

# MAR 19680127: NORTHERN ALBERTA

Received date: Dec 31, 1968

Public release date: Jan 01, 1970

## **DISCLAIMER**

By accessing and using the Alberta Energy website to download or otherwise obtain a scanned mineral assessment report, you ("User") agree to be bound by the following terms and conditions:

- a) Each scanned mineral assessment report that is downloaded or otherwise obtained from Alberta Energy is provided "AS IS", with no warranties or representations of any kind whatsoever from Her Majesty the Queen in Right of Alberta, as represented by the Minister of Energy ("Minister"), expressed or implied, including, but not limited to, no warranties or other representations from the Minister, regarding the content, accuracy, reliability, use or results from the use of or the integrity, completeness, quality or legibility of each such scanned mineral assessment report;
- b) To the fullest extent permitted by applicable laws, the Minister hereby expressly disclaims, and is released from, liability and responsibility for all warranties and conditions, expressed or implied, in relation to each scanned mineral assessment report shown or displayed on the Alberta Energy website including but not limited to warranties as to the satisfactory quality of or the fitness of the scanned mineral assessment report for a particular purpose and warranties as to the non-infringement or other non-violation of the proprietary rights held by any third party in respect of the scanned mineral assessment report;
- c) To the fullest extent permitted by applicable law, the Minister, and the Minister's employees and agents, exclude and disclaim liability to the User for losses and damages of whatsoever nature and howsoever arising including, without limitation, any direct, indirect, special, consequential, punitive or incidental damages, loss of use, loss of data, loss caused by a virus, loss of income or profit, claims of third parties, even if Alberta Energy have been advised of the possibility of such damages or losses, arising out of or in connection with the use of the Alberta Energy website, including the accessing or downloading of the scanned mineral assessment report and the use for any purpose of the scanned mineral assessment report so downloaded or retrieved.
- d) User agrees to indemnify and hold harmless the Minister, and the Minister's employees and agents against and from any and all third party claims, losses, liabilities, demands, actions or proceedings related to the downloading, distribution, transmissions, storage, redistribution, reproduction or exploitation of each scanned mineral assessment report obtained by the User from Alberta Energy.

REPORT ON FIELD EXAMINATION  
RANGER OIL (CANADA) LIMITED  
SULPHUR PERMITS NOS. 156 AND 157

NORTHERN ALBERTA *19680127*

THIS REPORT HAS BEEN PREPARED  
FOR THE EXCLUSIVE USE OF:

Ranger Oil (Canada) Limited

COPY NO:.....3.....

19680127

ECONOMIC MINERALS

FILE REPORT No.

S-AF-156(1)

S-AF-157(1)

REPORT ON FIELD EXAMINATION  
RANGER OIL (CANADA) LIMITED  
SULPHUR PERMITS NOS. 156 AND 157  
NORTHERN ALBERTA

Prepared For  
Ranger Oil (Canada) Limited  
November, 1968

J. C. SPROULE AND ASSOCIATES LTD.  
OIL AND GAS ENGINEERING AND GEOLOGICAL CONSULTANTS

1009 FOURTH AVENUE S.W.  
CALGARY - ALBERTA

TELEPHONE 269-7951

INDEXING DOCUMENT NOS. 700531  
700533

REPORT ON FIELD EXAMINATION

RANGER OIL (CANADA) LIMITED

SULPHUR PERMITS NOS. 156 AND 157

NORTHERN ALBERTA

The field work on these Permits has been carried out at the request of Mr. D.G. Penner acting for Ranger Oil (Canada) Limited. The work was authorized under our letter agreement of August 13, 1968. Previously, on June 11, 1968, a proposal was made that J.C. Sproule and Associates Ltd. would collect representative near-surface samples as described in the pertinent paragraph of our June 11th letter. We quote:

"The field party conducting Phase II would, upon arrival in the field, immediately check those points of indicated interest that had become evident from the photogeological study. More specifically, we think that the preliminary study will give you a good idea of all those areas that are likely to contain sulphur. All areas where sulphur is likely to occur will be checked by the helicopter reconnaissance crew. Hand specimens and/or auger samples will be taken to determine the presence or absence of sulphur. We might call this preliminary part of the field program Step 1 of Phase II. The total cost of Step 1 would be \$800 per permit-unit."

The field work has been conducted by Mr. N. Soul. The field notes describing the samples taken are as follows. We quote:

"Permit No. 156

Area No. 1

Hole No. 1 - N.E. 34-101-1 W. 5 M. Depth, 8 feet.

<u>Sample No.</u>	<u>Depth</u> Ft.	<u>Sulphur</u> %	<u>Sample</u>
156-1-1	4	18.30	Muskeg
156-1-1	8	Trace	Grey clay

Area No. 2

Hole No. 1 - N.W. 30-101-1 W. 5 M. Depth, 8 feet.

