

17-6-5-18



FINAL REPORT ON GEOPHYSICAL OPERATIONS

PERMIT NO. 2482

This permit is located just south of the Arctic Circle along the Mackenzie River between Lat. $65^{\circ}10'$ - $65^{\circ}20'$ N. and Long $127^{\circ}15'$ - $127^{\circ}30'$ W.

Some shooting lies outside the permit limits so that the Imperial Ray No. 1 test in the central part of Grid Area $65^{\circ}20'$ - $127^{\circ}00'$, and the Imperial Hoosier Ridge No. 1 test in the extreme northwest corner of the map area could be tied in to the seismic control. The survey was completed between May 6 and June 24, 1963.

The field equipment and supplies were shipped up the Mackenzie River by barge to the area during the Fall of 1962.

Field operations were hampered by the soggy ground conditions encountered. Normal muskeg conditions were aggravated by exceptionally heavy rainfalls, resulting in time losses due to detours, building bridges, and winching. Although the bulldozer used was relatively light, it was still too heavy to traverse the wetter treed areas, forcing the bombardiers to crash through on their own.

Field equipment consisted of two water tanks, two lightweight drills and a recording unit, all mounted on bombardiers, and a D-4 bulldozer. The crew operated from a fly-camp which maintained contact with the base camp.

Powder charges varied from $1\frac{1}{2}$ to 60 lbs. but 10 lbs. were loaded most frequently. Shot depths of 9 to 90 feet were

recorded but about 35 feet was the depth most commonly used. Sandstone ledges encountered proved to be a problem for the drills because of their lightness.

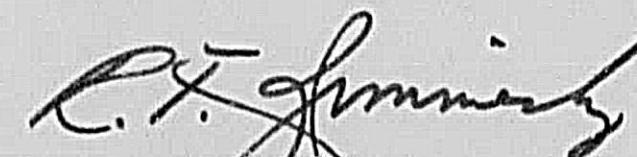
The Imperial Ray No. 1 test was the surface survey control point for this permit. The area is quite remote and reliable survey data are sparse.

Seismic times were reduced to a datum plane of +450 feet using velocities measured from first arrival times. A weighted correction velocity was employed if the presence of sandstone stringers was either known or suspected.

This report accompanies the following maps:

1. Surface Topography
2. Hume (Middle Devonian).

TEXACO EXPLORATION COMPANY

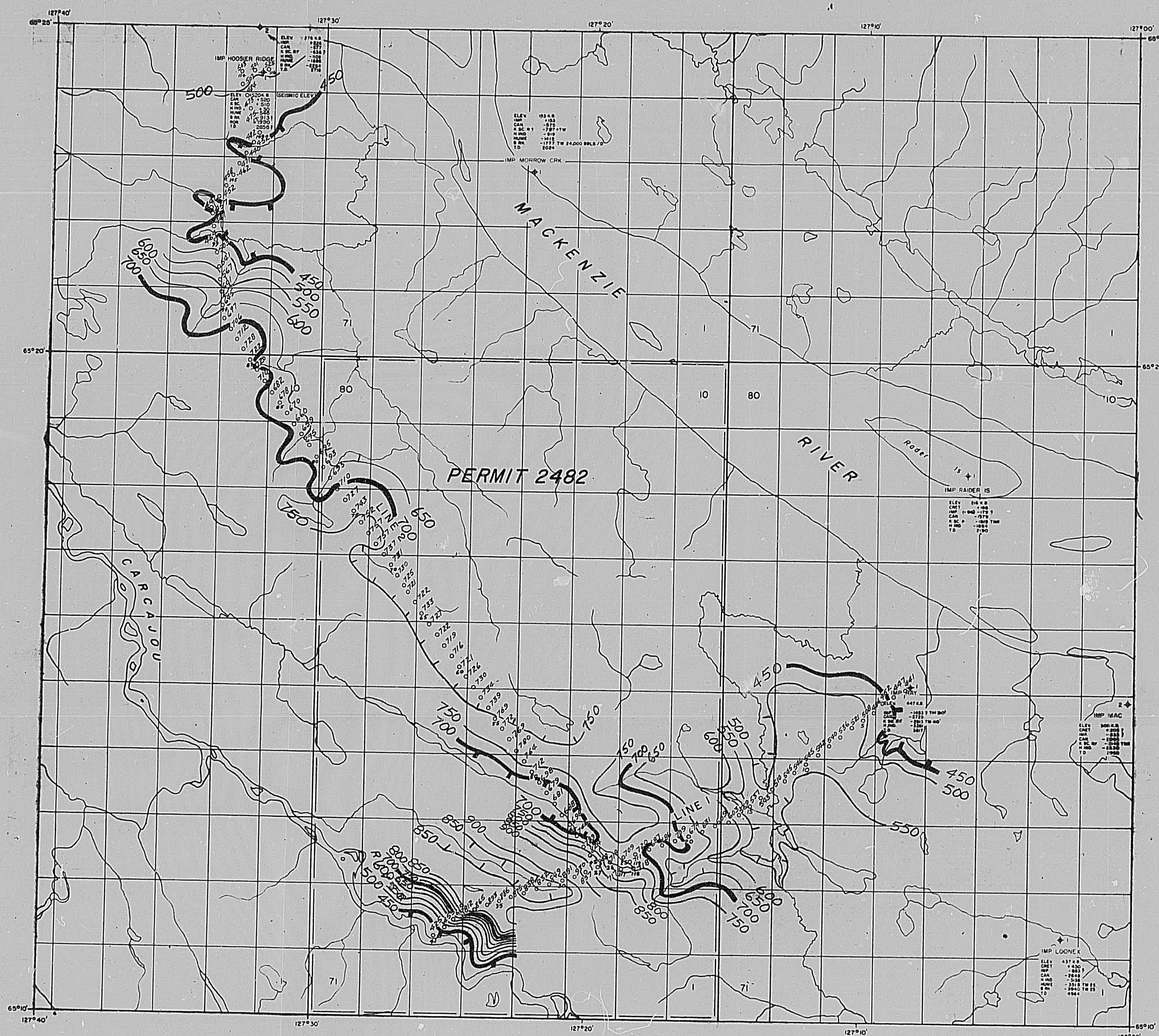


R. F. Zimmerly,
Chief Geophysicist.

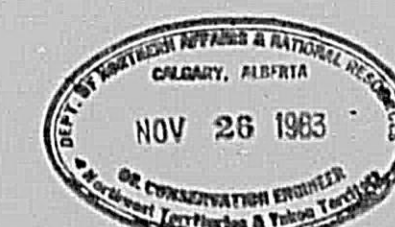
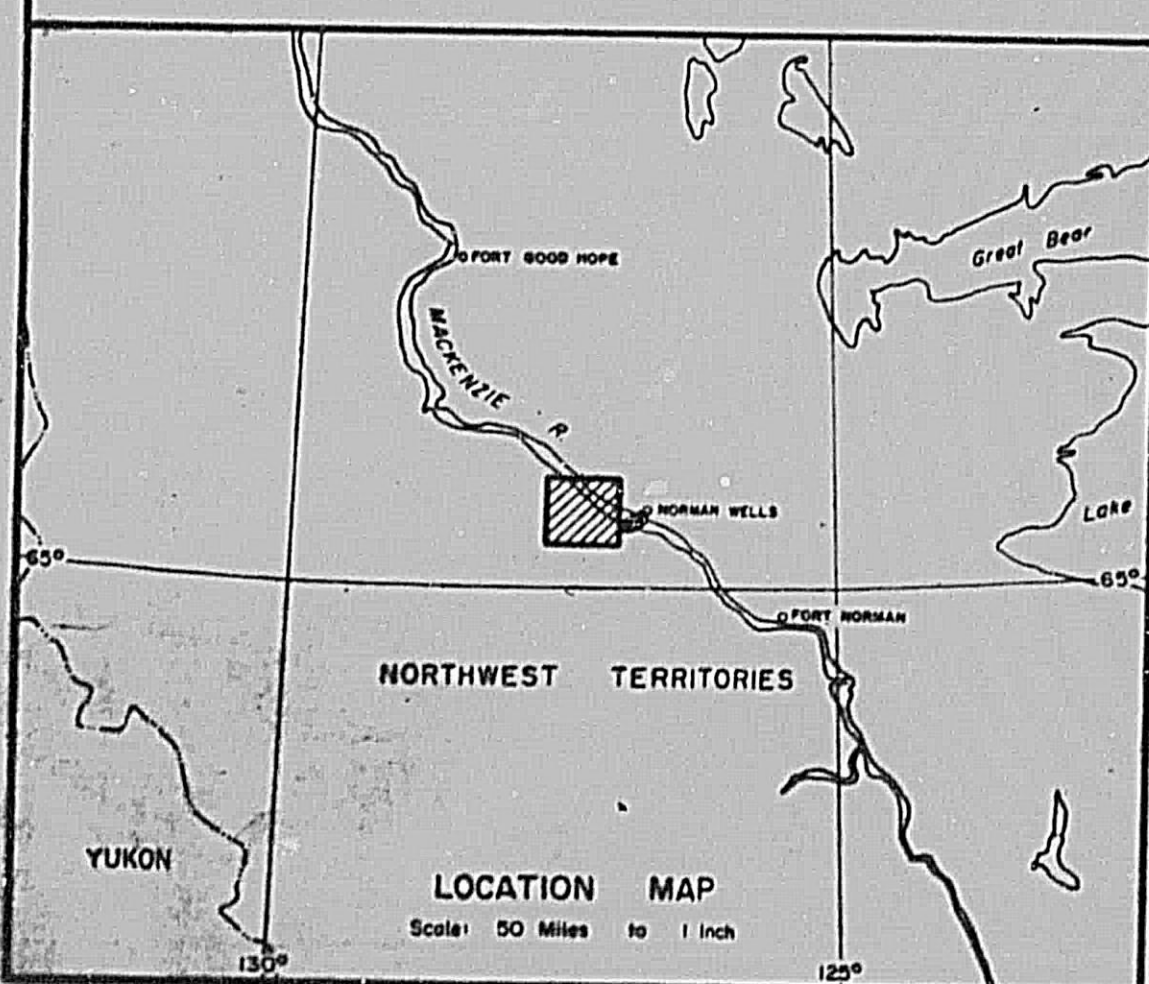
RFB-1h

Encls.

Calgary, Alberta,
November 1, 1963.



SEISMIC REFERENCE DATUM: +450 FT
SEISMIC REFERENCE METHOD: MODIFIED UPHOLE



TEXACO EXPLORATION COMPANY
CALGARY ALBERTA CANADA

SPR
PERMIT 2482
NORTHWEST TERRITORIES CANADA

SURFACE TOPOGRAPHY

CONTOUR INTERVAL: 50 FT.
SCALE: 1 IN. = 1 MILE
DATUM: SEA LEVEL

J. TARBET, PARTY CHIEF
SEISMIC PARTY NO. 57
R.M. TREACY, SUPERVISOR

DATE: NOVEMBER 8, 1963. 17-6-5-10

GEOPHYSICAL ASSOCIATES OF CANADA LTD.

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