

REPORT OF GEOPHYSICAL AND SEISMOGRAPH  
REFLECTION SURVEY

On and Off Northwest Territories Permit  
Numbers 2706, 2707 and 2708

Island River Area  $120^{\circ} 22' 30''$  W. Long.  
 $60^{\circ} 00' 00''$  N. Lat.

During the period Jan. 13, 1968 to Feb. 9, 1968

Prepared By: D. L. Birnie  
Exploration Group Supervisor

May 21, 1968

REPORT OF GEOPHYSICAL SURVEY

REPORT OF SEISMOGRAPH REFLECTION SURVEY

Conducted by

Western Geophysical Company of Canada

for

Pan American Petroleum Corporation

During the period January 13, 1968 to February 9, 1968

on and off  
Island River, N.W.T. Permit Nos. 2706, 2707 and 2708

**Abstracted for  
Geo-Science Data Index**

Prepared by

**Date** \_\_\_\_\_

D. E. Birnie

Exploration Group Supervisor

May 21, 1968

Submitted in support of application for credit; see affidavit made  
by \_\_\_\_\_ of \_\_\_\_\_ and in accordance with  
work obligations under Section 54(F) of the Territorial Lands Act.

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D-1 Structure Contour Map.....	In Pocket

## T E X T

### INTRODUCTION

During the period of January 13 to February 9, 1968 a seismograph reflection survey was conducted on and off Island River N.W.T. Permit Nos. 2706, 2707 and 2708, by Western Geophysical Company of Canada for Pan American Petroleum Corporation.

Western Geophysical Company of Canada Party #50 spent 27 calendar days working on seismic lines cut and cleared at the same time as the seismic work was being done. The crew was under the supervision of W. J. Cherniak, Party Manager.

Pan American's interpretative staff located in Calgary spent a total of 60 days on the project. The interpretation was carried on simultaneously with the field work and was completed March 27, 1968.

No personnel other than those on the field crew and on the interpretative staff worked directly on this project.

Conventional wheel mounted recording and drilling equipment was used on this operation. The camp consisted of four expandable trailer units mounted on two "highboys" and a power-work shop trailer.

No unusual operating problems were encountered while operating in this area.

SEISMIC TECHNIQUE

One and two hole pattern shotpoints were drilled to an average depth of 40 feet. Shot depth was determined by the near-surface lithology with the best results when the shot was detonated in clay.

Normal charge size was 1-1/4 lb. per shot hole or 2-1/2 lb. per shot point.

The area was shot with 600% multifold coverage using a spread layout as shown on the enclosed spread diagram.

All data was recorded on Techno type magnetic analogue tapes using Western instruments FA-32 amplifiers.

The reflection method was used to obtain the subsurface data throughout the area.

The data that appears on the Top of Devonian structure map are vertical two-way time corrected to an arbitrary reference plane.

Respectfully submitted,

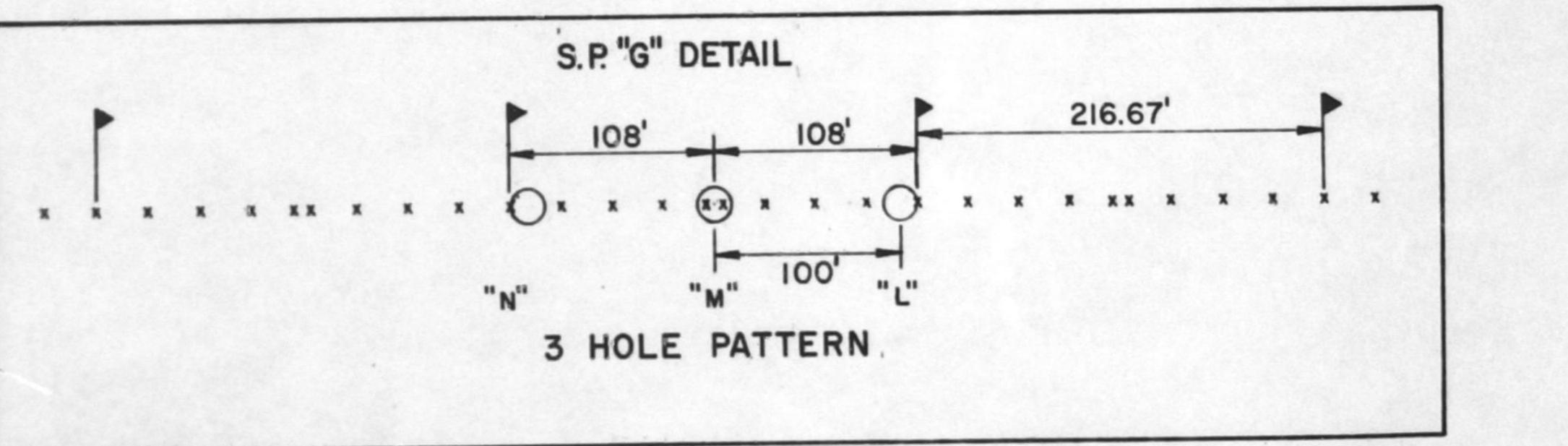
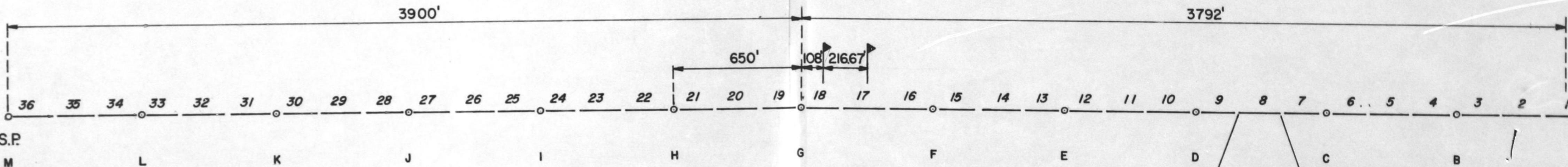
PAN AMERICAN PETROLEUM CORPORATION

