

1980 Assessment Report

Geophysical Survey

(VLF-EM Survey)

Title: SANDON PROPERTY

Claims: Ouray, Nellie Fr., Ouray Fr., Creek Side

Location: Carpenter Creek - Slocan M.D.
82K 3E
50° 01' N 117° 16' W

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For: SAUDI PETROLEUM CORPORATION
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Dates of Work: May 2, 1980 to June 25, 1980

Date of Report: November 18, 1980

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
8803

TABLE OF CONTENTS

| | |
|-----------------------------------|-----|
| INTRODUCTION ----- | 1. |
| PROPERTY ----- | 2. |
| LOCATION AND ACCESS ----- | 2. |
| WATER AND POWER ----- | 2. |
| PHYSIOGRAPHY ----- | 3. |
| CLIMATE ----- | 3. |
| TRANSPORTATION AND SUPPLIES ----- | 3. |
| HISTORY ----- | 4. |
| GEOLOGY ----- | 5. |
| MINERALIZATION ----- | 6. |
| VLF-EM SURVEY ----- | 7. |
| VLF-EM SURVEY RESULTS ----- | 8. |
| CONCLUSIONS ----- | 9. |
| RECOMMENDATIONS ----- | 9. |
| CERTIFICATE ----- | 10. |
| REFERENCES ----- | 11. |

ILLUSTRATIONS

| | <u>Scale</u> |
|------------------------------|--------------|
| MAP 1 LOCATION AND CLAIM MAP | 1 : 50,000 |
| MAP 2 E.M. SURVEY RESULTS | 1: 5,000 |

Geophysical Report
on the
SANDON PROPERTY
of
SAUDI PETROLEUM CORP.

INTRODUCTION

During May and June, 1980, a VLF-EM survey was carried out on the Sandon Property which the writer supervised. The purpose of the survey was to delineate areas of potential sub-surface mineralization and to provide correlative information to geochemical and geological results prior to selecting prime target areas for diamond drilling.

The field program was carried out during the period of May 4-8, 1980.

PROPERTY

The property is comprised of twelve contiguous claims consisting of three reverted crown grants and nine located claims.

Particulars are as follows:

| <u>Claim Name</u> | <u>Lot No.</u> | <u>Record No.</u> | <u>Expiry Date</u> |
|-------------------|----------------|-------------------|--------------------|
| Ouray | 3109 | 1676 | January 17, 1981 |
| Nellie Fr. | 3108 | 1677 | January 17, 1981 |
| Ouray Fr. | 1017 | 1676 | January 17, 1981 |
| Creek Side | | 1748 | February 18, 1981 |

LOCATION AND ACCESS

The property is situated on Carpenter Creek and within one km of Three Forks and seven km northwest of Sandon, B.C. Good access is provided from Three Forks - located on the New Denver - Kaslo Highway - by secondary road southward up Carpenter Creek for one km.

WATER AND POWER

Sufficient water for all phases of the exploration and development program should be available from water courses on the property.

Diesel-electric power would be required in the initial development stages.

PHYSIOGRAPHY

The elevation of the Carpenter Creek Valley in part covered by the property is at 800 m. Relief is in the order of 150 m with moderate slopes to the northeast.

CLIMATE

The area is within a relatively heavy snowfall belt where the property may be snow free for only seven months. Snowfall or inclement weather conditions should not hamper underground work. The road from Three Forks to Sandon is maintained year round, providing access to the property throughout the year.

TRANSPORTATION AND SUPPLIES

The highway from Three Forks to Trail, a distance of 125 km is paved and maintained throughout the year.

Most supplies could be purchased in New Denver or Trail.

Castlegar, 32 km north of Trail is served daily by P.W.A. from Vancouver.

The property area, adjacent and north of the Sandon Mining camp contains many former producers.

The Sandon area was the center of production of silver-lead-zinc ores and contributed half the entire output of silver and lead in the Slocan Mining Division.

Exploration and mining commenced in the 1890's with the height of activity lasting into the 1920's. With the oncoming depression period, production gradually subsided in ratio to a declining metal market where only sporadic production was recorded.

The Silvana Mines property, within six km to the south of the Saudi property is the only continuous producer in the area. The concentrator is located at Sandon.

