SQ - Suquash 80(1)A
10 Govt.

REPORT
on the
SUQUASH COAL PROJECT
for
RAMM VENTURES CORP.
and
FILTROL MINERALS LTD.

ABCON ENGINEERING LTD.
October, 1980

CONFIDENTIAL

OPEN FILE

00216

CERTIFICATE

I, Ignacije Borovic, of the city of Vancouver, B. C., do hereby certify that:

1. I am a member of the Association of Professional Engineers in the province of British Columbia.
2. I am employed by Igna Engineering and Consulting Ltd. with office at 4258 W. 10th Avenue, Vancouver, B. C.
3. I am a graduate of the University of Zagreb and I have practiced continuously as a geologist and graduate geological engineer since 1962.
4. I do not have any direct or indirect interest in the properties or securities of Ramm Venture Corporation nor do I expect to receive any.
5. I made a personal field examination of the property during May, 1979.
6. I have reviewed the report prepared by Mr. M. A. Summersgill, Mining Consultant, of Abcon Engineering Ltd., Calgary, Alberta, for and on behalf of Filtrol Minerals Ltd.
7. I have also reviewed the statement of expenses provided by Abcon Engineering Ltd. and judge the sums shown to be reasonable and accurate.

DATED AT VANCOUVER, B. C. THE 9th DAY OF JANUARY, 1981

I. Borovic, P. Eng.

GEOLOGICAL REPORT
ON THE
SUQUASH COAL PROJECT,
PORT McNEILL
BRITISH COLUMBIA

SEPTEMBER, 1980

Prepared for: FILTROL MINERALS LTD.
VANCOUVER, B.C.

Prepared by : ABCON ENGINEERING LTD.
CALGARY, ALBERTA

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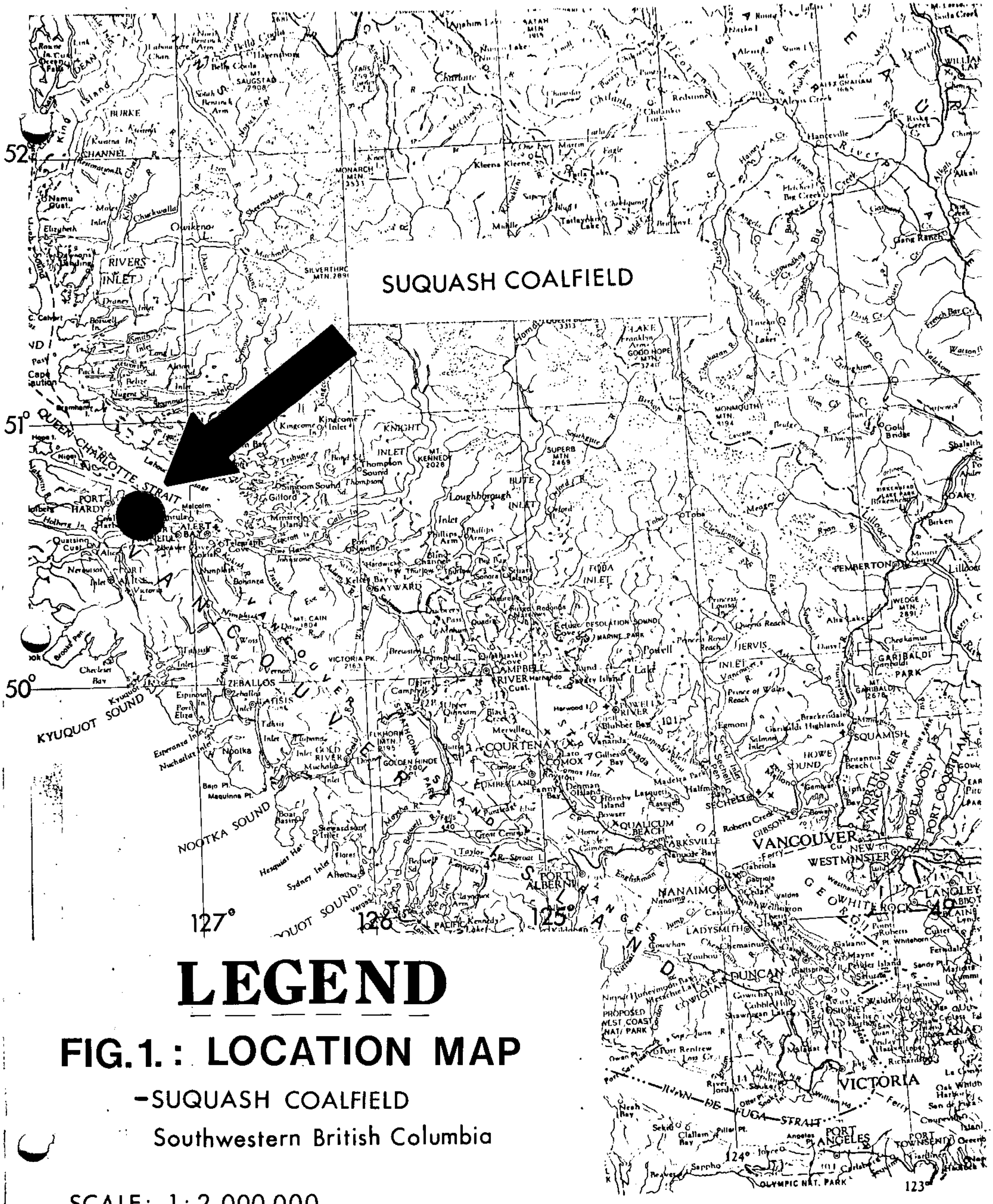
Appendix I. - Lithology and Geophysical Logs, 1980 Drilling.

Appendix II.- Longitudinal Section A-B, Scale 1:12,500


SUQUASH COALFIELD
52°
51°
50°
127°
126°
125°
124°
123°
49°
QUEEN CHARLOTTE STRAIT
PORT HARDY
ALERT BAY
RIVERS INLET
KNIGHT INLET
BUTE INLET
TODA INLET
JERVIS INLET
KYUQUOT SOUND
NOOTKA SOUND
ZEBALLOS
CAMPBELL RIVER
COURTENAY
COMOX
POWELL RIVER
PEMBERTON
SQUAMISH
VANCOUVER
NEW WESTMINSTER
NANAIMO
LADYSMITH
DUNCAN
VICTORIA
PORT ALBERNI
QUALICUM BEACH
PARKSVILLE
GIBSONS
SECHELT
LANGLEY
WHITE ROCK
PORT ANGELES
PORT TOWNSEND
JUAN DE FUCA STRAIT
OLYMPIC NAT. PARK
GARIBALDI PARK
STRATHCONA PARK
BELLA COOLA
MONARCH MTN 3533
SILVERTHRONE MTN. 2890
MT. WADDINGTON
SUPERB MTN 2469
MT. KENNEDY 2028
MONMOUTH MTN. 3194
MT. GARIBALDI 2678
WEDGE MTN. 2891
GOLDEN HINDE 2200
ELKHORN MTN. 2195
VICTORIA PK. 2163
MT. CAIN 1804
PROPOSED WEST COAST NAT. PARK

LEGEND

FIG. 1. : LOCATION MAP

−SUQUASH COALFIELD

Southwestern British Columbia

SCALE: 1 : 2,000,000

40 0 40 80

km.

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LOCATION

The Suquash coal area is located on the north end of Vancouver Island, British Columbia at Latitude 50° 38' and longitude 127° 15' (see fig. 1). Coal licences in this area, held by Ramm Venture Corporation (Vancouver, B.C.) were grouped in a northwest to southeast configuration along the coastline, occupying an area of 13 km. (8 mi.) in length and up to 3.2 km. (2 mi.) wide. The abandoned Suquash coal mine, which was operated on a small scale by Pacific Coast Coal Mines Ltd., is located at the mouth Suquash Creek approximately halfway along the length of the licence area.

