

**CN8868** **CNR 68**

**PAN AMERICAN PETROLEUM CORPORATION**  
 NORTH CAROLINA DISTRICT  
 JAMES H. TOMPKINS  
 10000000, Surface Elevations  
 1:40000  
 DATE OF MAP: 1954  
 DATE OF SURVEY: 1954  
 DATE OF PUBLICATION: 1954  
 SCALE: 1:40000  
 SHEET NO. 1800  
 SHEET TOTAL: 1800

**MAP EVALUATION**  
 THIS MAP IS A REPRODUCTION OF A MAP WHICH WAS PREPARED BY THE U.S. ARMY ENGINEERING CENTER, WASHINGTON, D.C. IN 1954. IT IS A REPRODUCTION OF A MAP WHICH WAS PREPARED BY THE U.S. ARMY ENGINEERING CENTER, WASHINGTON, D.C. IN 1954. IT IS A REPRODUCTION OF A MAP WHICH WAS PREPARED BY THE U.S. ARMY ENGINEERING CENTER, WASHINGTON, D.C. IN 1954.

**SHOOTING HISTORY (Map in detail)**  
 DATE: 1954  
 BY: J. H. TOMPKINS  
 PROJECT: 1800

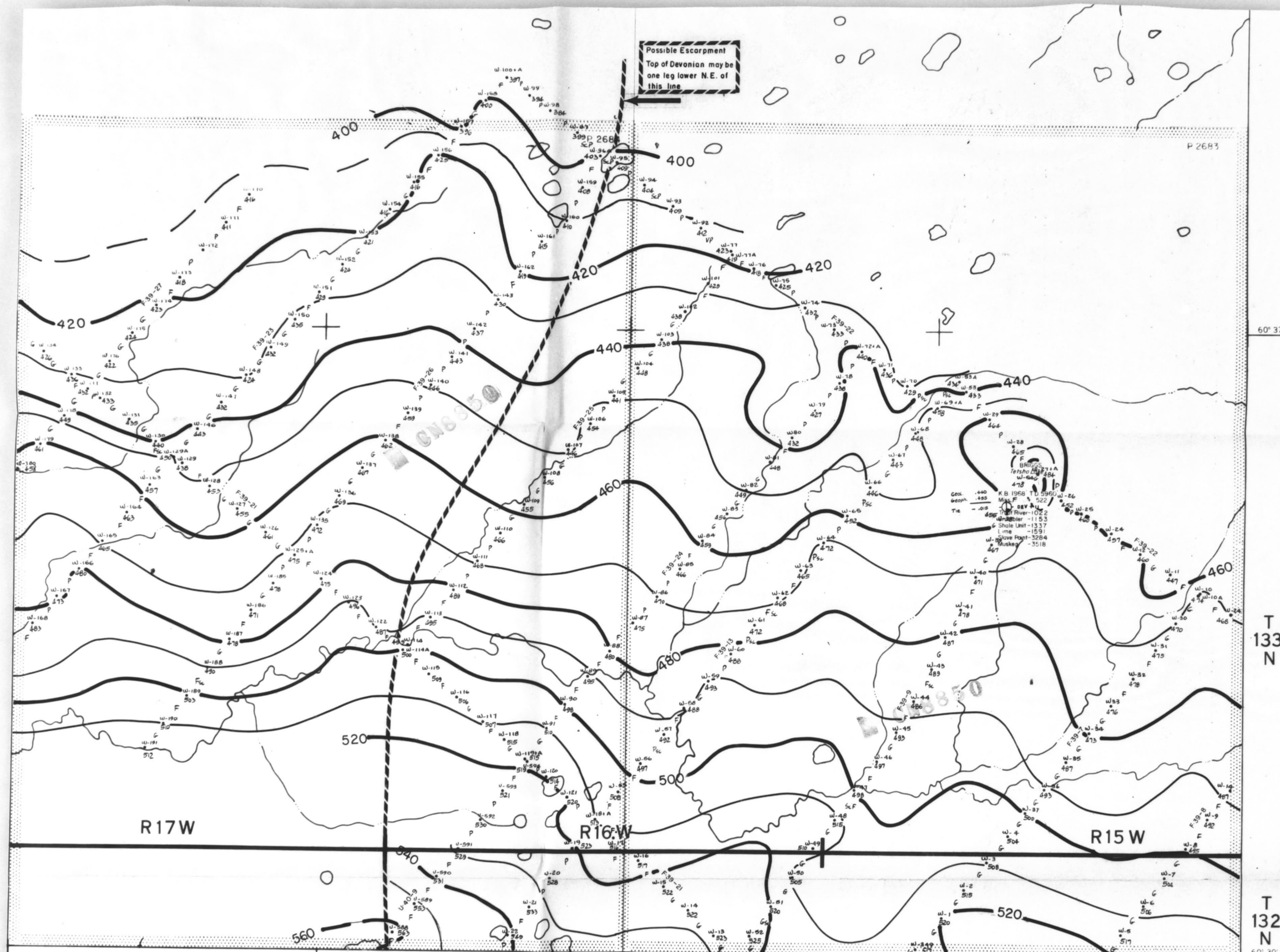
**INTERPRETIVE HISTORY**  
 DATE: 1954  
 BY: J. H. TOMPKINS  
 PROJECT: 1800

**RELIABLE**









**MAP EVALUATION**

2. This section considers type of map or play, amount of relief considered, critical quality of data and density of control, (topographical or geological).

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

**RELIABLE**

SHOOTING HISTORY (Not in detail)				INTERPRETIVE HISTORY			
INCL DATES	SHOT BY	SHOT FOR	SP AND/OR LINE No's	FINAL REPORT No.	DATE	INTERP	CO AFFIL
