W E L L H I S T O R Y R E P O R T

for

SOCONY MOBIL WESTERN MINERALS

CHANCE YT G-8

Latitude 66° 07' 18.1" N

Longitude 137° 30' 50.8" W

Socony Mobil Oil of Canada, Ltd.
Dawson Creek District

G. A. Atkinson
DISTRICT GEOLOGIST

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WELL HISTORY REPORT

SECTION I - Summary of Well Data

(a)	Well Name and Number:	Socony Mobil Western Minerals Chance YT G-8
(b)	Permittee:	Western Minerals Ltd.
(c)	Operator:	Socony Mobil Oil of Canada, Ltd.
(d)	Location:	Unit G Section 8 Grid 66° 10' N; 137° 30' W Latitude 66° 07' 18.1" Longitude 137° 30' 50.8"
(f)	Permit:	3363
(g)	Drilling Contractor:	Parker Drilling Co. of Canada Ltd. Rig #10 Rotary
(h)	Drilling Authority:	143; November 27, 1964
(i)	Classification:	Exploratory Outpost
(j)	Elevation:	Ground 1702.00 ft. K.B. 1719.73 ft.
(k)	Spudded:	December 4, 1964
(l)	Completed Drilling:	February 15, 1965
(m)	Total Depth:	Driller (Pipe Tally) 5181.82 Schlumberger 5183.00
	Plugged Back Total Depth	4850 K.B.

Bridge Plugs @ 4468' & 4650'

(n) Well Status: Completed Oilwell - Suspended

(o) Rig Released: February 18, 1965
Service Rig Released: March 31, 1965

(p) Hole Size: 17 1/2" to 110 ft.
12 1/4" to 810 ft.
8 5/8" to 4944 ft.
6 1/8" to 5181.82ft. Pipe Tally
5183.00ft. Schlumberger

(q) Casing:

13 3/8"	54.5#	J-55	New to	110	ft. K.B.
9 5/8"	36#	J-55	New to	810	ft. K.B.
7"	23#	N-80	New to	4914.20	ft. K.B.

SECTION II - Geological Summary

(a) Formation Tops

	Sample Tops Depth	Sample Tops Elevation	E-log Tops Depth	E-log Tops Elevation
Cretaceous:				
Cody Creek fm.	Surface	+1702		
Blackie Member	2218	- 498	2220	- 500
New formation	2512	- 792	2522	- 802
Permo-Pennsylvanian:				
Alder formation	3919	-2199	3919	-2199
Chance Zone	4220	-2500	4220	-2500
Chance Sand	4240	-2520	4241	-2521
Alder Limestone	4776	-3056	4776	-3056

(b) Cored Intervals

Core Number	From	To	Rec.	Formation
1	2283	2324	41'	Lower Cretaceous Blackie Member
2	3613	3623	10'	Lower Cretaceous New formation
3	3930	3960	30'	Permo-Penn Alder Fm.
4	4263	4273	9.7'	Permo-Penn Alder Fm. Chance Zone
5	4397	4407	8.8'	Permo-Penn Alder Fm. Chance Zone
6	4542	4562	19.5'	Permo-Penn Alder Fm. Chance Zone
7	5020	5022	1.7'	Permo-Penn Alder Fm. Limestone

(c) Core Descriptions

Diamond Core #1 — Lower Cretaceous Blackie Member

2283 - 2324' Cut 41' Recovered 41'

Coring Times: 14, 6, 4, 3, 5, 5, 5, 3, 5, 6, 7, 7, 6, 6, 10, 9, 5, 6, 5, 7, 5, 3, 4, 4, 3, 5, 4, 3, 4, 3, 3, 5, 5, 5, 6, 6, 3, 5, 4, 6, 10 minutes per foot.

2283 - 2298'

15' — Sandstone light to medium grey, salt and pepper, very fine to fine grained, subangular to subrounded, medium sorting, clear quartz (some faceted), black and milky chert, slightly siliceous cement, thin carbonaceous partings, abundant cross-bedding, porosity 1 - 3%, trace hydrocarbon cut. Slump structure in sandstone at 2294.5'.

2298 - 2299'

1' — Siltstone, very dark grey to black. Black shining carbonate flakes. Fair to good hydrocarbon cut.

2299 - 2303'

4' — Sandstone, light to dark grey, very fine grained, subangular, good sorting, clear quartz, milky and black chert, minor glauconite, black carbonaceous material, kaolin cement and trace siliceous cement, carbonaceous partings, abundant cross-bedding, porosity 1 - 3% in part, hydrocarbon cut throughout.

2303 - 2323'	
20'	Sandstone as above, with black carbonaceous band 1" thick at 2303.3, ironstone concretion bands of 1 - 2" at 2308.7 and 2315.3, minor gas bleeding at 2318, large carbonaceous plant fossil? at 2322.
2323 - 2323.5	
0.5'	Shale, black, silty with dark carbonaceous material.
2323.5 - 2324'	
0.5'	Sandstone as above but very fine to fine grained, porosity 3 - 5%.
Diamond Core #2	Lower Cretaceous New formation
	3613 - 3623' Cut 10' Recovered 10'
Coring Times:	27, 16, 16, 13, 16, 17, 17, 15, 17, 19 minutes per foot.
3613 - 3623'	
10'	Shale, dark grey to black, very silty, micromicaceous, pyritic, slightly dolomitic, pyritic streaks throughout core, with 1.2" band of shale, very light grey at 3614; band of siltstone, light grey, siliceous, black carbonaceous material 0.6" thick at 3616.5', and chert pebbles noted, two only seen in partings, approximately 15 MM in diameter, rounded in interval 3620.5 - 3621.5'.
Diamond Core #3	Permo-Pennsylvanian Alder formation
	3930 - 3960' Cut 30' Recovered 30'

Coring Times: 15, 15, 25, 19, 28, 32, 30 27, 34, 32, 21, 24, 20, 26, 25, 22, 28, 26, 31, 28, 27, 53, 41, 36, 56, 80, 62, 50, 51, 50 minutes per foot.

3930 - 3931'

1' Limestone, buff to brown, very fine to coarse biofragmental, medium sorting, crinoid and brachiopod fragments, gas bubbles.

3931 - 3935.2'

4.2' Limestone, dark brown to black, very argillaceous, occasional biofragmental, crinoids and brachiopods, occasional subrounded chert grains.

3935.2 - 3936.1'

0.9' Limestone, buff to brown, very fine to coarse, rounded to subrounded, medium sorting, crinoid and chert grains.

3936.1 - 3939'

2.9' Limestone, dark brown, very argillaceous, occasional biofragments, crinoids and brachiopods with occasional chert pebbles.

3939 - 3943'

4' Limestone, buff to brown, very fine to coarse, rounded to subrounded, medium sorting with crinoid stems and occasional quartz and chert grains, minor fractures with some calcite infill, bleeding oil at 3941' for one foot, poorly permeable as bleeding still in progress after six hours.