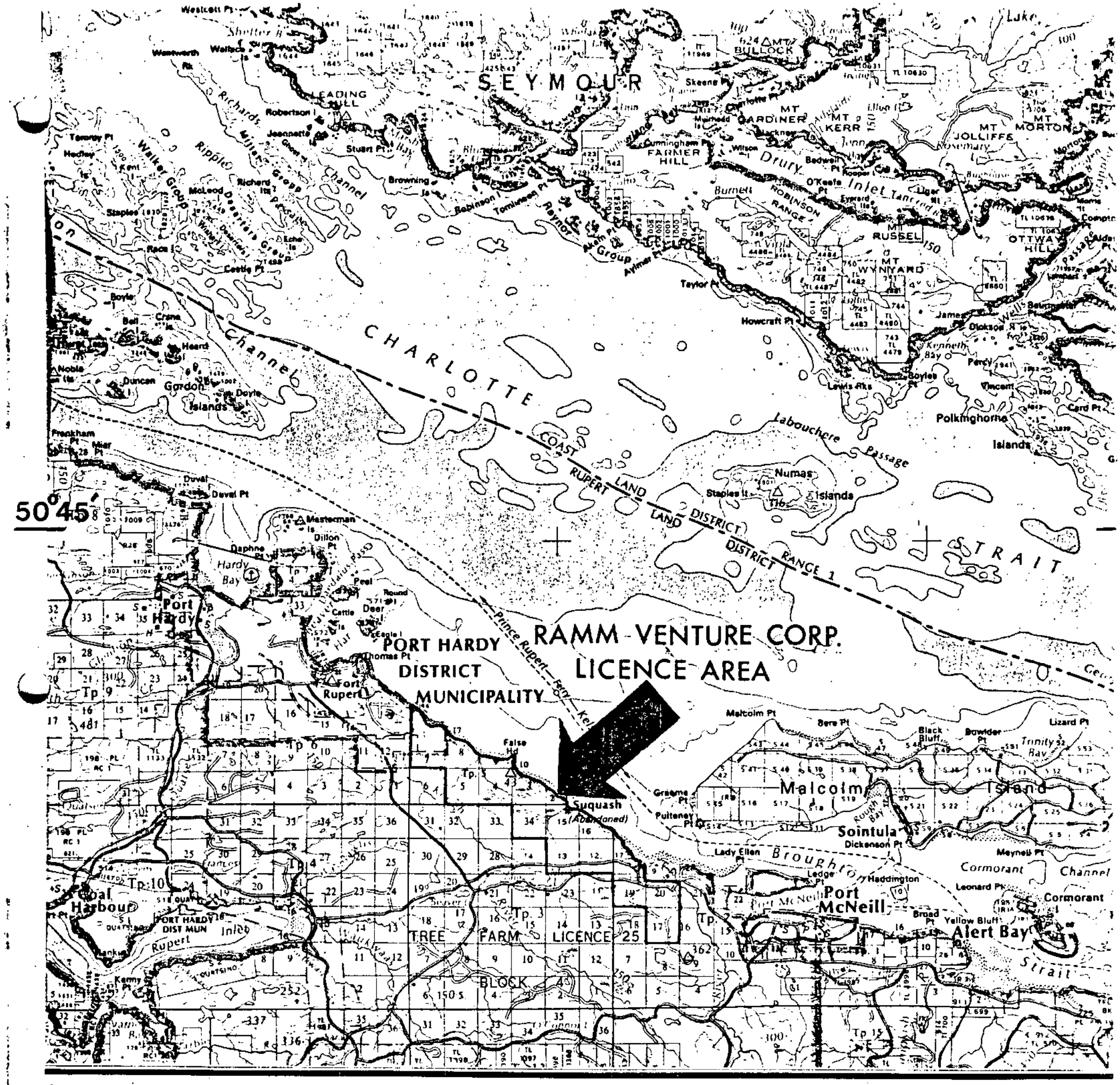
The coal licences held by Ramm Venture Corporation are situated approximately halfway between the two main population centers on the north end of Vancouver Island, Port McNeill and Port Hardy. Exploration work was conducted out of Port McNeill (population: 2,500), approximately 8 km. (5 mi.) southeast of the coal property. Port McNeill is situated approximately 360 km. (225 mi.) north of Nanaimo by paved road.

The coal licences held by Ramm Venture Corporation are numbered 5784 to 5799 inclusive, and cover an area of 3542 hectares. (8752 acres).

TECHNICAL INVESTIGATIONS

Exploration work on the Suquash property consisted of rotary drilling. Drilling was contracted to Ken's Drilling Ltd. of Victoria, B.C. who supplied 2 air-rotary drilling rigs equipped with casing hammers and downhole percussion hammers. A total of 5 holes were drilled, for a total drilled footage of 4,160 ft. (1268 m.). Holes were geophysically logged by Roke Oil Enterprises Ltd. of Calgary, Alberta using a standard gamma-caliper-density-resistivity (focussed-beam) suite. Appendix 1 contains the lithology logs and the geophysical logs of the drillholes.

Drillhole locations and access roads were surveyed in



50°45'
50°30'
SEYMOUR
MT BULLOCK
MT GARDINER
MT KERR
MT JOLLIFFE
MT MORTON
FARMER HILL
LEADING HILL
ROBINSON RANGE
MT RUSSEL
MT WYNYARD
OTTWAY HILL
Drury Inlet
Richards Channel
Walker Group
Millar Group
Ripple Channel
Deserters Group
Raynor Group
Gordon Islands
Goletas Channel
QUEEN CHARLOTTE STRAIT
COAST LAND DISTRICT
RUPERT LAND DISTRICT
RANGE 1
Labouchere Passage
Numas Islands
Polkinghorne Islands
Masterman Is
Duval Pt
Hardy Bay
Port Hardy
Fort Rupert
Prince Rupert – Ferry – Kelsey Bay
RAMM VENTURE CORP.
LICENCE AREA
PORT HARDY
DISTRICT
MUNICIPALITY
False Hd
Suquash
(Abandoned)
Malcolm Pt
Malcolm Island
Sointula
Rough Bay
Broughton Strait
Cormorant Channel
Port McNeill
Alert Bay
Coal Harbour
Rupert Inlet
PORT HARDY DIST MUN
TREE FARM LICENCE 25
BLOCK 4
Tp 9
Tp 10
Tp 3

FIG. 2 : ALERT BAY

BRITISH COLUMBIA

Scale 1:250 000

(1 Centimetre = 2.5 Kilometres)

Kilometres 10 5 0 5 10 15 20 25 30 Kilometres

(1 Inch = 4 Miles approximately)

Miles 5 0 5 10 15 Miles

Magnetic Declination approximately 24°03' East at centre of map. 1976
Decreasing approximately 3' annually.

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with the use of a transit. Levels were run in from the mean sea level at the Cluxewe Indian Reservation. The Cluxewe and Keogh River bridges were used as reference points for the survey.

TOPOGRAPHY AND ACCESS

Topography on the Suquash property varies from sea level to 250 ft. (76 m.) a.s.l. It is characterized by a series of elongated linear ridges that parallel the coastline. In between these ridges are wet, low-lying swampy areas.

The western edge of the licence area is accessible by paved road (the Island Highway to Port Hardy). Private forest roads operated by Rayonier Canada Ltd. allow access to the westerly portion of the licence area, but for the most part the area is not accessible by road. A dense cover of thick undergrowth and large cedar and hemlock trees, coupled with the extremely wet ground conditions make access extremely difficult in most parts of the licence area.

GENERAL GEOLOGY

The range of mountains that form the backbone of Vancouver Island are of volcanic origin. Mountain-building took place between Paleozoic to Triassic time. During this time major flows of basaltic lava upwelled from a rift in the ocean floor. The volcanic pile gradually built above sea level to form the beginnings of Vancouver Island. Minor assemblages of limestone, quartzite, argillites and acid volcanics interbedded with the basaltic rocks as the volcanic processes matured. Near the latter stages of vulcanism, a widespread erosional interval began during Jurassic and into Cretaceous time, whereupon significant thicknesses of continental, marginal continental and marine sediments were laid down. These sediments were derived from the erosion of the volcanic parent material forming the mountains, and were deposited in the low-lying areas at or near the base of the mountains, chiefly along the new shoreline.

Since Cretaceous time, deep-seated volcanic activity and tectonic movement has brought about periods of uplift and depression, whereupon the older Cretaceous sediments were acted upon by vertical and lateral thrusting forces, causing varying degrees of block-faulting and folding. In areas that were uplifted, sediments were gradually eroded and in areas that were downdropped, sediments were preserved.

In Pleistocene and Recent times, the land surface was scoured and worked on by large ice masses, causing a general deposition of glacial debris in the low-lying sedimentary areas, and an erosion of the rock faces at higher elevations. Isostatic rebound, resulting from the melting of these massive glaciers has caused a widespread erosional interval in recent times, whereby the glacial overburden has been reworked and re-deposited by water action.

On the north end of Vancouver Island the mountain chain ends along an east-west line through Quatsino Sound to Port McNeill. This line represents a major fault structure, as recorded by G.M. Dawson in 1886. To the north of this fault structure is a down-dropped area of relatively low elevation encompassing all of the north end of Vancouver Island and probably extending a considerable distance into Queen Charlotte Sound. This basinal area received significant amounts of sedimentary deposition through Cretaceous and Tertiary time. The Suquash area is part of this basinal through.

THE SUQUASH COAL AREA

The Suquash coal area is essentially a low-lying coastal area covered by Cretaceous-Tertiary sedimentary deposition, fault-bounded to the southwest and extending under the Broughton and Queen Charlotte Straits for an undetermined distance. J.E. Muller (1977) identified the exposed sediments along the coastline at Suquash as Upper Cretaceous DeCourcey and Northumberland equivalents of Nanaimo Series deposition.

