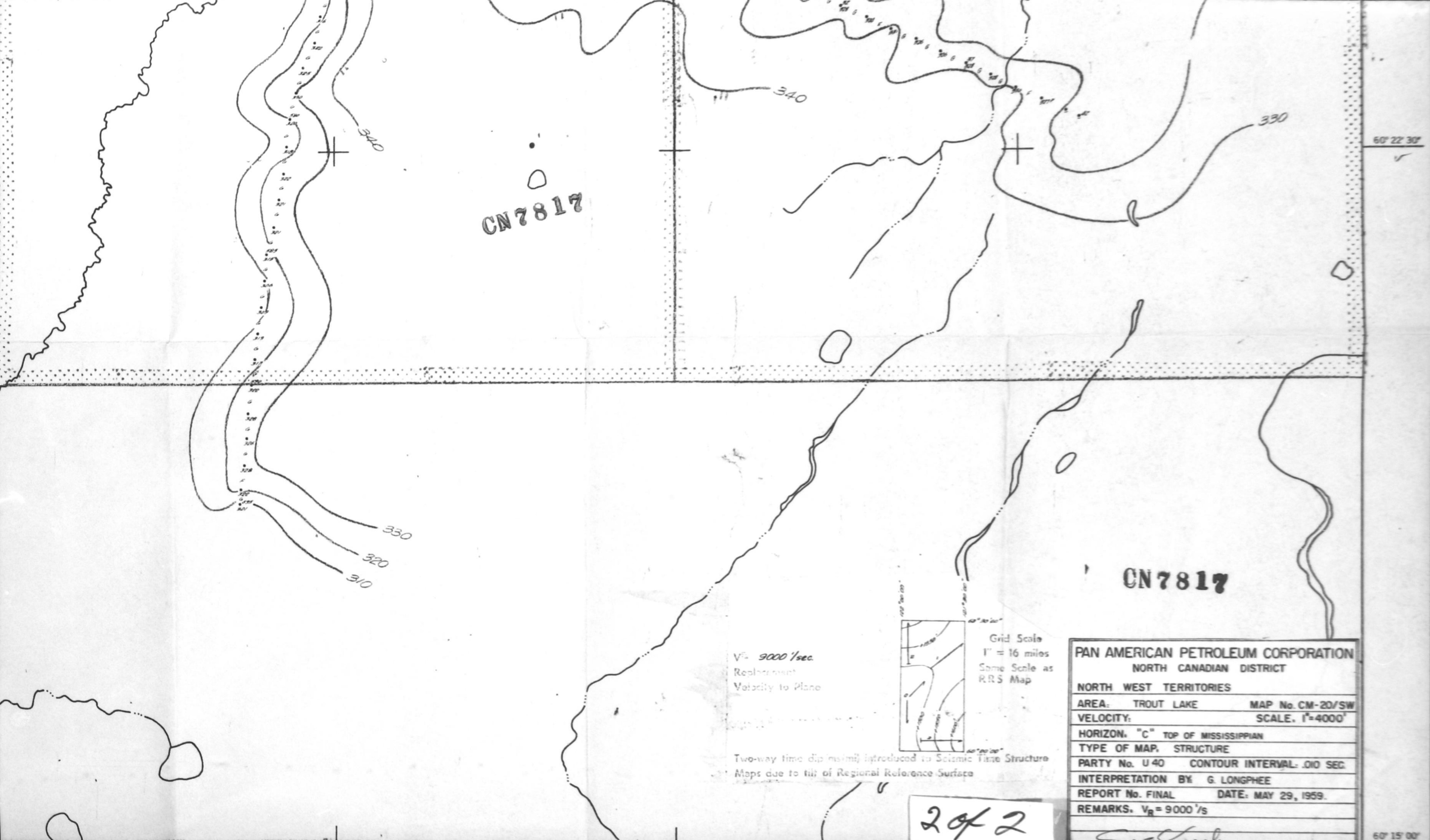
PAN AMERICAN PETROLEUM CORPORATION NORTH CANADIAN DISTRICT	
NORTH WEST TERRITORIES	
AREA: TROUT LAKE	MAP No. CM-20/NW
VELOCITY:	SCALE: 1"=4000'
HORIZON: "C" TOP OF MISSISSIPPIAN	
TYPE OF MAP: STRUCTURE	
PARTY No. U 40	CONTOUR INTERVAL: .010 SEC.
INTERPRETATION BY: G. LONGPHEE	
REPORT No. FINAL	DATE: MAY 29, 1959.
REMARKS: V_R = 9000 '/s	

2 of 2

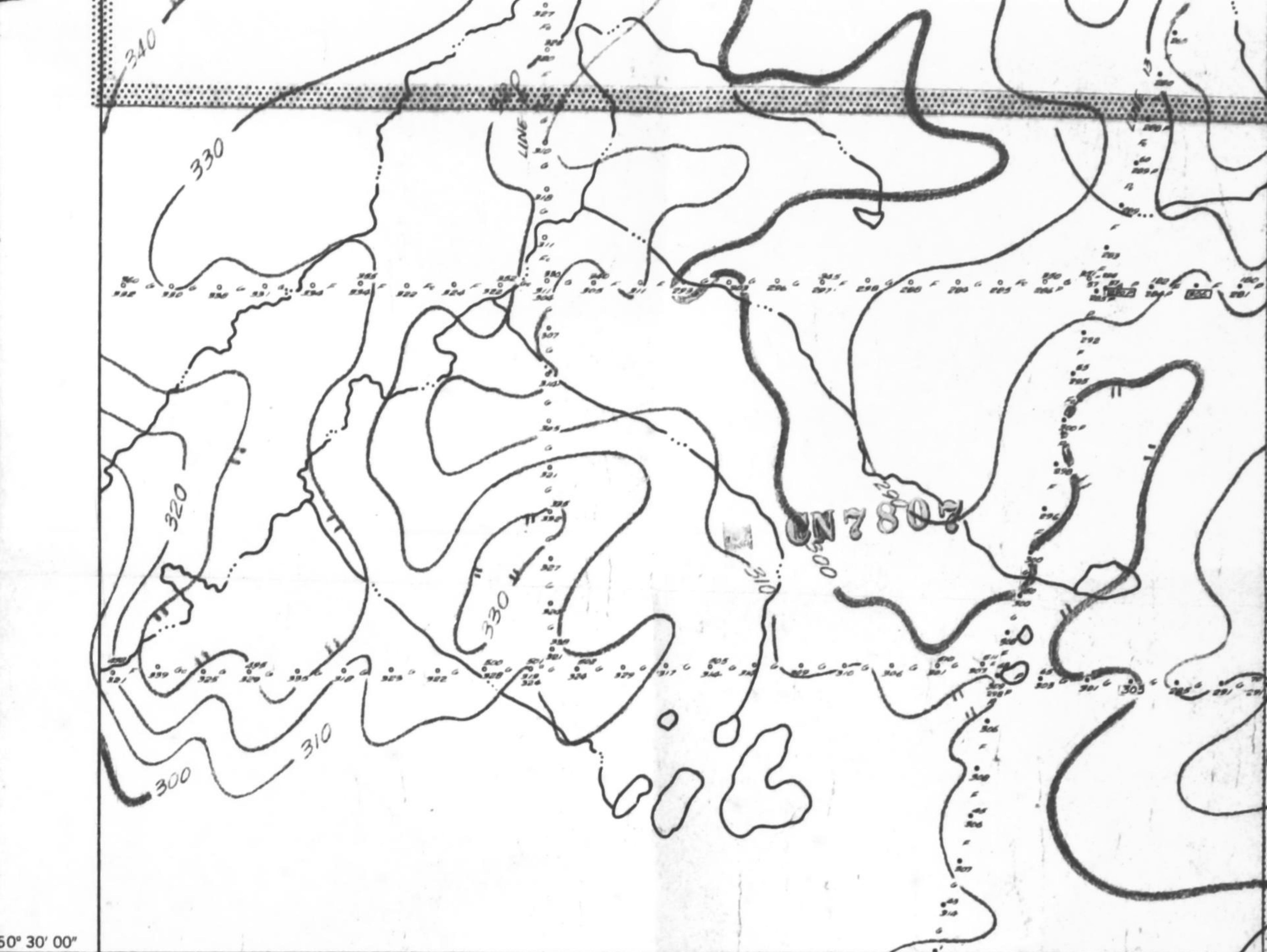


2200
2200
2100
2000
1900
1900
2000
LINE 6
LINE 10
2100
2000
1900
1800
1700
TROUT
LAKE
CN7812
CN7812
60° 22' 30"
107


1900
2000
2000
1900
60° 22' 30"
60° 15' 00"
2 of 2
CN7812
PAN AMERICAN PETROLEUM CORPORATION
NORTH CANADIAN DISTRICT
NORTH WEST TERRITORIES
AREA: TROUT LAKE
MAP No. CM-20/SW
VELOCITY:
SCALE. 1"=4000'
HORIZON. TOPOGRAPHY
TYPE OF MAP.
PARTY No. U 40
CONTOUR INTERVAL: 100 FEET.
INTERPRETATION BY: G. LONGPHEE
REPORT No. FINAL
DATE: MAY 29, 1959.
REMARKS.
LOOP SURVEY 'TIES' APPROXIMATE 0 ± 1 FOOT.



CN7817
340
340
330
330
320
310
60° 22' 30"
CN7817
60° 15' 00"
V = 9000 '/sec.
Replacement
Velocity to Plane
Grid Scale
1" = 16 miles
Same Scale as
R.R.S. Map
Two-way time dip (ms/mi) introduced to Seismic Time Structure
Maps due to tilt of Regional Reference Surface
2 of 2
PAN AMERICAN PETROLEUM CORPORATION
NORTH CANADIAN DISTRICT
NORTH WEST TERRITORIES
AREA: TROUT LAKE
MAP No. CM-20/SW
VELOCITY:
SCALE. 1"=4000'
HORIZON. "C" TOP OF MISSISSIPPIAN
TYPE OF MAP. STRUCTURE
PARTY No. U 40
CONTOUR INTERVAL: .010 SEC.
INTERPRETATION BY: G. LONGPHEE
REPORT No. FINAL
DATE: MAY 29, 1959.
REMARKS. V_R = 9000 '/s



CN7807

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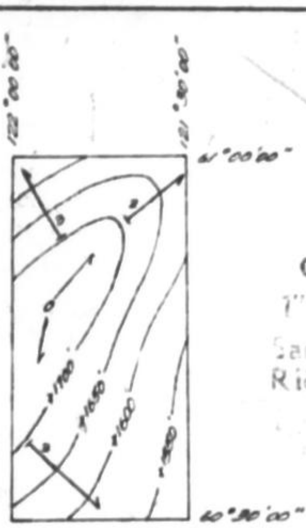
V_R 9000′/sec.
Replacement
Velocity to Plane



Grid Scale
1″ = 16 miles
Same Scale as
RRS Map

Two-way time dip(ms/mi) [illegible] Seismic Time Structure
Maps due to tilt of Regional Reference Surface

2 of 2

PAN AMERICAN PETROLEUM CORPORATION	
NORTH CANADIAN DISTRICT	
NORTH WEST TERRITORIES	
AREA: TROUT LAKE	MAP No. CM-20/NW
VELOCITY:	SCALE: 1″=4000′
HORIZON: "C" TOP OF MISSISSIPPIAN	
TYPE OF MAP: STRUCTURE	
PARTY No. U 40	CONTOUR INTERVAL: .010 SEC.
INTERPRETATION BY: G. LONGPHEE	
REPORT No. FINAL	DATE: MAY 29, 1959.
REMARKS: V_R = 9000 ′/s	

60-61-24

REPORT OF GEOPHYSICAL AND SEISMOGRAPH REFLECTION SURVEY

Conducted By
United Geophysical Company of Canada

for

Pan American Petroleum Corporation

Period: May 7th, 1959 to May 6th, 1960

GEOLOGICAL & EVALUATION
RESOURCES ... ION
AUG 1 ...2
OTTAWA, CANADA.
Dept. of Northern Affairs & National Resources

on

POINTED MOUNTAIN PERMIT NO. 998 N.W.T.