By: K. A. Birnie Prof. Geol  
for D. E. Birnie  
Exploration Group Supervisor

TRAINOR LAKE

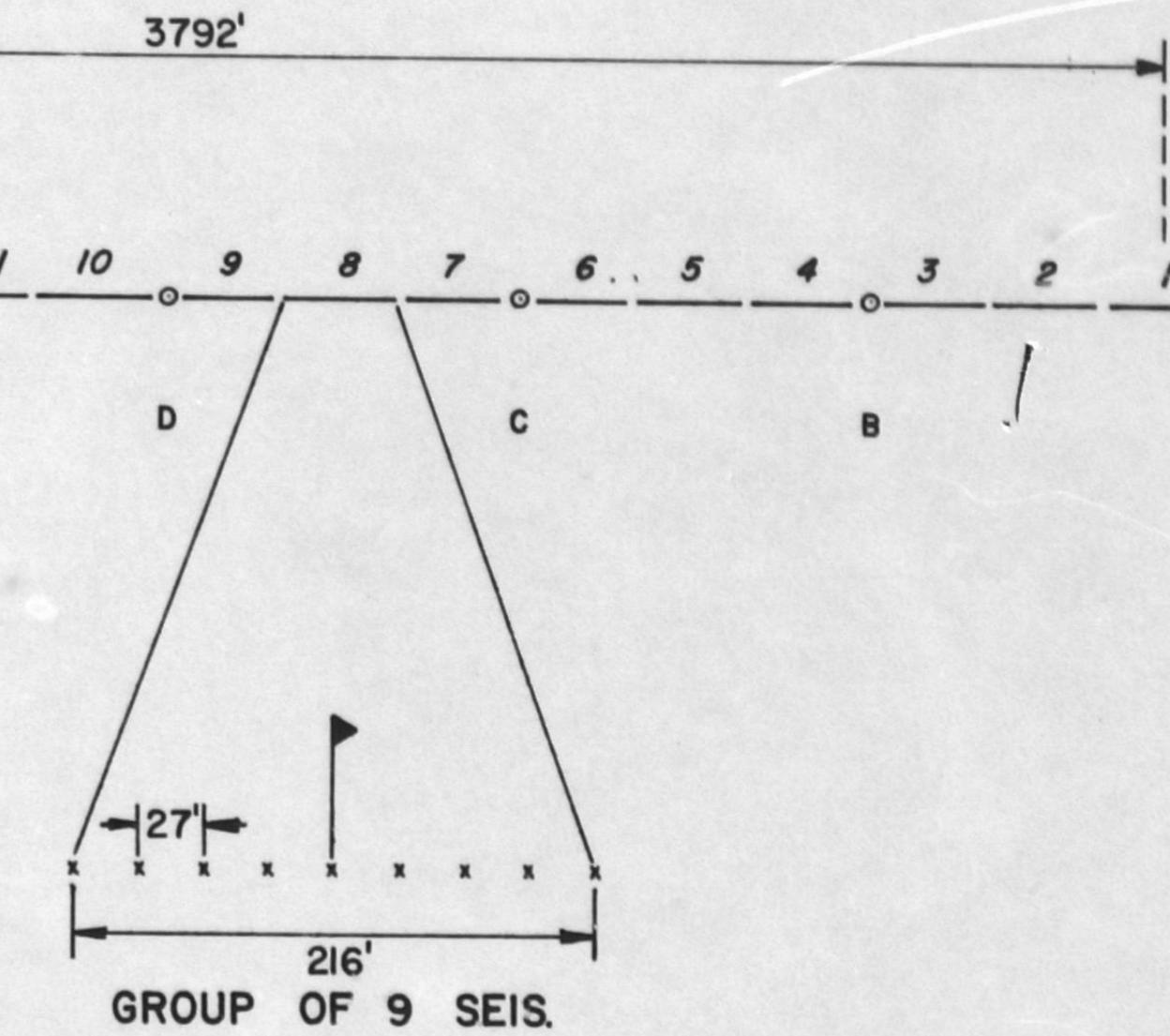
KIMEA BASIN  
W-50  
JAN.-MAR. 1968

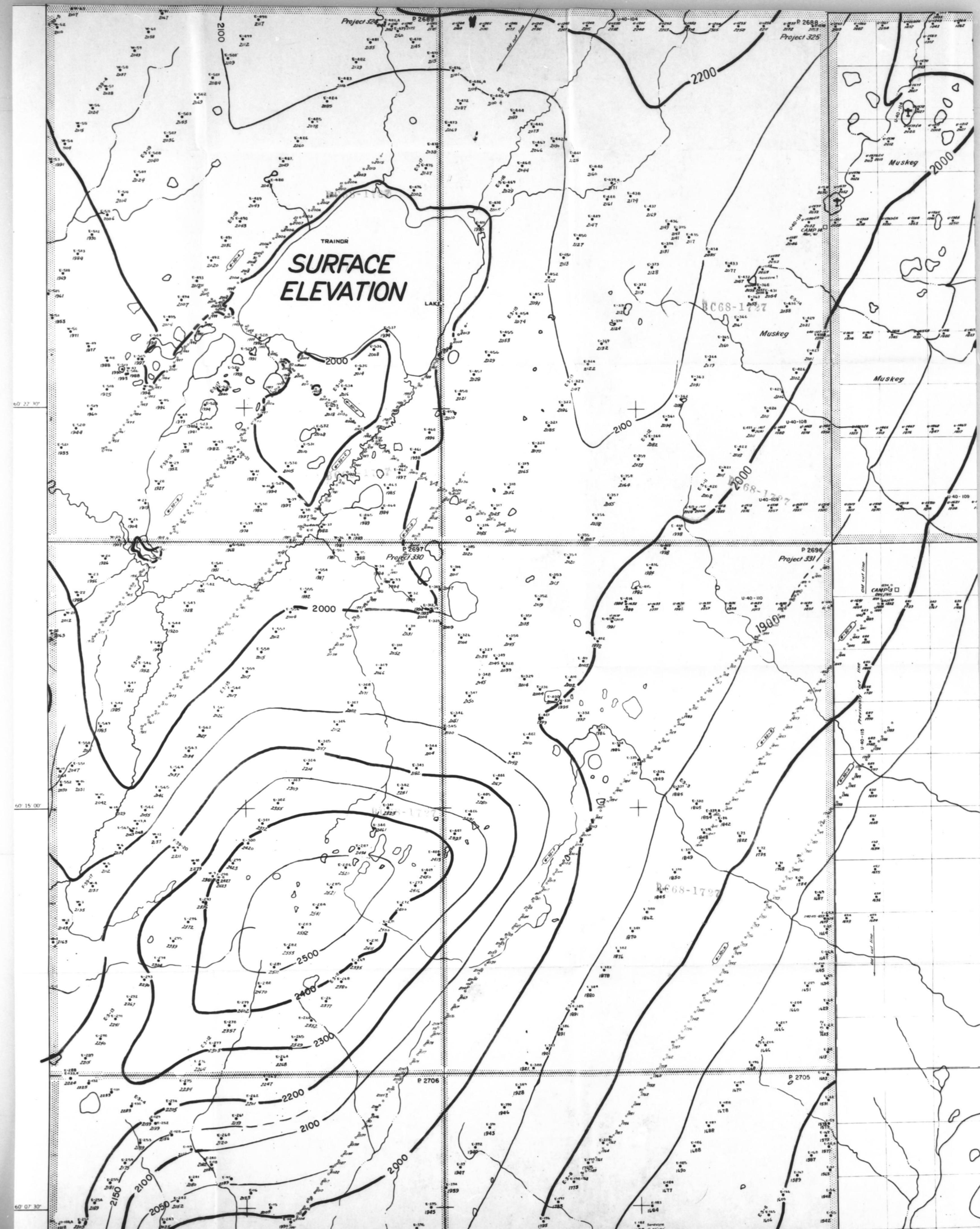
ISLAND RIVER



600 % SYMETRICAL

SCALE 1" = 400'







60-6-4-71

Abstracted for  
Geo-Sciences Data Index

Date \_\_\_\_\_

REPORT OF GEOPHYSICAL AND SEISMOGRAPHIC  
REFLECTION SURVEY

On and off Northwest Territories Permits  
No. 2689, 2696, 2697, 2705 and 2706,  
Trainor Lake area, during February, 1968.

Prepared By: C. W. Allison  
Exploration Group Supervisor

June 20, 1968

Ottawa *CM*

REPORT OF GEOPHYSICAL SURVEY

REPORT OF SEISMOGRAPH REFLECTION SURVEY

Abstracted for  
Geo-Science Data Index

Date \_\_\_\_\_

Conducted by

Western Geophysical Company of Canada

for

Pan American Petroleum Corporation

During the period February 10, 1968 to February 23, 1968

on and off

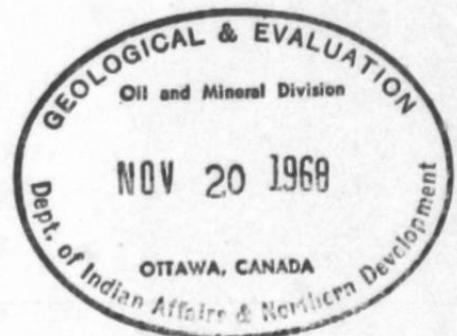
Trainor Lake, N.W.T. Permit Nos. 2689, 2696, 2697, 2705 and 2706

Prepared by

C. W. Allison

Exploration Group Supervisor

June 20, 1968



Submitted in support of application for credit; see affidavit made  
by \_\_\_\_\_ of \_\_\_\_\_ and in accordance with  
work obligations under Section 54(F) of the Territorial Lands Act.

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D-1 Structure Contour Map.....	In Pocket

## T E X T

### INTRODUCTION

During the period of February 11 to February 23, 1968 a seismograph reflection survey was conducted on and off Trainor Lake N.W.T. Permit Nos. 2689, 2696, 2697, 2705 and 2706 by Western Geophysical Company of Canada for Pan American Petroleum Corporation.