3943 - 3944.6'	
1.6'	Limestone, dark brown to black, much brown argillaceous material with shale lenses.
3944.6 - 3945.8'	
1.2'	Limestone, buff to brown, very fine to coarse, subrounded, medium sorting, occasional clear quartz and black and milky chert, abundant crinoid stems.
3945.8 - 3947.2'	
1.4'	Limestone, dark brown to black with dark brown argillaceous material.
3947.2 - 3950.1'	
2.9'	Chert, grey to brown, buff to brown, cryptocrystalline, limy.
3950.1 - 3953.2'	
3.1'	Sandstone, light grey, salt and pepper, very fine to coarse, subrounded, medium sorting, clear quartz and black and milky chert.
3953.2 - 3959'	
5.8'	Limestone, light grey to buff, occasional quartz and chert grains, siliceous cement, chert pods throughout, occasional stylolite, minor fracture porosity, minor oil bleeding 3954 to 3959'.
3959 - 3960'	
1'	Limestone, light grey to buff to brown, very fine to fine grained, subrounded to subangular, medium sorting, quartz and some chert, slightly argillaceous.

Diamond Core #4	Permo-Pennsylvanian Chance Sand
	4263 - 4273' Recovered 9.7'
Coring Times:	32, 32, 36, 31, 34, 35, 38, 38, 35, 36 minutes per foot.
4263-4273'	
10'	Sandstone, light grey, salt and pepper, very fine to coarse grained, rounded to subrounded, poorly sorted, clear quartz, milky, black and green chert, chert pebbles, calcite infille - 20%, bituminous infill - 10%, maximum estimated porosity 3%, low permeability.
Diamond Core #5	Permo-Pennsylvanian Chance Sand
	4397 - 4407' Recovered 8.8'
Coring Times:	24, 29, 17, 22, 30, 37, 47, 53, 37, 49 minutes per foot.
4397 - 4401.9'	
4.9'	Sandstone, light grey to buff brown, salt and pepper, medium to coarse grained, subrounded to subangular, medium sorting, chert pebbles, quartz and chert grains, calcite and kaolin cement. Maximum porosity 10% found at top grading down to 3% or so near base, bleeding oil in bottom 2.5 feet. Trace of bituminous material, no trace of saltwater.
4401.9 - 4405.8'	
3.9'	As above but with no porosity, trace of calcite cement.

Diamond Core #6 — Permo-Pennsylvanian Chance zone

4542 - 4562' Cut 20' Recovered 19.5' (97.5%)

Coring Times: 44, 34, 34, 28, 34, 21, 27, 33, 35, 30, 33, 39, 37, 43, 50, 56, 52, 55, 70, 65 minutes per foot.

4542 - 4544.4'

2.4' Sandstone, grey to salt and pepper, dominantly coarse grained, microconglomeratic in part, massive poorly sorted, composed of quartz and chert grains. The quartz is medium to coarse grained, subangular to subrounded. The chert ranges mainly from coarse grained to pebble size, is subrounded to rounded and is generally dark in colour. The section is tight, original good porosity having been completely infilled by calcite and minor bitumen.

4544.4 - 4552.4'

8.0' Sandstone (80%) and siltstone (20%) interbedded and interlaminated, grey to dark grey. Sandstone grey, very fine to fine grained, medium sorting, composed of chert and quartz grains, subangular to subrounded calcareous, tight, trace oil stain. Sandstone is coarser at base. Siltstone dark grey, shaly in part, calcareous, arenaceous, tight.

4552.4 - 4556.1'

3.7' Sandstone as interval 4542 - 4544.4', poor porosity (about 10%?) in part infilling of original void space with bitumen and some calcite. Sand is friable and bleeding oil.

4556.1 - 4558.4'

2.3' Siltstone (60%) dark grey, argillaceous in part, calcareous, arenaceous, complexly interbedded with sandstone (40%) grey, very fine to fine grained, minor medium grained, subangular to subrounded, calcareous, tight. Bedding at 10 - 20 degrees, in part with slump structures.

4558.4 - 4561.5'

3.1' Sandstone, grey, very fine grained at top grading to coarse grained at base, medium sorting, subangular to subrounded, calcite infill with rare ineffective porosity. Abundant chert grains in sand at base. Section is massive.

Diamond Core #7 Permo-Pennsylvanian Alder

5020 - 5022' Recovered 1.7'

Coring Times: 81, 66 minutes per foot.

5020 - 5022'

2' Limestone, grey to brown, microcrystalline to minor very finely crystalline; very thinly bedded, 1 to 10 millimeters, dark and light beds, occasional cross-bedding; rare fossils, mainly spicules.
Minor lenses and nodules of highly silicified limestone with bedding planes continuous with those of surrounding unsilicified host limestone.

Limestone originally thin bedded lime muds with coarser lime fragments rarely exceeding silt to fine grain size.

Common horizontal, less common vertical fracturing; fracture planes often contain bitumen or oil stain, no significant fracture porosity.

(d) Sample Description

0 - 100'	Sandstone and shale interbedded. Sandstone, medium grey to dark grey, very fine to medium grained, subangular - subrounded, medium sorted, quartz and chert grains, silty, kaolin cement, shale, black to dark grey, rusty brown in parts.
100 - 130'	No samples.
130 - 150'	Siltstone, light grey, slightly sandy, quartz and chert grains, argillaceous matrix, glauconite.
150 - 160'	No sample.
160 - 170'	Shale, black to dark grey.
170 - 220'	Sandstone grading into siltstone. Sandstone, medium grey to light brown, very fine to fine grained, subangular, medium sorted, quartz and chert grains, glauconite. Siltstone, medium to dark grey, very fine grained, quartz and chert grains.
220 - 250'	Shale, black to dark grey, slightly calcareous. Some interbedded sandstone.

250 - 260' Sandstone, light grey, very fine grained, subangular, well sorted, salt and popper quartz and chert grain, kaolin cement.

260 - 300' Siltstone grading into sandstone. Siltstone, dark grey, very fine sand grains.
Sandstone, salt and pepper, very fine to fine grained, subangular, medium sorted, quartz and chert grains, slightly pyritic, glauconite.

300 - 310' Shale, black to dark grey, silty, pyrite and plant fragments.

310 - 340' Sandstone, medium grey, salt and pepper, very fine to fine grained, subangular, medium sorted, grey quartz and black chert grains, glauconite, minor coal.

340 - 350' Siltstone, very dark grey with very fine grained sand, some grey-green shale.

350 - 370' Shale, light grey to brown, with small siderite balls, pyrite.

370 - 380' Sandstone, medium grey, salt and pepper, very fine to fine grained, subangular, medium sorted quartz and chert grains with minor coal, glauconite.

380 - 410'	Siltstone, dark to medium grey, very fine grained sand. Shaly at top but with shale and sand grains at bottom.
410 - 420'	Shale, dark grey, slightly silty, pyrite.
420 - 430'	Sandstone, medium grey to brown, very fine to fine grained, subangular, medium sorted, quartz and chert grains, siderite.
430 - 470'	Siltstone, dark grey to black, slightly micaceous, shaly, siderite, pyrite.
470 - 510'	Sandstone, light grey, very fine to medium grained, medium to well sorted, clear quartz with milky and black chert grains, glauconite, kaolin cement. 470 - 500' Minor intergranular porosity.
510 - 520'	Siltstone, dark grey, very fine grained sand, quartz and chert grains, pyrite, glauconite.
520 - 530'	Sandstone, dark grey, very fine to fine grained, subangular, medium sorted, clear quartz with milky and black chert grains, kaolin cement.
530 - 550'	Siltstone, light grey, some shaly matrix and black carbonaceous matrix, pyrite.
550 - 560'	Shale, very light grey, trace pyrite matrix.