Prepared By

M. A. Knock
District Geophysicist

June 13th, 1960

Submitted in accordance with Government Regulations
under Section 30 of the Territorial Lands Act.

TABLE OF CONTENTS

T E X T

INTRODUCTION

During the period May 7th, 1959 to May 6th, 1960, United Geophysical Company of Canada conducted a portable seismic operation in the Pointed Mountain area for Pan American Petroleum Corporation. United Geophysical worked intermittently during the months of June through September, 1959, spending a total of 62 days on Permit #998.

The object of the survey was to determine the feature at depth of the Pointed Mountain anticline as outlined by surface geology, and to test the feasibility of using such a portable seismograph crew to work in conjunction with a surface geology crew in an inaccessible area such as Pointed Mountain.

The crew consisted of a five-man crew plus seven Indian packers who assisted in the moving of the camp and seismic equipment.

The operations were under the supervision of D. G. D'Arcy, supervisor, and C. J. Frankovitch, party chief. Party headquarters were located in camp on the prospect.

Operating problems for a portable crew of this nature were mainly the movement of equipment from one location to another, as there were no roads and very few footpaths in the area. The only access to the area was by aircraft only to Fisherman Lake and from there to the prospect by foot or helicopter. Another problem was to determine the type of drill which was portable enough to be carried by the field crew and yet be sturdy enough to penetrate the hard shale. Carrying water on foot for the drill was another one of the problems encountered.

SEISMIC TECHNIQUE

The original recording equipment consisted of 24 United Geophysical type 1-38 reflection amplifiers and camera used in conjunction with a techno magnetic tape transport. This was later amended to 12 United Geophysical type 1-38 reflection amplifiers and camera and the tape transport was dropped from the crew.

At the beginning of the prospect, four cables were laid out in a cross with the shot point in the center and the cables extended 660 feet in four directions (Figure #2). This was later changed to an "L" type spread with each leg of the "L" being 1210 feet (Figure #3). This type of spread required the holes to be shot at either end of each leg of the "L" to compute and eliminate weathering errors. This also gave us the required velocity information and allowed us to resolve the recorded dip into true dip.

Due to the limited drill power available, no shots were taken below 45 feet. It appeared that the optimum shot depth was below this at most shot points.

Respectfully submitted,
PAN AMERICAN PETROLEUM CORPORATION

By: [signature]
M. A. Knock,
District Geophysicist.