Western Geophysical Company of Canada Party #50 spent 14 calender days working on seismic lines cut and cleared at the same time as the seismic work was being done. The crew was under the supervision of W. J. Cherniak, Party Manager.

Pan American's interpretative staff located in Calgary spent a total of 60 days on the project. The interpretation was carried on simultaneously with the field work and was completed June 20, 1968.

No personnel other than those on the field crew and on the interpretative staff worked directly on this project.

Conventional wheel mounted recording and drilling equipment was used on this operation. The camp consisted of four expandable trailer units mounted on two "highboys" and a power-work shop trailer.

No unusual operating problems were encountered while operating in this area.

SEISMIC TECHNIQUE

One and two hole pattern shotpoints were drilled to an average depth of 40 feet. Shot depth was determined by the near-surface lithology with the best results when the shot was detonated in clay.

Normal charge size was 1-1/4 lb. per shot hole or 2-1/2 lb. per shotpoint.

The area was shot with 600% multifold coverage using a spread layout as shown on the enclosed spread diagram.

All data was recorded on Techno type magnetic analogue tapes using Western instruments FA-32 amplifiers.

The reflection method was used to obtain the subsurface data throughout the area.

The data that appears on the Top of Devonian structure map are vertical two-way time corrected to an arbitrary reference plane.

