

7-6-4-70

IMPERIAL OIL LIMITED
GEOLOGICAL DEPARTMENT

Report on Northwest Territories Permits 4154, 4156-4160, 4490, 4491, 4494, 4495, 4561 and certain Off-Permit work. Ft. Providence Area. For Period October 1, 1966 to May 31, 1967.

Enclosures Two Shot Point Maps - Locations, Elevations & Depths

One Time Map - Hume Formation

Map References: 85 F/NW/NE/SW/SE.

By O. Friesen

Date March 21, 1968.

Geophysical Survey Conducted By:

Party No. 470

One Accurate Exploration Ltd. seismic crew operated on behalf of Imperial Oil Enterprises Ltd. during the periods January 2nd to 31st and April 3rd to 14th, 1967.

Department Code Number: 7-6-4-66-11

IMPERIAL OIL ENTERPRISES LTD.
PRODUCING DEPARTMENT - WESTERN REGION

SEISMIC OPERATIONS - FT. PROVIDENCE AREA

N.W.T. Permits 4154, 4156 - 4160, 4490, 4491
4494, 4495, 4561 and certain Off-Permit work.

January & April 1967

By

O. FRIESEN

PEACE RIVER EXPLORATION DIVISION
DAWSON CREEK, BRITISH COLUMBIA



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Seismic Shot Hole Locations & Depths	In Pouch
Time Map	In Pouch

SUMMARY

Report on seismic operations conducted by Accurate Exploration Ltd. Party No. 470 on behalf of Imperial Oil Enterprises Ltd. in the Ft. Providence Area during the periods January 2nd to 31st and April 3rd to 14th, 1967.

Submitted in support of Application for Credit on N.W.T. Group No. 190 (Amended) consisting of Permits 3029, 3195, 4151 - 4154, 4156 - 4160, 4193, 4194, 4490, 4491, 4494, 4495, 4553, 4554, 4560, 4561 and 4610. See Affidavit of Work by Douglas Hingley dated December 7, 1967 in the amount of \$252,060.34.

INTRODUCTION

Imperial Oil Enterprises Ltd. acquired its Ft. Providence acreage from crown sales or industry purchases and these permits were issued between March 18, 1965 and January 27, 1966.

Access to these permits was made by the Mackenzie Highway to Hay River and thence by tractor trails to the general area.

SEISMOGRAPH OPERATIONS

Accurate Exploration Ltd. Party No. 470 left Calgary, Alberta on January 2nd, 1967 and arrived in Ft. Providence on January 4th, 1967. The crew consisted of twenty-four people using a standard truck-mounted Carter System assisted by three shot hole rigs and three D7-17A cats.

The crew left for the field on January 5th and laid out cables to ascertain any difficulties. Actual program shooting commenced on January 6th using five pounds of dynamite per hole which was later cut back to two and one-half pounds per hole. Eight geophones per trace were used with 110 foot coverage over a 1,320 spread. The weather was clear and cold over mostly muskeg

terrain. Drilling was very rough due to large boulders and hard blue clay. A truck load of fuel was received which subsequently proved to be half-diesel and necessitated draining tanks, cleaning carburetors, etc.

During the latter part of the month the temperature dropped to fifty below zero and drill units were hard put to keep ahead of the shooting crew. Drill breakdowns from transmission and spring problems kept hindering production. Records obtained were fair to good quality but lost control in deep muskeg areas. At the end of the month weather improved somewhat and with repaired equipment production rose. Drilling remained quite difficult throughout the program.

Shooting on this portion of the program was completed on January 31st and then the crew proceeded to our Ft. Simpson - Willow Lake permits on February 1st. After completing the Willow Lake program the crew returned to Ft. Providence on April 2nd. Production started slowly as drilling conditions were not improved due to rocks and boulders. Terrain was flat although very rough. Equipment breakdowns continued to plague production throughout this

latter program. Due to ensuing road bans the crew completed shooting on April 15th and prepared to move equipment out.

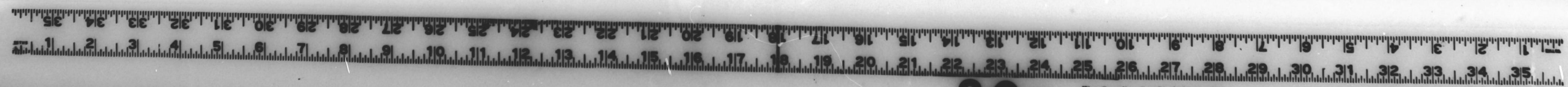
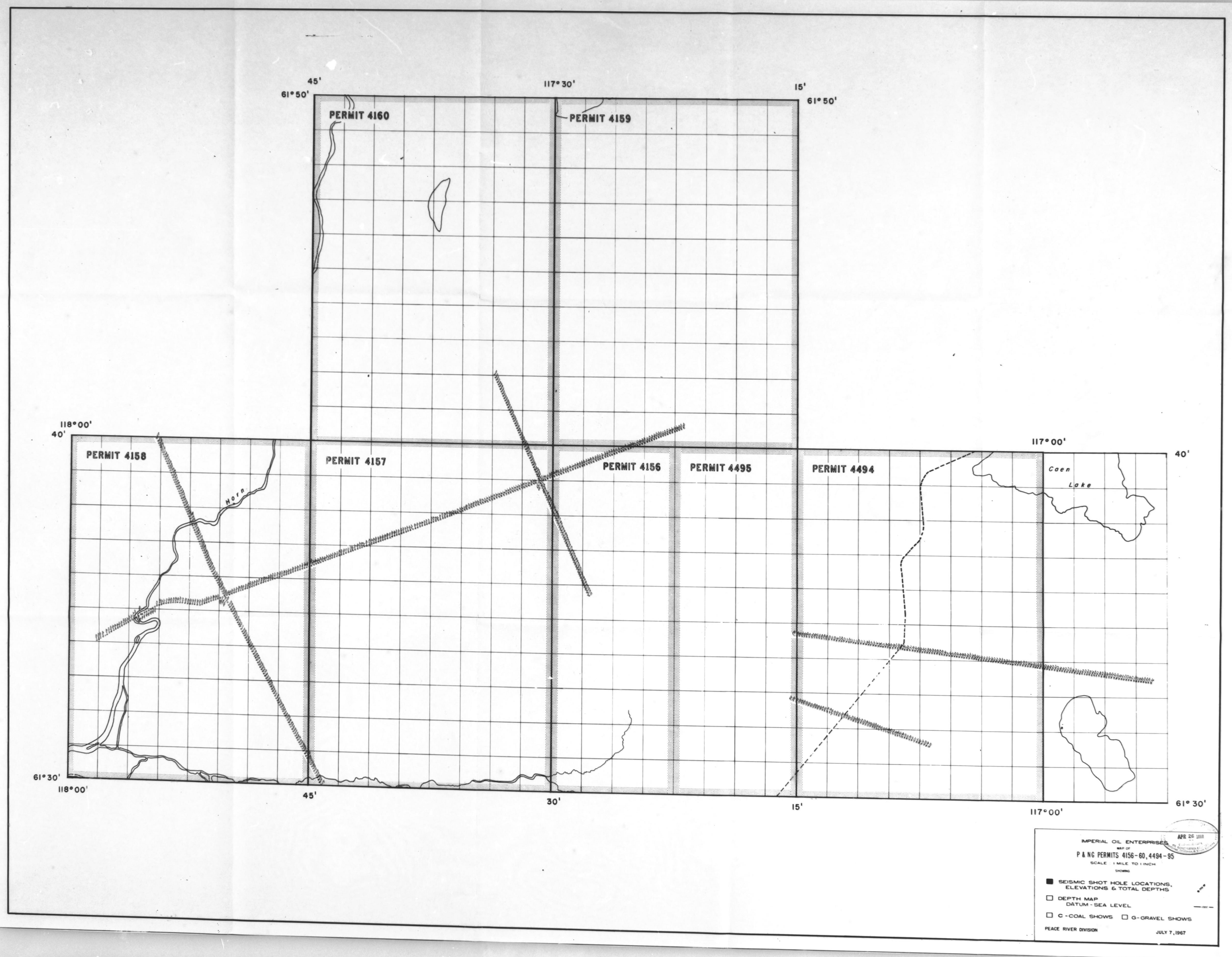
A total of 92 miles of line was shot during this program at 1,133 shot points. Record quality varied from fair to good while production was a disappointment. Upon interpreting this program's records, the only discernable reflection was from the Hume Formation and therefore this is the only interpretative map being provided.