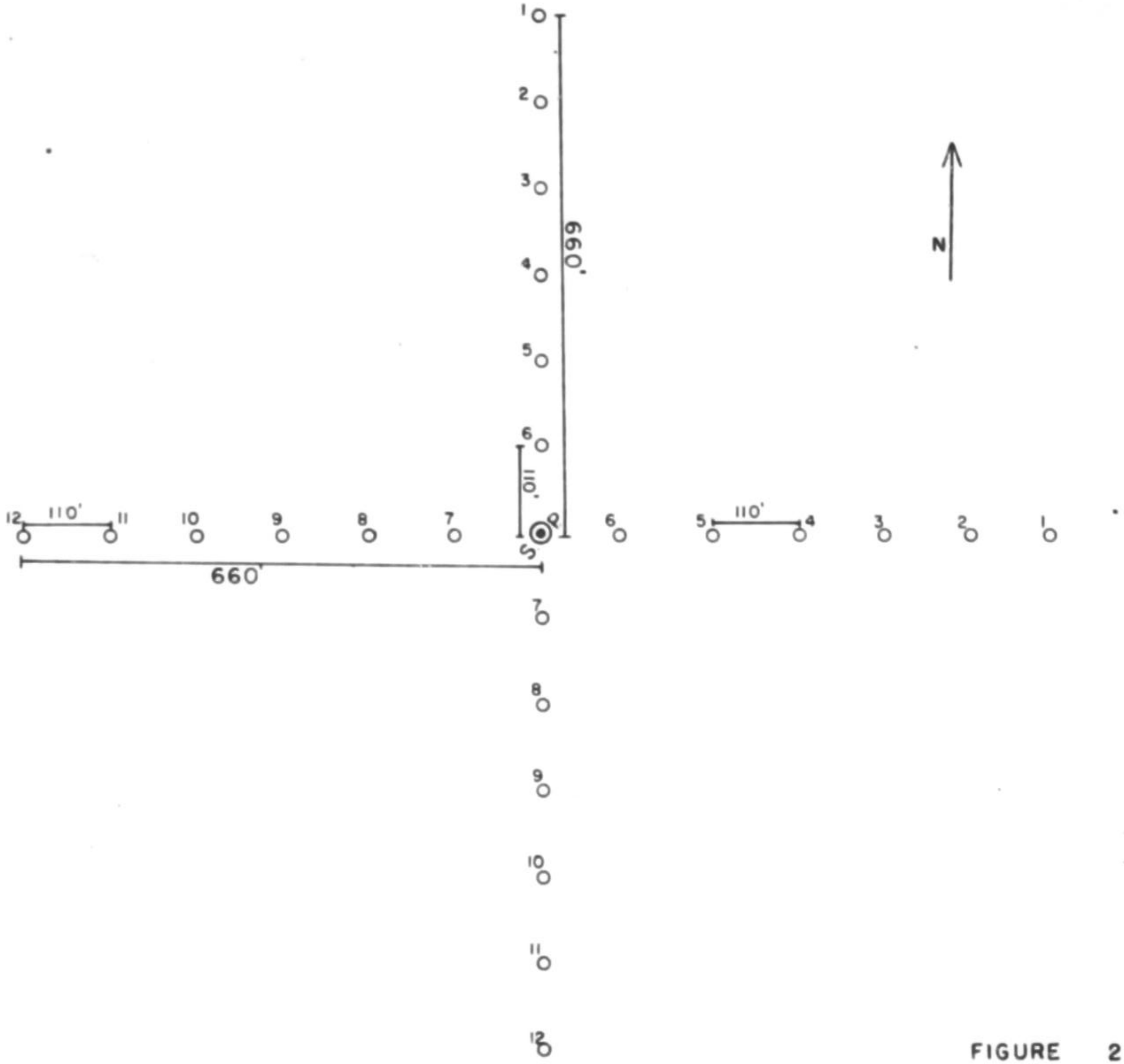


FIGURE 2

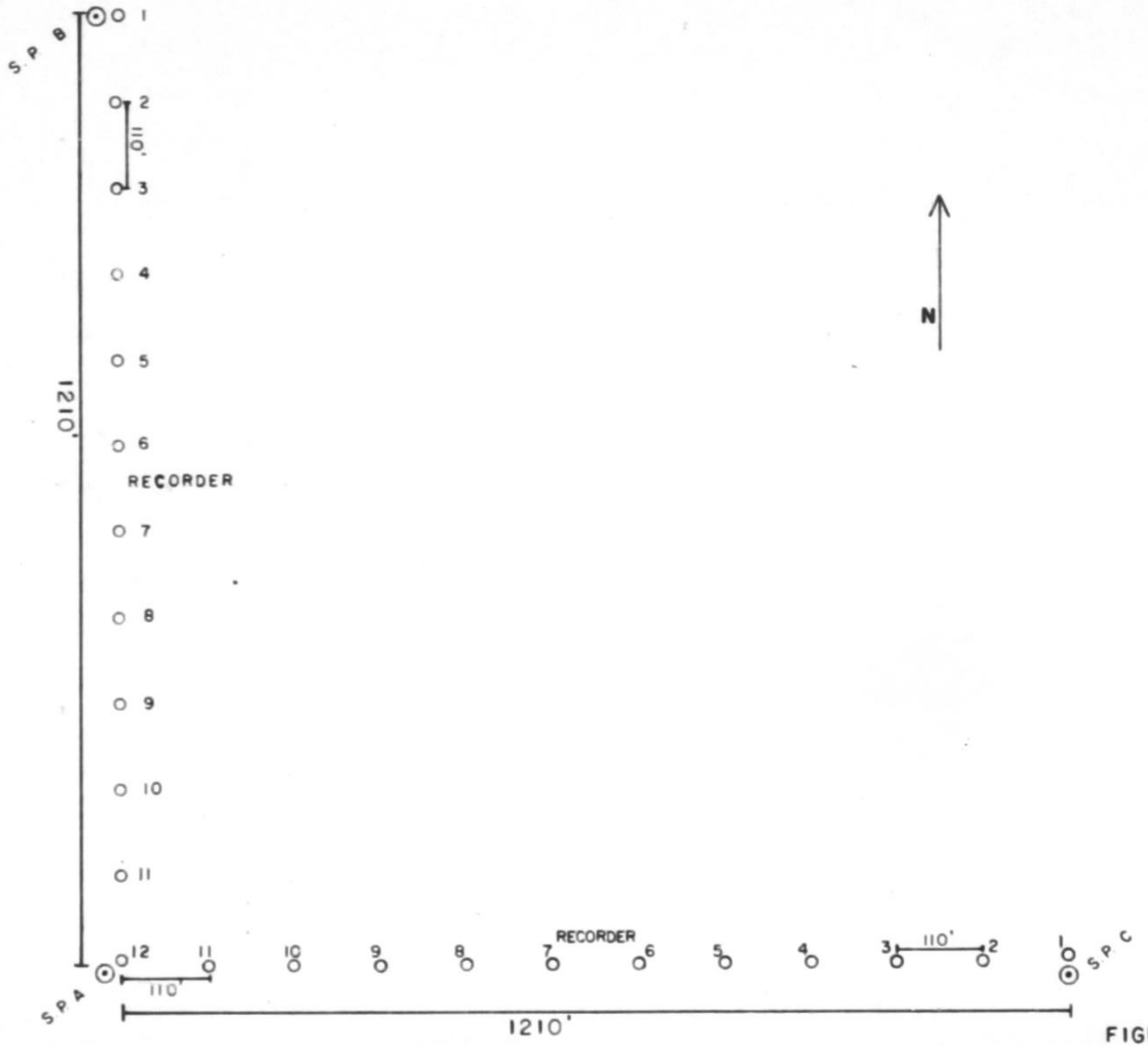
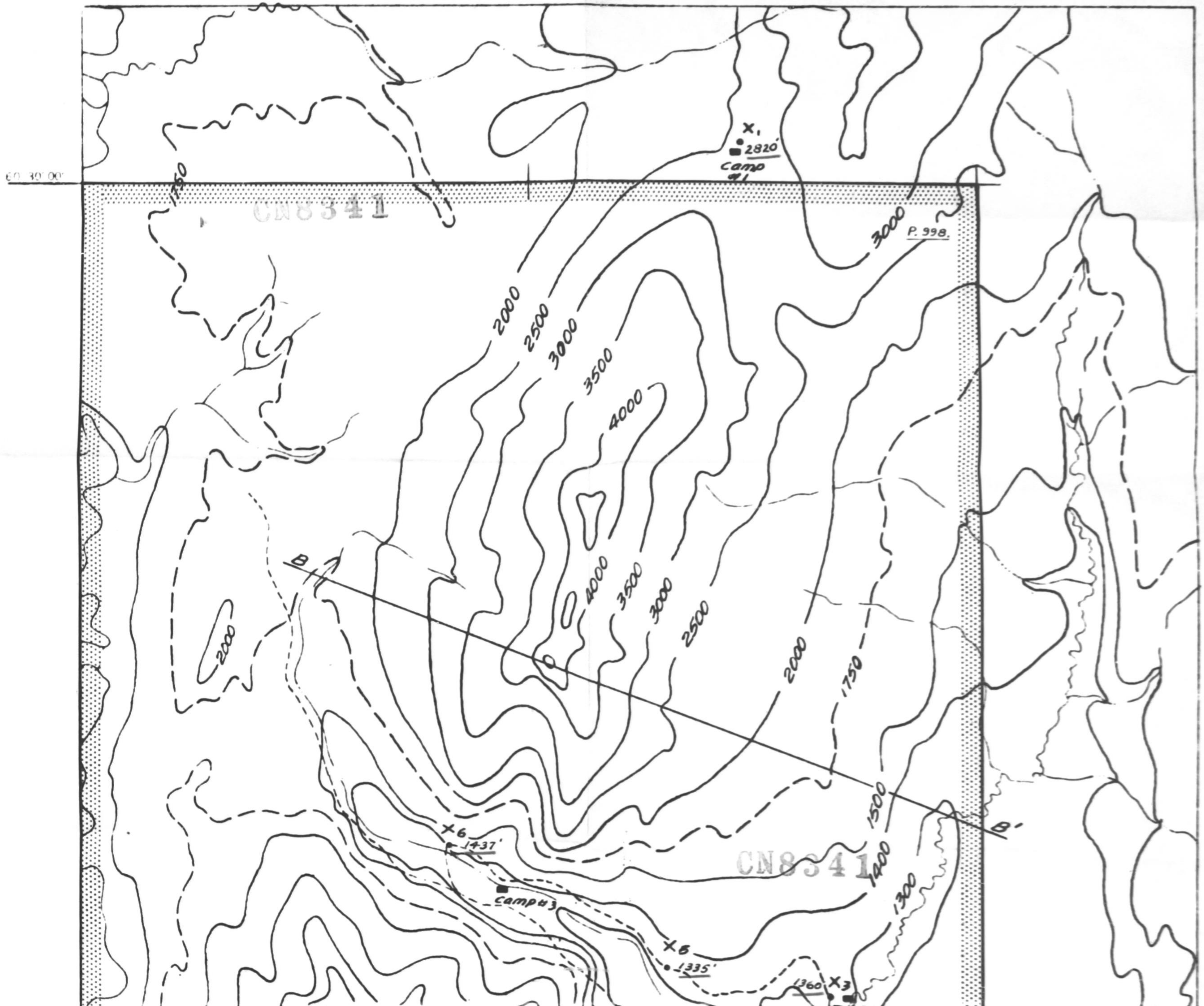
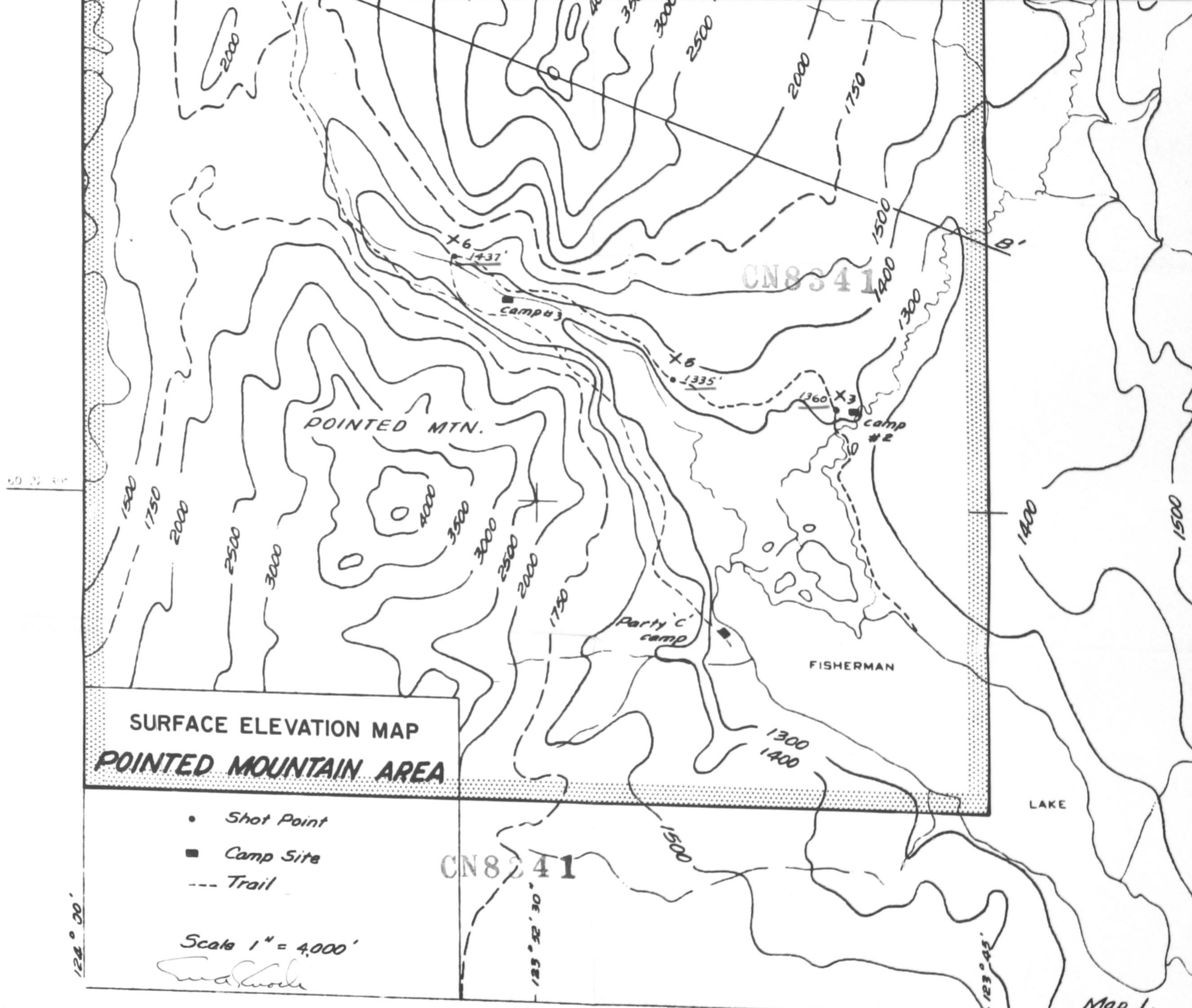
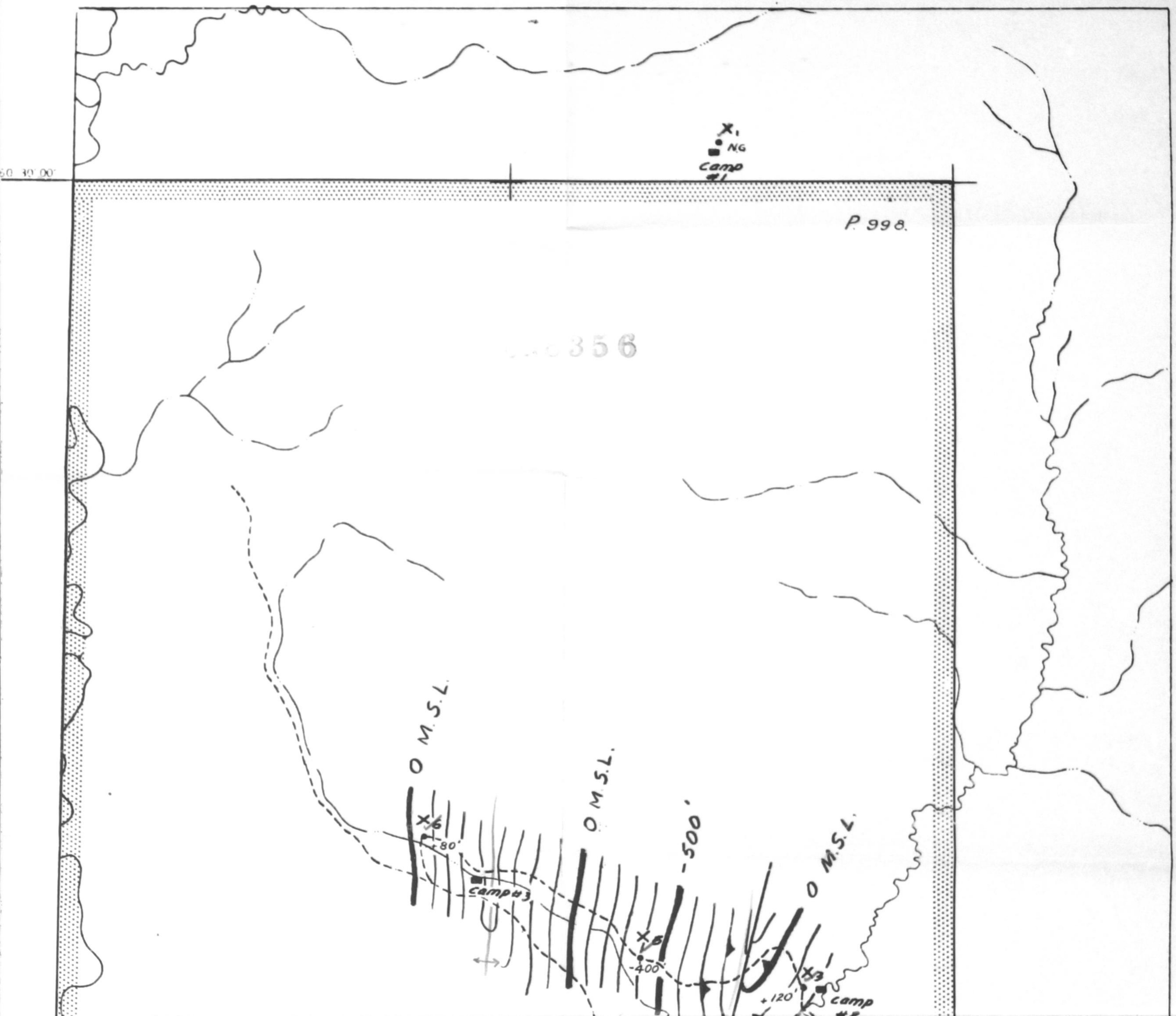

S.P. B
1
2
110'
3
4
5
6
RECORDER
7
8
9
10
11
12
1210'
N
S.P. A
110'
11
10
9
8
7
RECORDER
6
5
4
3
110'
2
1
S.P. C
1210'