Respectfully submitted,

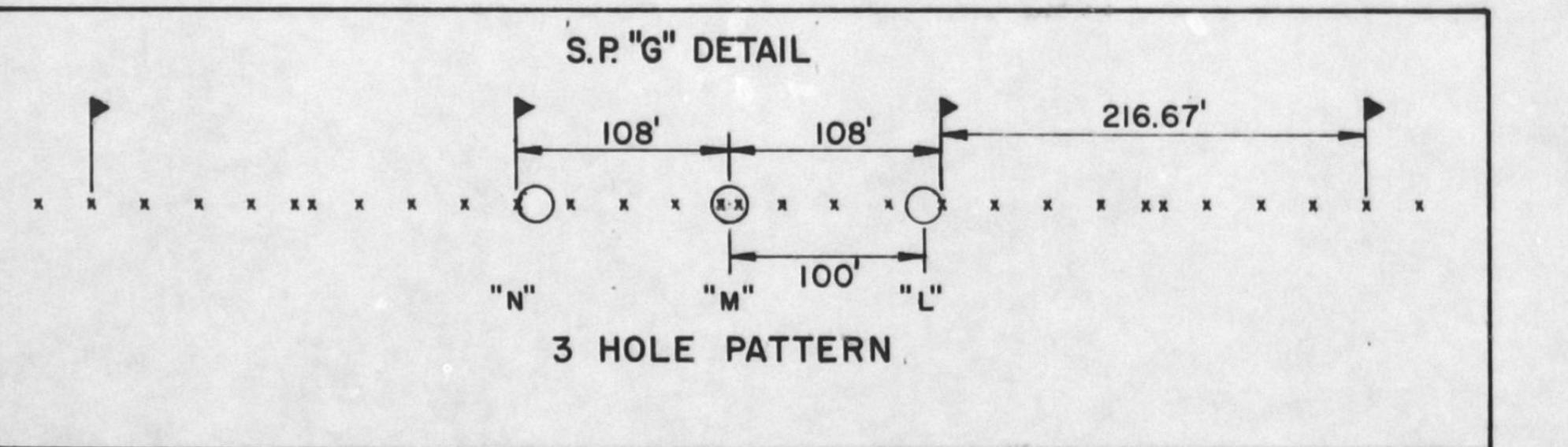
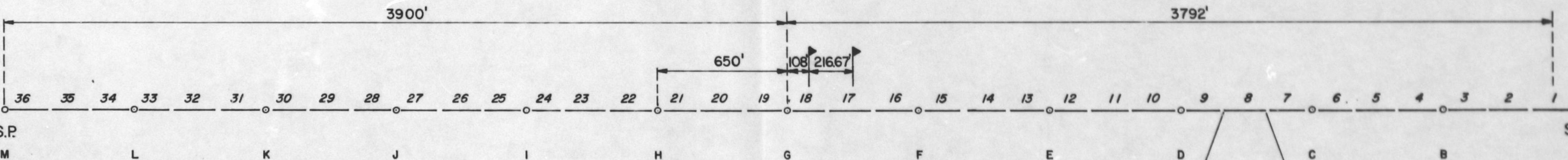
PAN AMERICAN PETROLEUM CORPORATION

