Exploration Permits

No. 69-74

(2) Memorandum report on reconnaissance field work, Hudson Bay Lowlands, Manitoba. Includes reported oil seepage.

MICROFILMED
TO .....
HERE .....
June/1979

file

INTER-DEPARTMENTAL MEMORANDUM

PROVINCE OF MANITOBA

DATE 3 Mar /70

FROM [illegible]

TO [illegible]

SUBJECT [illegible] Permits 73 - 74.

Ex deposit for first 18 mo. period: 3507 − 650 previous expenditure = 2857.40 each
Period ends 30/4/70.

Present request is for credit of 1470.40 for each permit, leaving balance 1386.00 as deposit for each permit, if report accepted.

Subsequent deposit for 30. mo period beginning 30/4/70 = $10,522 each permit

---

a) work is off permit but very close

b) this type of exploratory work is questionable as valid exploratory expenditure, but should be included & accepted if properly done.

c) Location of the sample sites not shown on photomosaic
Location of permit areas not shown on photomosaic.
No notice ~~[illegible]~~ prior to commencement of work
No analyses of oily film. – Report indicates only film was sampled but letter indicates no oil film when examined in Calgary? If oily film was in fact present, I doubt the "crop" can be written off without analyses. (ie what was "nature of the oil film")

Not presently acceptable.
Not acceptable at all unless further data on "oil film"

TELEPHONE: 264-5707

KANATA EXPLORATION CO.
206 FINA BUILDING
CALGARY 2, ALBERTA

February 19, 1970

Government of the Province of Manitoba
Department of Mines and Natural Resources
Mines Branch
Director's Office
901 Norquay Building
401 York Avenue
Winnipeg 1, Manitoba

... OF MINES

Attention: Mr. J. S. Roper

Subject: Exploratory Permits 69-74 incl.

Dear Sir:

We reply to your letter of January 20, 1970, wherein you requested additional information to assist your assessment of our work credits. We submit:

(1) Copies of the 10 slide type colour photographs to which a referral was made on page 6 of the report.

(2) A reproduction of an air photo mosaic which designates the exact area of examination and the geomorphic anomaly.

A sample of the lake water was taken but it was evident upon the in situ examination of the water that the oil film was not a result of petroleum seepage. The distinctive deep blue colour visible from the air and evidenced by the color photos was attributed, upon examination, to decaying vegetable matter. Based on this realization and the examination of the sample which, upon receipt in Calgary, evidenced no discernible film of oil, it was decided to forgo an analysis.

The geomorphic anomaly to which reference was made on page 5 of the report is gravity anomaly delineated on the air photo mosaic.

Very truly yours

KANATA EXPLORATION CO.

Ronald Ward

Ronald Ward
Vice-President

DP/aib
Encls.

Copy #1

MEMORANDUM REPORT

on

RECONNAISSANCE FIELD WORK

HUDSON BAY LOWLANDS, MANITOBA

INTRODUCTION

The work program involved a field check of a suspected oil seep in the Hudson Bay Lowlands, Manitoba. The location of the reported oil seep was 11 miles south-southeast of York Factory, Manitoba at lat. 56° 50' 45" N., long. 92° 15' 30" W. (Refer to topographic sheet covering NTS 54C, Hayes River; approximate scale 1:250,000.) The field check was conducted by V. Zay Smith Associates Ltd.. during the period August 13th to August 18th, 1969 under the direction of Dr. Horst S. Scherp, geologist.

EARLY HISTORY of PROJECT

Mr. Svein Sigfussen of Winnipeg, Man., while flying at low altitude, noticed at the above location what appeared to be a distinctly recognizable oily film on a number of small muskeg ponds. The suspected oil seep occurrence is situated immediately east and southeast of a lake too small for Mr. Sigfussen's aircraft to land on. Mr. Sigfussen succeeded, however, in taking photographs of the location which show a distinct blue tinge on the surface of small standing bodies of water. Mr. Sigfussen contacted Kanata Exploration Co. in this matter who in turn asked V. Zay Smith Associates Ltd. to conduct a geological field check for verification of an oil seepage from an underground reservoir.