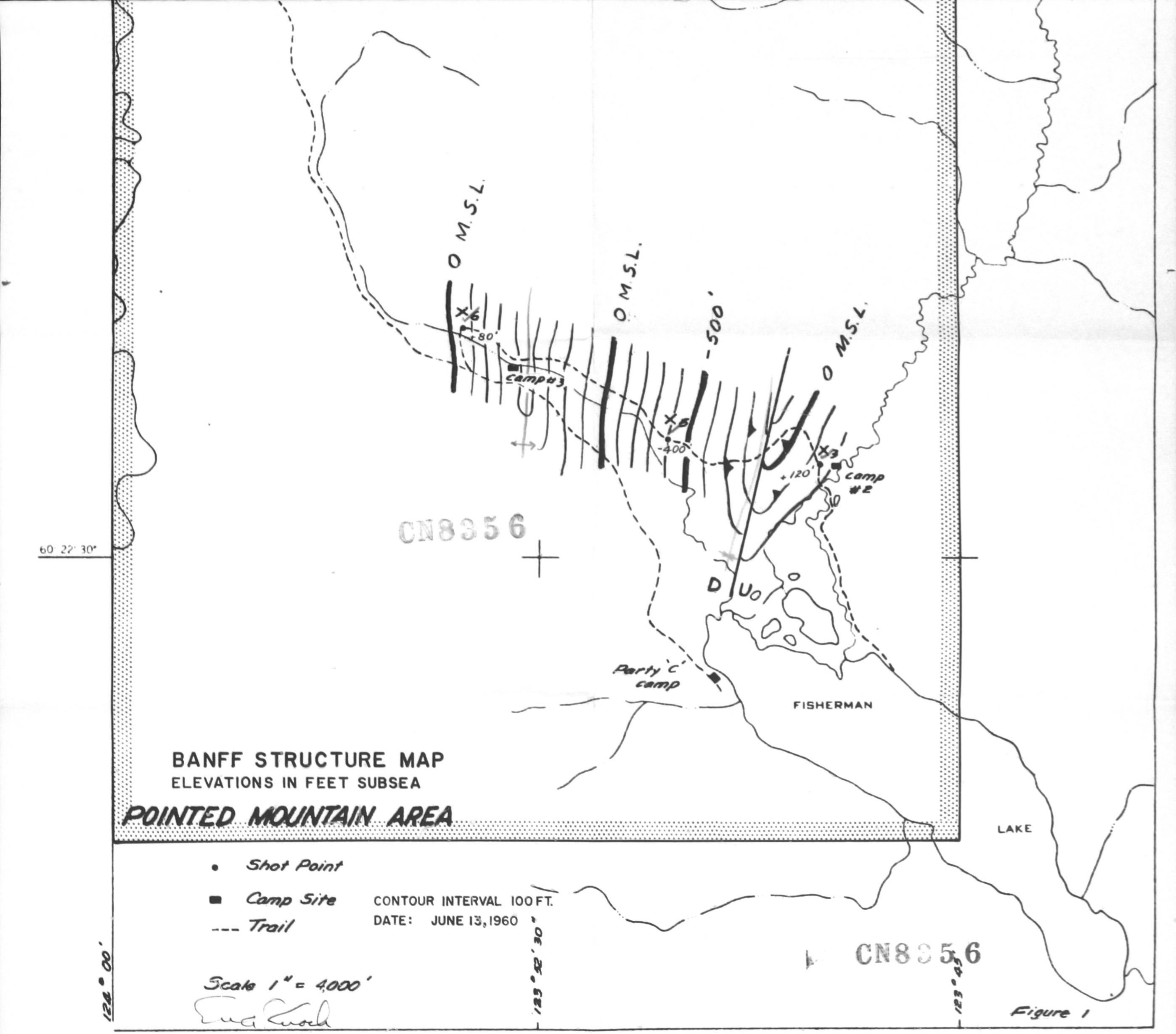
FIGURE 3


60°30'00"
CN8341
X1
2820'
Camp #1
3000
P. 998.
1750
2000
2500
3000
3500
4000
4000
3500
3000
2500
2000
1750
B
B'
2000
1500
1400
1300
X6
1437'
Camp #3
X8
1335'
1360
X3
CN8341

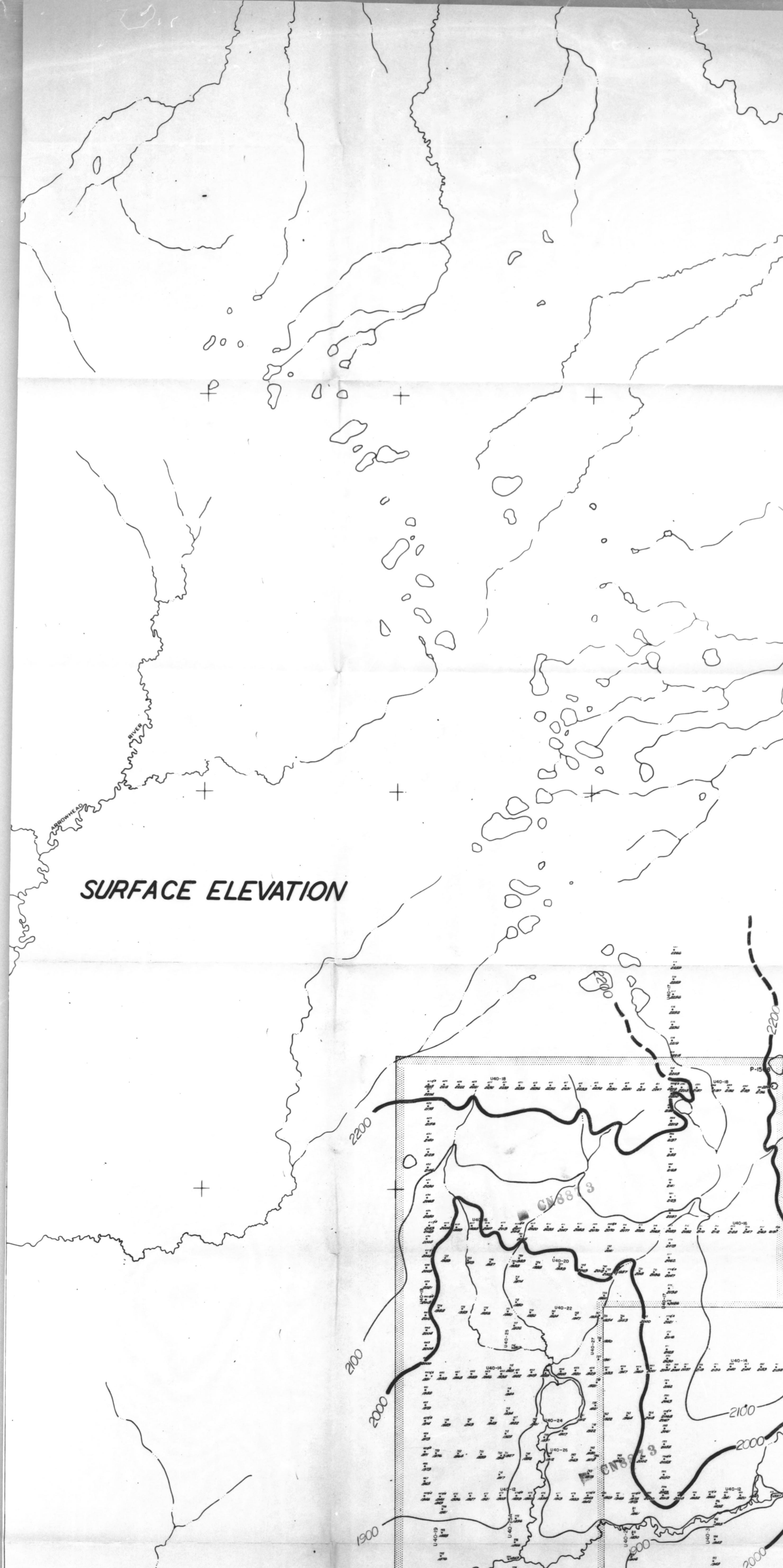


SURFACE ELEVATION MAP
POINTED MOUNTAIN AREA
Shot Point
Camp Site
--- Trail
Scale 1" = 4,000'
POINTED MTN.
camp #3
camp #2
Party C camp
FISHERMAN
LAKE
B'
X6
1437'
X5
1335'
1360
X3
4000
3500
3000
2500
2000
1750
1500
1400
1300
124°30'
123°52'30"
123°45'
CN8341
Map 1.


P. 998.
X1
NG
Camp #1
0 M.S.L.
0 M.S.L.
0 M.S.L.
-500'
X6
-80'
Camp#3
X5
-400'
X3
+120'
Camp
356



CN8356
CN8356



CN8873

MAP EVALUATION
Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, (geophysical or geological)
Geological data
Reliable Geophysical Data
Qualitatively Reliable Geophysical data
Unreliable Geophysical Data

SHOOTING HISTORY (Not in detail) / INTERPRETIVE HISTORY

INCL. DATES	SHOT BY	SHOT FOR	S.P. AND/OR LINE No's	FINAL REPORT No.	DATE	INTERP.	CO AFFIL.	APPROX. LOC. ON MAP
Jan.-Mar. 1959	United 40	Pan Am	LINES 12,14,16-19	Final	May 29/59	G.E. Longphee	United 40	SE Quadrant
Jan. 1960	United 40	Pan Am	LINES 20,22,24-27	9	Mar. 18/60	F.T. Foo	United 40	122°08'-60°34'

This map replaces/supplements Registration No. ______ dated ______ which is to be destroyed/kept (Refer transmittal dated ______)

Map distribution: Division / General Office

Other maps prepared this report

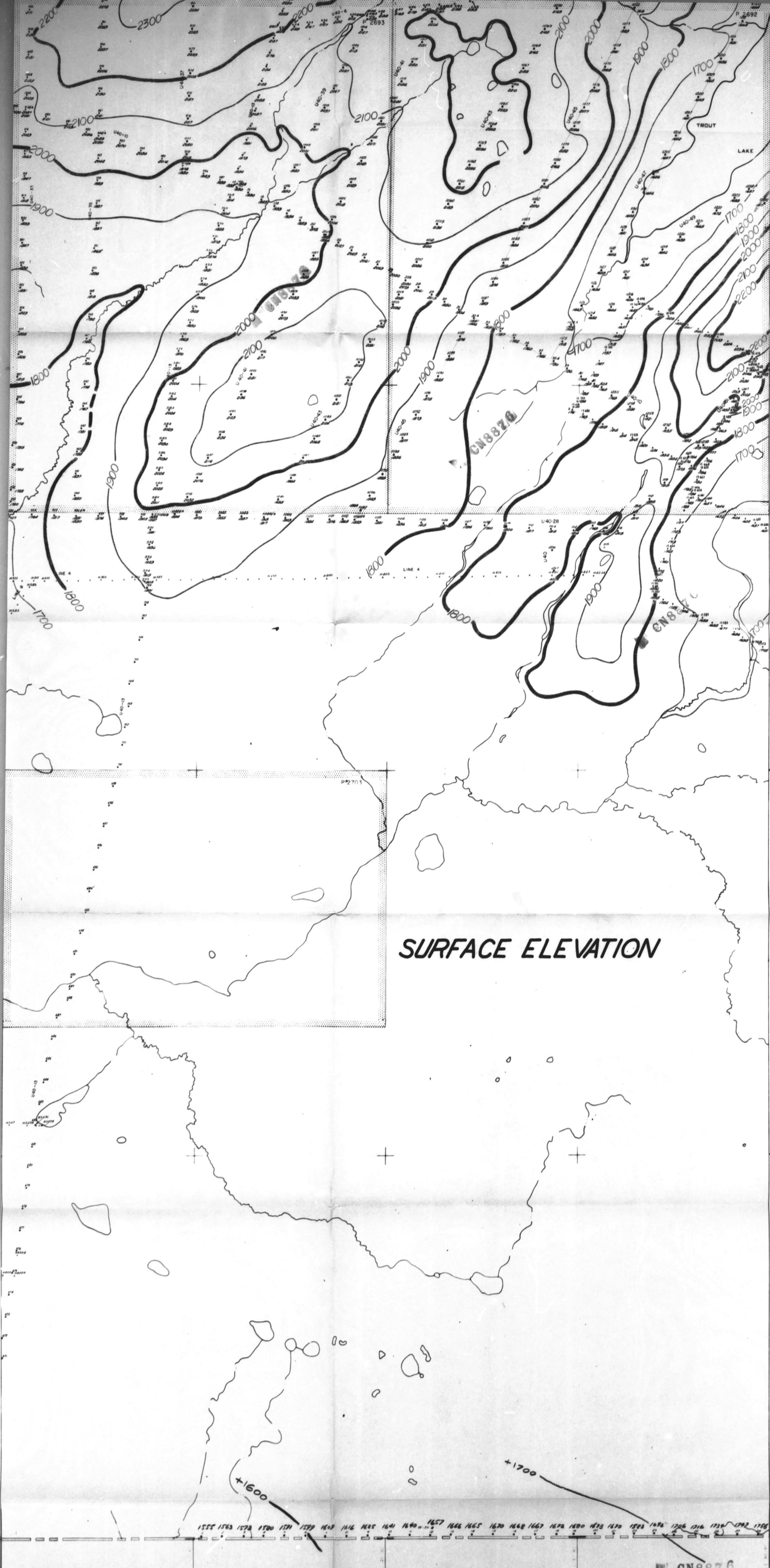
This map checked by ______ Pan Am Geophysicist / Geologist

All geological and geophysical data, including the interpretation thereof, appearing on this map is the private and confidential property of Pan American Petroleum Corporation. The publication or reproduction thereof without the written permission of said Corporation is strictly prohibited.