By: C. W. Allison  
C. W. Allison  
Exploration Group Supervisor

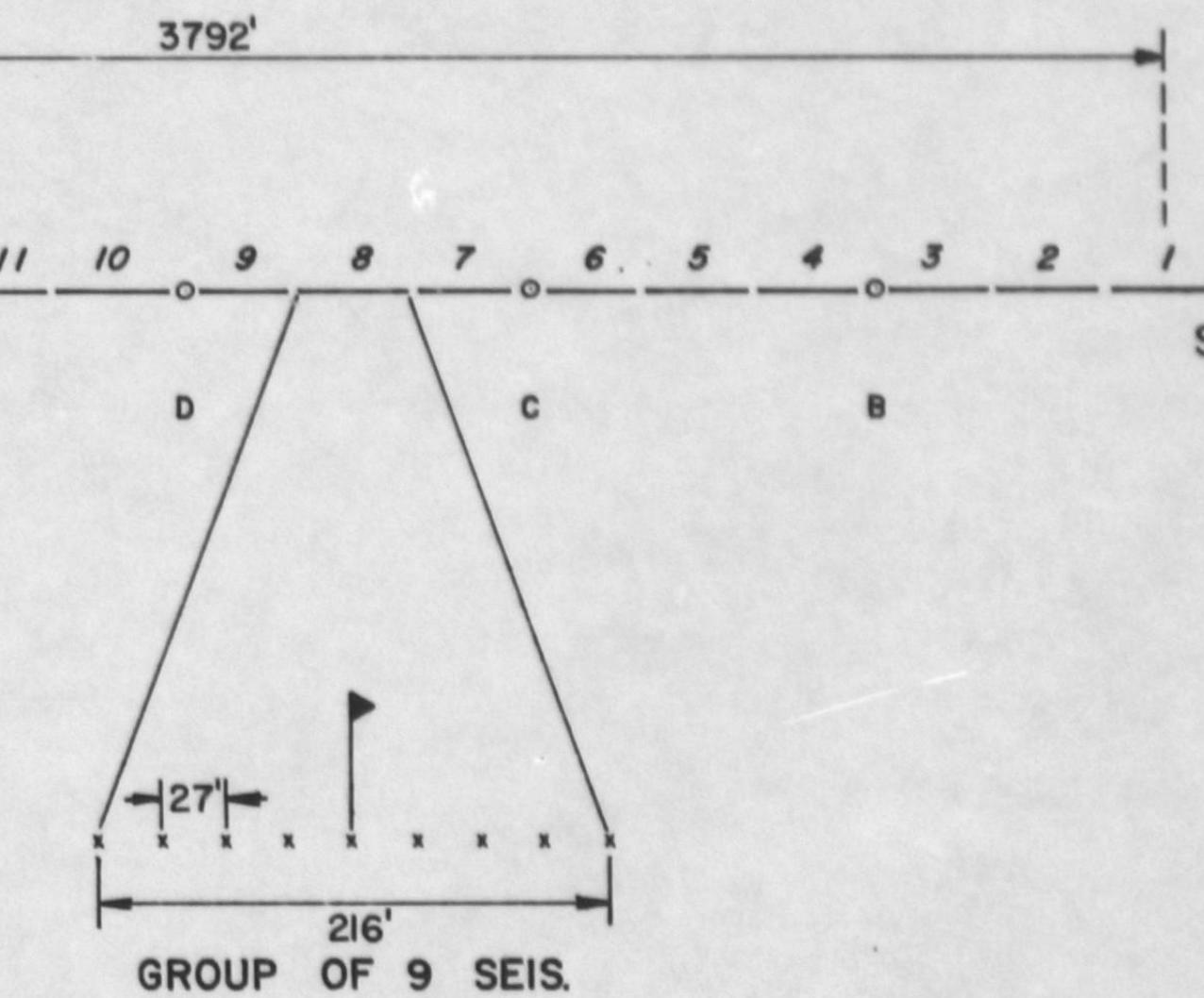
TRAINOR LAKE