560 - 620'	Sandstone, light to dark grey, very fine to medium grained, subangular - subrounded, medium to well sorted, clear quartz and milky and black chert grains, glauconite and pyrite. Silty at base. 570 - 590' Minor intergranular porosity.
620 - 640'	Shale, light grey, occasional black carbonaceous streaks and plant fragments, pyrite.
640 - 660'	Siltstone, dark grey, very fine grained sand, quartz and chert grains, pyrite.
660 - 670'	Sandstone, dark to medium grey, very fine to fine grained, subangular - subrounded, medium sorted, clear quartz and milky and black chert grains, glauconite.
670 - 680'	Shale, light grey, some carbonaceous matrix, minor coal with pyrite.
680 - 700'	Sandstone, light to medium grey, very fine to medium grained, subangular - subrounded, medium sorted, quartz and chert grains, glauconite.
700 - 710'	Siltstone, medium grey, very fine grained sand, carbonaceous streaks, kaolin, pyrite.
710 - 720'	Shale, dark to medium grey, much carbonaceous material, pyrite.

720 - 740'	Sandstone, light to medium grained, very fine to medium grained, subangular - subrounded, medium sorted, clear quartz and milky and black chert grains. 720 - 740' Minor porosity.
740 - 750'	Siltstone, dark grey, very fine grained sand. Coal, siderite balls.
750 - 760'	Sandstone, light grey, very fine to fine grained, medium sorted, milky chert and clear quartz grains, kaolin cement, prominent coal.
760 - 770'	Shale, light grey, bentonitic, with sand stringers.
770 - 780'	Siltstone, buff-grey, bentonite, carbonaceous matrix, plant fragments.
780 - 790'	Sandstone, light grey, very fine to medium grained, subrounded, medium sorted, clear quartz and milky and black chert grains, kaolin cement.
790 - 800'	Shale, light to medium grey, silty, siderite balls.
800 - 820'	Shale, light to medium grey, much bentonite, with siderite balls and plant fragments.
820 - 840'	No samples.
840 - 860'	Shale, medium dark grey, pyrite, slightly silty in part.

860 - 890'	No samples.
890 - 900'	Shale, medium to very dark grey, some interbedded siltstone.
900 - 910'	No samples.
910 - 930'	Siltstone, dark grey, pyrite, plant fragments, black argillaceous matrix.
930 - 950'	Shale, dark grey grading to light to medium grey, black argillaceous matrix, pyrite, slightly silty.
950 - 970'	Siltstone, medium to dark grey, clear subangular quartz grains, minor coal.
970 - 980'	Shale, greenish grey to dark grey, very slightly sandy in part.
980 - 1000'	Siltstone, dark grey, clear quartz and dark argillaceous matrix, with plant fragments.
1000 - 1010'	Sandstone, light to medium grey, medium to coarse grained, well sorted, salt and pepper, clear quartz and black and milky chert grains.
1010 - 1080'	Shale, siltstone and sandstone with much coal.
1080 - 1120'	Shale, slightly silty, micaceous, carbonaceous streaks, plant fragments, minor coal.

1120 - 1130'	Sandstone, light to medium grey, very fine to fine grained, subangular, medium sorting, clear quartz and black chert grains.
1130 - 1160'	Siltstone, medium grey to brownish grey, shaly, dark argillaceous streaks.
1160 - 1180'	Sandstone, medium grey, salt and pepper, very fine to medium grey, subangular - subrounded, medium sorting, clear quartz and milky chert grains.
1180 - 1220'	Shale, light to dark grey, dark carbonaceous matrix, plant fragment, very minor interbedded siltstone.
1220 - 1230'	Siltstone, grey brown, clear quartz, black carbonaceous matrix.
1230 - 1240'	No samples.
1240 - 1250'	Siltstone, grey brown, interbedded sandstone, salt and pepper, very fine to fine grained.
1250 - 1260'	Shale, dark grey, dark carbonaceous matrix, pyrite.
1260 - 1270'	Shale, light grey to dark grey, plant fragments, siderite balls.
1270 - 1280'	Siltstone, medium to light grey, siderite balls.

1280 - 1320'	Sandstone, medium grey, salt and pepper, very fine to coarse grained, subangular - subrounded, medium sorting, clear quartz and black chert grains, kaolin cement. 1300 - 1320' 5% porosity in approximately 25% of sample.
1320 - 1330'	Shale, dark grey, to black, plant fragments to minor coal.
1330 - 1340'	Sandstone, brownish grey, slightly salt and pepper, very fine grained, subangular, well sorted, brown and black argillaceous matrix.
1340 - 1390'	Shale, light to medium grey, very minor black carbonaceous streaks.
1390 - 1430'	Sandstone, medium grey to brown grey, salt and pepper, very fine to medium grained, subrounded, medium sorting, kaolin cement, 6% porosity.
1430 - 1440'	Siltstone, dark grey brown, shaly, plant fragments and carbonaceous streaks.
1440 - 1450'	Shale, dark grey brown, silty, plant fragments and carbonaceous streaks.
1450 - 1460'	Sandstone, brownish grey, very fine grained, subangular, well sorted, kaolin cement.

1460 - 1470'	Siltstone, brownish grey, shaly, carbonaceous streaks and plant fragments.
1470 - 1510'	Sandstone, light brown to grey, very fine to medium grained, subangular - subrounded, medium sorting, kaolin cement, glauconite.
1510 - 1520'	Shale, light grey to brown, black carbonaceous streaks, slightly silty.
1520 - 1540'	Siltstone, grey brown to black, shaly black carbonaceous matrix, plant fragments.
1540 - 1580'	Shale, slight grey to dark brown, plant fragments and carbonaceous streaks, siderite balls.
1580 - 1610'	Siltstone, dark grey to very dark brown, black carbonaceous matrix, some minor coal.
1610 - 1680'	Shale, grey to grey brown to dark grey, silty black carbonaceous matrix, ironstone concretions.
1680 - 1690'	Siltstone, grey to grey brown, shaly, ironstone concretions.
1690 - 1716'	Shale, grey to grey brown, silty, carbonaceous matrix, ironstone concretions.
1716 - 1722'	Sandstone, salt and pepper, very fine to fine grained, subrounded, well sorted, quartzitic, carbonaceous matrix and kaolin cement, ironstone concretions, porosity 3%.