O. FRIESEN,
DIVISION EXPLORATION MANAGER,
PEACE RIVER DIVISION,
IMPERIAL OIL ENTERPRISES LTD.

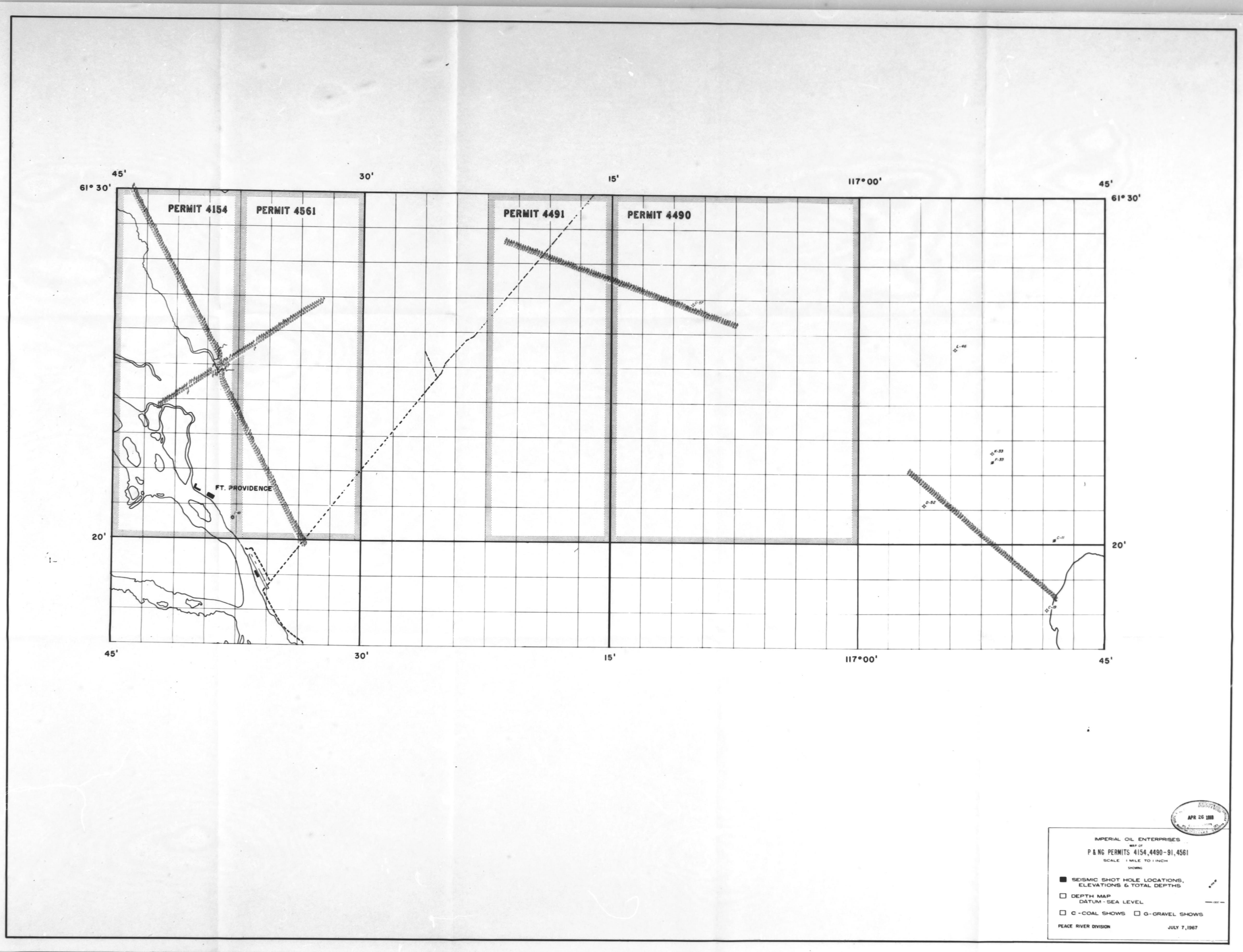
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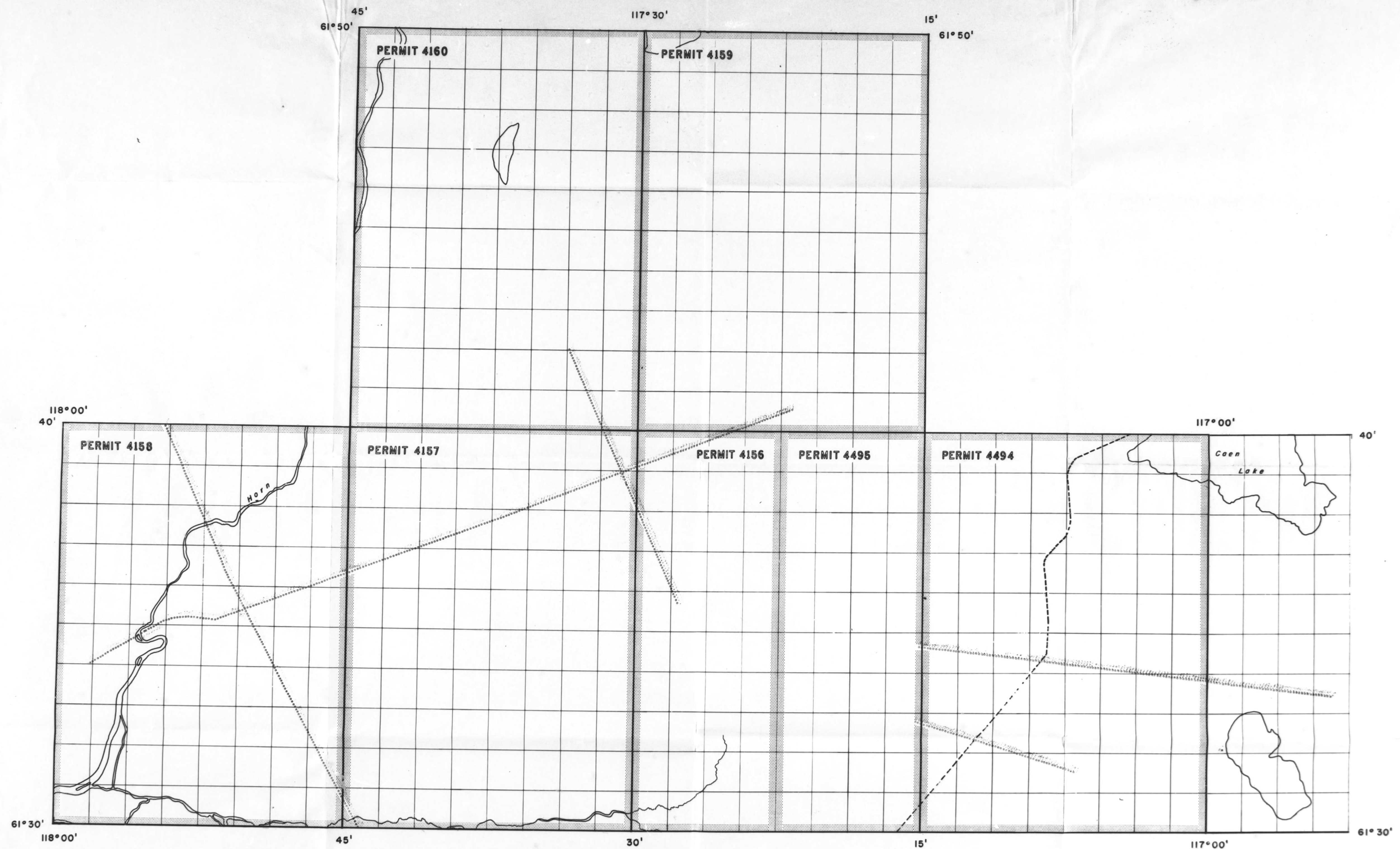




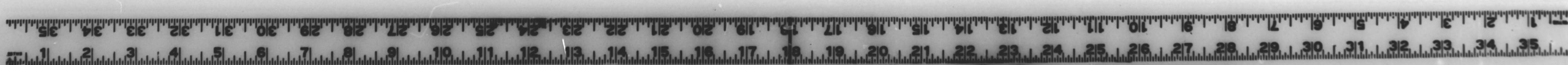
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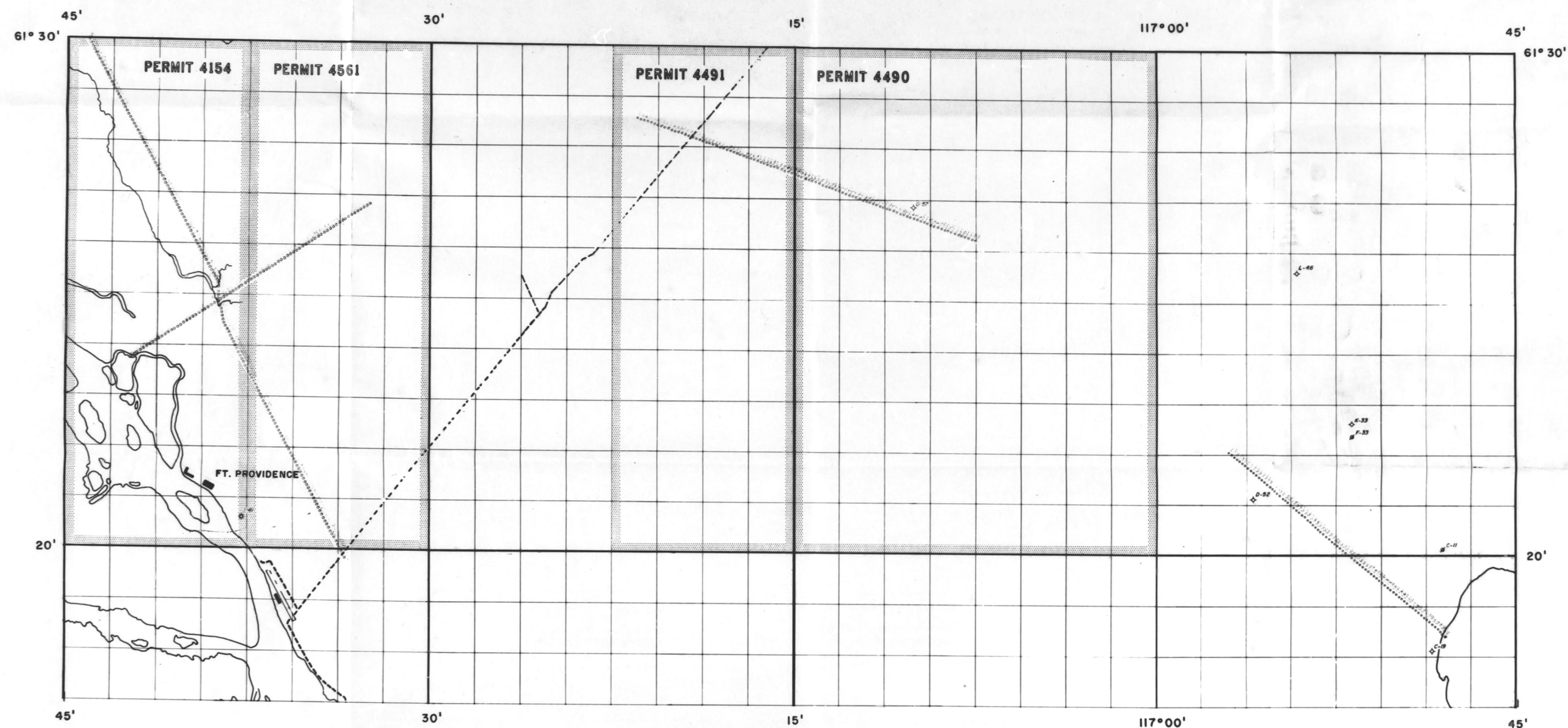


IMPERIAL OIL LIMITED
 MAP OF
 P & NG PERMITS 4156-60, 4494-95
 SCALE 1 MILE TO 1 INCH
 SHOWING
 ■ SEISMIC SHOT HOLE LOCATIONS, ELEVATIONS & TOTAL DEPTHS
 □ DEPTH MAP DATUM - SEA LEVEL
 □ C-COAL SHOWS □ G-GRAVEL SHOWS
 PEACE RIVER DIVISION JULY 7, 1967
For Circulation *DUPLICATES*

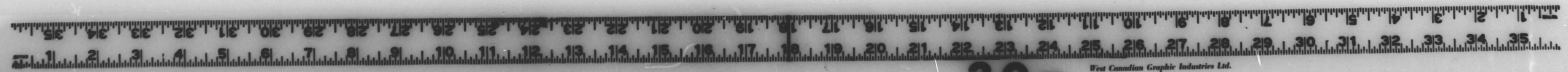


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West Canadian Graphic Industries Ltd.