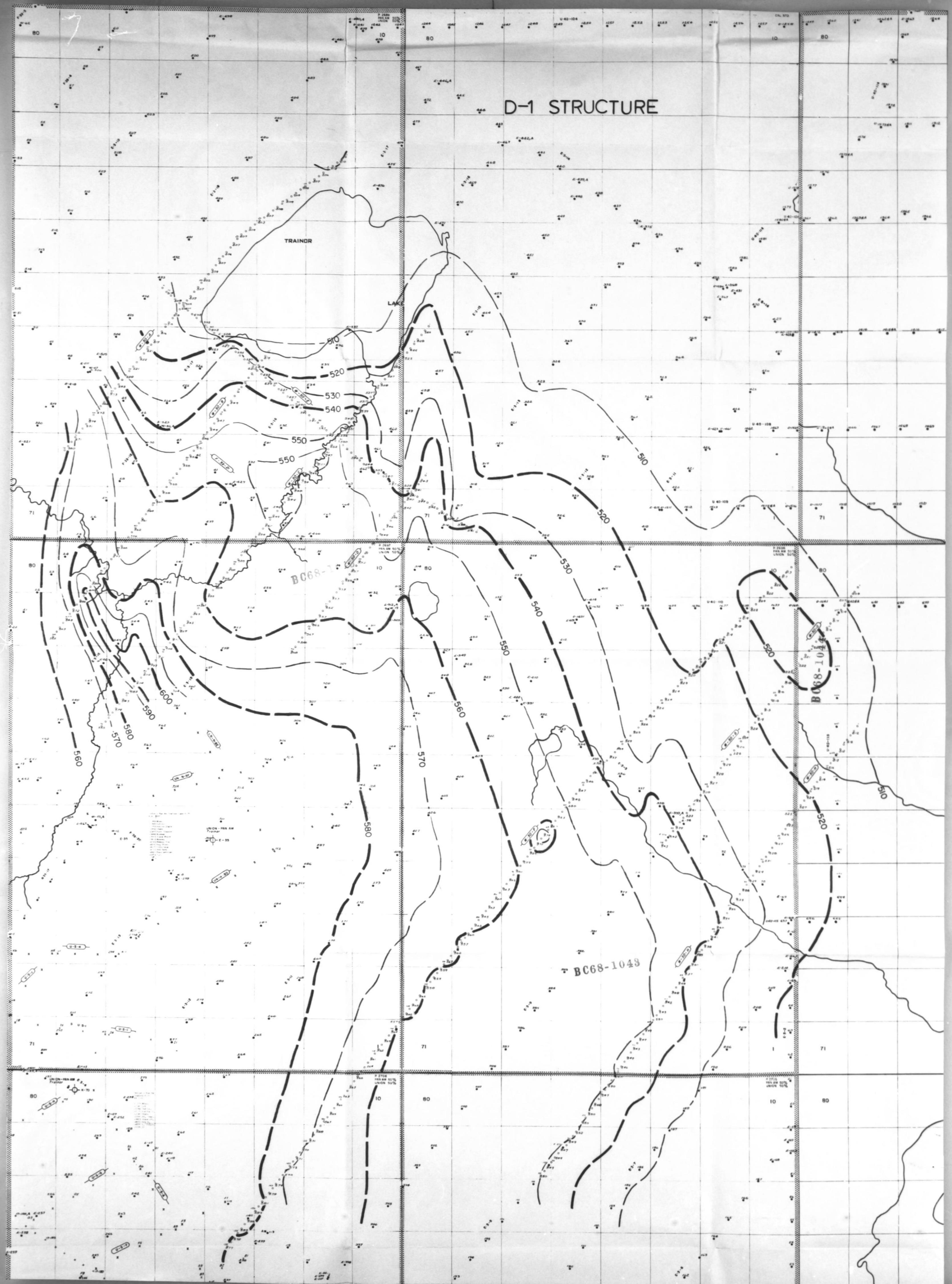
KIMEA BASIN  
W-50  
JAN. - MAR. 1968

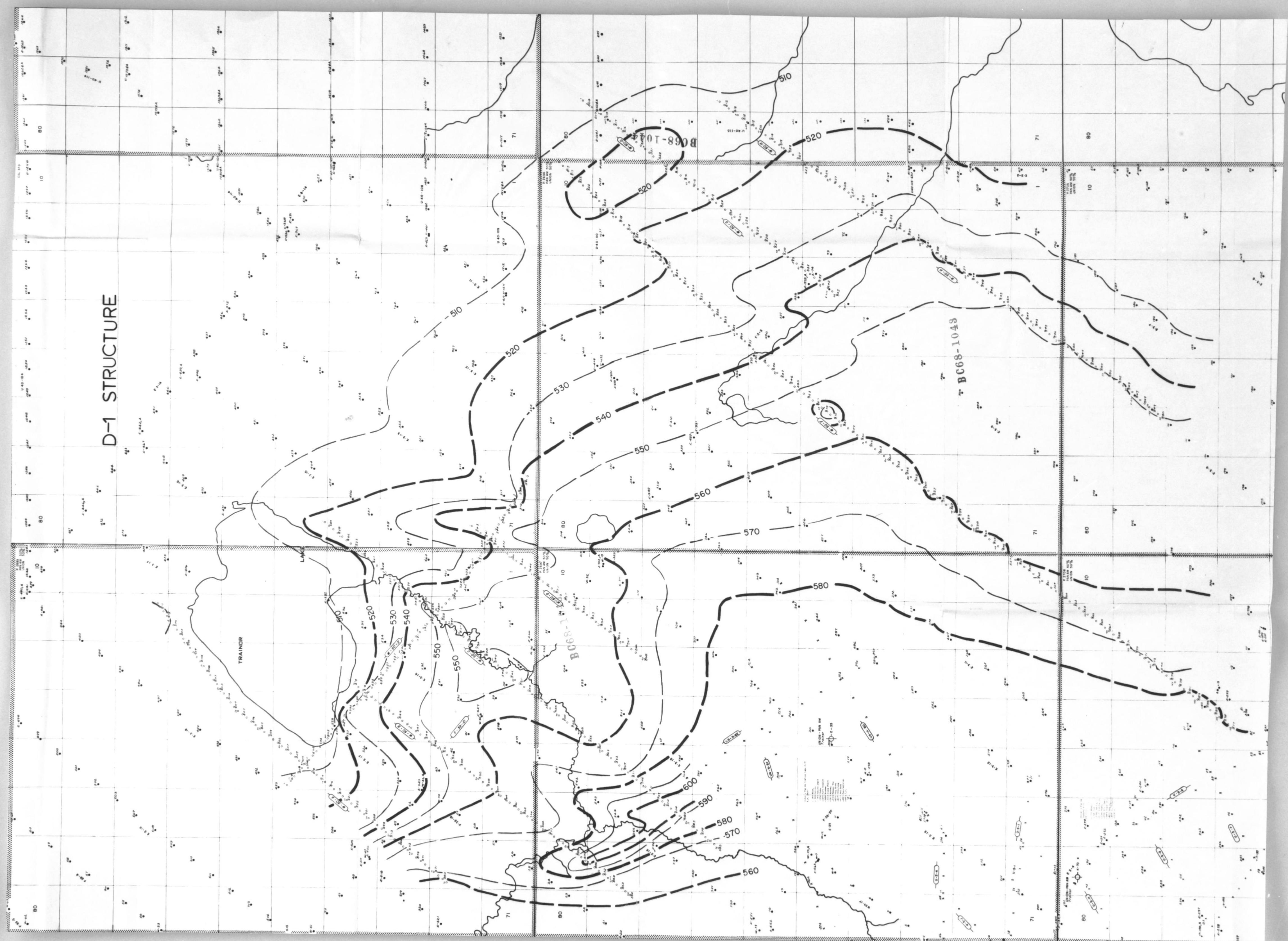
ISLAND RIVER