VELOCITY PLAT AND EFFECT OF REF. PLANE AND/OR VELOCITY ON TIME MAP

PAN AMERICAN PETROLEUM CORPORATION
CANADIAN DIVISION
NORTH CANADIAN DISTRICT

AREA: North Celibeta	GRID: CM-19/NE
PROVINCE: Northwest Territories	SCALE: 1" = 4000'
HORIZON: SURFACE ELEV.	
TYPE OF MAP: STR.	CONTOUR INT. 100 FT.
SHOT BY: U-40	FOR: PAN AM
INCL. DATES	
INTERP. BY:	CO AFFIL.
REPORT No.	DATE
REMARKS	
GEOLOGICAL INT.	DATE
FROM GEOPH REPORT No.(s)	DATED
REMARKS	



CN8876

MAP EVALUATION

Geologic Data
Reliable Geophysical Data
Qualitatively Reliable Geophysical Data
Unreliable Geophysical Data

SHOOTING HISTORY (Not in detail)

INCL DATES	SHOT BY	SHOT FOR	S.P. AND/OR LINE No's	FINAL REPORT No
Jan - Mar 1959	Heiland	Can Southern	Lines 2,3,4,8	Final
Jan - Mar 1959	United 40	Pan Am	Lines 10,13	Final
Jan - Feb 1960	United 40	Pan Am	[illegible]	NCD-10
Jan 1960	WGC F-39	Pan Am	Line 1, S.P. 1-29	NCD-10

INTERPRETIVE HISTORY

DATE	INTERP.	CO AFFIL	APPROX LOC ON MAP
May 29/59	G.E. Longphee	United 83	60°07', 60°19'
May 29/59	G.E. Longphee	United 40	121°50', 60°25'
Apr 19/60	F.T. Foo	United 40	60°20', 60°30'
Apr 19/60	R.H. Whitt	WGC F-39	60°00'

VELOCITY PLAT AND EFFECT OF WET FLOOD AND/OR VELOCITY ON TIME MAP

PAN AMERICAN PETROLEUM CORPORATION
CANADIAN DIVISION
NORTH CANADIAN DISTRICT

AREA	Muskeg River	GRID	CM-20/SW
PROVINCE	Northwest Territories	SCALE	1" = 4000'
HORIZON	SURFACE ELEVATION		
TYPE OF MAP	STR.	CONTOUR INT	100 FT
SHOT BY	U-40	FOR	PAN AM
INCL DATES			
INTERP BY		CO AFFIL	
REPORT No		DATE	
REMARKS			
GEOLOGICAL INT		DATE	
FROM GEOPH REPORT No (s)		DATED	
REMARKS			

GEOLOGICAL & EVALUATION
RESOURCES DIVISION
AUG 18 1962
OTTAWA, CANADA.
Dept. of Northern Affairs & National Resources

Abstracted for
Geo-Science Data Index

Date ____________

REPORT OF GEOPHYSICAL AND SEISMOGRAPH REFLECTION SURVEY

Conducted By

United Geophysical Company of Canada

for

Pan American Petroleum Corporation

This Report Covers the Period From January 13, 1959 to September 9, 1960

On and Immediately Off

TROUT LAKE PERMIT NOS. 1568, 2692, 2693, 2694,
2703 AND 2704 N.W.T.

Prepared By

M. A. Knock
District Geophysicist

September 21, 1960.

Submitted in accordance with Government Regulations
Under Section 29(c) of the Territorial Lands Act.

TABLE OF CONTENTS

T E X T

INTRODUCTION

During the period January 13, 1959, to September 9, 1960, a seismograph reflection survey was conducted by United Geophysical Company for Pan American Petroleum Corporation. During the period January 13, 1959, to March 31, 1959, United Geophysical spent a total of 28.625 days on and immediately off Permit Number 1568. During the period January 1, 1960, to March 31, 1960, United Geophysical spent a total of 67.820 days on and immediately off Permit Nos. 1568, 2692, 2693, 2694, 2703 and 2704, making a grand total of 96.445 days spent on and immediately off the above mentioned permits during the entire period.

The lines shot by United Geophysical were on bulldozed trails which were predozed prior to the seismic shooting. Two separate dozing contractors were employed - one dozed line in 1959 for the program shot in that year, and the other cutting line December of 1959 and January and February of 1960 for the 1960 program.

United Geophysical Company was under the supervision of George Lonphee, Party Chief during the 1959 program and Fred Foo was the supervisor in charge of the 1960 operations. The preliminary interpretation was carried on simultaneously with the field work.

The camp used by this party during 1959 was an expendible plywood camp which was abandoned in the area upon completion of the winter program. During 1960, the crew utilized a "high-boy" type trailer camp consisting of a kitchen-sleeper combination, a utility-sleeper combination and an office-sleeper combination. The survey was conducted with equipment mounted on trucks.

No unusual operating problems were encountered during the operations in this area.

T E X T (Continued)

SEISMIC TECHNIQUE

Shot holes averaged 45 feet in depth. Depth of shot was determined by near surface lithology with best results obtained when shot was detonated in either clay or shale.

Normal shot size averaged 6 pounds per shot or 2 pounds per hole. The three-hole pattern was employed throughout the entire area. During 1959 the average spread length was approximately 1900 feet, while in 1960 the spread length was increased to 2640 feet.

The energy was recorded on split spreads as diagrammed on Figures 1 and 2. The instruments used by United Geophysical Company were the 1-38M Type, manufactured by United Geophysical Company. An average of 3 Mayhew 1000 foot drills, owned by United Geophysical Company, were used to drill the shot holes in this area.

The reflection method was used to obtain the subsurface data; however, the refraction method was used to correct for near surface weathering and drift irregularities.

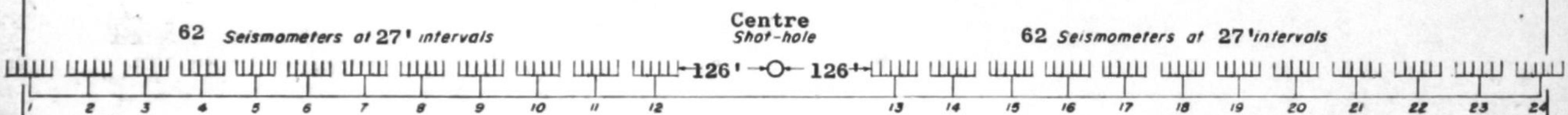
The data that appears on the subsurface maps are vertical two-way times between an arbitrary reference plane and the particular horizon mapped.

Respectfully submitted,

PAN AMERICAN PETROLEUM CORPORATION

By: M. A. Knock

M. A. Knock,
District Geophysicist.



Party: United #40

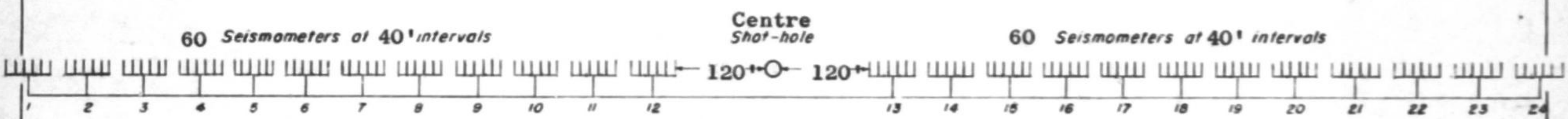
Area: Trout Lake

Permit: 1568

Spread Length: 1900 feet

Year: 1959

Figure #1.



Party: United #40

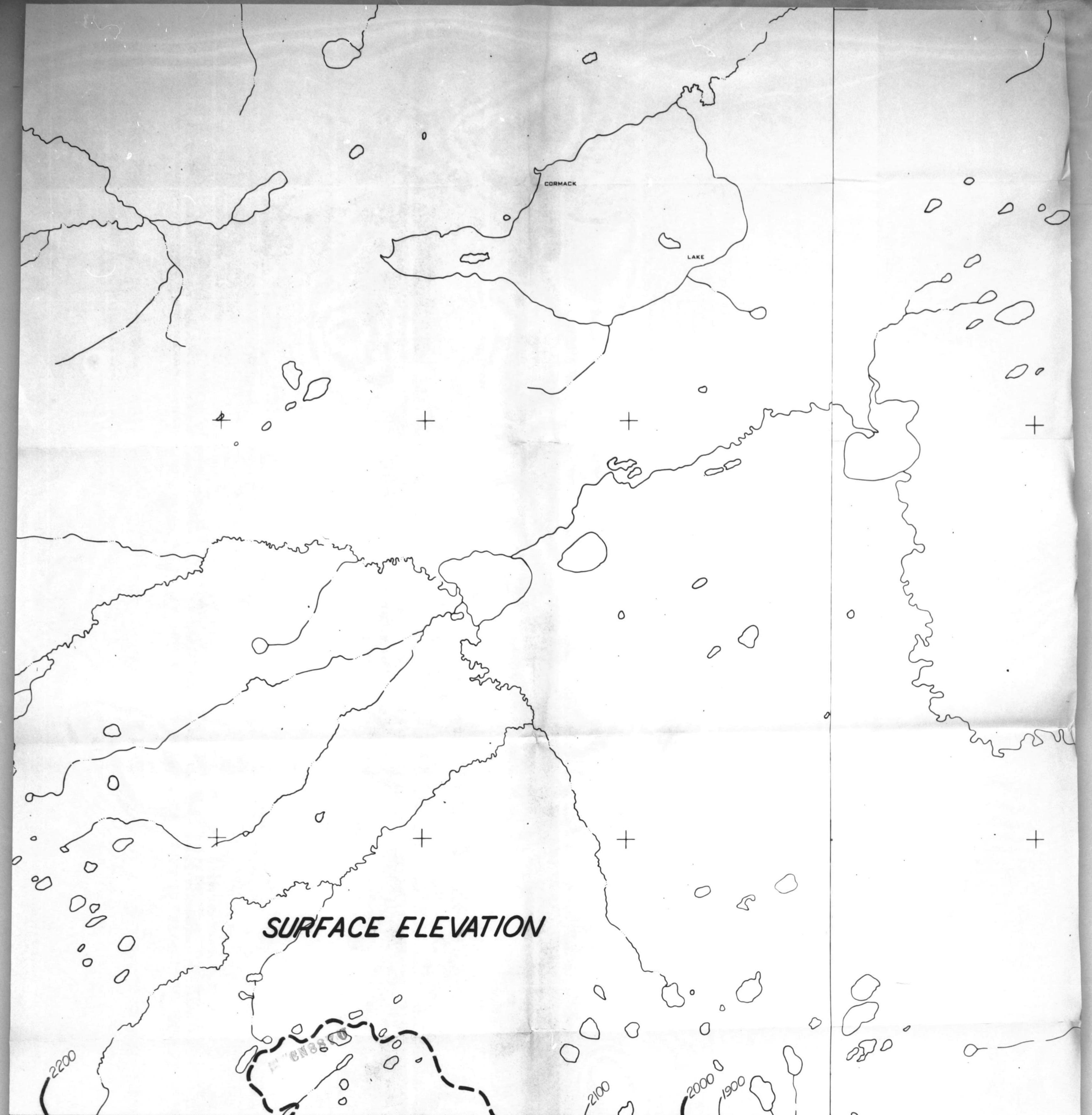
Area: Trout Lake

Permits: 1568, 2692, 2693, 2694, 2703, 2704

Spread Length: 2640 feet

Year: 1960

Figure #2.