In 1956 it was reported that the property of Slocan Monitor Mines Limited, which included the Ouray, Nellie Fr. and Ouray Fr. was worked in the vicinity of the Min and Cork workings (within one claim southwest of the Saudi owned Ouray Fr.).

The Cork adits are driven southwest along discontinuous fissuring of lode direction. The fissure zone contains gouge, carbonates and a small amount of ore minerals.

In May, 1980 Saudi Petroleum carried out a VLF-EM survey on the property.

GEOLOGY

The property area is underlain by sedimentary rocks of the Slocan Series which have been intruded by dykes and small stocks of intrusives related to the Nelson Intrusive.

Quartzites, thin bedded argillites and slates are common host rocks to quartz vein material.

At the adjacent Monitor Group "argillites with some quartzite occur as local beds or as bands 10 to 30 feet or more thick. The dip is predominantly to the southwest at moderate to steep angles. Slaty cleavage is fairly well developed in most of the argillites. There are few sills, mostly of the quartz diorite type".

The Monitor lode "has a general strike of north 45 degrees east and dips southeast at an angle varying from 60 degrees to vertical. The lode varies in thickness from a few inches to 4 feet or more...".

The Min and Cork workings are "1900 and 2400 feet southeast of the Monitor lode at elevations of 3,800 and 3,600 feet respectively". The Min adit is on a sheared argillite porphyry contact void of mineralization.

The 1980 geological mapping program indicated a central dioritic stock enveloped by pelitic schists and pelitic sediments. An alteration zone including pyrite and quartz veining appears to be associated with the diorite stock.

MINERALIZATION

In the VLF-EM survey, there are indicated lode structures although there are no previous reports of mineralization or of a lode on the Saudi-Sandon property. However the adjacent Monitor lode has been extensively worked. The Monitor lode filling lies between smooth slickensided walls and "is composed of more or less crushed country rock with lenses and veins of quartz, siderite, calcite and ore. The ore consists of galena (banded steel and fine cube) zinc blende and pyrite".

Value of ore shipped from the Monitor is reported as follows:

"crude ore prior to 1896 assayed \$12 to \$14 in gold 142 to 304 ounces in silver, and from 37 to 55 per cent lead. Ore shipments of 19 tons gave \$20 in gold, 367.6 ounces in silver and 32 per cent lead. The oxidized ore (88 tons averaged over \$13 in gold, 128.4 to 323.8 ounces in silver, and 14 to 33 per cent lead."

The ore from the Monitor lode reportedly "contains more gold on the average than ore from any other lode in the area. The best yearly shipment was 446 tons, in 1901 and contained 0.41 ounces of gold per ton. The gold is associated with pyrite in a siliceous gangue;".

A Sabre Model 27 VLF-EM Receiver instrument manufactured by Sabre Electronics of Vancouver, B.C. was utilized in the VLF-EM survey.

The VLF-EM method utilizes an electromagnetic field transmitted in the 15-25 Khz range. The signals are propagated with the magnetic component of the field being horizontal in undisturbed areas. SEATTLE TRANSM.

From Kane Creek and the northwestern centre of the property a base line was established to the southeastern edge of the claim group. The baseline was oriented at 0° with cross lines at 090° and at 120 meter intervals. The cross lines were designated east and west of a common line to the claim line. The stations on the base line and cross lines were at 30 meter intervals and were flagged and marked according to grid co-ordinates.

EM readings were taken at each 30 meter interval is indicated on the accompanying map.

A total of 9 line km of EM survey was completed.

The processing the VLF-EM results, the readings were "Fraser filtered". This process essentially exposes conductive areas that may not be obvious in unfiltered data. The conductive zones are expressed as peaks in positive results.

VLF-EM SURVEY RESULTS

The results of the VLF-EM survey (Map 2) indicates a number of primarily northerly trending anomalies with northeasterly or northwesterly trending or bifurcating zones. The anomalies could indicate lode structures which on the adjacent Monitor trend northerly and northeasterly.

In correlating the EM results with the results obtained from a geological survey, the following features were noted:

1. Predominant fracture and shear directions within the pelitic host trends at 315° to 330° with the pelitic schist trending at 035° to 060° . These structural orientations correlate with the dominant anomalous zones as determined by the VLF-EM survey.
2. A central dioritic stock is bordered by anomalous zones which may indicate more significant structures.

CONCLUSIONS

9.

It is concluded that the VLF-EM survey was successful in delineating northerly trending anomalous zones which could reflect potential mineral bearing lode structures.