A major normal fault, downthrown to the northeast, trends northwesterly from Cluxewe Mountain through the valley of the Keogh River. This fault is the southwestern boundary of the Suquash coal area, as the sediments are confined to the down-dropped side on the northeast. The displacement of this fault is probably in the order of 800 to 1000 ft. (244 to 305m.).

SURFICIAL GEOLOGY

The surficial geology of the area is complex. Overburden thicknesses vary from a few meters to as much as 75 m. (250 ft.) over distances of less than a mile. Elongated gravel ridges, which parallel the existing shoreline, are found up to 2.5 km. (1.5 mi.) inland. These ridges form the basis of the topography of the area and probably are old beach escarpments, reflecting the encroachment of the sea between the various epochs of the Pleistocene glaciation. Immediately after the Pleistocene, sea levels rose rapidly with the melting of the ice. This transgression of the sea is indicated by the deposition of a sequence of impervious marine clays, which prevent the percolation of surface water into the ground, thus creating the extremely wet, swampy conditions which prevail over much of the area.

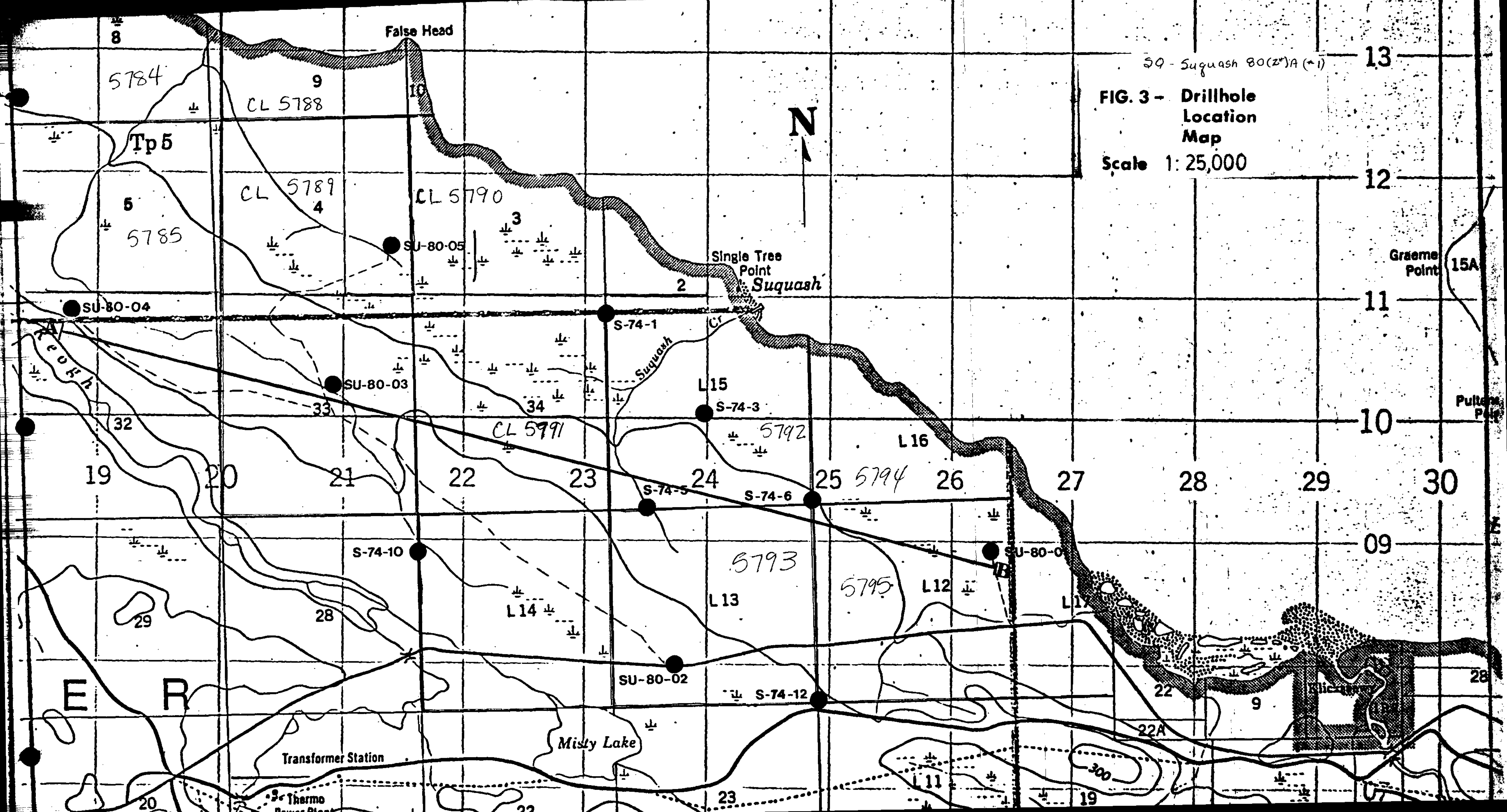

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FIG. 3 - Drillhole Location Map

Scale 1: 25,000

False Head
5784
CL 5788
Tp 5
5785
CL 5789
CL 5790
SU-80-05
Single Tree Point
Suquash
SU-80-04
S-74-1
Suquash Cr
Keogh
SU-80-03
L 15
S-74-3
CL 5791
5792
L 16
5794
S-74-5
S-74-6
S-74-10
SU-80-0
5793
5795
L 12
L 13
L 14
L 17
SU-80-02
S-74-12
Misty Lake
Transformer Station
Thermo
L 11
300
22A
Graeme Point
15A
Pulteney Pt
N
A
B
E
R
8
9
10
5
4
3
2
33
34
32
19
20
21
22
23
24
25
26
27
28
29
30
13
12
11
10
09
29
28
22
9
20
23
19
28

COAL GEOLOGY

The recent exploration drilling, coupled with data obtained from the Dolmage-Campbell program in 1974, indicates that at least 3 coal zones are present in the Suquash area. In some instances these zones attain thicknesses of 3 or 4 meters (9 to 12 ft.), however the thickness of clean coal associated with the zones is rarely greater than 1 meter (3 ft.). In addition to these coal zones, numerous thin coal bands are present in the sedimentary section. These bands are usually not persistent over distances of more than 1000 meter (3200 ft.). A number of observations about the coal seam deposition in the Suquash area are evident:

1. All coal seams greater than 1 meter in thickness exhibit a marked dirtiness. Coal generation during the time of deposition was hampered by a rapidly changing environment, whereby the coal seams were contaminated by heavy shale and silt bands.
2. All coal seams pinch and thin to the northwest (see Section A-B, Appendix 11). The major zones that can be identified in holes S-74-05, S-74-06 and SU-80-01 lose their character to the northwest, eventually disapparing altogether.
3. Some thickening of the coal zones is apparent to the southeast, especially in the lower zones, however a corresponding decrease in shale content does not occur.
4. An increase in the number of thin coal bands occurs to the southeast. Most of these bands are less than 1 meter (3 ft.) in thickness.
5. The coal seam that was mined by Pacific Coast Coal Mines Ltd. in the early 1900's has thinned to less than 1 meter to the west and south of the old mine. The only possibility of encountering mineable thick-