<u>Sample No.</u>	<u>Depth</u> Ft.	<u>Sulphur</u> %	<u>Sample</u>
156-2-1	4	22.34	Black muck
156-2-1	8	2.51	Grey clay

Area No. 3

Hole No. 1 - N.W. 17-101-1 W. 5 M. Depth, 8 feet.

<u>Sample No.</u>	<u>Depth</u> Ft.	<u>Sulphur</u> %	<u>Sample</u>
156-3-1	4	Trace	Grey clay
156-3-1	8	Trace	Grey clay

Permit No. 157

Area No. 1

Hole No. 1 - S.E. 27-104-12 W. 5 M. Depth, 8 feet.

<u>Sample No.</u>	<u>Depth</u> Ft.	<u>Sulphur</u> %	<u>Sample</u>
157-1-1	4	1.56	Muskeg and lacustrine
157-1-1	8	0.67	Muskeg and lacustrine

Permit No. 157 (Continued)

Area No. 2

Hole No. 1 - N.W. 24-104-12 W. 5 M. Depth, 8 feet.

<u>Sample No.</u>	<u>Depth</u> Ft.	<u>Sulphur</u> %	<u>Sample</u>
157-2-1	4	Trace	Dark grey to black clay
157-2-1	8	22.43	Dark grey to black clay.

Area No. 3

Hole No. 1 - S.E. 35-104-12 W. 5 M. Depth, 7 feet.

<u>Sample No.</u>	<u>Depth</u> Ft.	<u>Sulphur</u> %	<u>Sample</u>
157-3-1	4	Trace	Clay
157-3-1	7	Trace	Clay

The sample locations are given on the accompanying Figure 1 and the related analyses by Chemical and Geological Laboratories Ltd. constitute Appendix I attached hereto.


With reference to these results, it will be observed that analyses made of most of the samples taken from Permits Nos. 156 and 157 show only traces or very small percentages of sulphur, except for three of the samples. The material penetrated was mostly clay, but included muskeg debris. Two of these high-value analyses fall on Sulphur Permit No. 156 with values of 18.30 percent sulphur (156-1-1, four feet), and 22.34 percent sulphur (156-2-1, four feet), both being derived from muskeg debris. In view of these results, a portion of the northern half of Sulphur Prospecting Permit No. 156 should be considered for retention and for further exploratory activity, perhaps in the manner postulated as Step 2 of Phase II. Less attractive results have been derived from the zone of muskeg areas south of the Burnt River, but the sampling here has been insufficient to adequately

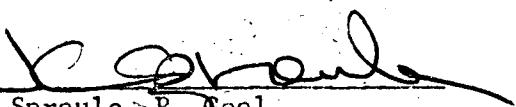
evaluate this part of the holding. However, this is a more nebulous prospect and it is, at the present time, difficult to recommend acreage retention. Another possibility to avoid additional expense, would be to retain selected acreage as mentioned and to dispose of it, for consideration, to some other interested party whose holdings may justify further expenditures.

The third anomalous sample (157-2-1, four feet) was collected from Permit No. 157, and it analyzed at 22.43 percent sulphur from grey clay. It is derived from a small irregular swamp of very small size. That being the case, it is reasonably certain that Sulphur Prospecting Permit No. 157 does not contain occurrences of native sulphur in sufficient quantities to justify further exploratory activity.

Under the circumstances, we recommend that Sulphur Prospecting Permit No. 157, and part of Sulphur Prospecting Permit No. 156, be abandoned and that the Company request a return of their deposits. We further recommend for consideration retention of a portion of Sulphur Prospecting Permit No. 156 and either pursue Step 2 of Phase II exploration, or dispose of the acreage to another interested party or parties.

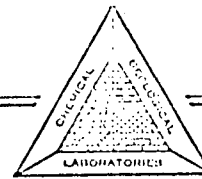
We will be pleased to submit an estimate of the cost of conducting an adequate exploration sampling program over the area recommended for retention at such time as a complete analysis of costs and performance of the past season's operations have been completed.

  
H.B. Lyall, P. Geol.

  
J.C. Sproule, P. Geol.