The anomalous areas required further investigation with follow-up exploratory work to establish prime correlative areas for localized testing.

RECOMMENDATIONS

It is recommended that the exploration program as set out in the writer's report of February 18, 1980 be completed. The continuing program is for a geochemical survey in addition to localized geophysical geochemical and geological surveys to localize specific target areas for diamond drill testing.



Laurence Sookchoff, P.Eng.
Consulting Geologist

November 18, 1980
Vancouver, B.C.

CERTIFICATE

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

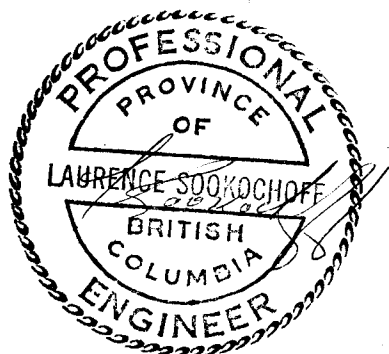
That I am a Consulting Geologist with the firm of Pan-American Consultants Ltd. of 2602-1055 West Georgia Street, Vancouver, B.C.

I further certify that:

1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
2. I have been practising my profession for the past fourteen years.
3. I am registered with the Association of Professional Engineers of British Columbia.
4. The information for the accompanying report is based on pertinent publications as cited under references as well as from the supervision of the field work for the EM survey which was carried out during May, 1980.

Laurence Sookochoff, P.Eng.
Consulting Geologist

November 18, 1980
Vancouver, B.C.



REFERENCES

MINISTER OF MINES REPORT

| | | | |
|------|----------------|------|--------------|
| 1896 | 37, 47, 53, 73 | 1926 | 252 |
| 1897 | 534 | 1927 | 275 |
| 1899 | 598, 688 | 1928 | 289 |
| 1900 | 827, 986 | 1929 | 285, 308 |
| 1901 | 1026 | 1934 | E 33 |
| 1902 | 148 | 1935 | E 34 |
| 1903 | 135 | 1938 | A 37, E 43 |
| 1904 | 181 | 1939 | 39 |
| 1905 | 160 | 1940 | 80 |
| 1906 | 145, 249 | 1941 | 27, 75 |
| 1911 | 144 | 1950 | 143 |
| 1917 | 159 | 1951 | 43, 166, 168 |
| 1922 | 202 | 1952 | 44, 173 |
| 1923 | 222 | 1956 | 93 |
| 1924 | 197 | 1958 | 45 |
| 1925 | 245, 246 | | |

CAIRNES, C.E. Description of Properties, Slocan Mining
Camp, British Columbia, G.S.C. Memoir 184 pp. 87-88