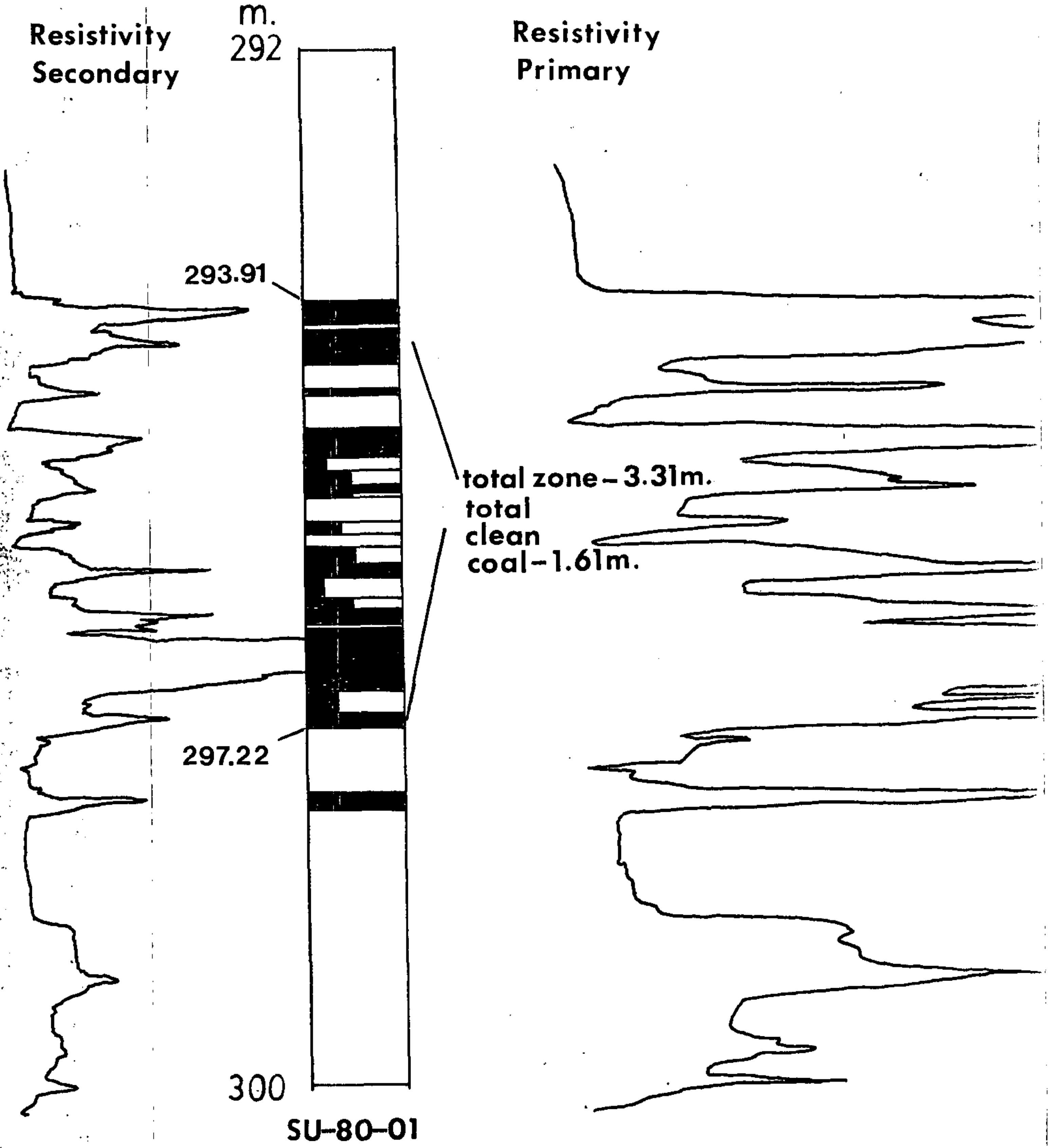


FIG. 4 - Best coal intersection - 1980 drilling

nesses of coal in this horizon would be under the sea to the east or northeast of the abandoned workings.

6. The No. 3 coal zone as designated by Dolmage and Campbell (1975) has some potential for underground mining. However it contains 50-60% shale and rock bands over the total section. This shale and rock occurs in bands or partings up to .5 meters (1.6 ft.) in thickness.

Figure 4. illustrates the best coal zone as intersected in Hole SU-80-01 and recorded on the geophysical logs. It should be noted that, in addition to a good deal of rock bands or partings, some sections could be considered as coaly. Upon examination of the drill cuttings, this material appears to be of the "dull and bright-banded" variety, with abundant shale bands throughout. A complex wash plant would be required to recover any clean coal out of this material. Of the total section (3.31 m.), 1.61 meters (5.28 ft.) is clean coal. The thickest clean coal band is .5 meters (1.64 ft.). Over a mineable zone of 3.3 meters, the amount of reject material would approximate 50%.

Correlations of this zone with B.C. Hydro holes S-74-05 and S-74-06 is difficult. There is no doubt that the zone correlates to part of the No. 3 zone in S-74-06, but an exact correlation cannot be made. Section A-B (App.II .) shows it to correspond with the lowermost zone sampled in S-74-06, however this can not be confirmed with existing information. An examination of the quality data and coal thicknesses from hole S-74-06 points to a correlation between the section at 207 meters (the second lowest sampled section) and the zone shown in Figure 4.

STRUCTURE

Section A-B (see App.II.) is a longitudinal section approximately parallel to the formation strike. The major structural feature of this area is the dome-like anticlinal structure shown in the middle of the section. The bedding dips away on either side of the crest of this structure, near hole SU-80-03. This structure is probably the result of the deposition of sediments over a basement topographic high. It should be noted that the lowermost part of the section dips more steeply than the upper part, because of the lapping effects of sedimentation over the structure.

As a result of this structure, coal deposition was apparently confined to the area to the south and east of it.

As previously mentioned, the Suquash coal area is confined on the southwest by a major normal fault which has its downthrown side on the northeast. The displacement on this fault is probably 800 to 1000 ft.(244 to 305 m.). Smaller northeast trending cross-faults occur at both ends of the sedimentary area.

CONCLUSIONS

It can be concluded that:

1. With the exception of that area to the north and west of the Keogh River mouth (i.e. adjacent to the Port Hardy airport), there is no potential for near-surface strippable reserves of coal. This is due to the thinness of existing coal seams and the extreme thicknesses of unconsolidated sands and gravels.

2. With the exception of the north half of Lot 12, the northeast quarter of Lot 13, the southeast quarter of Lot 15, the south half of Lot 16 plus an undetermined area east and southeast under the sea, there is no potential for underground coal reserves that would be amenable to conventional underground methods. This is due to the thin and dirty nature of existing coal seams.

3. Because of the increase in the number and thickness of coal bands from Hole S-74-06 to SU-80-01, it would appear that the basinal environment necessary for the generation of coal is enhanced to the south and east of the abandoned Suquash Mine. Most of this area is covered by sea, except for the 960 acre area mentioned in Point 2. If future exploration is contemplated, it is recommended that it be concentrated in this area.

REFERENCES

1. Coal Fields of British Columbia - D. B. Dowling
   Geological Survey of Canada Memoir 69, 1915

2. Report on Vancouver Island Coal Holdings of Suquash
   Collieries Limited - Hope Engineering Ltd., 1953

3. Suquash Drilling Project, 1975 - C. R. Saunders
   Dolmage Campbell and Associates Ltd. 1975

4. Geology of Vancouver Island - J. E. Muller
   Geological Survey of Canada Map O.F. 463, 1977.

5. Report on the Suquash Coalfield - I. Borovic
   IGNA Engineering and Consulting Ltd., 1979

6. Summary Report on the Suquash Coal Field - M. A. Summersgill
   Abcon Engineering Ltd., 1980.

APPENDIX I.

LITHOLOGY & GEOPHYSICAL LOGS

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: August 8, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-01

APPROX. LOCATION: 1200 ft.S., 660 ft. W. of N.E. Corner ~~XXX~~ SEC. L.12 TWP. 3 RGE. - W. -

SURVEYED LOCATION:

ELEVATION: 340 ft. a.s.l. (approx.)

DRILLER: DALE SMITH AND LEON BATEMAN

FROM	TO	LOG	REMARKS
0	7	Sandy Gravel	
7	11	Sand	Bit locked up in wood
11	25	Sandstone, very soft	Caving in
25	178	Sandstone, very soft	
178	181	Coal	
181	213	Sandstone, very soft	
213	223	Shale	
223	246	Sandstone	
246	286	Sandstone	
286	306	Shale	
306	386	Sandstone	
386	416	Sandstone	Water-bearing
416	445	Sandstone	
445	446	Coal	
446	498	Sandstone	Large fracture @ 498', Waterbearing
498	505	Sandstone, fractured	

COMMENTS:

WATER HORIZON: FT.

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: August 8, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-01 , cont.

APPROX. LOCATION: 1200 ft. S., 660 ft. W. of N.E.Corner SEC. L.12 TWP. 3 RGE. - W.-

SURVEYED LOCATION:

ELEVATION: 40 ft. a.s.l. (approx.)

DRILLER: DALE SMITH, LEON BATEMAN

FROM	TO	LOG	REMARKS
505	518	Sandstone	
518	520	Coal	
520	537	Shale	
537	539	Coal	
539	573	Shale, some Clay, traces of Coal	Hole terminated with Rig#2 due to air pressure build-up
573	601	Sandstone, hard and soft layers	
601	625	Gravel, fine (conglomerate?)	
625	724	Sandstone	
724	740	Gravel, fine (conglomerate?)	
740	772	Shale	
772	780	Sandstone, gravel (conglomerate?)	
780	800	Shale, some Coal	Bit Plugged
800	806	Sandstone	
806	813	Sandstone, hard	
813	820	Sandstone, soft.	
820	830	Shale, some Coal	

COMMENTS: Continued on next page

WATER HORIZON: FT.

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: August 23, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-01 (continued)

APPROX. LOCATION: 1200 ft. S., 660 ft. W. of N.E. Corner SEC. L.12 TWP. 3 RGE. - W. -

SURVEYED LOCATION:

ELEVATION: 40 ft. a.s.l. (approx.)