1009 Fourth Avenue S.W.,  
Calgary 2, Alberta.  
November 15, 1968.  
HBL:JCS:ld1





14240-115 AVENUE, EDMONTON, ALBERTA

Date Reported: October 7, 1968

Laboratory Report Number: C68-4106

J. C. SPROULE & ASSOCIATES LTD.

Kind of Sample: Soil

Date Received: September 26, 1968

SAMPLE NUMBER	DEPTH IN FEET	ELEMENTAL SULFUR	
		(% by Weight on Dry Sample)	(% by Weight on Wet Sample)
156-1-1	4	18.30	4.87
156-1-1	8	Trace	Trace
156-2-1	4	22.34	9.15
156-2-1	8	2.51	1.61
156-3-1	4	Trace	Trace
156-3-1	8	Trace	Trace
157-1-1	4	1.56	0.80
157-1-1	8	0.67	0.37
157-2-1	4	Trace	Trace
157-2-1	8	22.43	11.61
157-3-1	4	Trace	Trace
157-3-1	8	Trace	Trace

R. 12 W.5

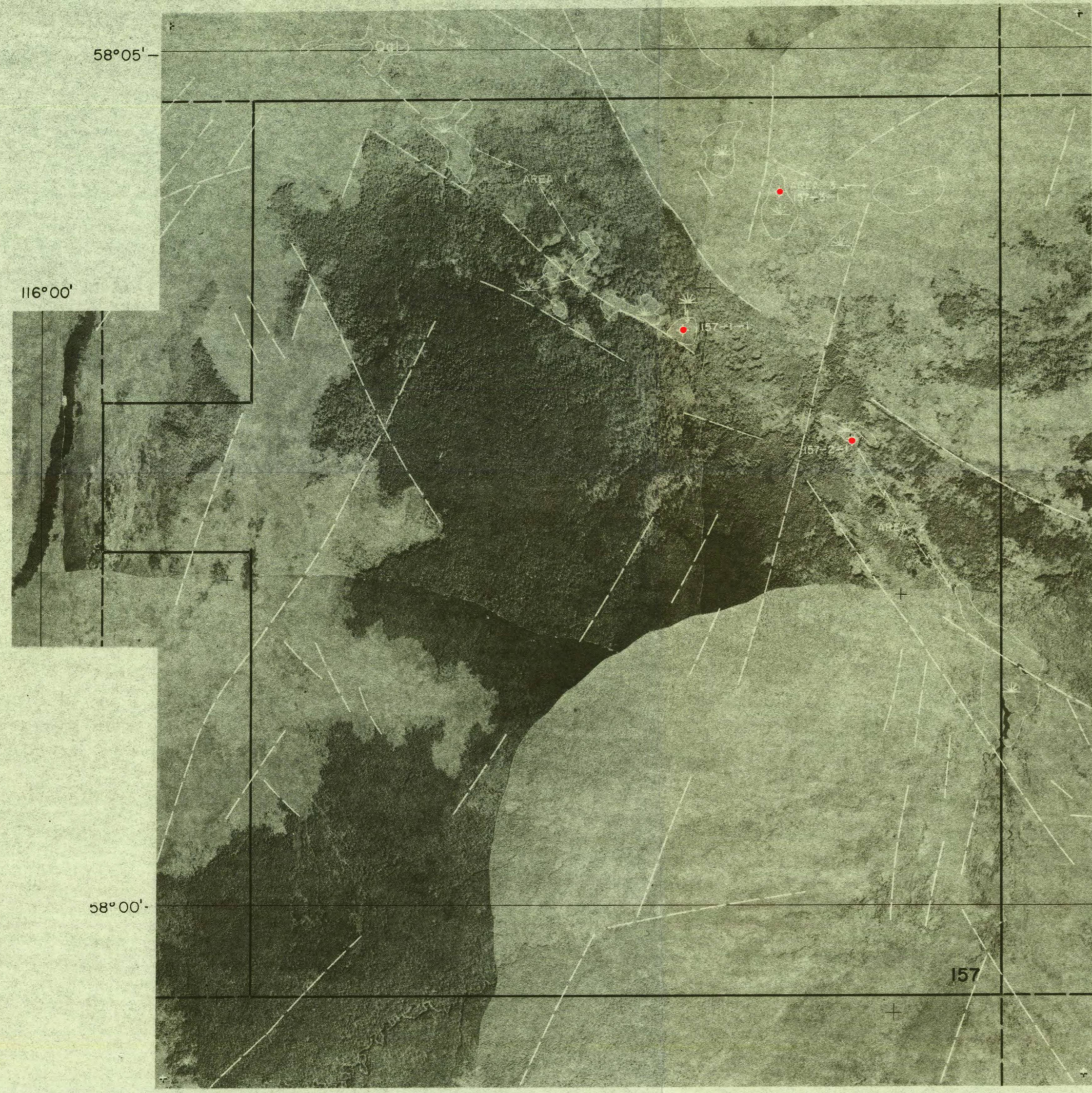
R. 1 W.5

114°00'

58°05'

116°00'