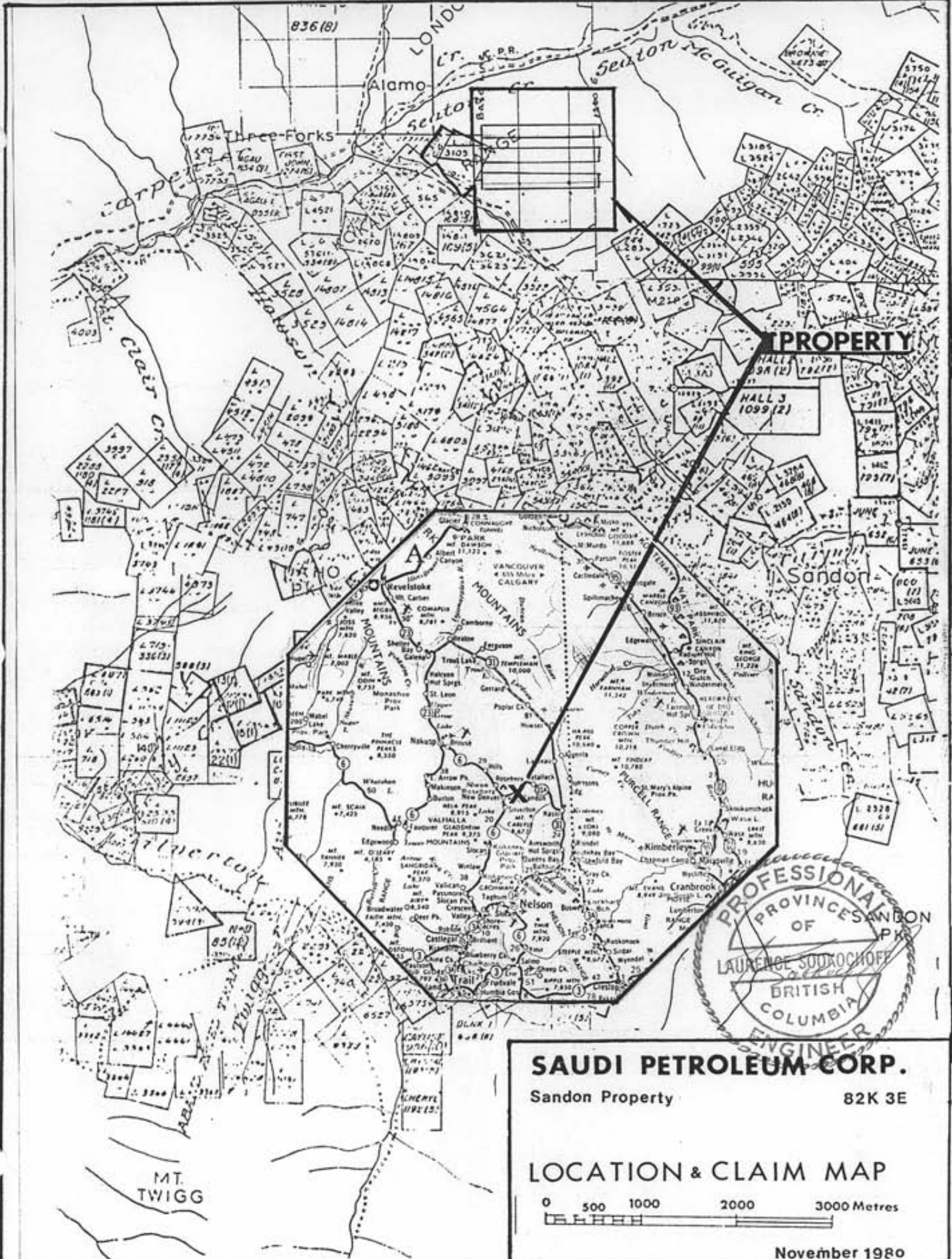
HEDLEY, M.S. - Geology and Ore Deposits of the Sandon
Area, Slocan Mining Camp, British Columbia, Bulletin
29, pp. 91-93

SAUDI PETROLEUM CORP.

GEOPHYSICAL SURVEY - SANDON PROPERTY

STATEMENT OF COSTS

| | | |
|-------------------------------------|--------------------|-------------------|
| G. Sookochoff | May 4-8 | |
| | 44 hrs. @ \$16 | \$704.00 |
| A. Kabatoff | May 4-8 | |
| | 44 hrs. @ \$10 | 440.00 |
| L. Sookochoff | Field Supervision | 500.00 |
| Room and board | | |
| | 10 man days @ \$55 | 550.00 |
| P.W.A. air fare | | 123.10 |
| Instrument rental | 5 days @ \$40 | 200.00 |
| Truck and car rental | | 150.00 |
| Compilation of data and rough draft | | 250.00 |
| Drafting | | 160.00 |
| Report | | <u>850.00</u> |
| | | <u>\$3,927.10</u> |

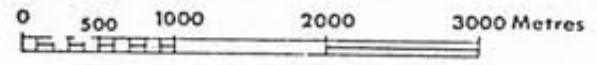


PROPERTY



SAUDI PETROLEUM CORP.
 Sandon Property 82K 3E

LOCATION & CLAIM MAP



November 1980

400 W 200 W BASE LINE 200 E 400 E 600 E 800 E 1000 E 1200 E

840 N
720 N
600 N
480 N
360 N
240 N
120 N
00
120 S
240 S

TO THREE FORKS

MELLIE FL.

OURAY
OURAY FL.

