

GEOLOGICAL REPORT

EXCO et al CAMERON HILLS I-10

60°09' 39.27"N., 117°30' 03.54"W

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SUR MICROFILM:**

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Canada Oil and Gas Lands  
Administration  
Administration du pétrole et du gaz  
des terres du Canada

MAY 2 1985

Resource Evaluation Branch  
Direction de l'évaluation des  
Ressources

Project #

GEOLOGICAL REPORT

EXCO et al CAMERON HILLS I-10

60°09' 39.27"N., 117°30' 03.54"W

PREPARED FOR

EXCO ENERGY LTD.

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PERTINENT DATA

WELL NAME: EXCO et al CAMERON HILLS I-10

LOCATION: 60°09' 39.27"N., 117°30' 03.54"W

ELEVATIONS: Ground: 811.95 m K.B.: 815.95 m <sup>86.25?</sup>

TOTAL DEPTH: Driller; 1613 m

WELL TYPE: Exploratory

STATUS: Suspended

OPERATOR: EXCO ENERGY LTD.

CONTRACTOR: ARNCO DRILLING LTD., RIG #1

SPUD DATE: February 19, 1985

RIG RELEASED: April 3, 1985

DITCH SAMPLES: Company: 400 - 1613 m Government: 400 - 1613 m

CORED INTERVALS: None

D.S.T.: None

LOG RECORD: No logs run

CASING RECORD: 244.5 mm, Surface - 387 m

SAMPLE DESCRIPTION

1300 - 1305m	Shale, gray and part slightly greenish, to dark gray, some pieces brown and part silty, part slightly calcareous, part micropyrritic
1305 - 1310m	Shale, gray to dark gray, part greenish, calcareous, part micropyrritic, some pieces micromicaceous; stringers of limestone, buff, silty
1310 - 1315m	Shale, dark gray to gray, micropyrritic; shale, greenish gray, calcareous, micropyrritic, part micromicaceous
1315 - 1320m	Shale, gray to dark gray, part micromicaceous, some pieces micropyrritic
BEAVERHILL LAKE 1325m	
1320 - 1325m	Shale, dark brown to black, calcareous
1325 - 1330m	Shale, black to dark brown, calcareous, micromicaceous; stringers of limestone, buff, microcrystalline, silty, slightly pyritic
1330 - 1335m	Shale, greenish gray to gray, part calcareous, part micromicaceous, slightly pyritic and micropyrritic; stringers of siltstone, buff, calcareous
1335 - 1340m	Shale, gray to black, some pieces greenish or brown, part calcareous, pyritic; stringers of limestone, buff, crypto - to microcrystalline
1340 - 1345m	Shale and stringers of limestone as above; stringers of siltstone, buff, calcareous; few borings
1345 - 1350m	Shale, gray to green, variably calcareous, part micropyrritic; stringers of siltstone, buff, calcareous
MUSKWA 1355m	
1350 - 1355m	Shale, black to brown, calcareous, stringers of (microfossil) coquina
1355 - 1360m	Shale as above; shale, gray, calcareous, part silty, few ostracods; trace limestone, buff to brown, few brachiopod fragments and ostracods

- 1360 - 1365m Shale, black to gray, some pieces white speckled, calcareous, part micropyrritic; stringers of limestone, buff to gray, argillaceous, few brachiopods
- 1365 - 1370m Limestone, buff to light gray, cryptocrystalline, part argillaceous, slightly pyritic and micropyrritic, brachiopod fragments; some shale as above
- 1370 - 1375m As above; predominantly shale with few centaculites
- SLAVE POINT 1380m
- 1375 - 1380m Shale, gray to greenish gray, calcareous, part micropyrritic, few pieces micromicaceous; limestone, buff to light gray, one piece light gray brown, part highly argillaceous, cryptocrystalline, pyritic and micropyrritic, few brachiopod fragments
- 1380 - 1385m Limestone, brown to buff, cryptocrystalline, pyritic
- 1385 - 1395m Limestone, tan to brown, micro - to cryptocrystalline, part pelletoidal or fragmental, some poor to fair intergranular porosity; spotty condensate staining
- 1395 - 1400m Limestone, tan to cream and light brown, cryptocrystalline, part pelletoidal, some poor intergranular porosity, little spotty condensate stain
- 1400 - 1405m Limestone, brown to cream, cryptocrystalline, some pieces pelletoidal, little very poor pin point porosity with some bitumen, little clear vug fill, trace spotty condensate stain
- 1405 - 1410m Limestone, tan to cream and brown, crypto - to microcrystalline, some pieces pelletoidal, very slightly pyritic, few stylolites, trace very poor pin point porosity and spotty condensate stain, few brachiopods
- 1410 - 1415m Limestone, brown to cream, cryptocrystalline, few pieces pelletoidal, few stylolites, trace very poor pin point porosity, gastropod
- FORT VERMILION 1420m
- 1415 - 1420m Limestone, brown to cream, mottled and fragmental, crypto - to microcrystalline; anhydrite white to buff, micro - to cryptocrystalline