IMPERIAL OIL LIMITED
MAP OF
P & NG PERMITS 4154, 4490-91, 4561
SCALE 1 MILE TO 1 INCH
SHOWING
SEISMIC SHOT HOLE LOCATIONS,
ELEVATIONS & TOTAL DEPTHS
DEPTH MAP
DATUM - SEA LEVEL
C - COAL SHOWS G - GRAVEL SHOWS
PEACE RIVER DIVISION JULY 7, 1967
Fort Providence Duplicates



30x

West Canadian Graphic Industries Ltd.

B E A U F O R T

S E A

W1057

W1056

W1055

W1037

W1035

W1034

W1033

W1025

W1024

W1023

W1022

W1021

M A C K E N Z I E

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W1014

B A Y

W576

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W1011

W1010

W1009

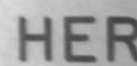
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117D

SCALE : 1 inch = 2 Miles

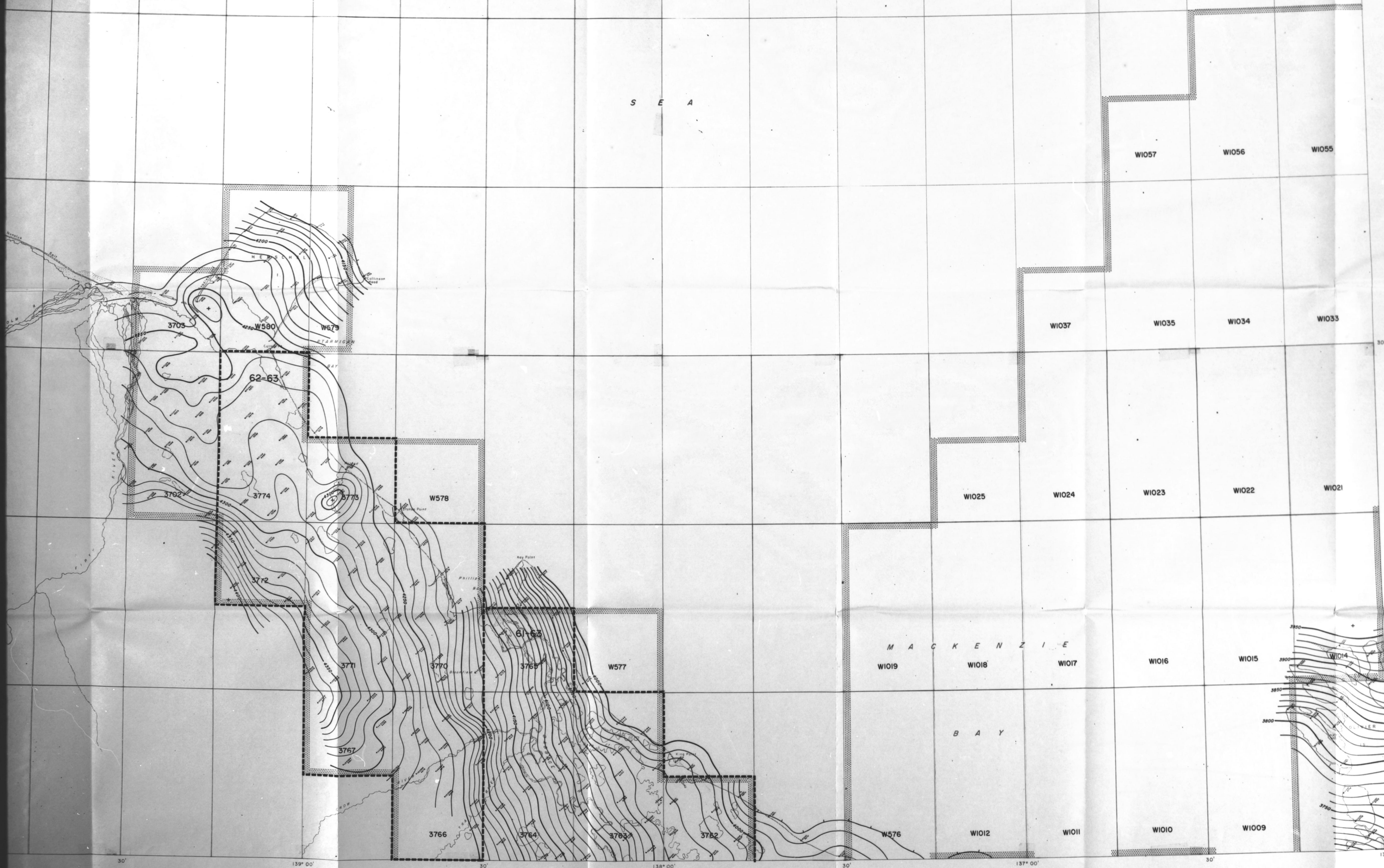
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S E A