MARCH, 1960	WGC U-40	PAN AM	LINE 9-9	W-60-32	OCT. 31/60	R. H. WHITT	W. G. C.
MARCH, 1960	WGC F-19	PAN AM	LINES 7-9, 10, 31-37				

This map registers/registrations Registration No. \_\_\_\_\_ which is to be destroyed/lost after \_\_\_\_\_

Map distribution:  Drawn  General Office  
 Other maps prepared this report: \_\_\_\_\_

This map checked by: \_\_\_\_\_

At geophysical and geophysical data, including the interpretation thereof, appearing on this map, the accuracy and confidence of the data is the responsibility of the person or persons who prepared the data. The interpretation thereof is the responsibility of the person or persons who prepared this map.

VELOCITY PLAT AND EFFECT OF REF. P. AND SPO. ON VELOCITY ON THIS MAP

**LEGEND**

- Geophysical Survey
- C.S.I.
- Geophysical Record
- Computed Velocity

**PAN AMERICAN PETROLEUM CORPORATION**  
 CANADIAN DIVISION  
 EDMONTON DISTRICT

AREA: North Tethco Lake  
 PROVINCE: Northwest Territories  
 HORIZON: Top of Devonian  
 TYPE OF MAP: Time Structure  
 SHOT BY: W-39, U-40  
 INCL DATES: March 1960  
 INTERP BY: R.H. Whitt  
 REPORT No: W-60-32 (Final)  
 REMARKS: Island River

GRID: CM-21/NW  
 SCALE: 1" = 4000'  
 CONTOUR INT: 10ms  
 FOR: Pan Am.