DRILLER: JOHN CURRIER

FROM	TO	LOG	REMARKS
830	834	Sandstone	
834	840	Shale	
840	844	Coal, and Shale	
844	900	Sandstone, hard and soft layers	
900	905	Shale, and Coal	
905	955	Shale	
955	960	Coal, and Shale	
960	980	Shale	
980	984	Sandstone	
984	1008	Coal and Shale mixed	
1008	1020	Sandstone	
1020	1040	Shale	
1040	1060	Sandstone	
1060	1075	Sandstone and Shale	
1075	1080	Shale	
1080	1100	Sandstone	

COMMENTS:

WATER HORIZON: FT.

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: August 23, 1980

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-01 (continued)

APPROX. LOCATION: 1200 ft. S., 660 ft. W. of N.E. Corner ~~SEC.~~ L.12 TWP. 3 RGE. - W. -

SURVEYED LOCATION:

ELEVATION: 40 ft. a.s.l. (approx.)

DRILLER: JOHN CURRIER

FROM	TO	LOG	REMARKS
1100	1111	Shale	
1111	1115	Sandstone	
1115	1120	Shale, some Coal	
1120	1140	Sandstone	
1140	1160	Shale and Sandstone	
1160	1240	Sandstone	
1240	1260	Shale, Black	Total Depth

COMMENTS:

WATER HORIZON: FT.

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH **DATE:** August 17, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-02

APPROX. LOCATION: 4200 ft. S., 4400 ft. W. of N.E. Corner **SEC.** L.13 **TWP.** 3 **RGE.** - **W.** -

SURVEYED LOCATION:

ELEVATION: 230 ft. a.s.l. (approx.)

DRILLER: DALE SMITH, LEON BATEMAN

FROM	TO	LOG	REMARKS
0	158	Sand and Gravel overburden	Casing buckled:abandoned hole

COMMENTS:

WATER HORIZON: **FT.**

SQ-Suquash 80(3*)A *(1) 80-01

ROKE

OIL ENTERPRISES LTD. CALGARY, ALBERTA

GAMMA RAY
SIDEWALL DENSILOG
CALIPER

L1

216

FILE NO.
LSD
SEC
TWP
RGE
W M

COMPANY ABCON ENGINEERING LIMITED
WELL SU - 80 - 01
LOCATION PORT MCNEILL
FIELD SUQUASH
PROVINCE BRITISH COLUMBIA

Other Services:
FBL - 5 CM
- 20 CM

Permanent Datum GROUND LEVEL Elev.
Log Measured from GROUND LEVEL Above Perm. Datum
Well Depths Measured from GROUND LEVEL

K.B.
CSG
G.L.

Run. No.	ONE		
Date	11 AUG. 1980		
First Reading	172.5 M		
Last Reading	0.0		
Footage Logged	172.5		
Depth Reached	173.1		
Depth Driller	174.7		
Casing Roke	16.3		
Casing Driller	16.2		
Fluid Type	WATER		
Liquid Level	28.0		
Min. Diam.	14.6 CM		
Operating Time	3 HOURS		
Truck No.	107		

Recorded By JAQUES
Witnessed By BLACKSTOCK

GENERAL				GAMMA RAY				SIDEWALL DENSILOG			
RUN NO.	DEPTHS FROM	DEPTHS TO	SPEED M/ MIN	T.C. SEC.	SENS SETTINGS	ZERO DIV.L OR R	API G.R. UNITS PER LOG DIV.	T.C. SEC.	SENS SETTINGS	ZERO DIV.L OR R	CPS/ DIV
1	0.0	172.5	4	3	100		12				
1	0.0	172.0	8					1	5 K	2.97	252.7
1	0.0	172.5	8		CALIPER						

REMARKS GR - RES #175, DENS # 457AS, CAL #879
MUDFISH = 160r

SQ-Suquash 80(3)A *1

ROKE

OIL ENTERPRISES LTD. CALGARY, ALBERTA

FOCUSED BEAM LOG 5 CM

FILE NO.	
LSD	
SEC	
TWP	
RGE	
W	M
COMPANY	ABCON ENGINEERING LIMITED
WELL	SU - 80 - 01
LOCATION	PORT MCNEILL
FIELD	SUQUASH
PROVINCE	BRITISH COLUMBIA

216 (L2)

Other Services: GR - DENS - CAL
FBL - 20 CM

Permanent Datum GROUND LEVEL Elev.
Log Measured from GROUND LEVEL Above Perm. Datum
Well Depths Measured from GROUND LEVEL

K.B.
CSG
G.L.

Run. No.	TWO
Date	25 AUG. 1980
First Reading	382.0 M
Last Reading	150.0
Footage Logged	232.0
Depth Reached	383.0
Depth Driller	384.0
Casing Roke	16.3
Casing Driller	16.2
Fluid Type	WATER
Liquid Level	26.0
Min. Diam.	15.0
Rm @ °C	20.5 @ 21° C
Operating Time	1.5 HOURS
Truck No.	107

Recorded By JAQUES
Witnessed By GARDNER

Remarks FBL # 8 CURRENT RANGE STD MUDFISH RESISTANCE 120 OHMS
7 ELECTRODE SONDE 5 CM BEAM WIDTH 60 CM ARRAY
PRIMARY 10 OHM/DIV SECONDARY 50 OHM/DIV

RESISTIVITY (OHM-METERS)	Depths	RESISTIVITY (OHM-METERS)
SECONDARY SCALE 0 500		PRIMARY SCALE 0 100 200 800 1300 1800

So-Siquash 80(3)A #1

ROKE
OIL ENTERPRISES LTD. CALGARY, ALBERTA

GAMMA RAY
SIDEWALL DENSILOG
CALIPER

FILE NO.

LSD
SEC
TWP
RGE
W ___ M

COMPANY ABCON ENGINEERING LIMITED

WELL SU - 80 - 01

LOCATION PORT MCNEILL

FIELD SIQUASH

PROVINCE BRITISH COLUMBIA

23

216

Other Services:
FBL - 5 CM
- 20 CM

Permanent Datum GROUND LEVEL Elev.
Log Measured from GROUND LEVEL Above Perm. Datum
Well Depths Measured from GROUND LEVEL

K.B.
CSG
G.L.

Run. No.	TWO			
Date	25 AUG. 1980			
First Reading	382.5 M			
Last Reading	150.0			
Footage Logged	232.5			
Depth Reached	383.0			
Depth Driller	384.0			
Casing Roke	16.3			
Casing Driller	16.2			
Fluid Type	WATER			
Liquid Level	26.0			
Min. Diam.	15.0 CM			
Operating Time	3 HOURS			
Truck No.	107			

Recorded By JAQUES Witnessed By GARDNER

GENERAL				GAMMA RAY				SIDEWALL DENSILOG			
RUN NO.	DEPTHS FROM	DEPTHS TO	SPEED M/MIN	T.C. SEC.	SENS SETTINGS	ZERO DIV.L OR R	API G.R. UNITS PER LOG DIV.	T.C. SEC.	SENS SETTINGS	ZERO DIV.L OR R	CPS/ DIV
2	150.0	382.5	4	3	100		12				
2	150.0	381.0	8					1	5 K	2.97 R	252.7
2	150.0	382.5	8		CALIPER						
2	278.0	308.0	3	3	100		12	1	5 K	2.97 R	252.7

REMARKS DENS # 457AS, CAL # 879, GR-RES # 175

SQ-Suquash 80(3)A *(1)

80-01

ROKE

OIL ENTERPRISES LTD. CALGARY, ALBERTA

FOCUSED BEAM LOG 5 CM

FILE NO. (24)

216

LSD	
SEC	
TWP	
RGE	
W	M
COMPANY	ABCON ENGINEERING LIMITED
WELL	SU - 80 - 01
LOCATION	PORT MCNEILL
FIELD	SUQUASH
PROVINCE	BRITISH COLUMBIA
Other Services	GR - DENS - CAL FBL - 20 CM
Permanent Datum	GROUND LEVEL
Elev.	
Log Measured from	GROUND LEVEL
Above Perm. Datum	
Well Depths Measured from	GROUND LEVEL
K.B.	
CSG	
G.L.	