B E A U F O R T

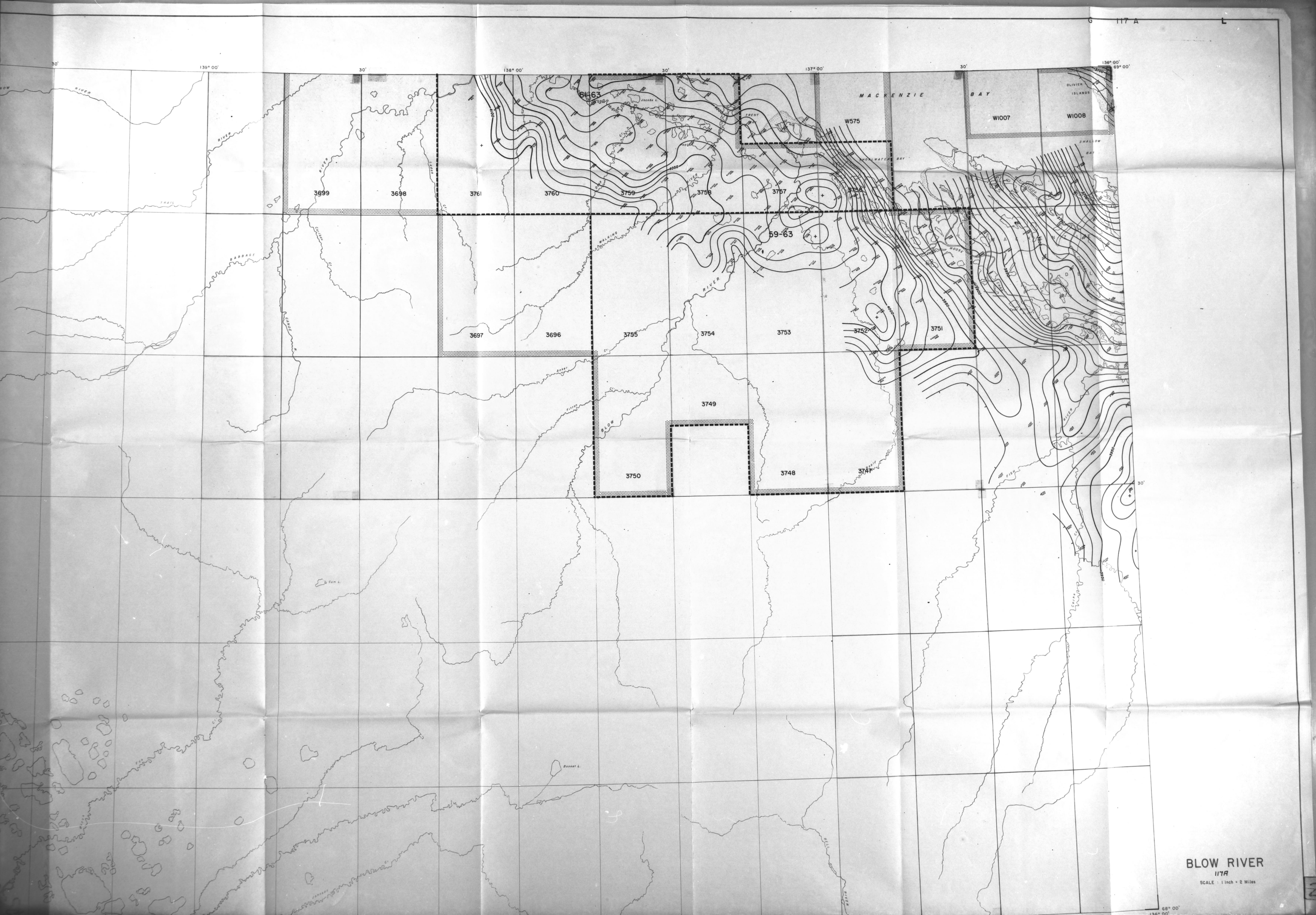
S E A



HERSCHEL ISLAND

SCALE : 1 inch = 2 Miles





BLOW RIVER
117A
SCALE : 1 inch = 2 Miles

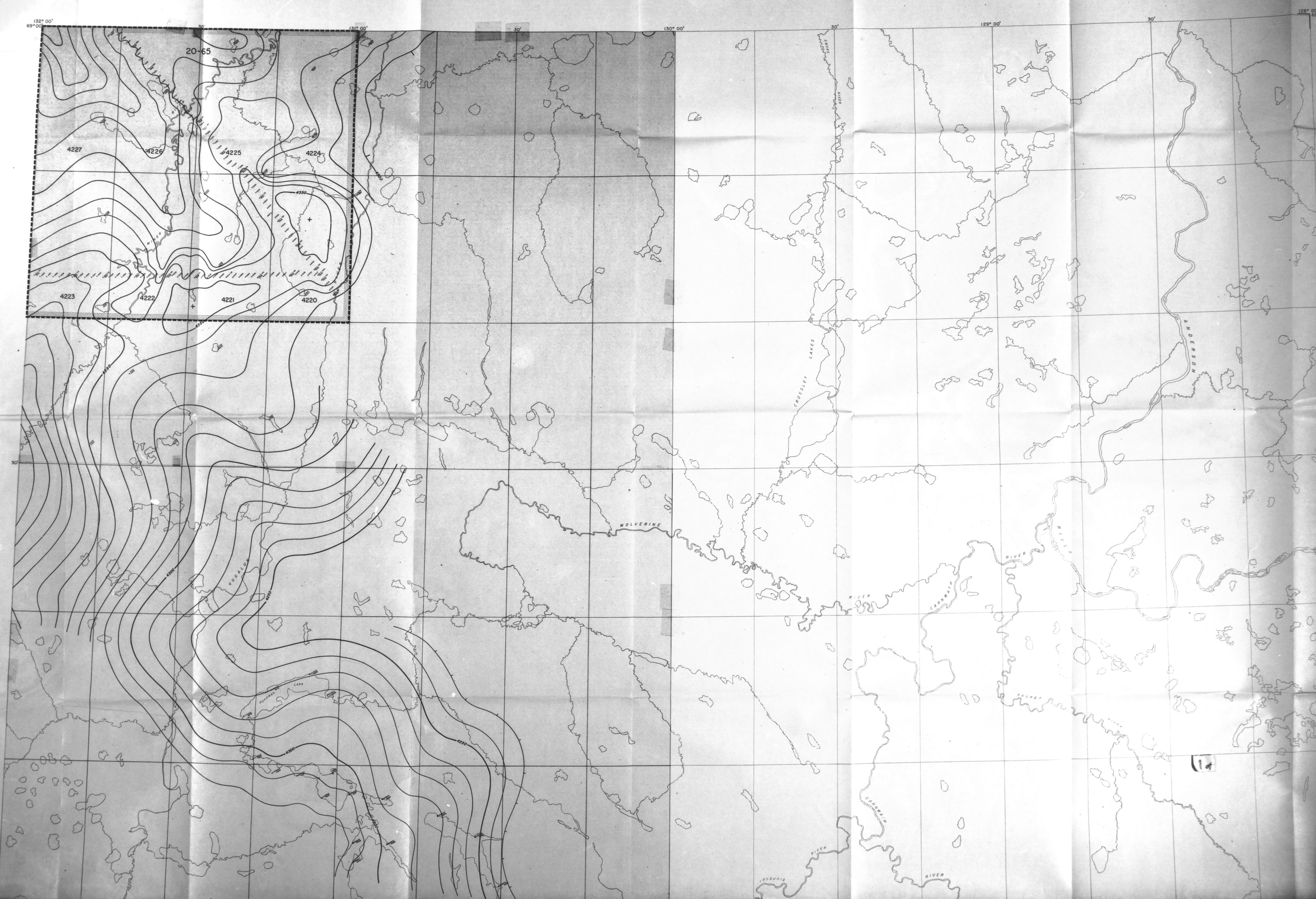


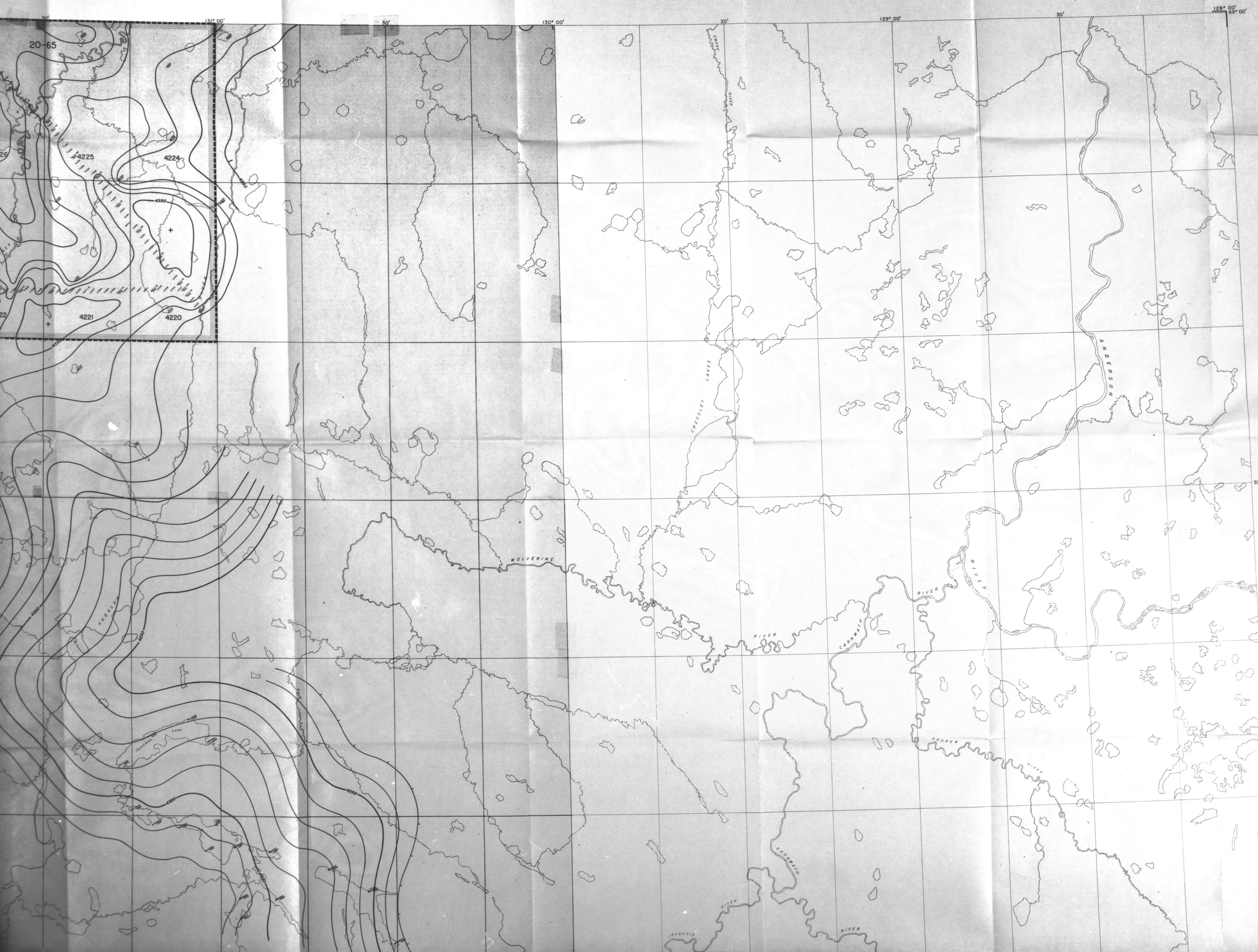


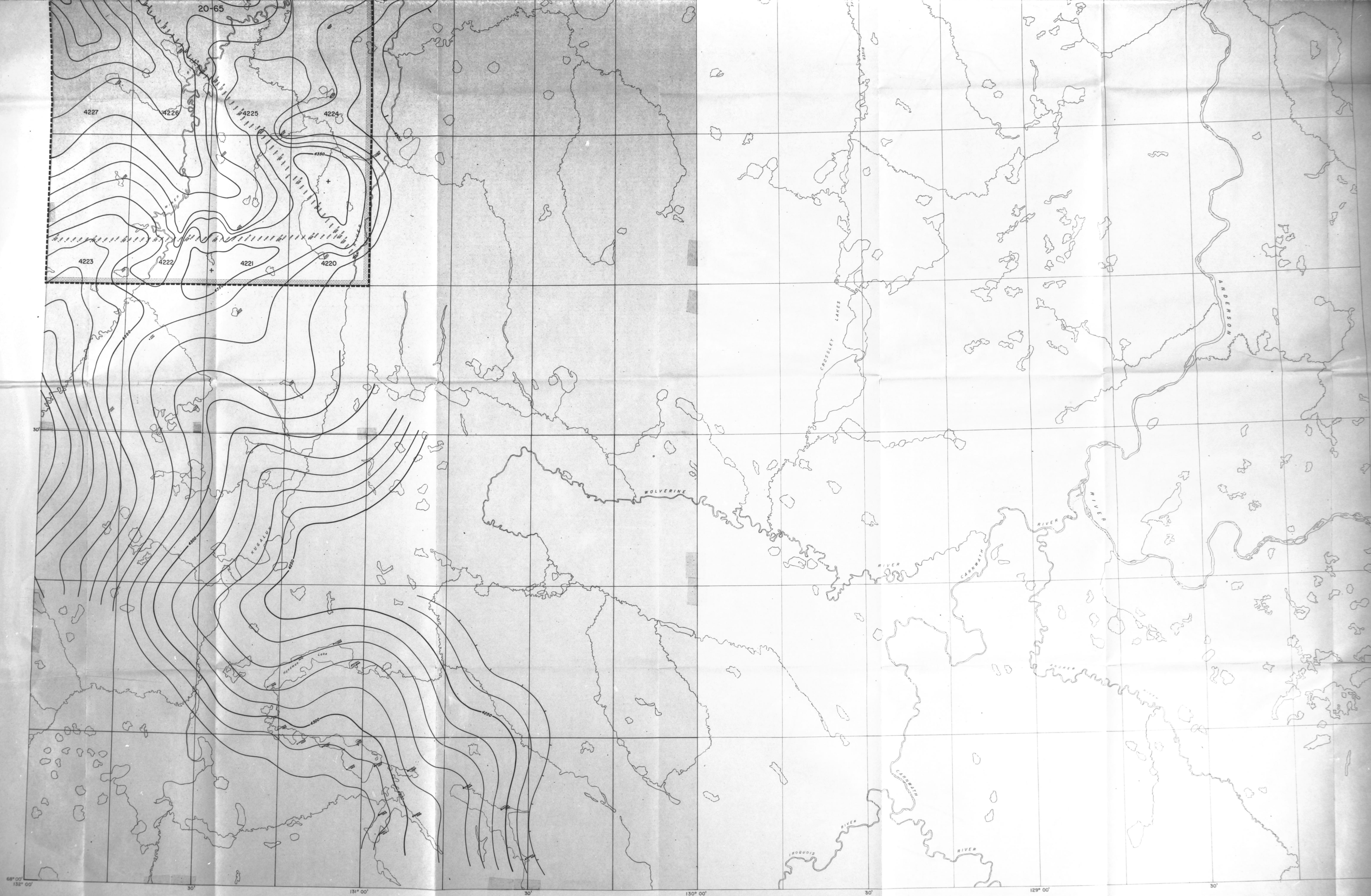
BLOW RIVER
117A

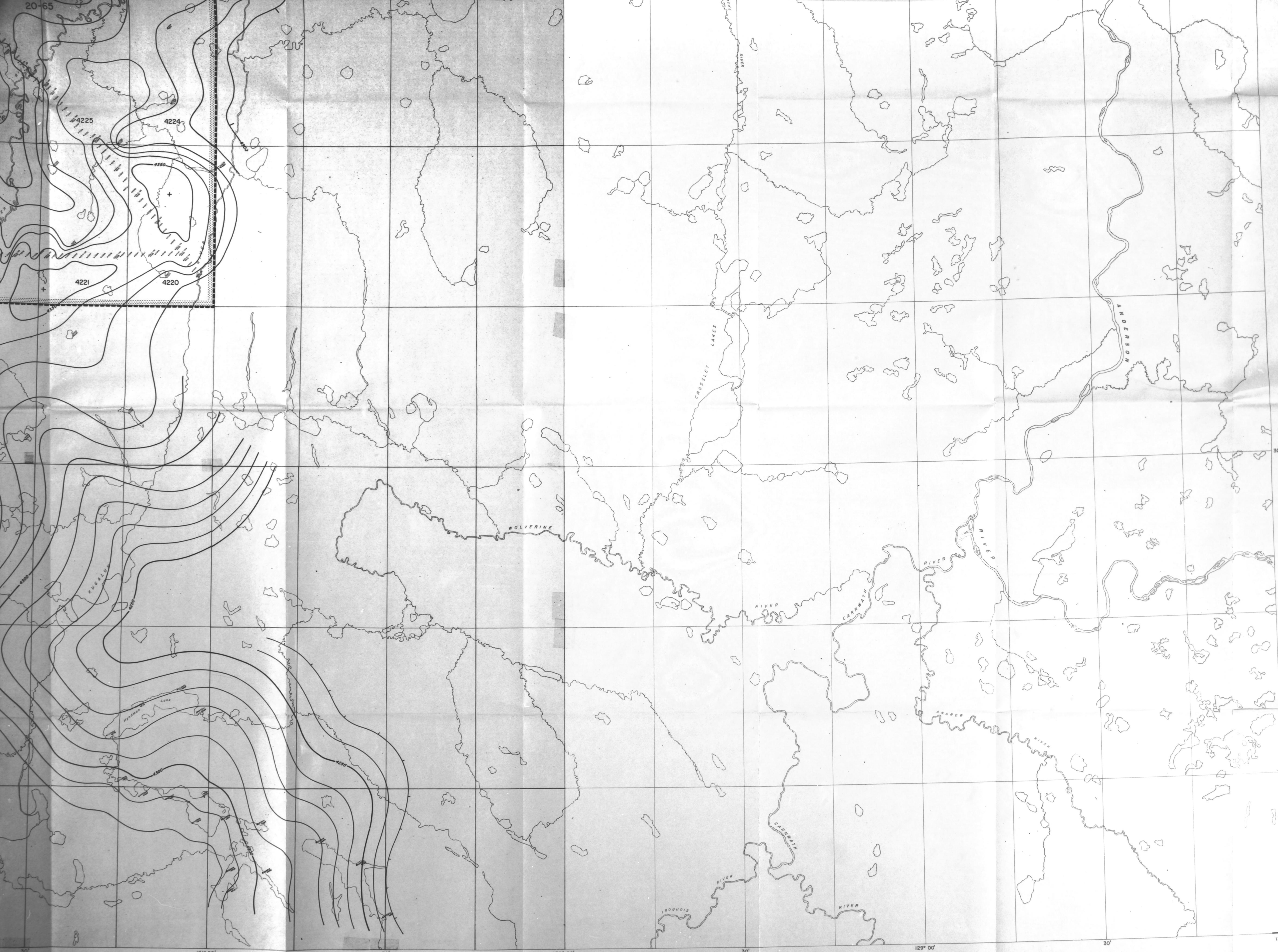
SCALE : 1 Inch = 2 Miles

68° 00'
136° 00'









CROSSLEY LAKES

107A
SCALE: 1 inch = 2 Miles

IMPERIAL OIL ENTERPRISES LTD.
BOUGUER GRAVITY
C.I. = 10 G.U.

132° 00' 71° 00' 30' 131° 00' 30' 130° 00' 30' 129° 00' 30' 128° 00' 71° 00'

B E A U F O R T

S E A

OBSERVATION POINT
CAPE BATHURST
BAILLIE ISLANDS

W2302

W2301

CAPE DALHOUSIE
W2297

W2300

W2299

W2297

MURKIN POINT
RUSSELL INLET

L I V E R P O O L

B A Y

14

CAPE DALH
107E

SCALE - 1 inch = 2

W2296

W2295

B E A U F O R T

S E A

OBSERVATION POINT

CAPE BATHURST

BAILLIE ISLANDS

BAILLIE ISLANDS

W2302

W2301

CAPE DALHOUSIE

W2297

W2300

W2299

W2297

RUSSSELL INLET

