

IMPERIAL OIL ENTERPRISES LTD.

PRODUCING DEPARTMENT - WESTERN REGION

HELICOPTER SEISMIC OPERATIONS - REDSTONE AREA

N.W.T. Permits 3245 and 3252 to 3254.

September - October, 1965.

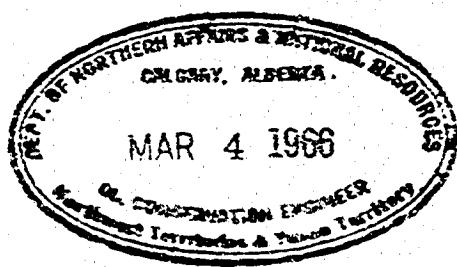
By

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DAWSON CREEK, BRITISH COLUMBIA.

Report on seismic operations conducted on behalf of Imperial Oil Enterprises Ltd. by Parama Explorations Ltd. and United Geophysical Company of Canada during September and October, 1965. Submitted in support of application for credit. See Affidavit of Work by Peter Graham Campfield dated February 15, 1966.



- T A B L E O F C O N T E N T S -

Report on Territorial Oil and Gas Permits 3245  
and 3252 to 3254 inclusive, Redstone Area, N.W.T.

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## Seismic Report

### Introduction

Imperial Oil Limited acquired Territorial Oil and Gas Permits 3245 and 3252 to 3254 inclusive at the Northwest Territories Sale of November 30, 1961. They were issued to Imperial Oil Limited effective November 30, 1961. By Agreement dated January 1, 1963 Imperial Oil Limited farmed-out these permits to Imperial Oil Enterprises Ltd. These permits are in their second renewal period and will expire on November 29, 1966.

### Helicopter Seismic Operations

Imperial Oil Enterprises Ltd. engaged Parama Explorations Ltd. as geophysical contractor and United Geophysical Company of Canada as subcontractor to conduct a helicopter seismic program in the Redstone area of the Northwest Territories. This association was designated as Imperial Oil Enterprises Ltd. Party No. 21.

Parama Explorations Ltd. supplied the helicopter support, namely: one turbine powered Bell 204B, ten passenger, 4,000 pound lift capacity, and; one Alouette, four passenger, 1,500 lift capacity. United Geophysical of Canada furnished the geophysical instruments and drilling equipment, namely: SIE PT 100 AVC and three - 500 foot Mayhew heli-drills. The latter were specially designed and engineered helicopter-transportable seismic rigs allied with a recently developed transportable camp.

Personnel involved totaled forty-five people as follows: Twenty-five native line cutters, four helicopter crew, six drilling crew, ten recording and survey crew of which six were native.

Helicopter Seismic Operations Cont'd.

The program commenced September 15, 1965 and concluded October 13, 1965. Approximately three days were lost due to recording difficulties or drilling equipment failures and four days were lost due to inclement weather. The type of shooting involved one-third mile spreads using single holes loaded with fifty pound charges at fifty feet.

The terrain was generally flat except for river banks and forest cover. Some re-drilling was required in the sand and gravel on river banks. Little muskeg was encountered. A very heavy stand of timber in the thirty to sixty feet category made line clearing difficult and slow. This coupled with an early snow forced early completion of the program.

This program shot 131 locations over some 41 miles of line.

February 17, 1966

H. J. Hewetson

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