CN8870

MAP EVALUATION
Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, (geophysical or geological)
Geological data
Reliable Geophysical Data
Qualitatively Reliable Geophysical data
Unreliable Geophysical Data

SHOOTING HISTORY (Not in detail) / INTERPRETIVE HISTORY

INCL. DATES	SHOT BY	SHOT FOR	S.P. AND/OR LINE No's	FINAL REPORT No.	DATE	INTERP.	CO. AFFIL.	APPROX. LOC. ON MAP
Jan.-Mar. 1959	United 40	Pan Am	LINES 6,8,9,11-16,18,21	Final	May 29/59	G.E. Longphee	United 40	60°30'-60°40'

This map checked by

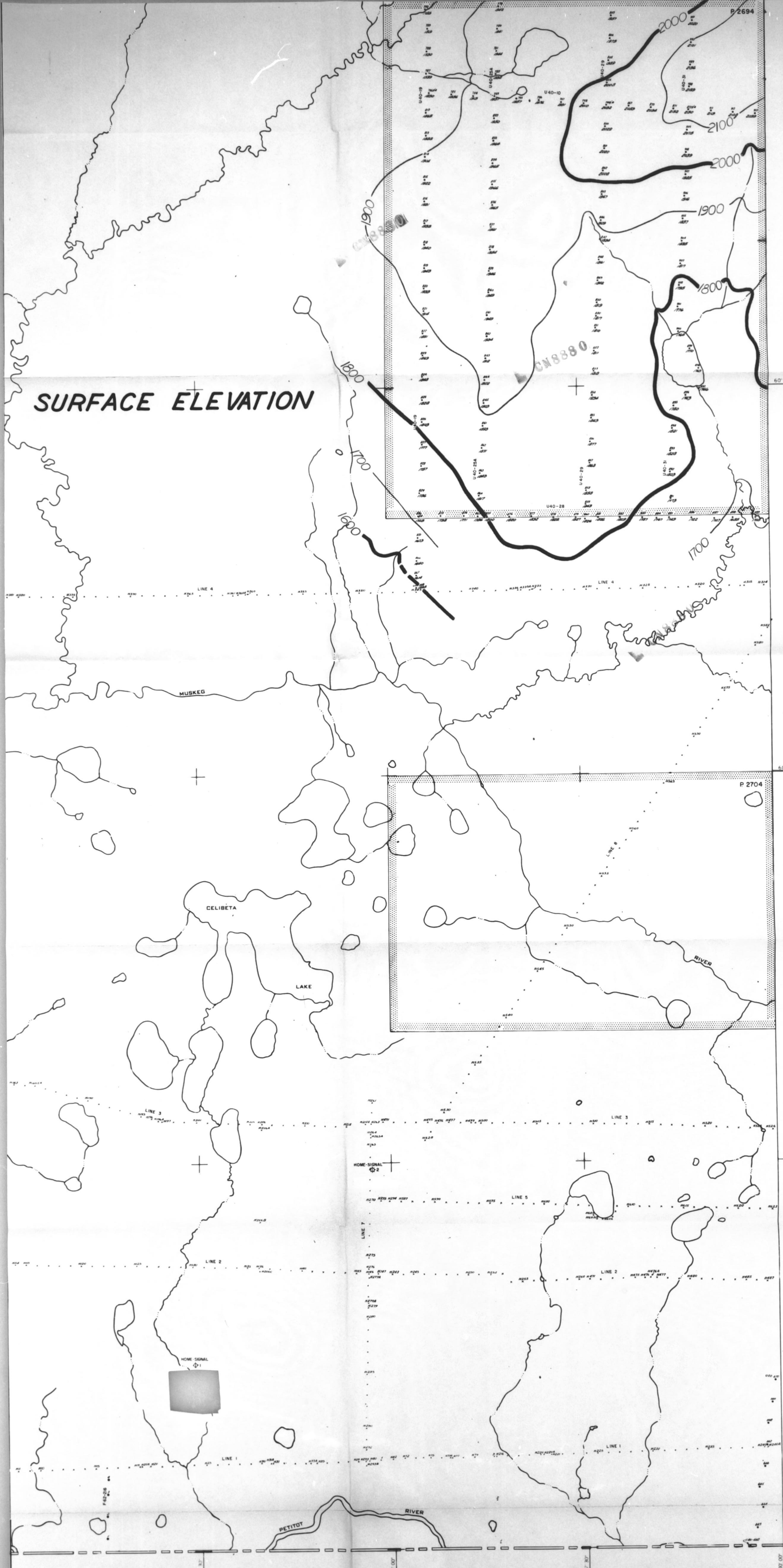
PAN AMERICAN PETROLEUM CORPORATION
CANADIAN DIVISION
NORTH CANADIAN DISTRICT

AREA Cormack Lake	GRID CM-20/NW
PROVINCE Northwest Territories	SCALE 1" = 4000'
HORIZON SURFACE ELEV.	
TYPE OF MAP STR.	CONTOUR INT. 100 FT
SHOT BY U. 40	FOR PAN. AM.
INCL. DATES	
INTERP. BY	CO. AFFIL.
REPORT No.	DATE
REMARKS	
GEOLOGICAL INT.	DATE
FROM GEOPH REPORT No.(s)	DATED
REMARKS	

MAP EVALUATION
Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, (geophysical or geological)
Geological data
Reliable Geophysical Data
Qualitatively Reliable Geophysical data
Unreliable Geophysical Data
RELIABLE

SHOOTING HISTORY

INCL. DATES	SHOT BY
Mar. 1959	United 40
Mar. 1960	Western 39



CN8880

MAP EVALUATION

Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, (geophysical or geological)

- Geological data
- Reliable Geophysical Data
- Qualitatively Reliable Geophysical data
- Unreliable Geophysical Data

SHOOTING HISTORY (Not in detail)

INCL. DATES	SHOT BY	SHOT FOR	S.P. AND/OR LINE No's
Jan - Mar, 1959	Heiland	Con. Southern	Lines 1 to 8
Jan - Feb, 1960	United 40	Pan American	Lines 10, 13, 15, 28, 29, 31, 32A
Jan 1960	Western F-62	-	S.P. 1-4; Line 216

INTERPRETIVE HISTORY

FINAL REPORT No.	DATE	INTERP.	CO. AFFIL.	APPROX. LOC. ON MAP
Final	May 29, 59	G.E. Longphee	United 63	60°00'-60°20'
9	March 18, 60	F.T. Foo	United 40	NE & SE Quadrant
213	March 8, 60	J.D. Houston	Western 62	122°26' 60°00'

This map replaces/supplements Registration No. ________ dated ________, which is to be destroyed/kept (Refer transmittal dated ________)

Map distribution: ☐ Division ☐ General Office

Other maps prepared this report

This map checked by ________ Pan Am. Geophysicist/Geologist

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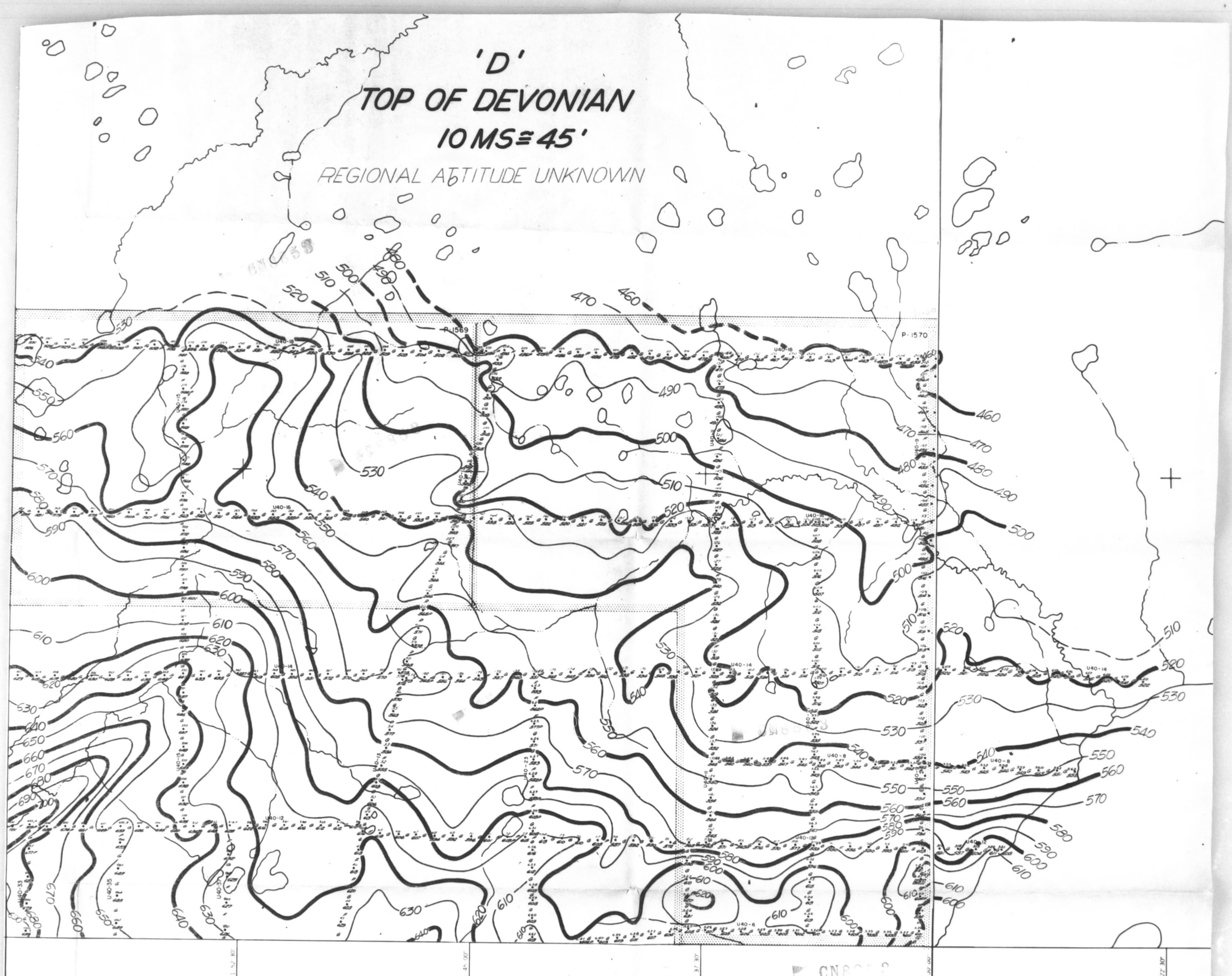
VELOCITY PLAT AND EFFECT OF REF. PLANE AND/OR VELOCITY ON TIME MAP

LEGEND
- Conventional Survey
- C.V.L.
- Synthetic Record
- Computed Velocity

PAN AMERICAN PETROLEUM CORPORATION
CANADIAN DIVISION
NORTH CANADIAN DISTRICT

AREA: Celibeta	GRID: CM19/SE
PROVINCE: Northwest Territories	SCALE: 1" = 4000'
HORIZON: SURFACE ELEV.	
TYPE OF MAP: STR.	CONTOUR INT. 100 FT
SHOT BY: U-40	FOR: PAN AM
INCL. DATES:	
INTERP. BY:	CO. AFFIL.:
REPORT No.	DATE:
REMARKS	

GEOLOGICAL INT.:	DATE
FROM GEOPH. REPORT No.(s)	DATED
REMARKS	



MAP EVALUATION

Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, (geophysical or geological)

- Geological data
- Reliable Geophysical Data
- Qualitatively Reliable Geophysical data
- Unreliable Geophysical Data

SHOOTING HISTORY (Not in detail)

INCL. DATES	SHOT BY	SHOT FOR	S.P. AND/OR LINE No's
Jan.-Mar. 1959	United 40	Pan Am	LINES 6,8,9,11-16,18,21

INTERPRETIVE HISTORY

FINAL REPORT No.	DATE	INTERP.	CO. AFFIL.	APPROX. LOC. ON MAP
Final	May 29/59	G.E. Longphee	United 40	60°30'-60°40'
E60-27	Oct. 15/60	C.J. Frankovitch	United 40	60°30'-60°40'