RUSSSELL INLET

HARROWBY BAY

MATLAND POINT

L I V E R P O O L

B A Y

CAPE DALHOUSIE

SCALE : 1 inch = 2 Miles

B E A U F O R T

S E A

OBSERVATION POINT
CAPE BATHURST
BAILLIE ISLANDS

W2302

W2301

CAPE DALHOUSIE
W2297

W2300

W2299

W2297

HARPOUR
BAY

MAITLAND POINT

L I V E R P O O L
B A Y

W2296

W2295

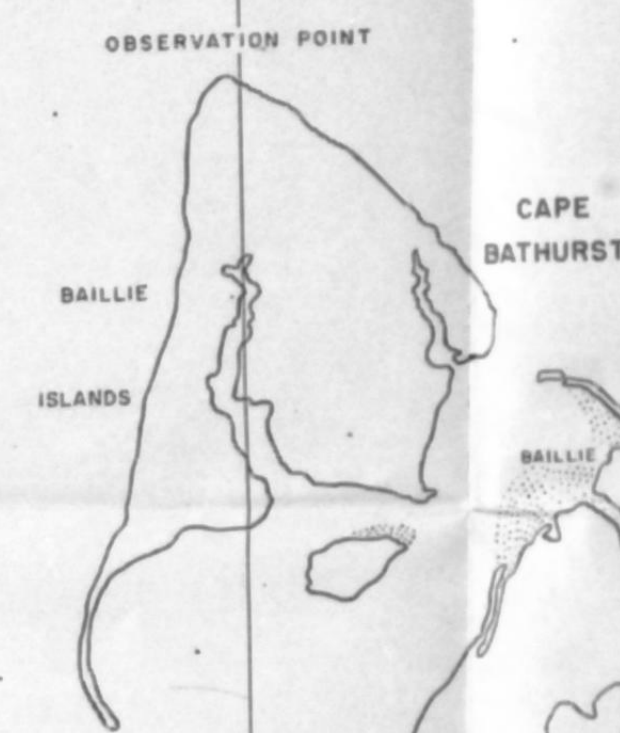
CAPE DALHOUSIE
107E
SCALE - 1 inch = 2 miles

IMPERIAL OIL ENTERPRISES
BOUGUER G
C.I. = 10

3 of

B E A U F O R T

S E A



30'

W2302

W2301

CAPE DALHOUSIE

W2297

W2300

W2299

W2297

RUSSELL
INLET

L I V E R P O O L

B A Y

HARROWBY

BAY

MATLAND POINT

CAPE DALHOUSIE

107E

SCALE : 1 Inch = 2 Miles

70° 00'

128° 00'

IMPERIAL OIL ENTERPRISES LTD.

BOUGUER GRAVITY

C.I. = 10 G.U.

4 of 4

132° 00'
70° 00'

BEAUFORT
SEA

30

84-64

MORINLEY
Is.

W1060

W1039

W1038

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W1038

85-64

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WOOD
BAY

DAVENPORT LANDING

NICHOLSON
PER.