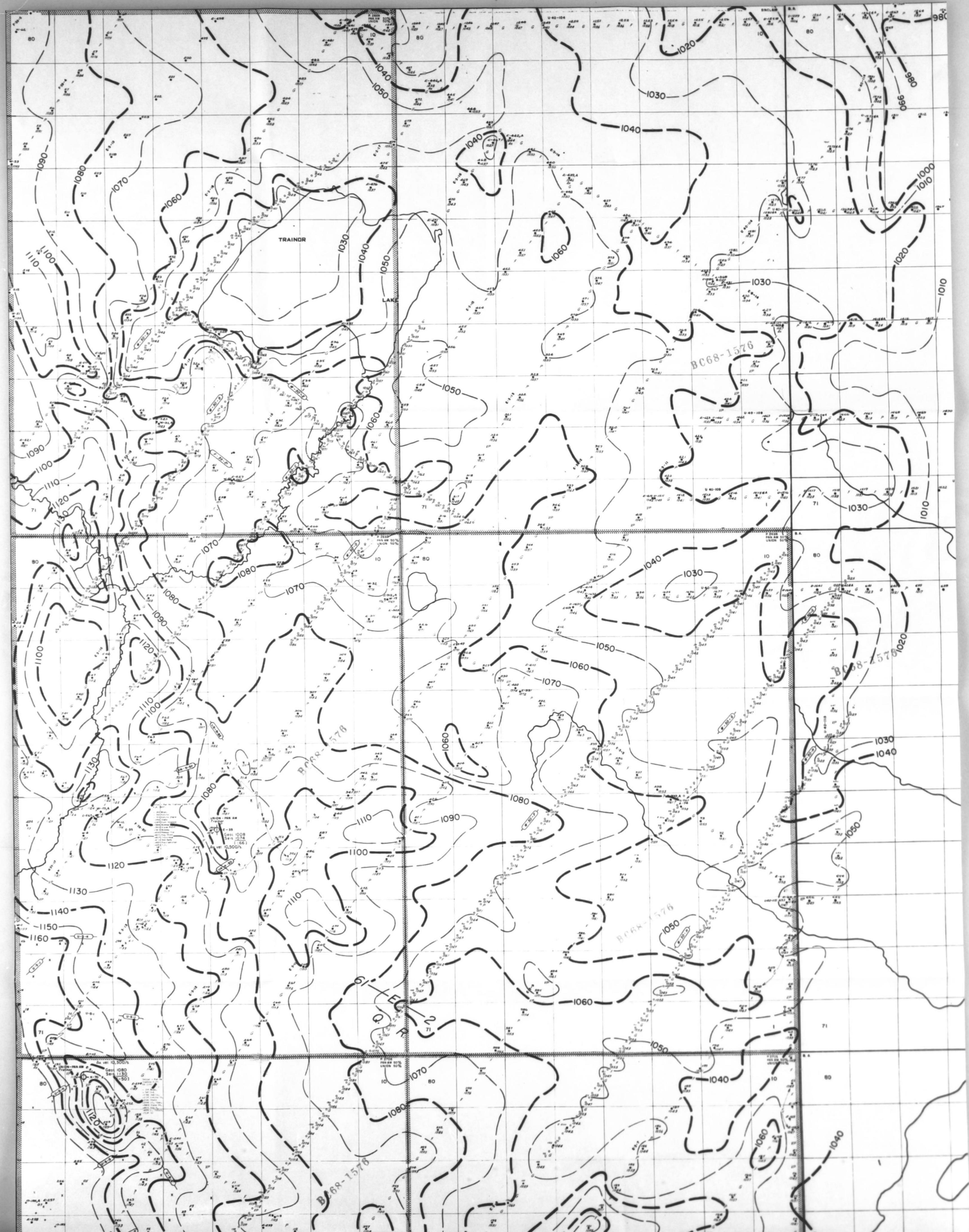


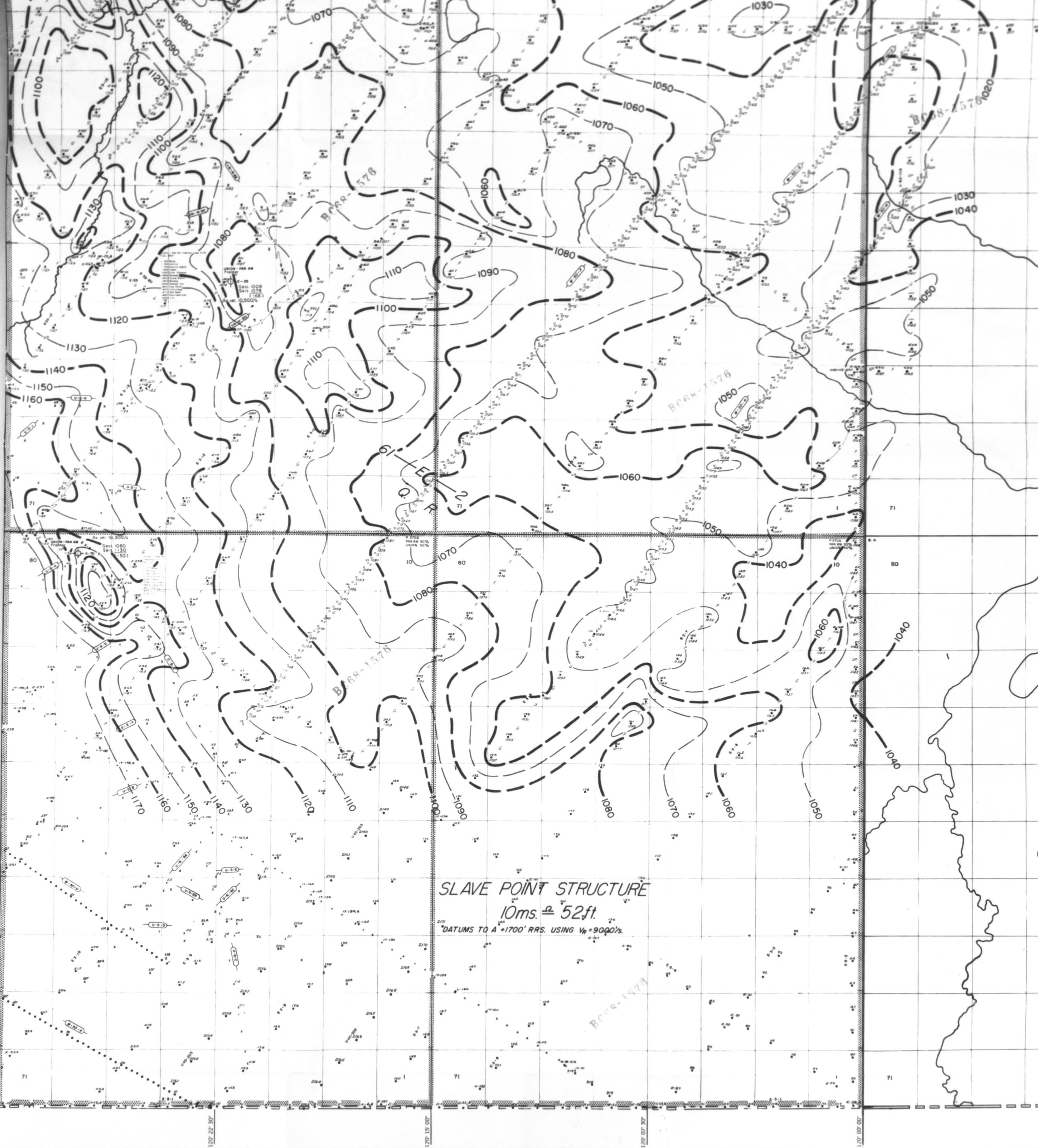
**600 % SYMETRICAL**  
SCALE 1" = 400'