1722 - 1760'	Shale and sandstone interbedded, grey to grey brown.
1760 - 1780'	Sandstone, medium grey, salt and pepper, very fine to medium grained, subrounded, medium sorting.
1780 - 1790'	Shale, light to dark grey to black, silty, black carbonaceous matrix, pyrite.
1790 - 1800'	Siltstone, medium to dark grey, black argillaceous matrix.
1800 - 1860'	Sandstone, light to medium grey, salt and pepper, very fine to medium grained, subangular - subrounded, medium sorting, salt and pepper, clear quartz and black and milky chert grains, kaolin cement, porosity 3%.
1860 - 1870'	Siltstone, medium brown to dark grey, black argillaceous matrix.
1870 - 1880'	Shale, light to dark grey, silty, black carbonaceous matrix, minor coal.
1880 - 1890'	Shale, dark grey, silty, black carbonaceous material, minor coal.
1890 - 1920'	Sandstone, medium to light grey, slightly salt and pepper, very fine to fine grained, subangular, well to medium sorted, clear quartz and black chert, minor hydrocarbon cut at 1900 - 1920', porosity 2 - 3%.

1920 - 1930'	Shale, light to dark grey, carbonaceous streaks, ironstone concretions.
1930 - 1940'	Sandstone, medium to light grey, salt and pepper, very fine to fine grained, subangular, medium sorting, black carbonaceous material.
1940 - 1960'	Shale, brown grey, silty, plant fragments and carbonaceous streaks.
1960 - 1970'	Siltstone, dark grey, shaly and sandy, 10% sand, clear quartz, black carbonaceous material.
1970 - 2000'	Sandstone, greyish brown, very fine to fine grained, subangular to subrounded, medium sorting, clear quartz and black chert, brown argillaceous material.
2000 - 2030'	Shale, brownish grey to black, carbonaceous streaks, minor coal, ironstone concretions.
2030 - 2040'	Siltstone, medium to dark grey, shaly, dark carbonaceous streaks.
2040 - 2060'	Sandstone, light to medium grey, slightly salt and pepper, very fine grained, well sorted, kaolin infill, very minor hydrocarbon cut.
2060 - 2090'	Shale, greyish brown to dark grey, carbonaceous streaks, plant fragments.

2090 - 2110'	Siltstone, grey brown to dark grey, shaly, carbonaceous streaks.
2110 - 2150'	Sandstone, very light to dark grey, very fine to medium grained, subangular to subrounded, well to medium sorted, clear quartz and black chert, dark silt, kaolin cement.
2150 - 2160'	Siltstone, dark grey, shaly, carbonaceous streaks with minor sandstone as above.
2160 - 2170'	Sandstone, medium to dark grey, salt and pepper, very fine to medium grained, subangular to subrounded, clear quartz and black and milky chert, kaolin cement.
2170 - 2190'	Shale, brown to dark grey, silty, plant fragments and carbonaceous streaks.
2190 - 2220'	Siltstone, grey brown, shaly, carbonaceous streaks.
2220 - 2260'	Sandstone, light to medium grey, salt and pepper, very fine to fine grained, subangular to subrounded, medium sorting, clear quartz and black and milky chert, porosity 12% grading down to 3%.
2260 - 2270'	Siltstone, dark brown, shaly with interbedded dark grey shale.

2270 - 2320'	Sandstone, light grey, salt and pepper, very fine to medium grained, grading down to very fine grained, subangular to subrounded, medium sorting, clear quartz and milky and black chert, kaolin cement, minor oil cut. Porous throughout, 9% at top with rapid gradation to trace.
2320 - 2330'	Siltstone, dark grey to brown, sandy, carbonaceous streaks.
2330 - 2430'	Sandstone, light grey, salt and pepper, very fine to medium grained at top, grading down to very fine grained at 2380', subrounded with minor subangular, medium to well sorted, clear quartz and black and milky chert, kaolin and siliceous cement. Porosity throughout, trace - 3%. Minor hydrocarbon cut.
2430 - 2460'	Siltstone, medium to dark brown, shaly, black carbonaceous material.
2460 - 2480'	Sandstone, light grey, slightly salt and pepper in part, very fine grained, subrounded, well sorted, clear quartz and black chert, kaolin cement and siliceous cement. Porosity trace - 1%.
2480 - 2500'	Siltstone, dark grey to brown, shaly, black carbonaceous material, clear quartz.

2500 - 2515'	Sandstone, light to medium grey, slightly brown in part, very fine grained, subrounded, well sorted, clear quartz, kaolin cement, trace porosity.
2515 - 2570'	Shale, medium to dark brown, micromicaceous, plant fragments, interbedded siltstone.
2570 - 2590'	Siltstone, dark brown, glauconitic, carbonaceous streaks, minor interbedded shale.
2590 - 2600'	Shale, buff to brown, micromicaceous, minor interbedded siltstone.
2600 - 2610'	Siltstone, dark grey to brown, with carbonaceous streaks.
2610 - 2650'	Shale, buff to brown to dark grey, micromicaceous, carbonaceous streaks, plant fragments, pyritic in part.
2650 - 2680'	Siltstone, dark grey to buff, dark carbonaceous material.
2680 - 2950'	Shale, buff to light grey, medium to dark grey, micromicaceous, occasional plant fragments, ironstone concretions, very minor interbedded siltstone.
2950 - 3010'	Siltstone, medium to dark grey, slightly carbonaceous with interbedded shale and sandstone, medium grey, micromicaceous, glauconitic and chert at base.

3010 - 3030'	Sandstone, buff to medium grey, salt and pepper, very fine to medium grained, subangular to subrounded, medium sorting, dolomitic, 10% glauconite in part, minor hydrocarbon cut, trace chert pebbles, trace porosity.
3030 - 3080'	Siltstone, dark grey, slightly sandy, quartz and chert and glauconite grains with black carbonaceous material.
3080 - 3170'	Siltstone, dark grey, shaly, slightly sandy in part, quartz, chert and glauconite grains, interbedded shale and sandstone.
3170 - 3190'	Sandstone, dark grey, salt and pepper, very fine to fine grained, subangular to subrounded, medium sorting, clear quartz, black chert, kaolin cement.
3190 - 3310'	Siltstone, dark grey, sandy at top, becoming very shaly at base, pyritic, black carbonaceous material, interbedded shale at base.
3310 - 3350'	Shale, medium to dark grey, micromicaceous, pyritic, interbedded siltstone.
3350 - 3390'	Siltstone, light to dark grey, very shaly, pyritic, black carbonaceous material, much interbedded shale.

3390 - 3430'	Shale, dark grey, micromicaceous, pyritic, ironstone, plant fragments, dark carbonaceous material, interbedded siltstone.
3430 - 3580'	Siltstone, medium to dark grey, very shaly, pyritic, ironstone throughout, interbedded shale.
3580 - 3700'	Shale, medium to dark grey to black, silty, micromicaceous, pyritic, maximum 10% ironstone, chert pebbles, interbedded siltstone, dark grey.
3700 - 3890'	Siltstone, medium to dark grey, very fine to fine grained, clear quartz, black chert and glauconite, pyrite, slightly dolomitic, throughout.
3890 - 3910'	Shale, buff to brown to grey brown, micromicaceous, pyritic, grading into siltstone.
3910 - 3920'	Siltstone, buff to brown to grey brown, grading to sandstone, buff, limy.
3920 - 3930'	Limestone, buff to very dark brown, shaly, chert flakes, microcrystalline, strong petroliferous odour.
3930 - 3960'	Limestone, buff to brown, biofragmental, very fine to coarse grained, crinoids and brachiopods, clear quartz and black and milky chert, minor oil bleeding.
3960 - 4000'	Limestone, light grey to dark brown, sandy, quartz grains brown argillaceous material, strong petroliferous odour.