14

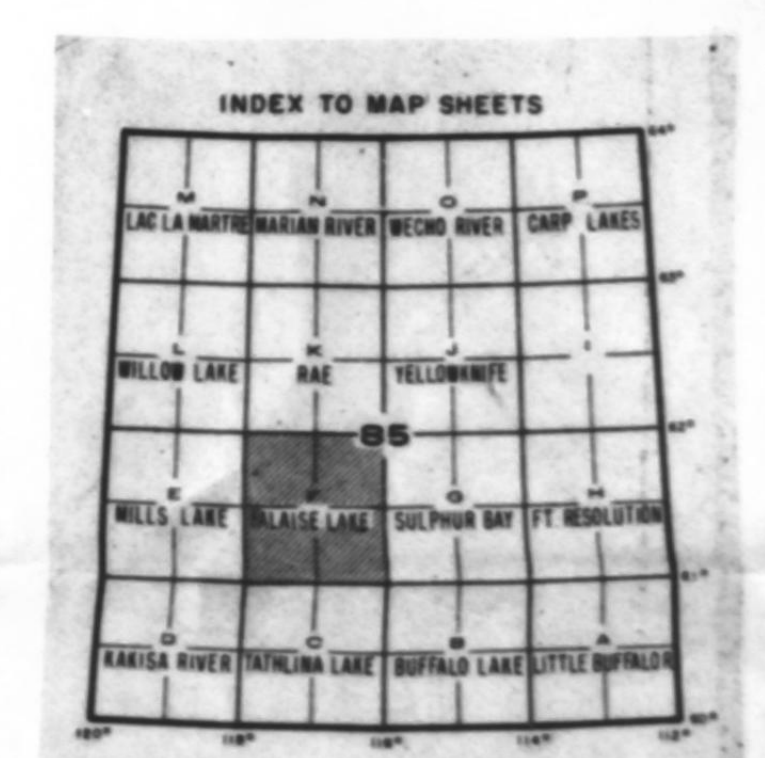
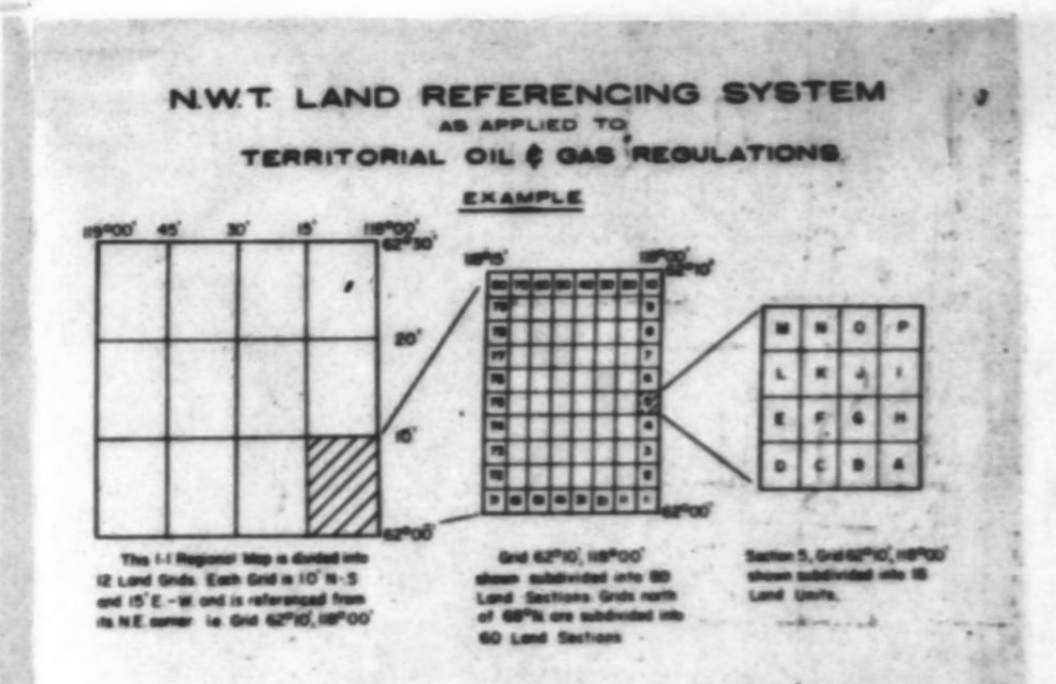
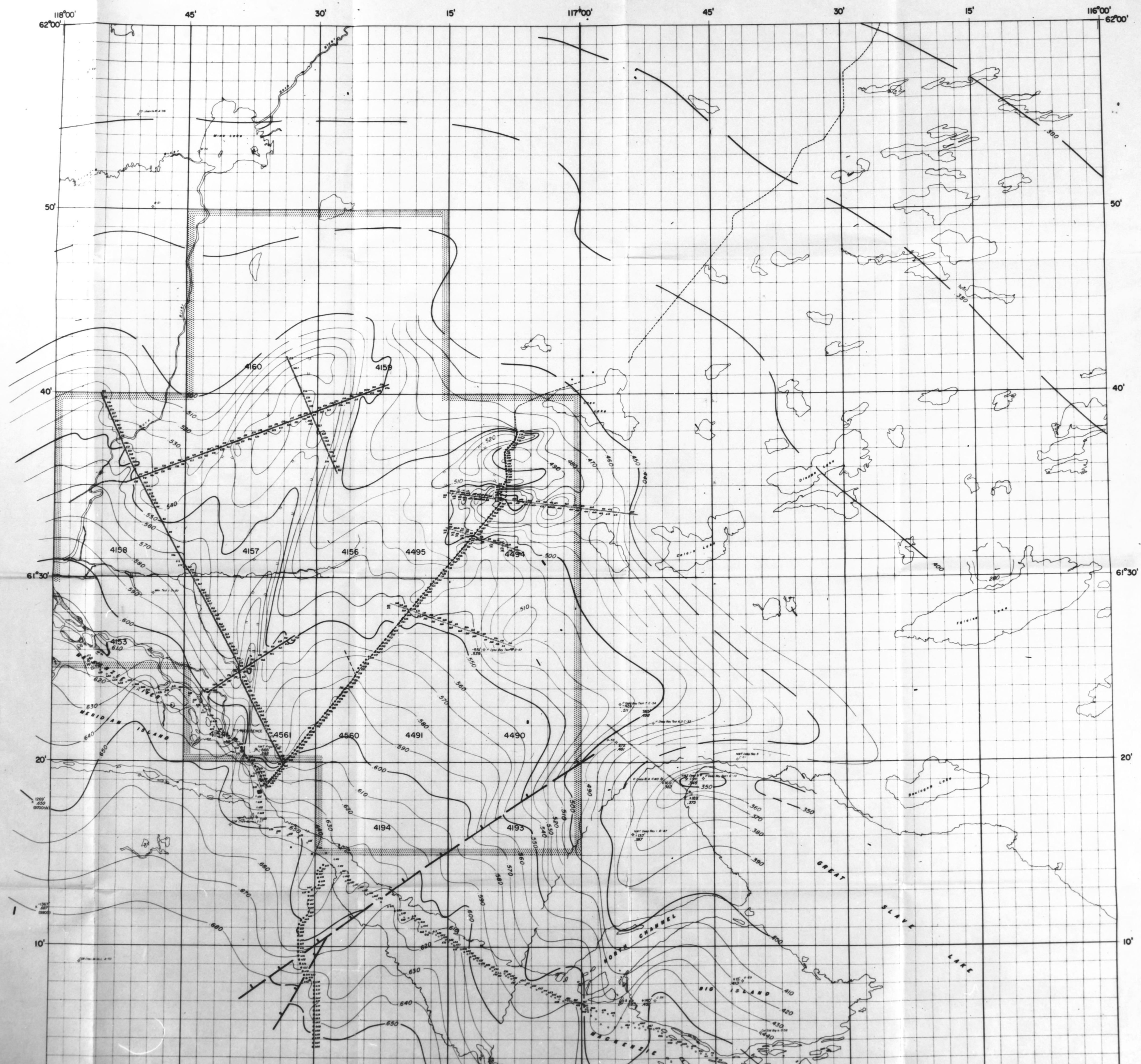