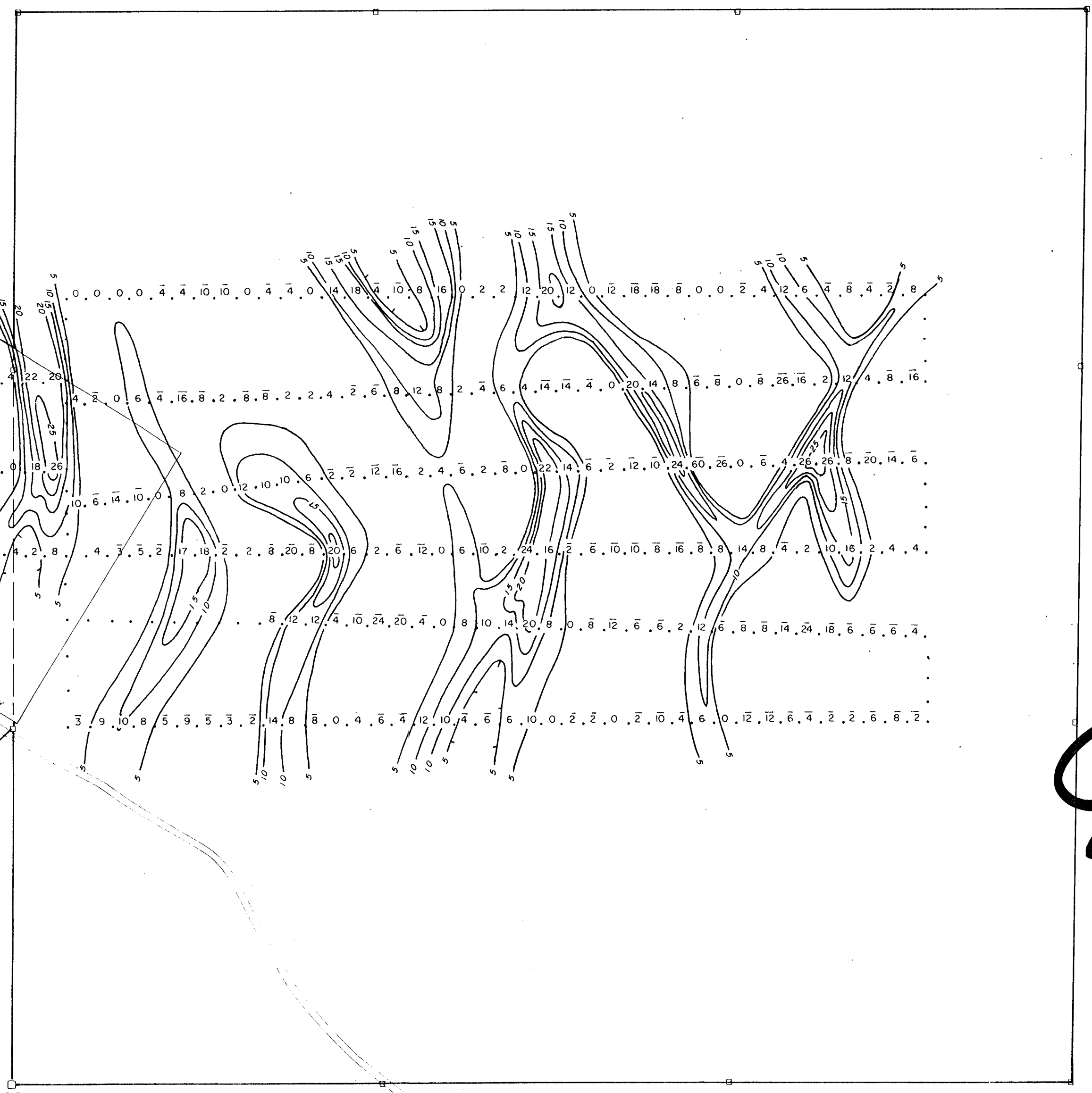
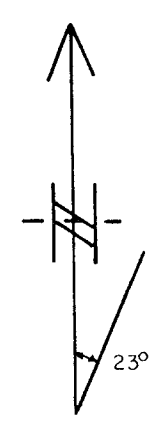
L.C.P.
CREEKSIDE

TO SANDON

LEGEND

- Station
- Road
- Claim post

NOTE: CONTOURS AT +5°



2088
MINERAL RESOURCES BRANCH
LEGION IMPRESSO



MAP 2

SAUDI PETROLEUM CORP.
SANDON PROPERTY - 82K3E
EM SURVEY RESULTS
- FRASER FILTERED -

0 300 metres
0 1000 feet

SCALE 1:5000 MAY 1980

TO ACCOMPANY GEOPHYSICAL REPORT BY
L. SOOKOCHOFF P. ENG. DATED
November 1980