- 1420 - 1425m Limestone, brown to cream, part mottled and fragmental, micro - to cryptocrystalline, few small brachiopods; some white anhydrite lumps, cryptocrystalline
- 1425 - 1430m Anhydrite, tan to white cryptocrystalline; limestone as above
- 1430 - 1435m Anhydrite, buff to white, micro - to cryptocrystalline, part silty
- 1435 - 1440m Limestone, buff to brown, micro - to cryptocrystalline, part silty, few pieces argillaceous, some scattered gypsum crystals, few brachiopods and ostracods; little marlstone, greenish brown, clusters of ostracods
- 1440 - 1445m Limestone, brown to tan, micro - to cryptocrystalline, anhydrite, buff to white, cryptocrystalline; stringers of shale, gray and green, part calcareous

## WATT MOUNTAIN 1450m

- 1445 - 1450m Calcareous shale grading to argillaceous limestone, dark brown to black, bituminous, some pieces micro-pyritic; trace shale, green, waxy, calcareous, part micropyrritic
- 1450 - 1455m As above; some limestone tan to buff, crypto - to microcrystalline; trace shale, green waxy, calcareous
- 1455 - 1465m Limestone, cream to brown, cryptocrystalline, slightly pyritic; argillaceous limestone grading to calcareous shale, dark brownish gray to black part coaly; shale, light green to light gray, slightly calcareous, waxy, finely pyritic

## BISTCHO 1470m

- 1465 - 1475m Limestone, brown to cream, part mottled and pelletoidal, crypto - to microcrystalline; little poor intergranular porosity; green shale as above

## SULPHUR POINT 1480m

- 1475 - 1480m Limestone as above, some fair interpelletoidal porosity, some spotty condensate staining; dolomite, brown to tan, finely to microcrystalline, some poor intercrystalline porosity, spotty condensate stain

1480 - 1490m	Dolomite, brown to buff, finely to microcrystalline, fair intercrystalline and vuggy porosity, good light oil staining
1490 - 1495m	Dolomite, brown to tan, micro to finely crystalline, some fair vuggy and intercrystalline porosity, selective oil staining and trace residual bitumen
1495 - 1500m	Dolomite as above, fair vuggy porosity and extensive light oil staining
1500 - 1505m	Dolomite, dark brown to tan, micro to finely crystalline, poor vuggy porosity and selective oil staining
	MUSKEG 1510m
1505 - 1510m	Dolomite, light brownish gray to buff, crypto to very finely crystalline, little pin - point porosity, trace condensate stain
1510 - 1515m	Dolomite, tan to buff, micro to very finely crystalline, little very poor pin - point and vuggy porosity, trace condensate staining; stringers of shale, black, calcareous
1515 - 1520m	Dolomite, brown to tan, very finely to cryptocrystalline, trace very poor pin - point porosity, slightly pyritic; very little anhydrite, white to tan, cryptocrystalline
1520 - 1525m	Dolomite, brown to tan, microcrystalline, little very poor intercrystalline porosity, little spotty condensate stain; anhydrite, buff to tan, cryptocrystalline
1525 - 1530m	Dolomite brown to light gray, micro to very finely crystalline, some poor intercrystalline and vuggy porosity, trace residual bitumen; little anhydrite as above
1530 - 1535m	Dolomite, brown to cream, very finely to crypto-crystalline, very poor to poor intercrystalline and vuggy porosity, selective oil staining; trace anhydrite, white to tan
1535 - 1540m	As above; trace coarse vug fill, few dolomite pieces pyritic



## KEG RIVER 1545m

- 1540 - 1550m Dolomite, tan to brown and light gray, micro to medium crystalline, little coarse crystalline vug fill, little very poor pin - point porosity
- 1550 - 1555m Dolomite, brown to cream, micro to medium crystalline, some coarse crystalline vug fill, trace very poor intercrystalline porosity
- 1555 - 1560m Dolomite, brown to buff, micro to medium crystalline, little vug fill, some poor intercrystalline porosity, trace interstitial bitumen, very slightly pyritic
- 1560 - 1570m As above; porosity poor to fair, some crinoid ossicles, very few stromatopora fragments

## GRANITE WASH 1575m

- 1570 - 1575m Dolomite as above, fair intercrystalline porosity; sandstone, white, calcareous, fine to coarse, sub-angular, poorly sorted, friable, slightly pyritic

## PREDEVONIAN 1580m

- 1575 - 1580m Trace schist, dark gray, silky, "red beds" soft, completely absorbed by mudsystem, trace sandstone as above; various dolomites and shales, cavings (?)
- 1580 - 1590m Some schist, dark gray, silky, few rusty spots, few angular quartz grains

## PRECAMBRIAN 1595m

- 1590 - 1613m Schist as above; some gray granite, increasing from top to bottom

## REMARKS:

The well was drilled directionally from a surface location in I-10, Grid Area 60°10'N, 117°30'W to a subsurface target in L-80 Grid Area 60°10'N, 117°15'W. After reaching the total depth of 1603 m the drill string became stuck in the hole. The bottom-hole assembly and some fishing collars have been left at the bottom of the hole. Because of the spring break-up the well was plugged back and had to be suspended. It is planned to re-enter and complete the well during the next drilling season.

No logs were run. The top of the fish is above the top of the Slave Point formation. Drill cuttings from the Slave Point, Bistcho, Sulphur Point, Muskeg and the Keg River display generally fair porosities and spotty staining. The Sulphur Point samples are oil stained. The Keg River appears to be reefal and there is some interstitial bitumen present.