PAN AMERICAN PETROLEUM CORPORATION
CANADIAN DIVISION
NORTH CANADIAN DISTRICT

AREA Cormack Lake GRID CM-20/NW
PROVINCE Northwest Territories SCALE 1" = 4000'
HORIZON 'D' TOP OF DEVONIAN
TYPE OF MAP STRUCTURE CONTOUR INT. .010 SEC.
SHOT BY UNITED 40 FOR PAN AMERICAN
INCL. DATES
INTERP. BY C.J. FRANKOVITCH CO. AFFIL. UNITED 40
REPORT No. E60-27 DATE OCT 15/60
REMARKS

GEOLOGICAL INT. DATE
FROM GEOPH. REPORT No.(s) DATED
REMARKS

CN8767

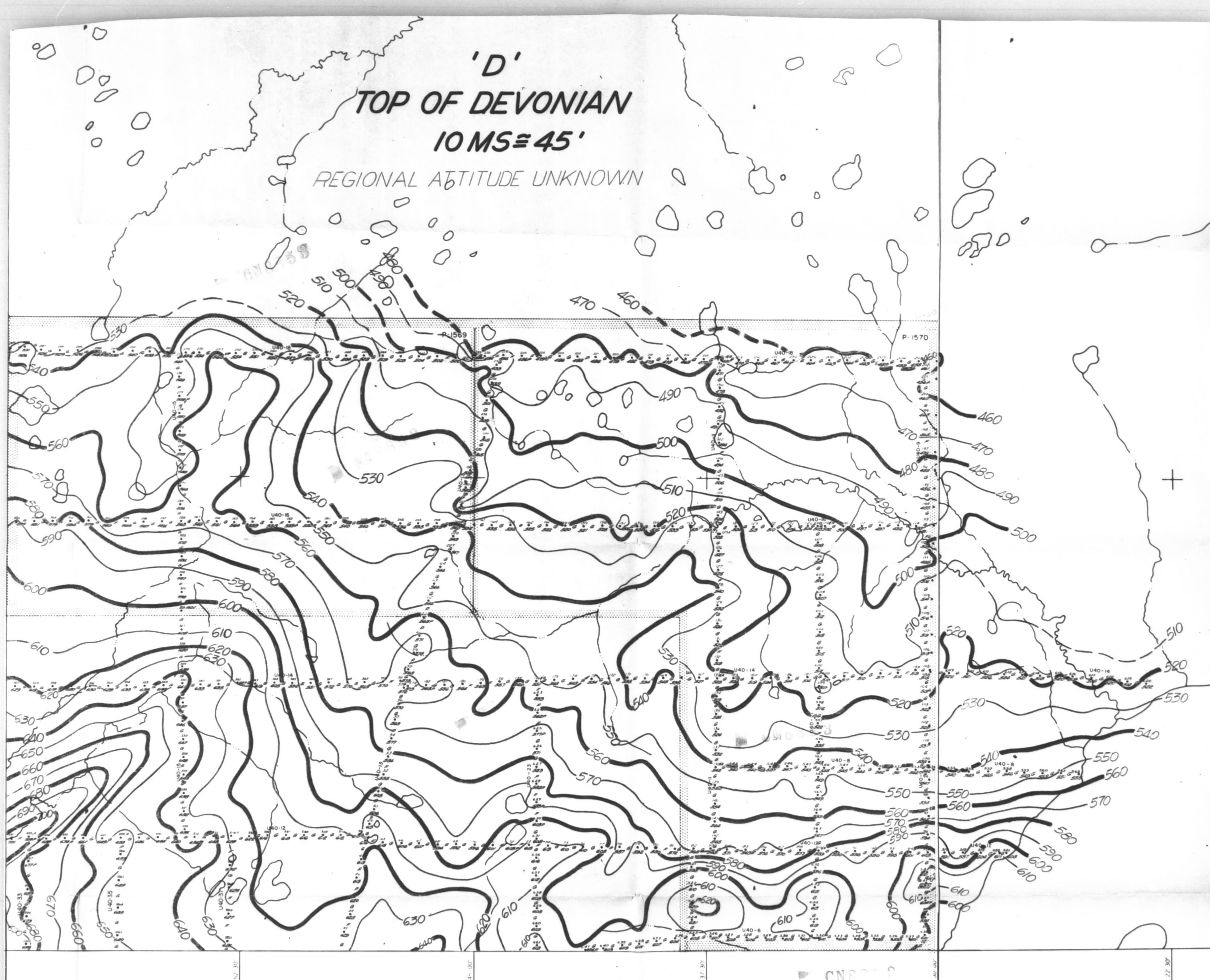
MAP EVALUATION

Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, (geophysical or geological)

- Geological data
- Reliable Geophysical Data
- Qualitatively Reliable Geophysical data
- Unreliable Geophysical Data

SHOOTING HISTORY

INCL. DATES	SHOT BY
Mar. 1959	United 40
Mar. 1960	Western 39



MAP EVALUATION

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- Geological data
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- Qualitatively Reliable Geophysical data
- Unreliable Geophysical Data

SHOOTING HISTORY (Not in detail)

INCL DATES	SHOT BY	SHOT FOR	S.P. AND/OR LINE No's
Jan-Mar. 1959	United 40	Pan Am	LINES 6,8,9,11-16,19,21

INTERPRETIVE HISTORY

FINAL REPORT No	DATE	INTERP	CO AFFIL	APPROX LOC ON MAP
Final	May 29/59	G.E. Longphee	United 40	60°30'-60°40'
E60-27	Oct. 15/60	C.J. Frankovitch	United 40	60°30'-60°40'

VELOCITY PLAT

ARS

VEL PLAT

PAN AMERICAN PETROLEUM CORPORATION

CANADIAN DIVISION

NORTH CANADIAN DISTRICT

AREA Cormack Lake GRID CM-20/NW
PROVINCE Northwest Territories SCALE 1" = 4000'
HORIZON 'D' TOP OF DEVONIAN
TYPE OF MAP STRUCTURE CONTOUR INT .010 SEC.
SHOT BY UNITED 40 FOR PAN AMERICAN
INCL DATES
INTERP BY C.J FRANKOVITCH CO AFFIL UNITED 40
REPORT No E60-27 DATE OCT 15/60
REMARKS

GEOLOGICAL INT DATE
FROM GEOPH REPORT No (s) DATED
REMARKS

CN 8767

MAP EVALUATION

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- Geological data
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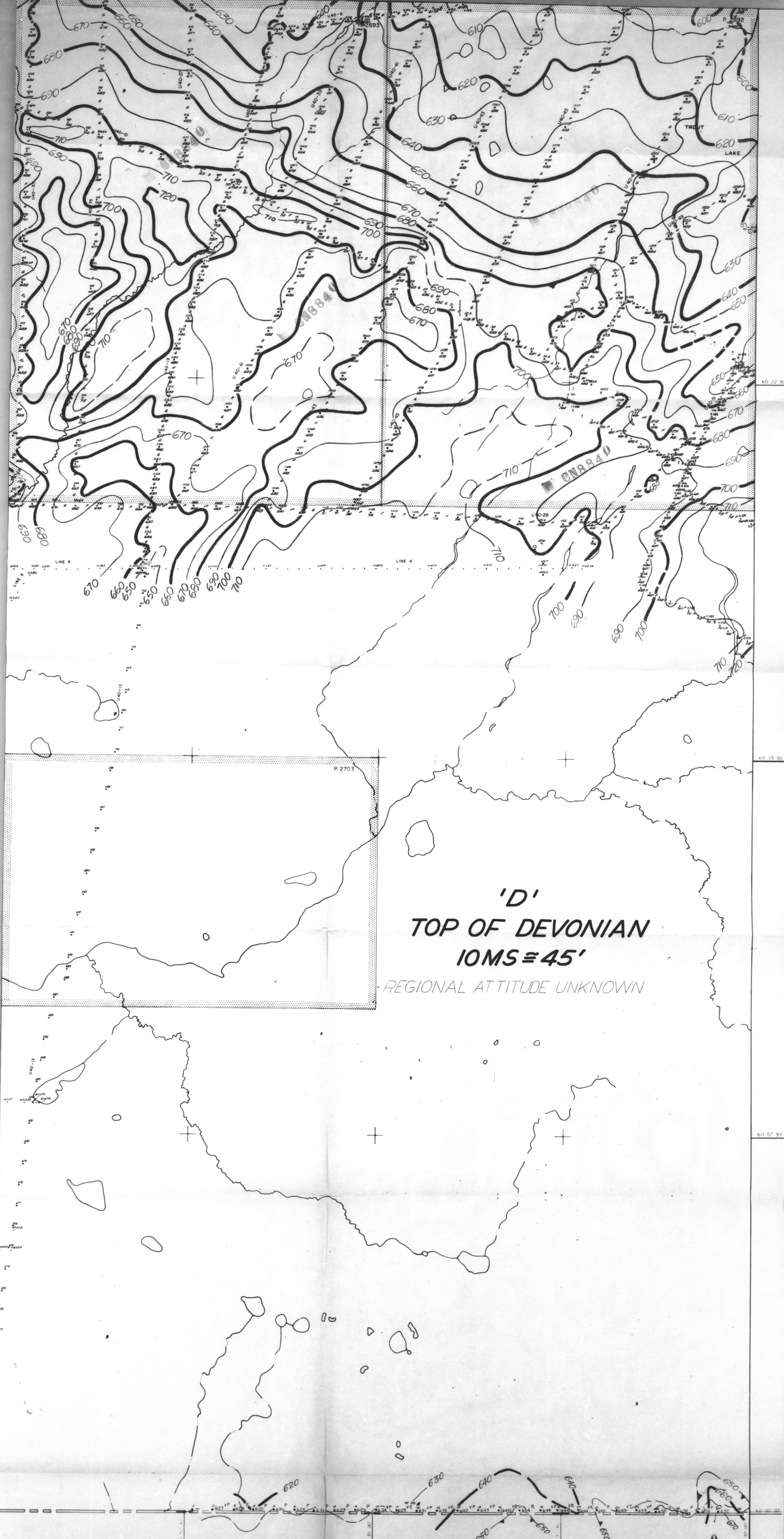
- Qualitatively Reliable Geophysical data
- Unreliable Geophysical Data

SHOOTING HISTO

INCL DATES	SHOT BY
Mar. 1959	United 40
Mar. 1960	Western 39



MAP EVALUATION

Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, (geophysical or geological)

- Geological data
- Reliable Geophysical Data
- Qualitatively Reliable Geophysical data
- Unreliable Geophysical Data

SHOOTING HISTORY (Not in detail)

INCL. DATES	SHOT BY	SHOT FOR	S.P. AND/OR LINE No's
Jan.-Mar. 1959	Heiland	Can. Southern	Lines 2,3,4,8
Jan.-Mar. 1959	United 40	Pan Am	Lines 10,13
Jan.-Feb. 1960	United 40	Pan Am	Lines 10,13,28,30,33,35,37,39,41,43,45,47,49,51
Jan. 1960	WGC F-39	Pan Am	Line 1, S.P. 1-29