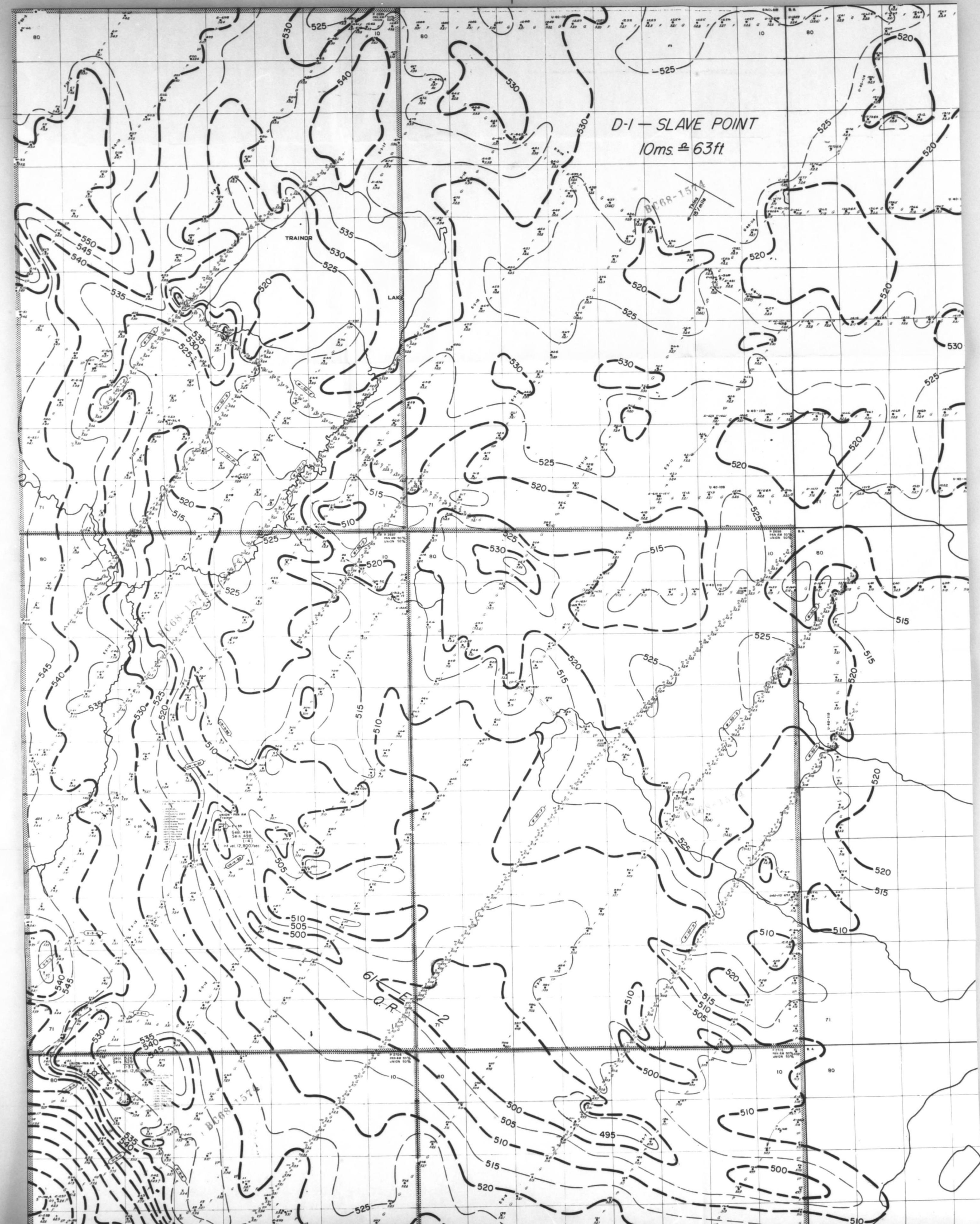


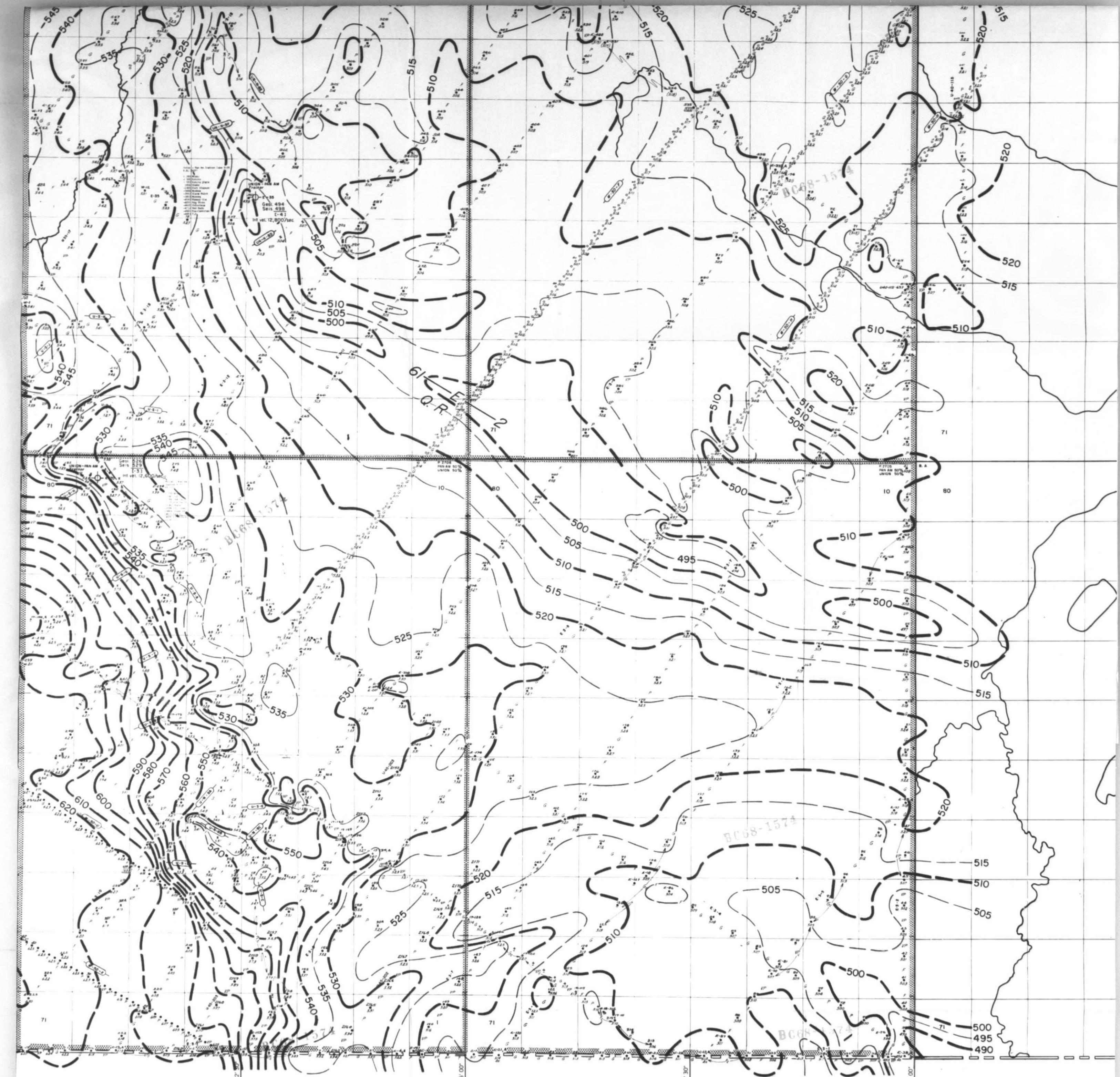












MAP EV

Qualification considers type  
considered critical, qualitative  
(geophysical or geological)

— — — Ge  
— — — Rel  
— - - - - 'Qu  
- - - - - Un

**QUAL. RELIABLE**

EVALUATION  
of map or play, amount of relief  
of data and density of control  
geological data  
Variable Geophysical Data  
Relatively Reliable Geophysical data  
Variable Geophysical Data

MAP EVALUATION	
Qualification	considers type of map or plan, 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
QUAL. RELIABLE	

2 of 2

## CLAS