CO AFFIL: W. G. C.  
 DATE: Oct 31, 1960

REMARKS

DATE DATED

*Whitt*

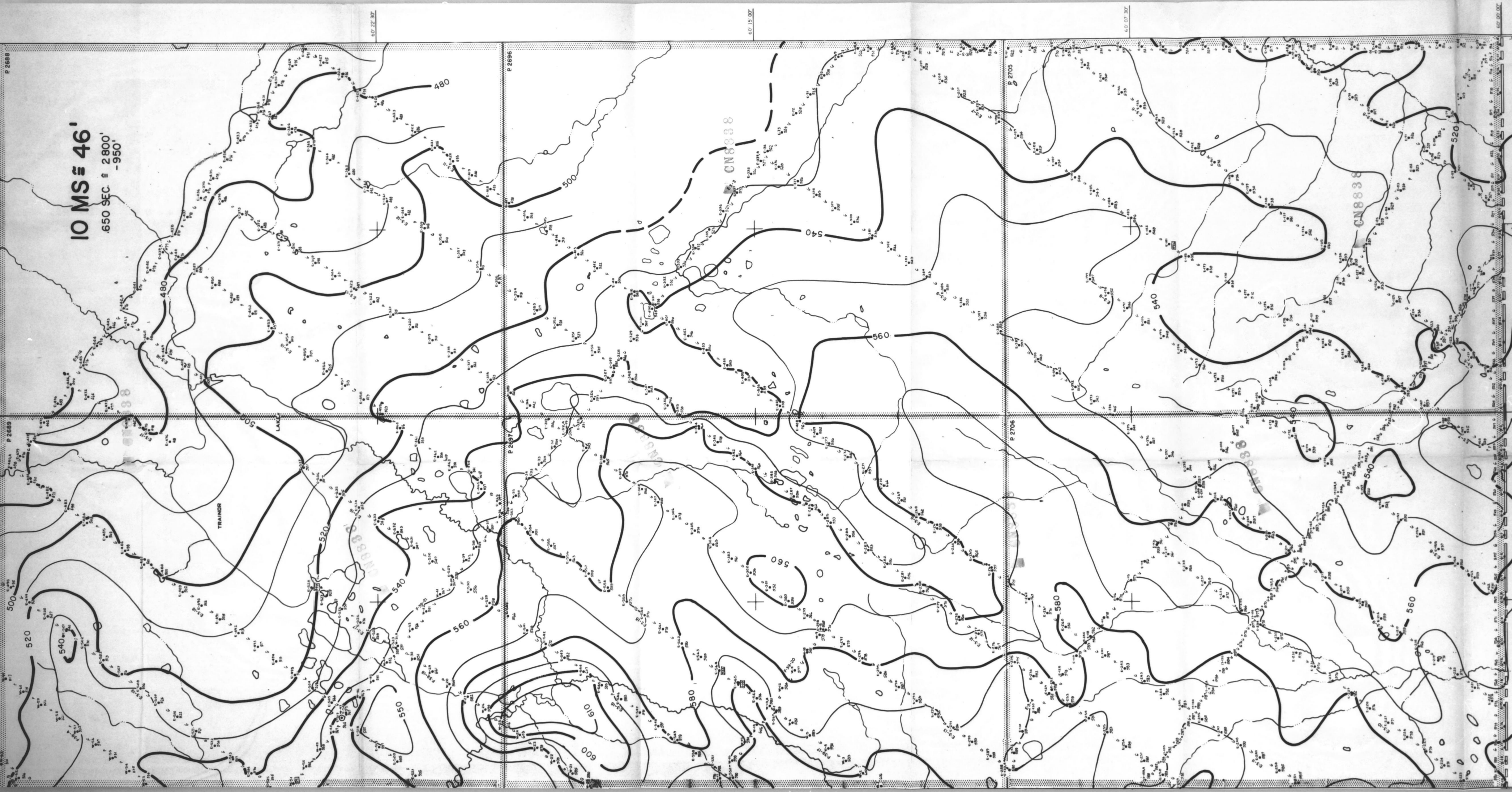








10 MS ± 46'  
650 SEC. ± 2800'  
-950'



**MAP EVALUATION**

DATE: 10/15/80  
BY: [Signature]  
REVISION: 1

**SHOOTING HISTORY (Not in detail)**

DATE	TIME	TYPE	DEPTH	STATUS
Jan 1984	10:00	Shot	10'	OK
Jan 1984	11:00	Shot	10'	OK
Jan 1984	12:00	Shot	10'	OK
Jan 1984	13:00	Shot	10'	OK
Jan 1984	14:00	Shot	10'	OK
Jan 1984	15:00	Shot	10'	OK
Jan 1984	16:00	Shot	10'	OK
Jan 1984	17:00	Shot	10'	OK
Jan 1984	18:00	Shot	10'	OK
Jan 1984	19:00	Shot	10'	OK
Jan 1984	20:00	Shot	10'	OK
Jan 1984	21:00	Shot	10'	OK
Jan 1984	22:00	Shot	10'	OK
Jan 1984	23:00	Shot	10'	OK
Jan 1984	24:00	Shot	10'	OK
Jan 1984	25:00	Shot	10'	OK
Jan 1984	26:00	Shot	10'	OK
Jan 1984	27:00	Shot	10'	OK
Jan 1984	28:00	Shot	10'	OK
Jan 1984	29:00	Shot	10'	OK
Jan 1984	30:00	Shot	10'	OK

**INTERPRETIVE HISTORY**

DATE	TIME	TYPE	DEPTH	STATUS
Jan 1984	10:00	Shot	10'	OK
Jan 1984	11:00	Shot	10'	OK
Jan 1984	12:00	Shot	10'	OK
Jan 1984	13:00	Shot	10'	OK
Jan 1984	14:00	Shot	10'	OK
Jan 1984	15:00	Shot	10'	OK
Jan 1984	16:00	Shot	10'	OK
Jan 1984	17:00	Shot	10'	OK
Jan 1984	18:00	Shot	10'	OK
Jan 1984	19:00	Shot	10'	OK
Jan 1984	20:00	Shot	10'	OK
Jan 1984	21:00	Shot	10'	OK
Jan 1984	22:00	Shot	10'	OK
Jan 1984	23:00	Shot	10'	OK
Jan 1984	24:00	Shot	10'	OK
Jan 1984	25:00	Shot	10'	OK
Jan 1984	26:00	Shot	10'	OK
Jan 1984	27:00	Shot	10'	OK
Jan 1984	28:00	Shot	10'	OK
Jan 1984	29:00	Shot	10'	OK
Jan 1984	30:00	Shot	10'	OK