T. 104

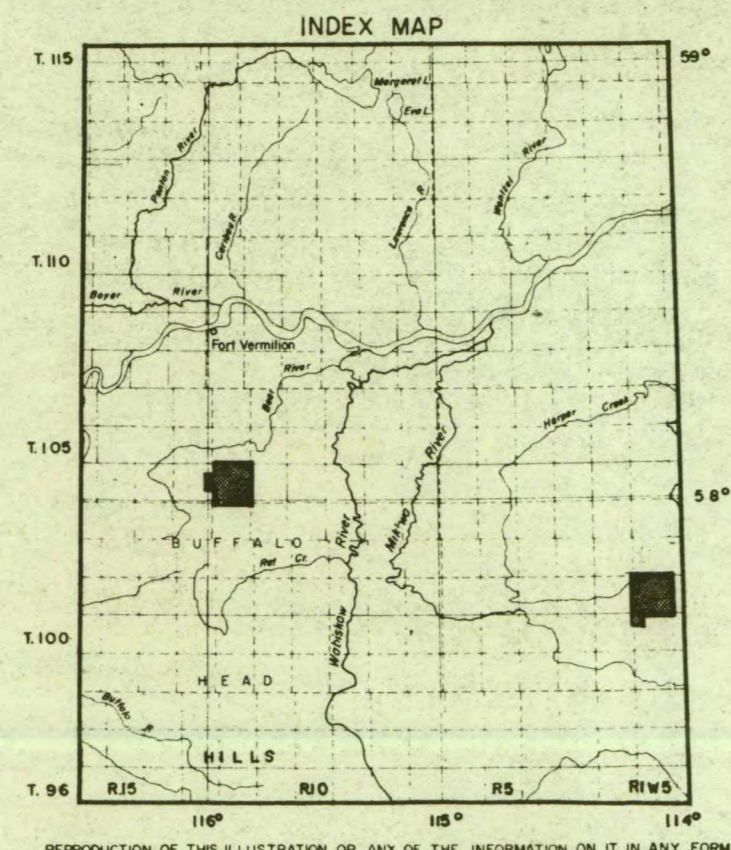


157

T. 101

57°45'

156



REPRODUCTION OF THIS ILLUSTRATION, OR ANY OF THE INFORMATION ON IT, IN ANY FORM IS PROHIBITED WITHOUT THE WRITTEN AUTHORITY OF J.C. SPROULE AND ASSOCIATES LTD.

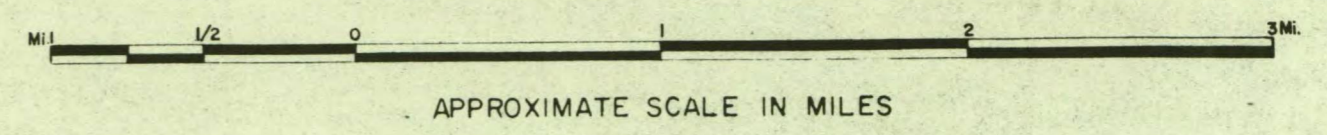
**LEGEND**

- SURFICIAL DEPOSITS**
- Qal Alluvium
- Muskeg
- PHOTOGEOLOGICAL SYMBOLS**
- Alignment interpreted to indicate faulting or fracturing in bedrock
- Areas of interest discussed in report
- AREA 1, 2 etc.
- 156, 157 Sulphur prospecting permit outline
- Sample Location
- Outline of area recommended for retention

**PHOTOGEOLOGICAL MOSAIC  
SULPHUR PROSPECTING PERMIT**  
Nos. 156, 157

**FORT VERMILION AREA  
ALBERTA**

PREPARED FOR  
**RANGER OIL (CANADA) LIMITED**



APPROXIMATE SCALE IN MILES  
THIS IS A SEMICONTROLLED MAP-MOSAIC AND SHOULD NOT BE MISTAKEN FOR AN ACCURATE GEOGRAPHIC BASE

J.C. SPROULE AND ASSOCIATES LTD. CALGARY, ALBERTA

# SULPHUR PROSPECTING PERMIT No. 156

RANGER OIL (CANADA) LIMITED,  
300 - 5th AVENUE S.W.,  
CALGARY , ALBERTA

DATE OF ISSUE - FEBRUARY 8 , 1968  
AREA - 19,840 ACRES

TP.

TP. 101

846/16+9

TP. 100

R. 2

R. 1 W. 5 M.

# SULPHUR PROSPECTING PERMIT No. 157

RANGER OIL (CANADA) LIMITED,  
300 - 5th AVENUE S.W.,  
CALGARY, ALBERTA

DATE OF ISSUE - FEBRUARY 8, 1968  
AREA - 19,840 ACRES

TP. 104

84J/4  
SW

TP. 103

R. 12

R. 11 W. 5 M