Run. No.	ONE			
Date	11 AUG. 1980			
First Reading	172.5 M			
Last Reading	28.0			
Footage Logged	144.5			
Depth Reached	173.1			
Depth Driller	174.7			
Casing Roke	16.3			
Casing Driller	16.2			
Fluid Type	WATER			
Liquid Level	28.0			
Min. Diam.	14.6 CM			
Rm @ °C	85 @ 16°C			
Operating Time	2 HOURS			
Truck No.	107			

Recorded By JAQUES

Witnessed By BLACKSTOCK

Remarks FBL # 8 CURRENT RANGE STD MUDFISH RESISTANCE 160 OHMS

7 ELECTRODE SONDE 5 CM BEAM WIDTH 60 CM ARRAY

PRIMARY 10 OHM/DIV SECONDARY 50 OHM/DIV

RESISTIVITY (OHM-METERS)	Depths	RESISTIVITY (OHM-METERS)
SECONDARY SCALE		PRIMARY SCALE
		0 100 200
0 500		650 1150 1650

SQ - Suquash 80(3)A*(1) 8001

ROKE
OIL ENTERPRISES LTD. CALGARY, ALBERTA

FOCUSED BEAM LOG 20 CM

FILE NO.
LSD
SEC
TWP
RGE
W ____ M

COMPANY ABCON ENGINEERING LIMITED (L5)
WELL SU - 80 - 01
LOCATION PORT MCNEILL 216
FIELD SUQUASH
PROVINCE BRITISH COLUMBIA

Other Services:
FBL - 5 CM
GR - DENS - CAL

Permanent Datum GROUND LEVEL Elev.
Log Measured from GROUND LEVEL Above Perm. Datum
Well Depths Measured from GROUND LEVEL
K.B.
CSG
G.L.

Run. No.	THREE			
Date	26 AUG. 1980			
First Reading	380.0 M			
Last Reading	28.2			
Footage Logged	351.8			
Depth Reached	380.8			
Depth Driller	384.0			
Casing Roke	16.3			
Casing Driller	16.2			
Fluid Type	WATER			
Liquid Level	28.2			
Min. Diam.	15.0 CM			
Rm @ °C	21.0 @ 11° C			
Operating Time	1.5 HOURS			
Truck No.	107			

Recorded By JAQUES
Witnessed By GARDNER

Remarks FBL # 8 CURRENT RANGE HIGH MUDFISH RESISTANCE 200 OHMS
7 ELECTRODE SONDE 20 CM BEAM WIDTH 100 CM ARRAY
PRIMARY 10 OHM/DIV SECONDARY 50 OHM/DIV
REPEAT OF EXPANDED SECTION DONE WITHOUT MUDFISH

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: August 20, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-03

APPROX. LOCATION: 1650 ft. W.,800 ft. S. of N.E. Corner SEC. 33 TWP. 3 RGE. - W. -

SURVEYED LOCATION:

ELEVATION: 120 ft. (approx.)

DRILLER: DALE SMITH, JOHN CURRIER

FROM	TO	LOG	REMARKS
0	38	Limestone Boulders and Gravel	
38	50	Gravel	
50	75	Clay	
75	85	Gravel and Clay	
85	108	Gravel and Sand	
108	118	Clay	
118	141	Cemented Gravel	
141	144	Coal	
144	186	Sandstone	
186	191	Shale	
191	228	Sandstone	
228	248	Shale	
248	268	Sandstone	
268	288	Shale	
288	308	Sandstone	
308	328	Shale	Continued on next page

COMMENTS:

WATER HORIZON: FT.

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: August 20, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-03

APPROX. LOCATION: 1650 ft. W., 800 ft. S. of NE.Corner SEC. 33 TWP. 3 RGE. - W. -

SURVEYED LOCATION:

ELEVATION: 120 ft. (approx.)

DRILLER: DALE SMITH, JOHN CURRIER

FROM	TO	LOG	REMARKS
328	348	Sandstone	
348	399	Shale	
399	405	Shale, with traces of Coal	
405	406	Sandstone	
406	413	Shale	
413	415	Sandstone	
415'	426	Shale	
426	428	Shale, with traces of Coal	
428	445	Sandstone	
445	446	Coal	
446	447	Shale	
447	451	Shaley Sandstone	
451	453	Shale, with traces of Coal	
453	455	Coal	
455	456	Sandstone	
456	462	Shaley Sandstone	Continued on next page

COMMENTS:

WATER HORIZON: FT.

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: August 20, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-03

APPROX. LOCATION: 1650 ft. W., 800 ft. S. of N.E. Corner SEC. 33 TWP. 3 RGE. - W. -

SURVEYED LOCATION:

ELEVATION: 120 ft. (approx)

DRILLER: DALE SMITH, JOHN CURRIER

FROM	TO	LOG	REMARKS
462	470	Shale, with traces of Coal	
470	488	Sandstone	
488	501	Shale, with traces of Coal	
501	505	Sandstone	
505	508	Shale	
508	515	Sandstone	
515	517	Shale, with traces of Coal	
517	535	Sandstone	
535	539	Shale	
539	546	Shaley Sandstone	
546	560	Sandstone	
560	586	Shaley Sandstone	
586	599	Sandstone	
599	641	Shaley Sandstone	
641	669	Sandstone	
669	681	Shaley Sandstone	Total Depth.

COMMENTS:

WATER HORIZON: FT.

SQ - Suquash 80(3)A *(1) 80-03

ROKE

FOCUSED BEAM LOG 5 CM

OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.

LSD
SEC
TWP
RGE
W _______ M

COMPANY ABCON ENGINEERING LIMITED (L6)

WELL SU - 80 - 03 216

LOCATION PORT MCNEILL

FIELD SUQUASH

PROVINCE BRITISH COLUMBIA

Other Services: DENS - CAL - GR

Permanent Datum GROUND LEVEL Elev. ________

Log Measured from GROUND LEVEL ________ Above Perm. Datum

Well Depths Measured from GROUND LEVEL

K.B. ________
CSG ________
G.L. ________

Run. No.	TWO		
Date	18 AUG. 1980		
First Reading	201.0 M		
Last Reading	30.0		
Footage Logged	171.0		
Depth Reached	201.6		
Depth Driller	203.6		
Casing Roke	41.0		
Casing Driller	41.7		
Fluid Type	WATER		
Liquid Level	30.5		
Min. Diam.	15.2 CM		
Rm @ °C	8.75 @ 14° C		
Operating Time	1 HOUR		
Truck No.	107		

Recorded By JAQUES Witnessed By BLACKSTOCK

Remarks FBL # 8 CURRENT RANGE STD MUDFISH RESISTANCE 920 OHMS

7 ELECTRODE SONDE 5 CM BEAMWIDTH 60 CM ARRAY

PRIMARY 20 OHM/DIV SECONDARY 100 OHM/DIV

SQ-Suquash 80(3*)A *(1) 80-03

ROKE

OIL ENTERPRISES LTD. CALGARY, ALBERTA

GAMMA RAY
SIDEWALL DENSILOG
CALIPER

216

L7

FILE NO.
LSD
SEC
TWP.
RGE
W M

COMPANY ABCON ENGINEERING LIMITED
WELL SU - 80 - 03
LOCATION PORT MCNEILL
FIELD SUQUASH
PROVINCE BRITISH COLUMBIA

Other Services:
FBL - 5 CM

Permanent Datum GROUND LEVEL Elev.
Log Measured from GROUND LEVEL Above Perm. Datum
Well Depths Measured from GROUND LEVEL

K.B.
CSG
G.L.

Run. No.	TWO
Date	18 AUG. 1980
First Reading	201.0 M
Last Reading	0.0
Footage Logged	201.0
Depth Reached	201.6
Depth Driller	203.6
Casing Roke	41.0
Casing Driller	41.7
Fluid Type	WATER
Liquid Level	30.5 M
Min. Diam.	15.2 CM
Operating Time	2.5 HOURS
Truck No.	107

Recorded By JAQUES
Witnessed By BLACKSTOCK

GENERAL				GAMMA RAY				SIDEWALL DENSILOG			
RUN NO.	DEPTHS FROM	DEPTHS TO	SPEED M/MIN	T.C. SEC.	SENS SETTINGS	ZERO DIV.L OR R	API G.R. UNITS PER LOG DIV.	T.C. SEC.	SENS SETTINGS	ZERO DIV.L OR R	CPS/ DIV
2	0.0	201.0	4	3	100		12				
2	0.0	200.5	8					1	5 K	2.97	252.7
2	0.0	201.0	8		CALIPER						

REMARKS DENS # 457, CAL # 879, GR - RES # 175
MUDFISH - 920r

SQ - Suquash 80 (3*) A *(1) 80-03

ROKE

OIL ENTERPRISES LTD. CALGARY, ALBERTA

GAMMA RAY
SIDEWALL DENSILOG
CALIPER

FILE NO.
LSD
SEC
TWP
RGE
W ______ M

COMPANY ABCON ENGINEERING LIMITED
L8
WELL SU - 80 - 03
LOCATION P. T. MCNEILL
216
FIELD SUQUASH
PROVINCE BRITISH COLUMBIA

Other Services:

Permanent Datum GROUND LEVEL Elev. ______
Log Measured from GROUND LEVEL ______ Above Perm. Datum
Well Depths Measured from GROUND LEVEL