**RELiable**

**PAN AMERICAN PETROLEUM CORPORATION**  
NORTH CANADIAN DISTRICT  
Geological Department  
10000 170th Street, Edmonton, Alberta, Canada T5A 0K6  
Geological Report No. 10000  
Date: 10/15/80  
By: [Signature]





**Abstracted for  
Geo-Science Data Index**

Date \_\_\_\_\_



REPORT OF GEOPHYSICAL AND SEISMOGRAPH REFLECTION SURVEY

Conducted By

Western Geophysical Company Limited  
United Geophysical Company of Canada  
Exploration Consultants Incorporated

for

Pan American Petroleum Corporation

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

On

ISLAND RIVER PERMIT NOS.

2682 - 2684

2688 - 2691

2696 - 2700

2705 - 2709

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.

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Shot Hole Plan and Elevation Maps for area reported.

Structure Contour Map for area reported.

(Maps are enclosed in envelope at the back of this report)

## T E X T

### INTRODUCTION

During the period March 9, 1959 to September 9, 1960, a seismograph reflection survey was conducted by United Geophysical Company of Canada, Western Geophysical Company Limited and Exploration Consultants Incorporated for Pan American Petroleum Corporation on Island River Permit Nos. 2682 to 2684, 2688 to 2691, 2696 to 2700 and 2705 to 2709. The program was shot during the months of January through March, 1960, spending a total of 192.698 days in the above mentioned area.

All lines were dozed by two dozing contractors cutting lines prior to the shooting of seismic program.

The crews were under the supervision of the following Party Chiefs:

United Geophysical Party 40	- Fred Foo
Western Geophysical Party F-39	- R. H. Whitt
E.C.I. Party #3	- V. Fitzer

The preliminary interpretation was carried on simultaneously with the field work.

The camps used by all three parties were the "high-boy" type camp consisting of a kitchen-sleeper unit, a utility-sleeper unit and office-sleeper unit. The equipment used by all parties was the wheel-mounted type.

No unusual operating problems were encountered by any of the parties during their operations in this area.

SEISMIC TECHNIQUE

Shot holes averaged 40 feet in depth throughout the area. Depth of shot was determined by near-surface lithology with best record quality obtained when the shot was detonated either in clay or shale. The three-hole shot hole pattern was used throughout the area by all parties.

Normal charge size averaged 7.5 pounds per shot point or 2.5 pounds per hole.

Spread lengths used varied for each crew as indicated on Figures 1 to 3. The energy was recorded on split spread in a manner shown on Figures 1 to 3.

The instruments used by each party are as follows:

United Geophysical - 1 - 38M type. Manufactured by United Geophysical.

Western Geophysical - FA-32 type. Manufactured by Western Geophysical.

E.C.I. - FA-39E type. Manufactured by Pan American Petroleum.

United Geophysical Party 40 and E.C.I. Party 3 utilized 3 Mayhew 1000 foot drills each, while Western Geophysical utilized two 1200 foot Western Geophysical type drills.

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,  
District Geophysicist.

60 Seismometers at 40' intervals

Centre  
Shot-hole

60 Seismometers at 40' intervals

120' - O - 120'



Party: United #40

Area: Island River

Permits: 2682 - 2684

2688 - 2691

2696 - 2700

2705 - 2709

Spread Length: 2640 feet

Figure #1.

72 Seismometers at 30' intervals

Centre  
Shot-hole

72 Seismometers at 30' intervals

230' —○— 230'



Party: Western F-39

Area: Island River

Permits: 2682 - 2684

2688 - 2691

2696 - 2700

2705 - 2709

Spread Length: 2640 feet.

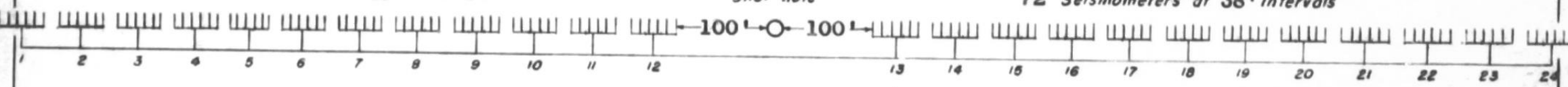
Figure #2.

72 Seismometers at 38' intervals

Centre  
Shot-hole

72 Seismometers at 38' intervals

100' —○— 100'



Party: E.C.I. #3

Area: Island River

Permits: 2682 - 2684

2688 - 2691

2696 - 2700

2705 - 2709

Spread Length: 2860 feet.

Figure #3.