INTERPRETIVE HISTORY

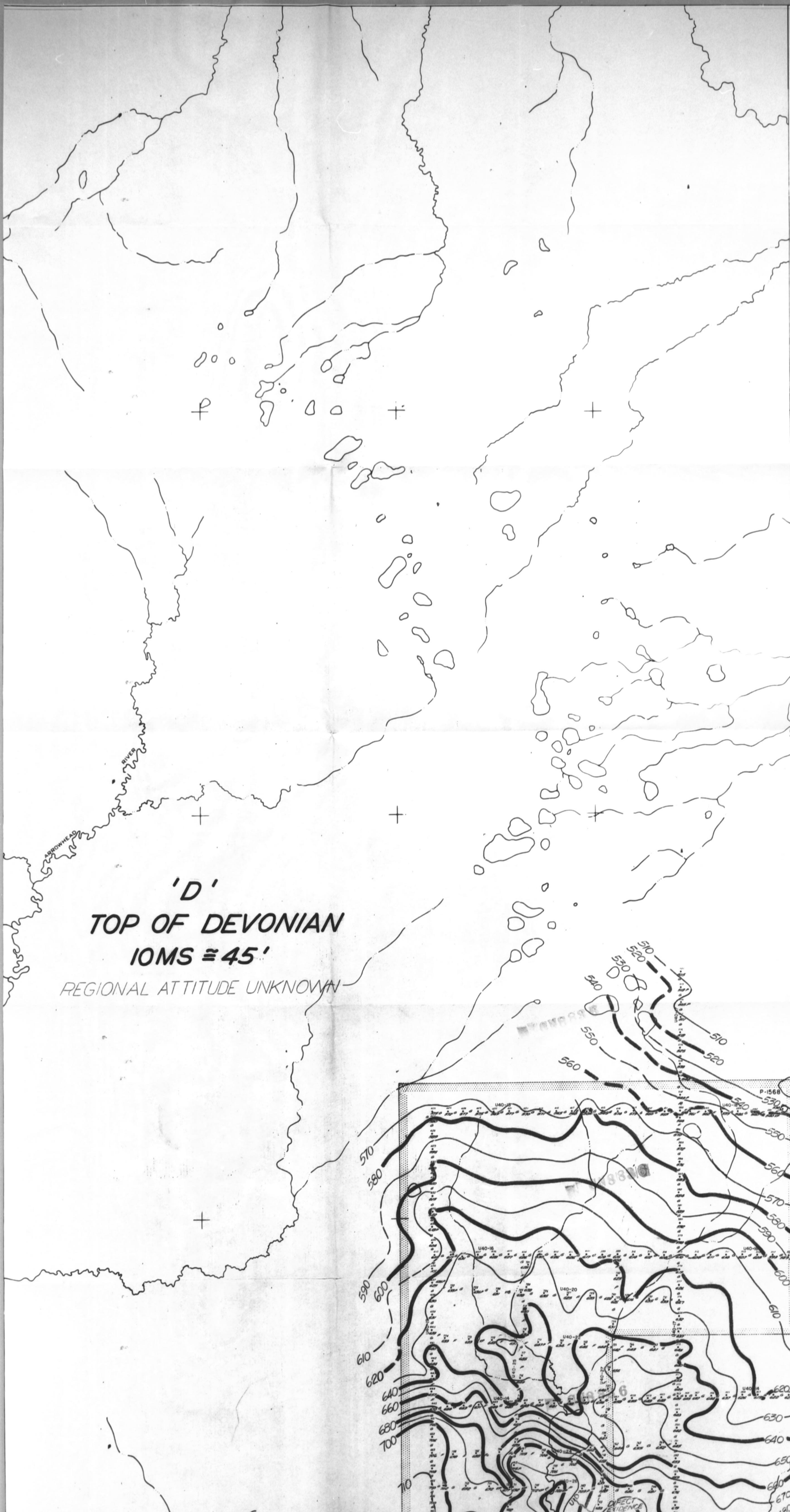
FINAL REPORT No.	DATE	INTERP.	CO. AFFIL.	APPROX. LOC. ON MAP
Final	May 29/59	G.E. Longphee	United 83	60°07', 60°19'
Final	May 29/59	G.E. Longphee	United 40	121°50', 60°25'
NCD-10	Apr. 19/60	F.T. Foo	United 40	60°20', 60°30'
NCD-10	Apr. 19/60	R.H. Whitt	WGC F-39	60°00'
E60-27	Oct. 15/60	C.J. Frankovitch	United 40	60°20'-60°30'

CN8840

PAN AMERICAN PETROLEUM CORPORATION
CANADIAN DIVISION
NORTH CANADIAN DISTRICT

AREA: Muskeg River	GRID: CM-20/SW
PROVINCE: Northwest Territories	SCALE: 1" = 4000'
HORIZON: 'D' TOP OF DEVONIAN	
TYPE OF MAP: STRUCTURE	CONTOUR INT.: 010 SEC.
SHOT BY: UNITED 40	FOR: PAN AMERICAN
INCL. DATES:	
INTERP. BY: C.J. FRANKOVITCH	CO. AFFIL.: UNITED 40
REPORT No. E60-27	DATE:
REMARKS:	
GEOLOGICAL INT.:	DATE
FROM GEOPH. REPORT No.(s)	DATED
REMARKS: Seismic Obtained by Trade	

CM 8768



MAP EVALUATION
Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, (geophysical or geological)
Geological data
Reliable Geophysical Data
Qualitatively Reliable Geophysical data
Unreliable Geophysical Data

SHOOTING HISTORY (Not in detail)

INCL. DATES	SHOT BY	SHOT FOR	S.P. AND/OR LINE No's
Jan.-Mar 1959	United 40	Pan Am	LINES 12,14,16-19
Jan 1960	United 40	Pan Am	LINES 20,22,24-27

INTERPRETIVE HISTORY

FINAL REPORT No.	DATE	INTERP	CO AFFIL	APPROX. LOC ON MAP
Final	May 29/59	G.E. Longphee	United 40	SE Quadrant
9	Mar 16/60	F.T. Foo	United 40	122°08'-60°34'
E60-27	Oct. 15/60	C.J. Frankovitch	United 40	60°30'-60°40'
5				

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Map distribution: Division / General Office

Other maps prepared this report

This map checked by ______ Pan Am Geophysicist / Geologist

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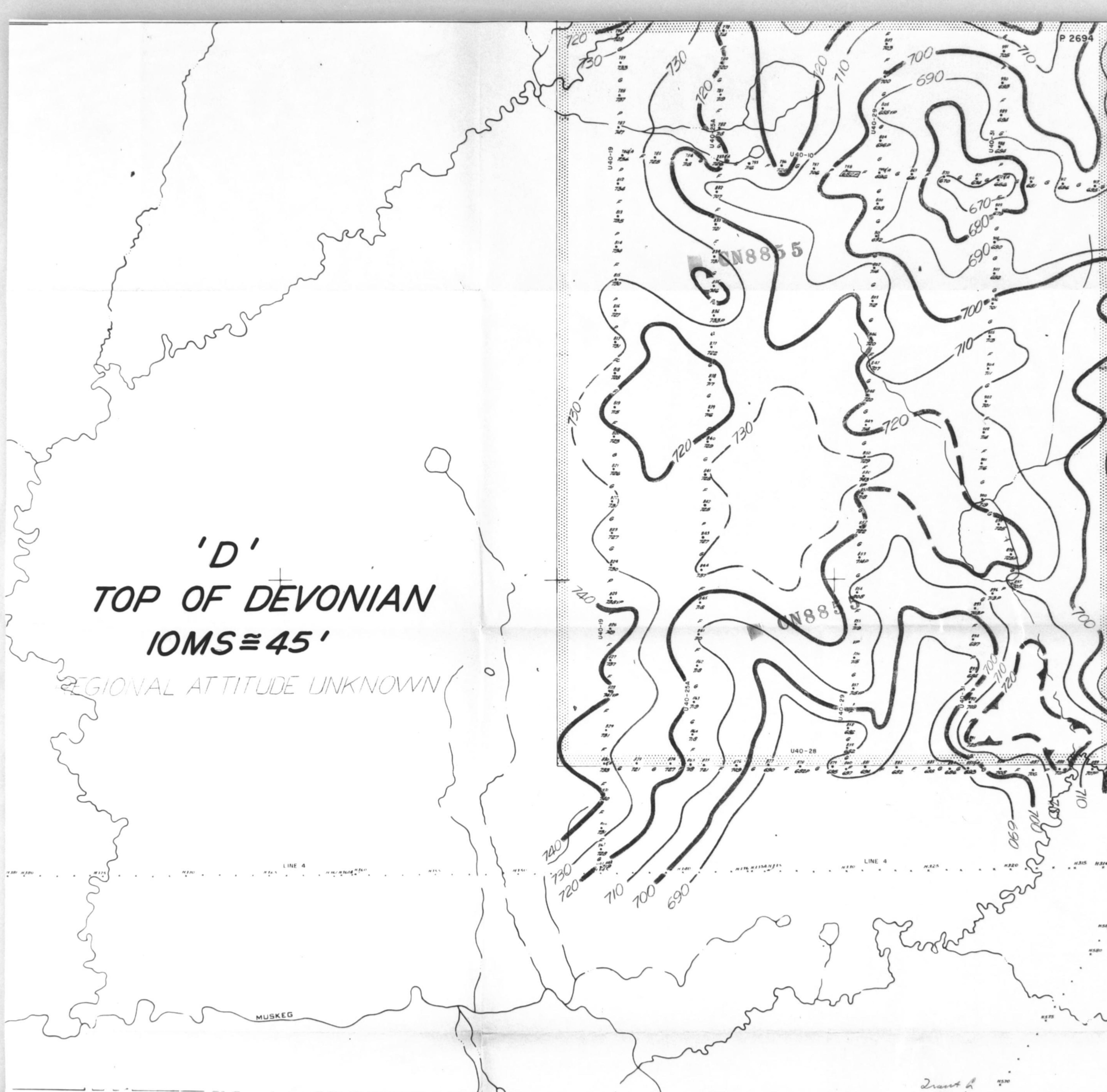
VELOCITY PLAT AND EFFECT OF REF. PLANE AND/OR VELOCITY ON TIME MAP

PAN AMERICAN PETROLEUM CORPORATION
CANADIAN DIVISION
NORTH CANADIAN DISTRICT

AREA: North Celibeta	GRID: CM-19/NE
PROVINCE: Northwest Territories	SCALE: 1" = 4000'
HORIZON: 'D' TOP OF DEVONIAN	
TYPE OF MAP: STRUCTURE	CONTOUR INT: .010 SEC.
SHOT BY: UNITED 40	FOR: PAN AMERICAN
INCL. DATES	
INTERP BY: C.J. FRANKOVITCH	CO AFFIL: UNITED 40
REPORT No: E60-27	DATE: OCT 4/60
REMARKS	

CN8836

GEOLOGICAL INT. DATE
FROM GEOPH. REPORT No. (D) DATE
REMARKS



CN8855

MAP EVALUATION

Qualification considers type of map or play, amount of relief considered critical, quality of data and density of control, geophysical or geological

- Geological data
- Reliable Geophysical Data
- Qualitatively Reliable Geophysical data
- Unreliable Geophysical Data

SHOOTING HISTORY (Not in detail)

INCL DATES	SHOT BY	SHOT FOR	S.P. AND/OR LINE No's
Jan - Mar, 1959	Heiland	Can Southern	Lines 1 to 8
Jan - Feb, 1960	United 40	Pan American	Lines 10, 13, 19, 28, 29, 31, 264
Jan 1960	Western F-62	"	S.P.1-4, Line 216

INTERPRETIVE HISTORY

FINAL REPORT No.	DATE	INTERP	CO AFFIL	APPROX LOC ON MAP
Final	May 29, 59	G E Longphee	United 83	60°00'-60°20'
9	March 18, 60	F T Foo	United 40	NE & SE Quadrant
213	March 8, 60	J D Houston	Western 62	122°26' 60°00'
E60-27	Oct. 15/60	C.J. Frankovitch	United 40	60°20'-60°30'

PAN AMERICAN PETROLEUM CORPORATION
CANADIAN DIVISION
NORTH CANADIAN DISTRICT

AREA: Celibeta GRID: CM19/SE
PROVINCE: Northwest Territories SCALE: 1" = 4000'
HORIZON: 'D' TOP OF DEVONIAN
TYPE OF MAP: STRUCTURE CONTOUR INT: .010 SEC.
SHOT BY: UNITED 40 FOR: PAN AMERICAN
INCL DATES:
INTERP BY: C.J. FRANKOVITCH CO AFFIL: UNITED 40
REPORT No: E60-27 DATE: OCT 15/60
REMARKS:

GEOLOGICAL INT DATE
FROM GEOPH REPORT No (s) DATED
REMARKS: * Seismic Obtained by Trade

CN8765