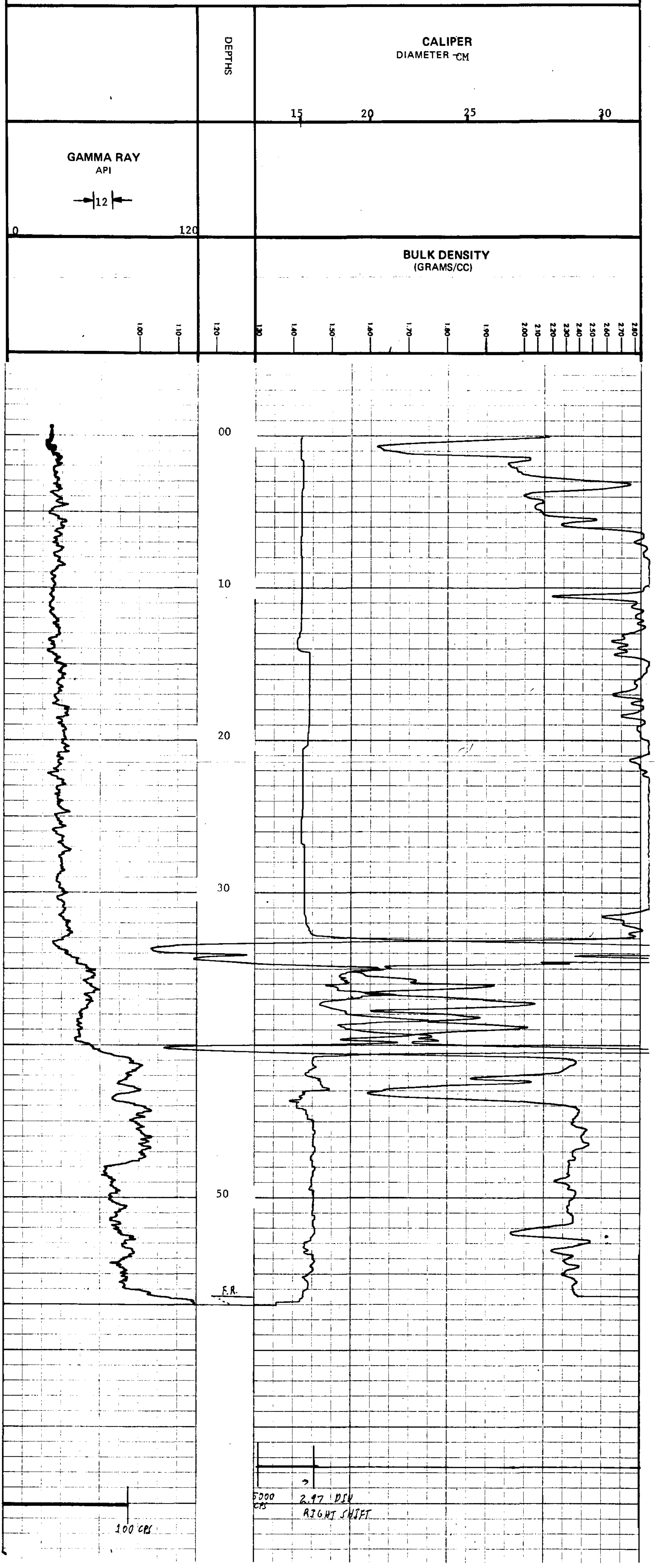
K.B. ______
CSG ______
G.L. ______

Run. No.	ONE			
Date	14 AUG. 1980			
First Reading	57.0 M			
Last Reading	0.0			
Footage Logged	57.0			
Depth Reached	57.5			
Depth Driller	61.3			
Casing Roke	33.2			
Casing Driller	33.5			
Fluid Type	WATER			
Liquid Level	0.0			
Min. Diam.	14.6 CM			
Operating Time	2 HOURS			
Truck No.	107			

Recorded By JAQUES
Witnessed By BLACKSTOCK

GENERAL				GAMMA RAY				SIDEWALL DENSILOG			
RUN NO.	DEPTHS FROM	DEPTHS TO	SPEED M/MIN	T.C. SEC.	SENS SETTINGS	ZERO DIV.L OR R	API G.R. UNITS PER LOG DIV.	T.C. SEC.	SENS SETTINGS	ZERO DIV.L OR R	CPS/ DIV
1	0.0	57.0	4	3	100		12				
1	0.0	56.5	8					1	5 K	2.97 R	252.7
1	0.0	57.0	8		CALIPER						

REMARKS GR # 175, DENS # 457AS, CAL # 879



FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: August 24, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-04

APPROX. LOCATION: 4350 ft. S., 2600ft. W. of N.E.Corner SEC. 5 TWP. 5 RGE. - W. -

SURVEYED LOCATION:

ELEVATION: 150 ft. a.s.l. (approx.)

DRILLER: DALE SMITH, JOHN CURRIER

FROM	TO	LOG	REMARKS
0	40	Clay and Sand	
40	80	Cemented Gravel	
80	140	Sandy Gravel	Water @ 130 ft.
140	157	Gravel	Cased to 157 ft.
157	165	Shaley Sandstone	
165	193	Sandstone	
193	196	Shale	
196	203	Shaley Sandstone	
203	211	Sandstone	
211	212	Shale	
212	215	Sandstone	
215	217	Shale	
217	225	Sandstone	
225	229	Shale	
229	236	Coaly Shale	
236	249	Sandstone	

COMMENTS: Continued on next page

WATER HORIZON: FT.

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: August 24, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-04

APPROX. LOCATION: 4350 ft. S., 2600 ft. W. of N.E.Corner SEC. 5 TWP. 5 RGE. - W. -

SURVEYED LOCATION: 5[illegible]

ELEVATION: 150 ft. a.s.l. (approx.)

DRILLER: DALE SMITH, JOHN CURRIER

FROM	TO	LOG	REMARKS
249	256	Coal and Shale mixed	
256	265	Sandstone; small layers of coal @ 260 ft.	
265	268	Coaly Shale	
268	272	Shaley Sandstone	
272	285	Sandstone	
285	287	Bentonite	
287	295	Coal and Shale	
295	297	Sandstone	
297	305	Coaly Shale	
305	340	Shale and Sandstone	
340	345	Coaly Shale	
345	348	Shaley Sandstone	
348	367	Sandstone	
367	368	Shale	
368	373	Shale and Shaley Coal	
373	393	Sandstone	

COMMENTS: Continued on next page

WATER HORIZON: FT.

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: August 24, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-04

APPROX. LOCATION: 4350 ft. S., 2600 ft. W. of N.E.Corner SEC. 5 TWP. 5 RGE. - W. -

SURVEYED LOCATION:

ELEVATION: 150 ft. a.s.l. (approx.)

DRILLER: DALE SMITH, JOHN CURRIER

FROM	TO	LOG	REMARKS
393	395	Sandstone	
395	398	Shale	
398	425	Sandstone and Conglomerate	Water flowing to surface
425	445	Sandstone	
445	447	Shaley Sandstone	
447	462	Shale and Sandstone	
462	465	Coaly Shale	
465	475	Sandstone	
475	479	Conglomerate	
479	512	Sandstone	
512	520	Shale	
520	661	Sandstone	
661	861	Shale, Black and Green	Total Depth

COMMENTS: Water Flowing to Surface at 4 G.P.M. Hole Cemented Off.

WATER HORIZON: FT.

SQ-Suquash 80(3)*A *1

ROKE

FOCUSED BEAM LOG 5 CM

OIL ENTERPRISES LTD. CALGARY, ALBERTA

(L9)

FILE NO.
LSD
SEC
TWP
RGE
W ______ M

COMPANY ABCON ENGINEERING LIMITED
WELL SU - 80 - 04
216
LOCATION PORT MCNEILL
FIELD SUQUASH
PROVINCE BRITISH COLUMBIA

Other Services:
GR - DENS - CAL

Permanent Datum GROUND LEVEL Elev. ______
Log Measured from GROUND LEVEL ______ Above Perm. Datum
Well Depths Measured from GROUND LEVEL

K.B. ______
CSG ______
G.L. ______

Run. No.	ONE		
Date	25 AUG. 1980		
First Reading	202.0 M		
Last Reading	35.0		
Footage Logged	167.0		
Depth Reached	202.6		
Depth Driller	207.6		
Casing Roke	47.0		
Casing Driller	47.8		
Fluid Type	WATER		
Liquid Level	0.0		
Min. Diam.	15.0 CM		
Rm @ °C	8.0 @ 13° C		
Operating Time	1 HOUR		
Truck No.	107		

Recorded By JAQUES
Witnessed By GARDNER

Remarks FBL # 8 CURRENT RANGE STD MUDFISH RESISTANCE 110 OHMS
7 ELECTRODE SONDE 5 CM BEAM WIDTH 60 CM ARRAY
PRIMARY 10 OHM/DIV SECONDARY 50 OHM/DIV

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: September 9, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-05

APPROX. LOCATION: 3300 ft. S., 500 ft. W. of N.E. Corner SEC. 4 TWP. 5 RGE. - W. -

SURVEYED LOCATION:

ELEVATION: 40 ft. a.s.l. (approx.)