FIELD CHECK

Horst S. Scherp of V. Zay Smith Associates Ltd. was instructed by Mr. Ron Ward of Kanata Exploration Co. on the objectives of the project. Samples of the liquid and photographs were to be taken at the site. In terms of logistics commercial airline service was used between Calgary/Winnipeg and return. Transportation to the oil seep location was

accomplished using a small Cessna aircraft on floats made available by the Air Division of Mr. Sigfussen's Transportation Company at Selkirk, Man. about 20 miles north-northwest of Winnipeg. August 14th was scheduled for departure from Selkirk to the oil seep area.

The trip was made to Winnipeg on August 13th. A meeting with Mr. Sigfussen occurred on August 14th; however, on account of a vast storm system that had moved into central and northern Manitoba, the departure from Selkirk by Cessna aircraft was delayed until August 15th. Mr. Jack Carlson, Manager of the Air Division, piloted the plane. Departure was early in the morning, and with some difficulty and much delay on account of rain and poor visibility, the party arrived in the Gods Lake area in the late afternoon. The night was spent at one of the fishing lodges on Gods Lake. Aug. 16th saw an unsuccessful attempt to reach the oil seep location. After flying just above tree tops for 100 miles along Gods River, visibility dropped to less than 1/4 mile; the pilot decided to land on a nearby lake hoping for an improvement of weather conditions. Finally, in the late afternoon hope for continuation of the flight had to be abandoned and the course to Gods River was retraced. On August 17th the weather had improved slightly; visibility was about one mile, the ceiling was still very low. After flying

V. ZAY SMITH ASSOCIATES LTD

close to tree tops for about 40 minutes the ceiling became higher; visibility improved rapidly and 20 minutes later the plane left the weather system behind.

OIL SEEP LOCATION

The Cessna landed under blue skies on the lake and was docked easily on the bank on the east side of the lake. This was the area in which the suspected seepages clearly showed on Mr. Sigfussen's photographs. The terrain slopes gently from the south and north into the large topographic depression in which the lake is located. The check and sampling of the liquid were made to the east of the lake at a station where a broad exposure of low northward sloping land narrows in a downslope direction. Higher terrain on either side forms an elongate depression only 30 feet wide at its narrowest point. Any oil seepage would yield maximum concentration of hydrocarbons at such a point. At the sample location and elsewhere in the area the muskeg essentially constitutes a swamp which is heavily overgrown by a thick carpet of intertwined weeds. Standing on the ground at the edge of the muskeg, the water is generally only noticeable in a few open areas, although it probably averages

about two inches in depth above the top of the intergrown carpet of sods. However, from the air the extent of muskeg areas can easily be discovered by the intense reflection of sunlight from such semi-concealed water surfaces. Viewing the sample location from the aircraft the sunlight reflected an intense deep-blue tinge from the area. At the sample site the thin oily film (together with water) was caught in two plastic bottles. Several color photographs were taken in order to show the type of occurrence of the oil material and the setting of the area.

Judging from the nature of the oil film, the absence of outcrops of bedrock, the wide areal distribution of the oil film material, and the abundance of vegetation in a setting of water-saturated low relief and soggy terrain, it is evident that the oily film is derived from decay of vegetation involving superficially-active chemical processes, particular to areas of poor drainage. After taking off from the lake the presence of oily film was noticed on many other muskeg ponds covering several square miles south and north of the lake. Weather conditions were ideal for diagnostic observations and color photographs were taken. The geomorphic anomaly located southwest of the field check

station proved by aerial inspection to be devoid of bedrock outcrops.

The flight from the field check location to Winnipeg was again difficult. The south-moving weather system headed south of Gods Lake. Only with great difficulty did the party arrive at Norway House near the northern end of Lake Winnipeg to spend the night there. The flight from Norway House to Selkirk on August 18th passed without incident, landing at Selkirk about 11:30 AM. Upon arriving in Calgary a meeting was held with Mr. Ron Ward at the office of Kanata Exploration Co. The results of the survey were discussed, the bottled samples and all maps were delivered.

Accompanying this report are ten color photographs showing a variety of features. They include an aerial view of the Hudson Bay Lowlands in the area of the suspected oil seepage; aerial view of the sample locality; terrain photos taken on the ground at the sample station; appearance of oil film on muskeg water at sample point; and aerial view of muskeg area bout 1-1/2 miles northwest of the sample locality. Note oil film on muskeg ponds.

Respectfully submitted,
V. ZAY SMITH ASSOCIATES LTD.

Dr. Horst S. Scherp, Geologist

George M. Collins, P. Geol.

Kanata Exploration Permits 73, 74 nic. Hayes River 54-C