4000 - 4090'	Limestone, buff brown to dark brown to black, dense, shaly and silty, brown argillaceous material, quartz, silty, petroliferous odour, interbedded chert.
4090 - 4170'	Limestone, as above but extremely silty and less interbedded chert, slightly bioclastic with crinoid stems, chert dying out and becoming more bioclastic. Much sparry calcite.
4170 - 4210'	Limestone, buff brown to light grey, varying degree of sand material, very fine to medium grained, quartz and chert, sparry calcite throughout, no bioclastic material nor interbedded chert.
4210 - 4220'	Limestone, dark grey to black, slightly bioclastic, fractures infilled, grading to limestone, grey, sandy.
4220 - 4300'	Sandstone, light grey, salt and pepper, very fine to coarse grained, poor sorting, rounded to subrounded, clear quartz, milky and black chert pebbles, calcite cement, bituminous material, minor oil cut, minor porosity 4250 - 4280' 3%.
4300 - 4310'	Sandstone, very light grey to white, medium to coarse grained, rounded to subrounded, medium sorting, clear quartz, black and milky chert, no bitumen, many chert pebbles, calcite cement, tight.

4310 - 4390'	Sandstone, light grey to buff brown, very fine to coarse grained, rounded to subrounded becoming subangular towards base, poor sorting, clear quartz chert grains, minor hydrocarbon cut, chert pebbles dying out towards base, calcite cement.
4390 - 4400'	Sandstone, light grey, salt and pepper, medium to coarse grained, subrounded to subangular, medium sorting, clear quartz, milky and black chert, calcite cement, porosity 10%, good permeability, brown oil stain, bituminous material.
4400 - 4422'	Sandstone, salt and pepper to light grey, very fine to medium grained, subangular to subrounded, medium sorting, tight. Porosity infilled with calcite. Minor chert pebbles near base.
4422 - 4426'	Sandstone as above scattered fair porosity and patchy oil stain, minor bitumen.
4426 - 4429'	Sandstone as above, minor chert pebbles, tight, minor bitumen and oil stain. Lack of porosity due to calcite infill.
4429 - 4437'	Sandstone as above scattered fair porosity and patchy oil stain, minor bitumen, minor chert.

4437 - 4450'	Sandstone, light grey to cream, very fine to medium grained, poorly sorted, subangular to subrounded, tight. Original porosity infilled with calcite. Scattered oil staining and bitumen throughout interval.
4450 - 4470'	Interbedded sandstone as above with limestone, brown to dark brown, microcrystalline to very fine crystalline, slightly arenaceous, silty and argillaceous, tight.
4470 - 4525'	Sandstone, light grey to light brown, composed of quartz and chert grains; minor well sorted, mainly poorly sorted, very fine to coarse grained, rounded to subangular, minor kaolin matrix; trace bitumen and oil stain, tight, due mainly to calcite infill.
4525 - 4536'	Sandstone as above, light grey to cream, very fine to fine grained, subangular to subrounded, kaolinitic, trace glauconite, tight.
4536 - 4542'	Sandstone, light grey to dark grey, microconglomeratic, medium to coarse grained, medium sorting, rounded to subangular, common small chert pebbles, bitumen common, poor scattered porosity, bleeding oil, fair oil staining.
4542 - 4552'	Sandstone, salt and pepper, grey, in part very fine to fine grained, slightly argillaceous, in part medium to coarse grained, cherty. Sand, calcareous, tight and interbedded with siltstone, dark grey, shaly in part, calcareous, arenaceous, tight.

4552 - 4556'	Sandstone as above, medium to coarse grained, micro-conglomeratic, poor porosity, which is due to infilling of original void space with bitumen and some calcite, sandstone is friable in part, heavy oil stained and bleeding oil. Common chert.
4556 - 4558'	Siltstone and sandstone, very fine to fine grained as above, complexly interbedded, tight.
4558 - 4570'	Sandstone, light grey to salt and pepper, fine to coarse grained, rounded to subangular, calcite infilled, tight, occasional chert pebbles.
4570 - 4580'	Sandstone as above, becoming finer grained, calcite infill, minor kaolin, tight; with limestone, brown, arenaceous.
4580 - 4600'	Sandstone, light grey to dark brown, very fine to fine grained, occasional medium grained, subrounded to angular, medium to poor sorting, calcareous, ferruginous in part, slightly silty in part, trace glauconite, tight.
4600 - 4660'	Sandstone as above interbedded with limestone brown to dark brown, sideritic? dolomitic? arenaceous, argillaceous in part, fossiliferous, occasional crinoid ossicles, tight.

4660 - 4670'	Siltstone, light grey, arenaceous with trace limestone and sandstone as above.
4670 - 4680'	Sandstone, fine to coarse grained, angular to subrounded, poorly sorted, calcareous, kaolinitic, trace glauconite, tight.
4680 - 4695'	Limestone, light brown to brown, marly, slightly earthy, tight with trace sandstone, very fine to fine grained, medium to good sorting, subangular, trace porosity and light brown to brown oil staining with sandstone microconglomeratic, calcareous, tight.
4695 - 4775'	Sandstone, salt and pepper, microconglomeratic in part, fine to coarse grained, angular to subrounded, generally poorly sorted, very calcareous, abundant chert pebbles, tight.
4775 - 4790'	Limestone, buff, microcrystalline, arenaceous in part, slightly argillaceous in part, siliceous, trace bitumen, tight, with trace sandstone as above.
4790 - 4805'	Limestone, as above, spicules common in siliceous limestone, chert common.
4805 - 4815'	Limestone as above with limestone dark brown, microcrystalline, very fine crystalline, trace pinpoint-intercrystalline porosity, fair oil stain and cut.

4815 - 4937'	Limestone, light brown to dark brown, earthy to microcrystalline, siliceous, slightly argillaceous, abundant bedded chert, light grey to brown, trace scattered oil stain, scattered fractures with minor bitumen on fracture faces, rare drusy calcite crystals. Section essentially tight.
4937 - 4985'	Limestone, light brown to dark brown, microcrystalline to earthy, slightly argillaceous in part, siliceous tight with common chert blue-grey to brown, minor bitumen and stylolites.
4985 - 5005'	Limestone and chert as above, fractures predominantly infilled with calcite or black bituminous argillaceous material. Rare spicules. Trace of fracture porosity, drusy calcite fracture faces and fair oil staining. Rare calcareous sandstone fine to coarse grained, tight.
5005 - 5025'	Limestone and chert as above, trace bitumen and stylolites. Very minor fracturing, no porosity.
5025 - 5040'	Limestone, buff to dark brown, microcrystalline to earthy, slightly argillaceous in part, occasional slightly siliceous, minor scattered fracture porosity with drusy calcite crystals. Scattered fair oil staining. Minor bitumen and stylolites. Common chert, blue, grey, brown. Very rare sandstone as above.