DRILLER: DALE SMITH, PAT O'SULLIVAN, JOHN CURRIE

FROM	TO	LOG	REMARKS
0	3	Black Mud	
3	70	Blue Clay, Brown Clay	
70	113	Sandy Rock (Unconsolidated)	
113	120	Sandstone and Sea-shells	
120	170	No real visible change	
170	183	Clay	
183	213	Water-bearing and Heaving Gravel	
213	216	Fine Sand	
216	233	Clay, Sandy Gravel	
233	242	Bedrock: Sandstone and Limestone	Cased from 0 - 233 ft.
242	246	Shale and Shaley Coal	
246	250	Coaly Shale	
250	260	Shale	
260	266	Sandstone	
266	290	Shaley Coal and Sandstone	
290	305	Sandstone	continued on next page

COMMENTS: 183 - 213 ft.: Saline water production at a rate of 90 - 100 g.p.m. on compressor test.

WATER HORIZON: FT.

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH **DATE:** September 9,1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-05 (continued)

APPROX. LOCATION: 3300 ft. S., 500 ft. W. of N.E. Corner **SEC.** 4 **TWP.** 5 **RGE.** - **W.** -

SURVEYED LOCATION:

ELEVATION: 40 ft. a.s.l. (approx.)

DRILLER: DALE SMITH, PAT O'SULLIVAN, JOHN CURRIE

FROM	TO	LOG	REMARKS
305	308	Shaley Coal	
308	340	Sandstone	
340	359	Sandstone and Shale	
359	399	" " "	
399	484	" " "	
484	549	" " "	
549	557	Shaley Coal	
557	566	Sandstone	
566	594	Shaley Coal	
594	623	Sandstone and Shaley Coal	
623	624	Shaley Coal	
624	653	Shale	
653	667	Sandstone	
667	674	Shale	
674	680	Sandstone	
680	698	Shale and Shaley Coal	Continued on next page

COMMENTS:

WATER HORIZON: **FT.**

FILTROL MINERALS LTD.

DRILLHOLE REPORT

COAL FIELD: SUQUASH DATE: September 9, 1980.

COMPANY: KEN'S DRILLING LTD.

HOLE No.: SU-80-05 (continued)

APPROX. LOCATION: 3300 ft. S.,500 ft. W. of N.E. Corner SEC. 4 TWP. 5 RGE. - W. -

SURVEYED LOCATION:

ELEVATION: 40 ft. a.s.l. (approx.)

DRILLER: DALE SMITH, PAT O'SULLIVAN, JOHN CURRIE

FROM	TO	LOG	REMARKS
698	699	Sandstone	
699	735	Coal and Coaley Shale	
735	741	Sandstone	
741	761	Shale	
761	781	Sandstone	
781	801	Shale	
801	940	Sandstone, some Shale	
940	946	Coaly Shale	
946	950	Shale	
950	967	Shale	
967	1080	Sandstone	
1080	1139	Sandstone	
1139	1150	Black Shale	
1150	1153	Coal	
1153	1200	Shale, Sandstone	
	T.D.		

COMMENTS:

WATER HORIZON: FT.

SG - Suquash 80(3*)A *(1) 80-05

ROKE

OIL ENTERPRISES LTD. CALGARY, ALBERTA

FOCUSED BEAM LOG 20 CM

FILE NO.

LSD
SEC
TWP
RGE
W ___ M

COMPANY ABCON ENGINEERING LIMITED

LID

WELL SU - 80 - 05

LOCATION PORT MCNEILL

216

FIELD SUQUASH

PROVINCE BRITISH COLUMBIA

Other Services: GR - DENS - CAL

Permanent Datum GROUND LEVEL Elev. ___
Log Measured from TOP OF CASING ___ Above Perm. Datum
Well Depths Measured from TOP OF CASING

K.B. ___
CSG ___
G.L. ___

Run No.	ONE
Date	10 SEPT. 1980
First Reading	366.0 M
Last Reading	0.0
Footage Logged	366.0
Depth Reached	367.0
Depth Driller	365.8
Casing Roke	72.0
Casing Driller	70.1
Fluid Type	WATER & FOAM
Liquid Level	8.5
Min. Diam.	15.0 CM
Rm @ °C	15.4 @ 12° C
Operating Time	1.0 HOUR
Truck No.	107

Recorded By JAQUES
Witnessed By GARDNER

Remarks FBL # 8 CURRENT RANGE HIGH MUDFISH RESISTANCE 95 OHMS
7 ELECTRODE SONDE 20 CM BEAM WIDTH 100 CM ARRAY
PRIMARY 10 OHM/DIV SECONDARY 50 OHM/DIV

RESISTIVITY (OHM-METERS)	Depths	RESISTIVITY (OHM-METERS)
SECONDARY SCALE		PRIMARY SCALE 0 100 200
0 500		800 1300 2600

SO-Suquash 80(3*)A *(1) 80-05

ROKE

GAMMA RAY
SIDEWALL DENSILOG
CALIPER

OIL ENTERPRISES LTD. CALGARY, ALBERTA

FILE NO.	
LSD	
SEC	
TWP	
RGE	
W M	

COMPANY ABCON ENGINEERING LIMITED (L11)

WELL SU-80-05 216

LOCATION PORT McNIEL

FIELD SUQUASH

PROVINCE BRITISH COLUMBIA

Other Services. FBL 20 CM

Permanent Datum GROUND LEVEL Elev

Log Measured from TOP OF CASING Above Perm. Datum

Well Depths Measured from TOP OF CASING

K.B

CSG

G.L

Run No.	ONE
Date	10 SEPT 1980
First Reading	366 M
Last Reading	0
Footage Logged	366
Depth Reached	367
Depth Driller	365.8
Casing Roke	72
Casing Driller	70.1
Fluid Type	WATER/FOAM
Liquid Level	8.5
Min. Diam.	15 CM
Operating Time	4 HOURS
Truck No.	107

Recorded By JAQUES Witnessed By GARDNER

SIDEWALL DENSILOG T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	CPS/DIV
1	5 K	2.35 R	191.14

GAMMA RAY T.C. SEC.	SENS SETTINGS	ZERO DIV. L OR R	API G.R. UNITS PER LOG DIV.
3	100		12

RUN NO.	DEPTH FROM	DEPTH TO	M/M
ONE	0	366	8
	0	366	4
	0	366	8

REMARKS ADD 1 M TO CALIPER FOR CORRECT READING

GR TOOL # 175

CAL TOOL # 879

DENS TOOL #663

A
SU-80-04
Elevation: 38m. a.s.l.
m.
Overburden
casing bottom
50
shaly coal .7m.
shaly coal .2m.
100
150
200
250
basalt
T.D. 260 m.
m
0
Overburden
casing bottom
coal .2m.
50
shaly coal .2m.
shaly coal .6m.
coal .5m.
coaly shale
shale+coal .2 m.
100
coal.2 m.
coal, trace
shaly coal .1m.
150
shaly coal .2m.
shaly coal .2 m.
200
T.D. 201m.
SU-80-03
Elevation: 82m. a.s.l.
DATUM: MEAN SEA LEVEL
S-74-05
Elevation: 56m. a.s.l.
m.
0
coal .3m.
coal .3m.
50
coal, trace
100
coal .4 m.
coal .12m.
150
coal .4 m. & shaley coal 1.6 m.
coal .25 m. & coaly shale 1.3m.
coal, trace
coal .4 m.
coaly shale 2.7m.
200
T.D. 237m.
S-74-06
Elevation: 50m. a.s.l.
m.
0
50
coal, trace
100
coal .25 m.
coal .15 m. & shaly coal
coal .25 m. & shaly coal
coal .1 m.
coal .5 m. & coaly shale
150
coal .3 m.
200
coaly shale
coal .15 m.
coal .9 m. & coaly shale .8 m.
T.D. 222m.
B
SU-80-01
Elevation: 40m. a.s.l.
m.
0
Overburden
casing bottom
50
coal .7m.
coal .4m.
100
coal .4m.
coal .4m.
150
coal .5m.
coal .1m.
200
coal .5m.
coal .3m.
coal .3 m.
250
coal .4 m.
coal .5m.
coal .5m.
coal 1.6 m. & coaly shale 1.7m.
300
coal .6m.
350
shaly coal .2 m.
T.D. 381m.
LEGEND
Overburden (unconsolidated)
Sandstone
Shale
Sandstone, with Shaly beds
Bentonitic Shale
Volcanics.
Horizontal Scale: 1:12,500
Vertical Scale: 1cm. = 5 m.

Section A-B: **Suquash Coal Property**– RAMM VENTURE CORPORATION

SQ-Suquash 80 (2)A *(1)

216 M01