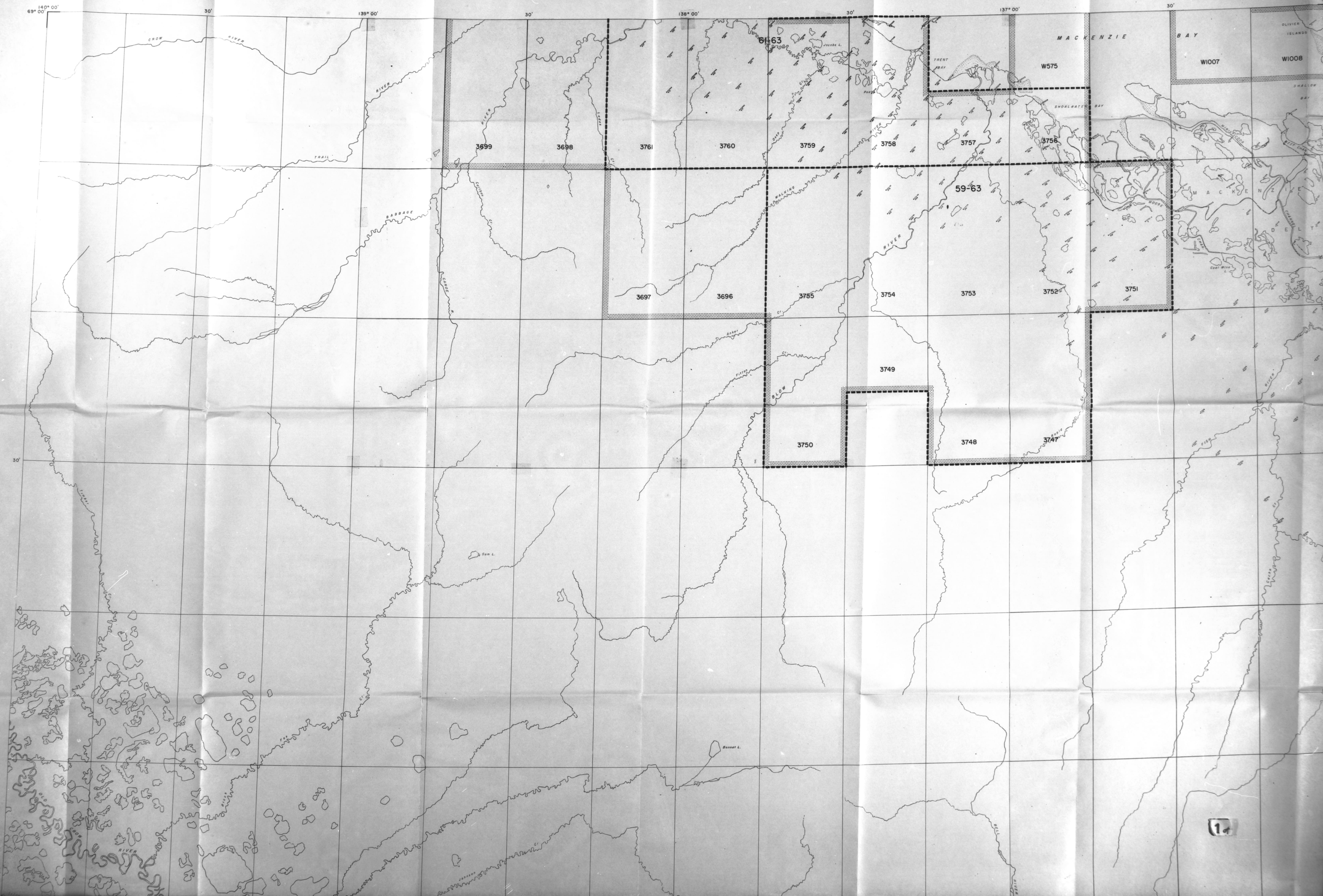




STANTON
107D
SCALE 1 inch = 2 Miles

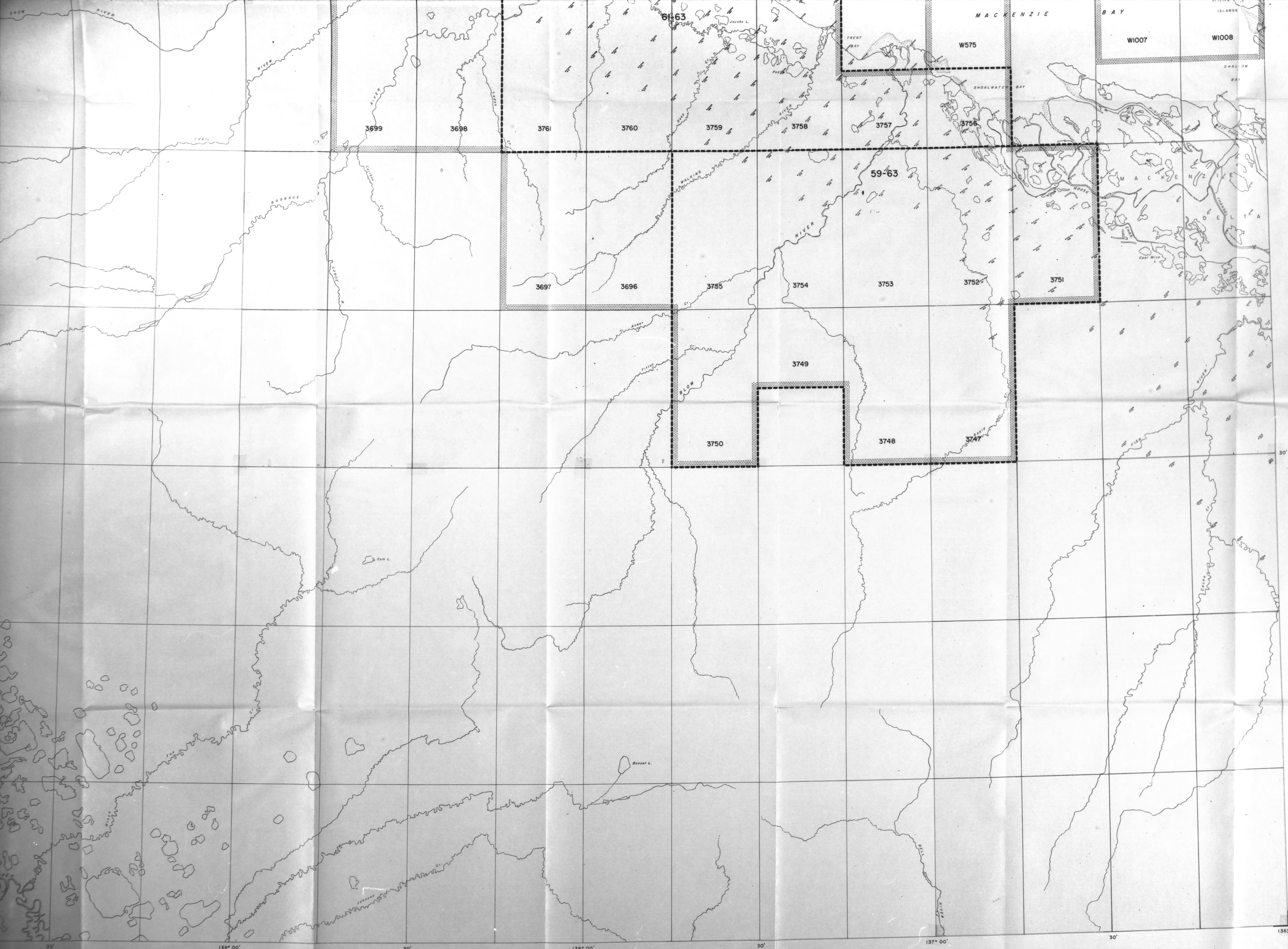
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BOUGUER GRAVITY
C.I. = 10 G.U.