5040 - 5075'	Limestone and chert as above, chert and siliceous limestone comprises 30% of interval 5050 - 5060', rare sandstone as above, rare fracturing, tight.
5075 - 5090'	Limestone as above, less common chert and siliceous limestone, fractures common, scattered fracture porosity drusy fracture surfaces, no oil staining. Stylolitic and trace bitumen.
5090 - 5110'	Limestone and chert as above, tight.
5110 - 5130'	Limestone, brown, slightly dolomitic in part, minor scattered fracture porosity with drusy calcite, minor bitumen and stylolites, with chert, as above.
5130 - 5140'	Limestone and chert, variable, as above, tight.
5140 - 5150'	Limestone and chert, as above, trace fracture porosity.
5150 - 5181'	Limestone and chert, as above, trace spicules in chert.

SECTION III - Engineering Summary

(a) Report of Drill Stem Tests

No.	Date	From	To		Formation
1	12-20-64	2210	2260	✓ 1	Blackie
2	12-22-64	2270	2330	✓ 2	Blackie
3	1- 2-65	3920	3960	?	Alder
4	1- 9-65	4250	4262	✓ 3	Chance Sand
5	1-11-65	4230	4273	?	Chance Sand
6	1-15-65	4375	4397	✓ 4	Chance Sand
7	1-16-65	4273	4375	?	Chance Sand
8	1-17-65	4397	4407	M.	Chance Sand
9	1-17-65	4397	4417	✓ 5	Chance Sand
10	1-20-65	4413	4525	✓ 1	Chance Sand (Special Data Analysis included)
11	1-21-65	4525	4542	✓ 2	Chance Sand
12	1-25-65	4547	4570	✓ 3	Chance Sand
13	2- 1-65	4650	4706	?	Chance Sand
14	2- 1-65	4708	4797	✓ 4 W	Chance Sand
15	2- 3-65	4797	4944	✓ 5	Chance Sand
16	2-11-65	4906	5022	? ← 1 W	Alder
17	2-12-65	5022	5047	? ← 2 W	Alder

(b) Casing Record

Casing Size	Weight	Amount	Set At	Cement
13 3/8"	54.5 #	4 Joints	110 ft.	90 sax + 3% $CaCl_2$
9 5/8"	36 #	25 Joints	810 ft.	365 sax + 3% $CaCl_2$
7"	23 #	157 Joints	4914 ft.	420 sax + 4% $CaCl_2$

(c) Bit Record

NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FOOTAGE	HOURS
1	8 5/8"	OSC^{RR}	325	866	41	3
2	8 5/8"	RG7XJ	866	1018	152	9
3	8 5/8"	OSC^{RR}	1018	1606	588	17 3/4
4	8 5/8"	OSC	1606	2042	436	23
5	8 5/8"	OWV	2042	2260	218	15 3/4
6	8 5/8"	OWV	2260	2283	23	1 1/2
Core 1	6 1/8"	KOBEL^{RR}	2283	2324	41	4
7	8 5/8"	OWV^{RR}	2324	2330	6	3
8	8 5/8"	OWV	2330	2459	129	15 3/4
9	8 5/8"	S6	2459	2547	88	9 1/2
10	8 5/8"	YTL	2547	2776	229	13 3/4
11	8 5/8"	YTL	2776	3080	304	19
12	8 5/8"	OSC	3080	3334	254	26 1/2
13	8 5/8"	S4	3334	3610	276	30
Core 2	6 1/8"	KOBEL^{RR}	3610	3620	10	3 1/2
14	8 5/8"	S4	3620	3875	255	29 1/4
15	8 5/8"	YTL	3875	3930	55	10 1/4
Core 3	6 1/8"	KOBEL^{RR}	3930	3960	30	17
16	8 5/8"	YHW2	3930	3960	REAMING	
17	8 5/8"	YH	3960	3983	23	10 1/2
18	8 5/8"	RC1J	3983	4076	93	39 1/2
19	8 5/8"	YHWG	4076	4094	18	8 1/2
20	8 5/8"	RG7XJ	4094	4117	23	11 3/4
21	8 5/8"	YHWG	4117	4208	91	27 1/4

NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FOOTAGE	HOURS
22	8 5/8"	YHWC	4200	4263	55	15 1/4
Core 4	6 1/8"	KOBEL	4263	4273	10	6
23	8 5/8"	YHWG	4263	4334	61	22 1/4
24	8 5/8"	YHWG	4334	4375	41	17 3/4
25	8 5/8"	RG7XJ^{RR}	4375	4397	22	5 1/4
Core 5	6 1/8"	KOBEL	4397	4407	10	6
26	8 5/8"	YHW2	4397	4417	10	5 1/4
27	8 5/8"	RG7XJ^{RR}	4417	4525	108	26 1/2
28	8 5/8"	RG7XJ	4525	4542	17	5 1/4
Core 6	6 1/8"	KOBEL^{RR}	4542	4562	20	13 1/2
29	8 5/8"	RG7XJ^{RR}	4562	4578	16	4 3/4
30	8 5/8"	H8	4578	4670	92	30 3/4
31	8 5/8"	H8	4670	4752	82	31 1/2
32	8 5/8"	RG1J	4752	4834	82	25
33	8 5/8"	YCGR	4834	4944	110	35 1/2
34	6 1/8"	OWS	4944	4946	2	1
35	6 1/8"	Diamond HYCOLOG	4946	4952	6	4 1/2
36	6 1/8"	W7R	4952	4956	4	3
37	6 1/8"	W7R	4956	4959	3	1 1/4
38	6 1/8"	YCGR	4959	4981	22	12
39	6 1/8"	YCGR	4981	5020	39	17 3/4
Core 7	6 1/8"	KOBEL^{RR}	5020	5022	2	2 3/4
40	6 1/8"	RG1J	5022	5047	25	11
41	6 1/8"	RG1J	5047	5107	60	24 3/4
42	6 1/8"	RG1J^{RR}	5107	5131	24	9 1/2
43	6 1/8"	YCGR^{RR}	5131	5183	52	20 1/4

(d) Mud Record

MUD VOLUMES

Aquagel	660 sx.
Barytes	360 sx.
Dextrid	50 sx.
Caustic	25 drums
Hi-Vis Cellex	8 sx.
Q-Broxin	53 sx.
Fibertex	22 sx.
Silvacel	32 sx.
Acrysol A-3	1 bbl.
Defoemer	130 gallons
Mica	95 sx.
Soda Ash	12 sx.
Soltex	152 sx.
Carbonox	41 sx.
Magcogel	170 sx.
Sawdust	350 sx.
Calcium Chloride	10 sx.

(e) Deviation Record

DEPTH	DEGREE	DEPTH	DEGREE
40'	0°	764'	7/8°
50'	1/4°	795'	1/2°
60'	1/4°	825'	7/8°
90'	1/4°	938'	3/4°
125'	1/2°	1085'	1/2°
130'	3/4°	1329'	3/4°
160'	3/4°	1661'	1°
189'	1°	1908'	1°
216'	3/4°	2215'	1 1/8°
244'	3/4°	2515'	2°
276'	3/4°	2740'	1 3/4°
309'	1°	3080'	1 3/4°
339'	1°	3334'	1 3/4°
369'	1°	3610'	1 3/4°
400'	7/8°	3960'	2°
431'	7/8°	4208'	No Record
462'	7/8°	4375'	No Record
524'	7/8°	4397'	2 1/2°
556'	7/8°	4578'	2 3/4°
587'	7/8°		
618'	7/8°		
649'	3/4°		
680'	3/4°		

(f) Cementing Record

Plug #1 5181 - 4850 with 67 sacks cement. Tell @ 4860'

Bridge plugs with two sacks cement on top, set at 4650, and 4470.

(g) Lost Circulation Zones

None.

(h) Report of Blowouts

None.

SECTION IV - Logs

Run No.	Date	Type of Log	From	To
1	30-1-65	Induction Electric Log	4939	810
2	15-2-65	Induction Electric Log	5182	4915
1	30-1-65	Borehole Compensated Sonic Log	4940	810
2	16-2-65	Borehole Compensated Sonic Log	5177	4915
1	30-1-65	Microlog Caliper	4939	810
2	16-2-65	Microlog Caliper	5182	4915
1	4-2-65	Continuous Dipmeter	4937	3550
1	30-1-65	Seismic Reference Service	4938	810
2	16-2-65	Seismic Reference Service	5176	4915
1	12-3-65	Completion Record	4888	2000

SECTION V - Analysis

(a) Core Analysis (see attachments)

Lab No.	From	To	Source	Remarks
CNP-4-2674	4263	4273	Core #4	Routine Conventional Analysis
CNP-4-2674	4397	4407	Core #5	Routine Conventional Analysis
CNP-4-2674	4542	4562	Core #6	Routine Conventional Analysis
CEH-2-WA-2978	4397	4407	Core #5	Selective Acid Solubilities (see appendix)
CEH-2-WA-2978	4542	4562	Core #6	Selective Acid Solubilities (see appendix)

No Core Analysis on Cores 1, 2, 3, & 7

(b) Water Analysis (see appendix)

Lab No.	Sample	From	To	Source	Remarks
F 2189-1	1			850'	Blooey Line Sample
F 2189-2	1	4708	4797	D.S.T. #14	2000 plus above tool
F 2189-3	2	4708	4797	D.S.T. #14	90 plus above tool
F 2189-4	1	4906	5022	D.S.T. #16	Just above tool
F 2189-5	1	5022	5047	D.S.T. #17	270' above tool
F 2189-6	2	5022	5047	D.S.T. #17	900' above tool

(c) Gas Analysis (see appendix)

Lab No.	Sample	From	To	Source	Remarks
E 24754	1	2210	2260	D.S.T. #1	94.53% Methane 4.39% Nitrogen
E 25052	1	4650	4706	D.S.T. #13	83.97% Methane 7.12% Ethane 3.99% CO_2 2.93% Propane
E 25053	1	4703	4797	D.S.T. #14	77.44% Methane 9.68% Ethane 4.94% Propane 4.90% CO_2 1.15% N-butane
E 25054	1	5022	5047	D.S.T. #17	86.89% Methane 7.42% Ethane 2.94% Propane

(d) Oil Analysis - (see appendix)

Lab No.	Sample	From	To	Source	Remarks
E 24848	1	4392	4397	D.S.T. #6	Samples mixed and analysed together. 31.7 API. 1.29% Sulphur (by weight)
	1	4397	4417	D.S.T. #9	
E 24848	2	4413	4525	D.S.T. #10	31.5 API. 1.22% Sulphur (by weight)
E 25035	1	4547	4570	D.S.T. #12	24.2 API. 1.80% Sulphur (by weight)
E 25341-1	Oil	4474	4557	Prod. Test	Naphthenic Type
E 25341-2	Oil	4393	4456	Prod. Test	Naphthenic Type

(e) Drill Stem Test - Special Data Analysis (see attachments)

Lab No.	D.S.T.	From	To	Remarks
C 3327	10	4413	4525	Well-bore damage analysis

SECTION VI - Completion Summary

Perforating Record

	From	To		
March 12	4679	4686	Zone 1	1 Shot per foot
	4668	4672		
	4659	4661		
	4655			
March 16	4554	4557	Zone 2	1 Shot per foot
	4535	4540		
	~~4576~~ 4516	~~4570~~ 4518		
	4489	4493		
	4481	4483		
	4474	4477		
March 23	4422	4456	Zone 3	1 Shot per foot
	4393	4404		

Servicing Record - See Daily Well History (p. 45-52)

Intervals Open to Production

4422	4456
4393	4404

WELL COMPLETION

MOBIL OIL OF CANADA, LTD.

Petroleum Engineering Department

3-21-H

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YT G-8 FIELD: EAGLE PLAINS

CASING: Elev. K.B 1719.73'

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc.	W/L	Cake 1/32	pH
MARCH 1965	Kenyons Rig #2					
8	Made up matting for rig and spotted rig					
9	Completed rigging up. Removed tubing spool and pulled 60 jts of 2 7/8" tubing					
10	Finished pulling tubing out of hole (Total of 137 jts). Installed BOPs and filled hole with 60 bbls of warm Calcium water. Pressure tested BOPs and casing to 2000 psi for 10 minutes. Held O.K. Hooking up production facilities - tanks, separator, lines, etc.					
11	Ready to perforate. Gamma-ray failed to record properly when running correlation log. Waiting on new gamma ray tool. Completed hooking up production facilities. Pumped inhibited acid into 13,000 gallon tank. Tank leaking badly so pumped acid back into truck while waiting on new tank					
12	Transferred acid into another tank - approximately 7000 gallons of 15% HCl in tank. Leaking v. slowly. Mixed and circulated into watertank 250 bbls of Calcium water. Schlumberger repaired and tested gamma ray. Ran gamma-ray collar locator across the the intervals 4880' - 4200' and 2400' - 2000'. Perforated with 1 shot/ft. using 3 3/8" select casing gun from 4655 - 4679. Shut well in overnight.					
13	Ran 2 7/8" tubing in hole with crossbar collar on bottom and Johnston 'F-1' packer 2 jts above. Tubing landed at 4691' KB with packer at 4628. Rigged up Dowell. Acid washed with 250 gallons 15% double inhibited HCl with demulsifiers and surfactant added. Moved 1/2 bbl across perforations every 10 mins. Very slow feeding. Acid squeezed 250 gallons at an average feed rate of 1/5 BPM at 1200 psi THP. Backwashed 30 bbls and set packer at 4628. Pressure tested to 1000 psi for 10 minutes. Held O.K.					