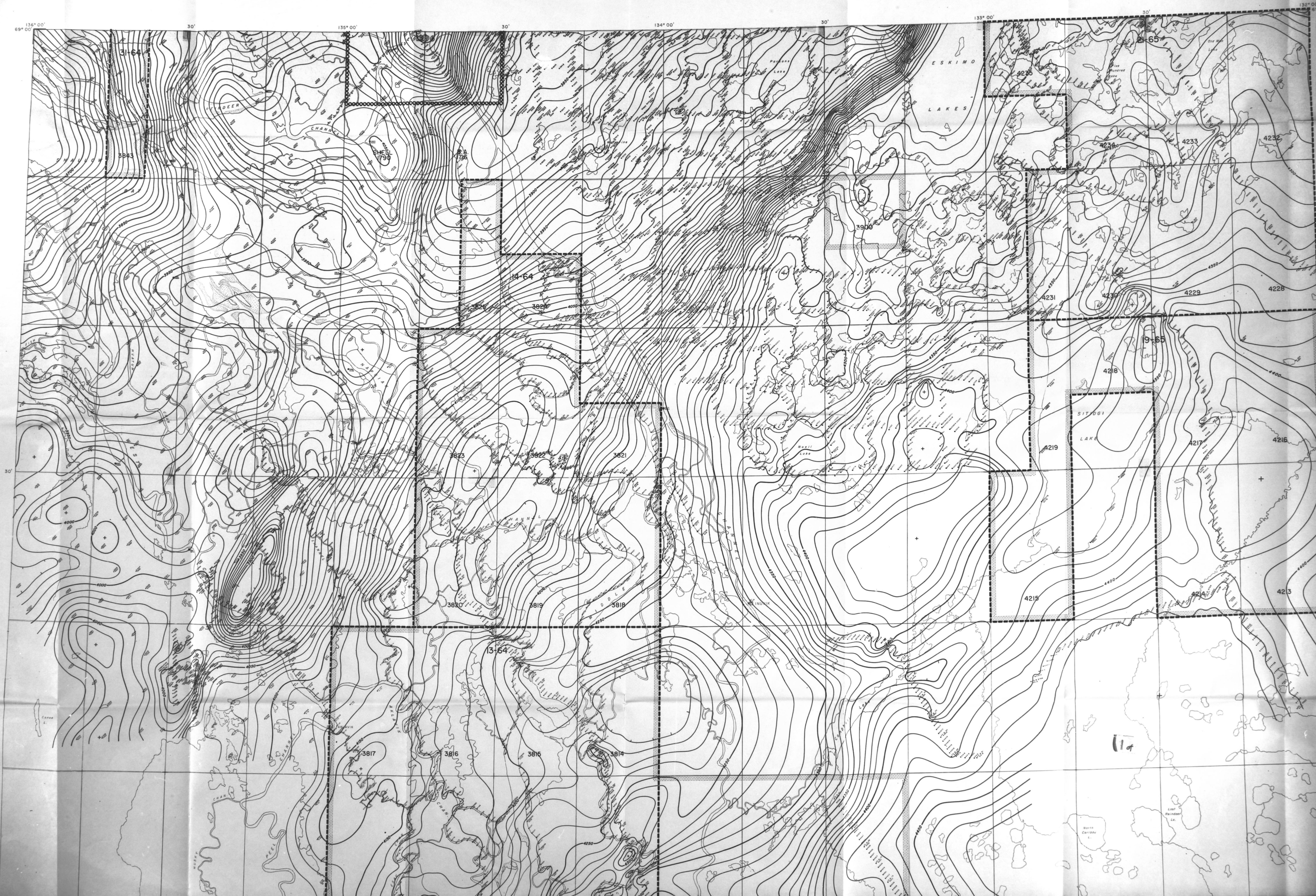




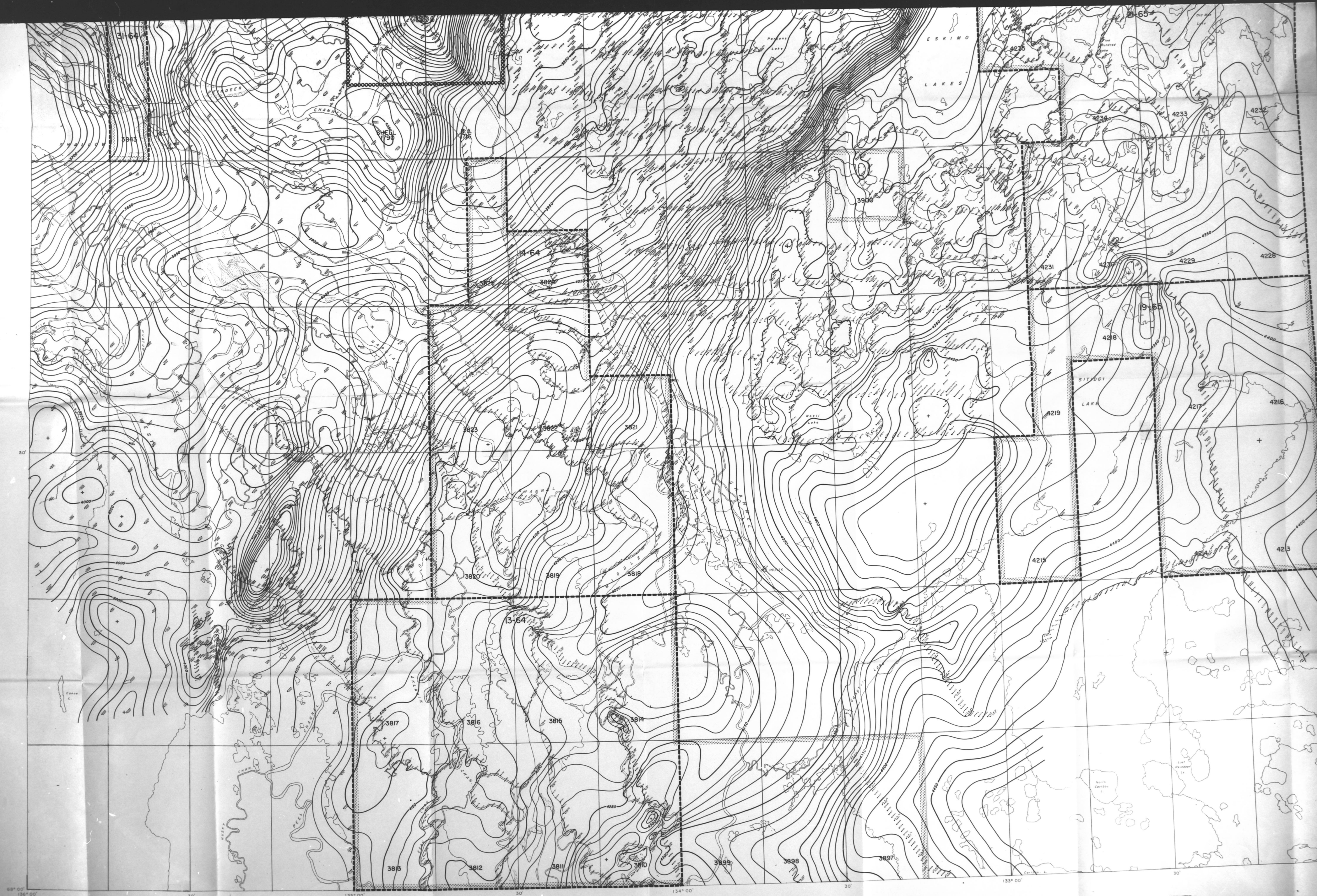
BLOW RIVER

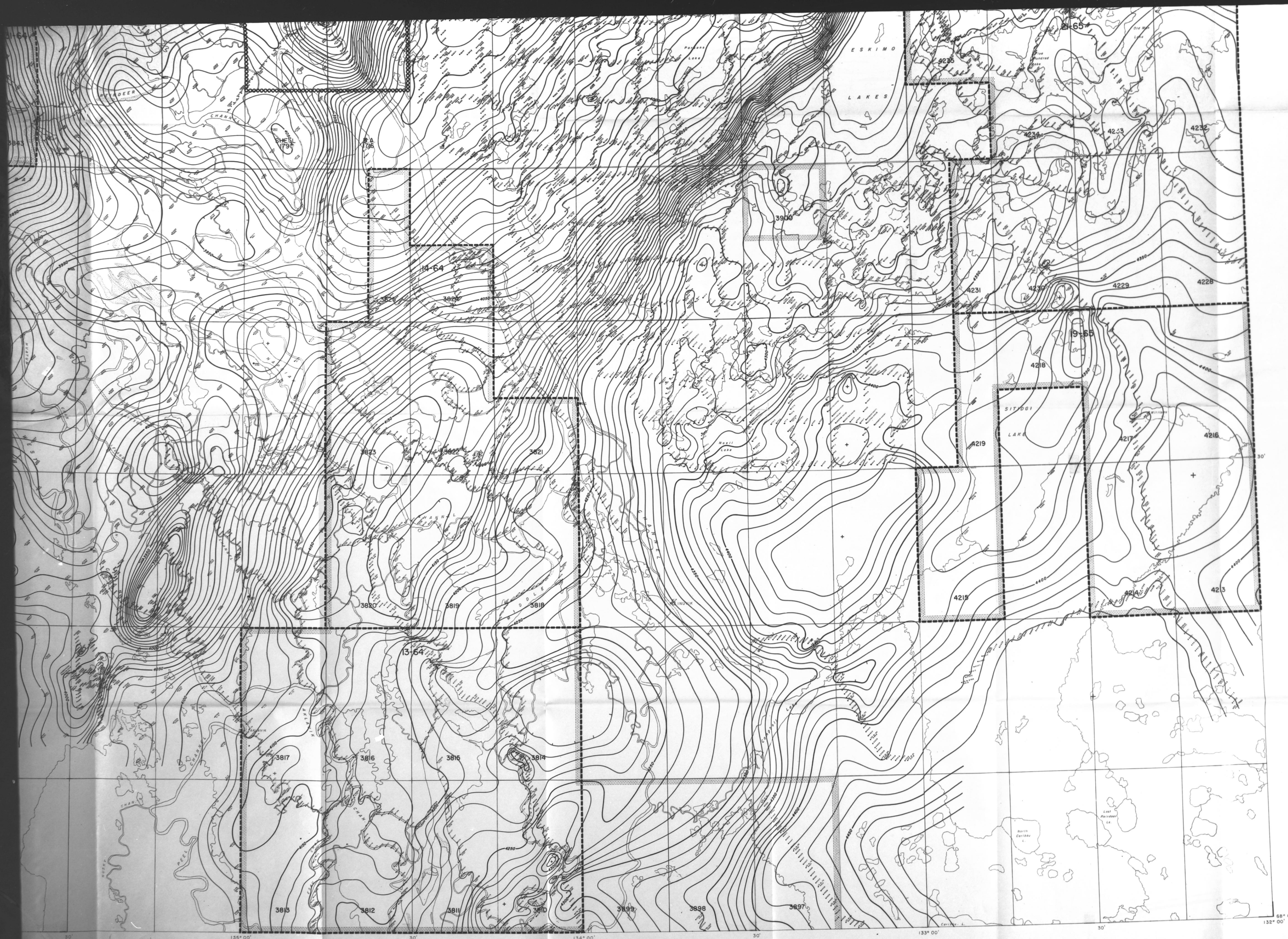
SCALE : 1 inch = 2 Miles

68° 00'
136° 00' IMPERIAL OIL ENTERPRISES LTD.
BOUGUER GRAVITY
ELEVATIONS







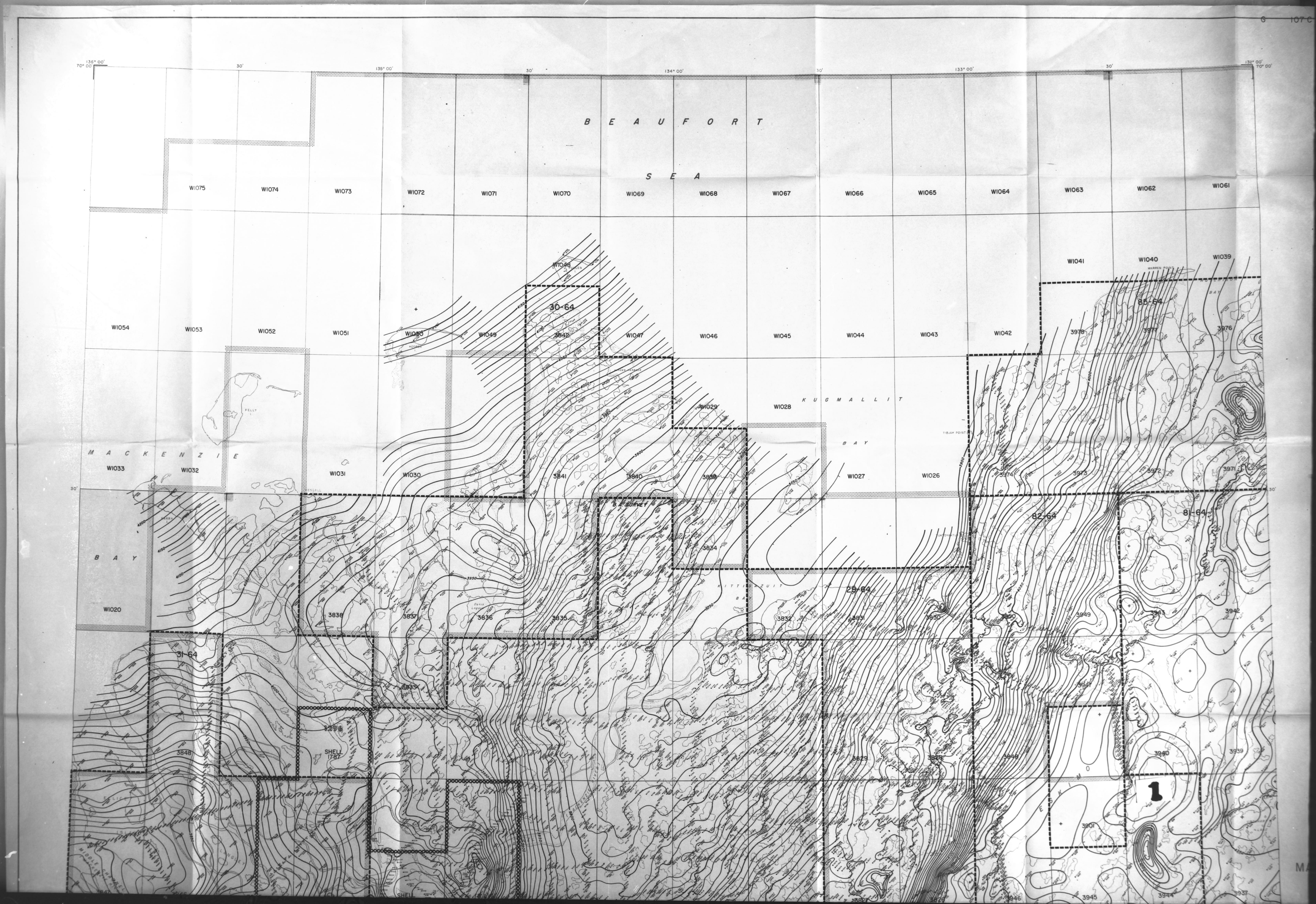


AKLAVIK
107B
SCALE : 1 Inch = 2 Miles

SCALE : 1 Inch = 2 Miles

IMPERIAL OIL ENTERPRISES LTD.
BOUGUER GRAVITY
C.I. = 10 G.U.

4 of 4



B E A U F O R T

S E A

W1075

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W1039

M A C K E N Z I E

W1033

W1032

W1031

W1030

W1028

K U G M A L L I T

W1027

W1026

B A Y

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MACKENZIE DELTA
107C

SCALE: 1 inch = 2 Miles

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BOUGUER GRAVITY
C.I. = 10 G.U.