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YTG-8 **FIELD:**

CASING: **Elev. K.B**

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc:	W/L	Cake 1/32	pH
MARCH						
13	Well came in on third swab at initial rate of 50 MCF/D with THP of 40 psig wide open. Cleaned well up for 2 1/2 hours and when well clean gas rate was approximately 20-30 MCF/D at THP of 25 psig with no fluid present. Shut well in overnight.					
14	After 10 hours SITHP was 575 psig. Blew well down for 1 1/2 hours - made considerable amount of acid water and some sulphurous formation water. Shut well in again in order to clean more fluid out. Second acid tank leaking very badly. Pumped acid out of tank into barrels. Recovered 23 bbls (Had lost 5000 gallons of acid). SITHP at end of further 3 hours was 150 psig. Almost immediately pressure dropped to 40 psig with a flow rate of less than 20 MCF/D. Shut well in and killed with Calcium water Unseated packer and circulated 900 gallons of 15% HCl in tubing. Set packer and squeezed. Max. feed rate of 1/2 BPM at 1200 psi. Allowed acid (total of 630 gallons) to spend and backwashed unspent 6 bbls out of tubing. Set packer and pressure tested. Swabbing. On seventh swab recovered slightly gassy emulsified acid. Had to shut down overnight - too dark to swab. Well not cleaned up.					
15	SITHP after 10 hours was 100 psig. Swabbed well clean to within 100 ft. of bottom. After clean up initial blow of 20-30 MCF/D at 60 psig THP. After further 2 hours, THP died to 10 psig with same flow rate. No fluid recovery.					
16	Gas rate still 20 MCF/D with 0 THP after flowing all night. Filled tubing with water and pulled tubing. Ran junk basket with collar locator to 4730'. Pulled out and ran Johnston 'WASP' bridge plug. Set at 4650' KB. Dumped 2 sacks of cement on top of bridge plug with dump bailer. Pressure tested bridge plug to 2000 psig for 10 minutes. O.K. Perforated with 1 shot/ft. from 4474 - 4557.					
17	Ran gamma-ray collar locator and picked up pip tags. Ran 2 7/8" tubing with Johnston '101' packer 4 jts above. Landed tubing at 4564 with packer at 4437'. Acid washed with 5 1/2 bbls of 15% HCl - some feeding. Acid squeezed with 4 bbls of 15% HCl at a maximum feed rate of 1/3 BPM at 1200 psi THP.					

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YT G-8 **FIELD:**

CASING: **Elev. K.B.**

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc:	W/L	Cake 1/32	pH
March	Backwashed 10 bbls and set packer at 4437'. Pressure tested. Held. Pulled 4 swabs, with last swab from 3500' and well kicked in. Cleaning up but master valve on tubing leaking badly through grease nipple. Shut well in - installed new grease nipple. Left shut in overnight - too dark to swab.					
18	After 13 1/2 hours SITHP was 1100 psig, opened well up with heavy gas blow and water production. THP was 0. Installed 3/4" choke THP still 0. Gas died to 30 MCF/D with fairly clean water speckled with oil being recovered at a low rate. Shut in for 1/2 hour. SITHP was 180 psig. Thoroughly cleaned up well for 2 hours with THP = 0 and at the end of this period flowing clean at 80-100 MCF/D. Shut in and acid squeezed 675 gallons of 15% Hcl at a maximum rate of 1/2BPM at 1300 psig. Allowed acid to spend and pressure tested packer. Held O.K. Well commenced to clean up on fifth swab. After unloading water making gas at 100 MCF/D. After 2 hours cleanup making no fluid with FTHP of 0 and rate of 20 MCF /D. After a further 8 hours still flowing wide open with THP of 0, rate of 20 MCF/D and producing driblets of oil (1 gallon/hour). Flowing overnight.					
19	No change in flow conditions. After a total of 18 hours flowing, tagged fluid level at 3800'. Swabbed from T.D. and recovered 1/2 bbl of heavy water cut oil (98% water). Continued to flow a slow dribble of oil which became almost negligible as rate dropped to 20 MCF/D. Allowed to flow overnight.					
20	After a total of 32 hours producing tagged Fluid level at 3500. Swabbed from TD Produced approximately 1 bbl of clean oil (water cut = 3% S.G. of clean oil = 16° API at 60°F) . Well died quickly with gas rate of 20 MCF/D and no fluid production. After 39 hours production went into tag fluid level and pull swab. Unsuccessful in pulling swab - on coming out found swab mandrel (angle - type) missing. Installed new mandrel and re-ran sand line. Tagged fluid level at 4200'. Swabbed from T.D. Swabbed 1-1 1/2 bbls of clean non-gassified oil in 1/2 hour (% water = 0, API gr of clean oil = 12.0 at 60°F). Produced 3/4 bbl after swab and then died down to a dribble with a gas rate of 20 MCF/D. No change in conditions after 46 hours production.					

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

3-21-H

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YT C-8 FIELD:

CASING: Elev. K.B

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc:	W/L	Cake 1/32	pH
March 21	After 56 hours tagged Fluid Level at 4200'. No recovery, lost second mandrel. Re-ran with screw-on type BJ mandrel. Recovered approximately 1 bbl of oil Broke one strand on sandline coming out of hole. Rebabbited 3000 feet of sandline. Obvious at this stage that tubing was open-ended and as were swabbing from TD did not run in again with sandline. Left on production - very small dribble of oil with gas blow less than 20 MCF/D.					
22	No change in production. Killed well with 30 bbls of Calcium water down the tubing. Unseated packer and pulled tubing. Cross-bar missing from bottom collar. Ran junk basket with Schlumberger to 4550. On pulling out Schlumberger line came off its bottom sheave and ravelled up. Had to cut line and babbit onto rope socket. Ran and set bridge plug at 4468' KB. Dumped 3/4 sack of cement on top of bridge plug with dump bailer. Pressure tested plug to 2000 psig for 10 minutes. Held O.K.					
23	Perforated with 1 shot/ft. from 4393 - 4404 and 4422-4456. Gamma-ray indicated from pip-tags that had shot off depth though very improbable. However, re-shot with 1 shot/2 feet from 4420-4430. Shut well in overnight.					
24	Ran 2 7/8" tubing in with new bar collar and with Johnston '101' packer 1 joint above. Landed tubing at 4457' KB with packer at 4425. Waiting on acid.					
25	Acid washed with 6 bbls of 15% Hcl, moved 1/2 bbl across perforations every 10 minutes. Barely feeding. Backwashed 10 bbls, set packer at 4385' and pressure tested. Held O.K. Swabbed well in. After clean up blowing at a rate of 200 MCF/D with heavy oil spray. After 1/2 hour oil rate negligible with gas rate of 20 MCF/D. Shut in for 1 hour. SITHP was 120 psig. On opening up produced 10-15 bbls clean oil in 1/2 hour at a gas rate of 50 MCF/D with FTHP = 0 (Producing with choke wide open - 3/4"). Blew clean for further 5 hours. Producing at 5-10 bbls/hr. of clean oil with a gas rate of 20 MCF/D. Shut in for further 1 1/2 hours SITHP of 240 psig. Opened up for 1/2 hour. Produced approximately 30 bbls of oil with a light gas blow before dying down to zero fluid at the end of the 1/2 hour. Shut in overnight.					

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

3-21-H

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YTG-8 FIELD:

CASING: Elev. K.B

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc:	W/L	Cake 1/32	pH

MARCH

26 SITHP of 600 psig after 12 hours. Opened up and pressure bled off to 140 psig after 1/2 hour. After further 1/2 hour FTHP was 0. In first 1/2 hour made 30 bbls of clean oil in second made 5 bbls before dying. Killed well. Lowered tubing to 4450 with packer at 4415 spotted 16 bbls of acid with 10 bbls above packer in annulus and 6 in tubing. Set packer at 4415. Squeezed 2 bbls of acid down tubing in 2 hours at 1200 psi THP and 4 bbls down casing in 1 hr. and 40 minutes. Unseated packer and attempted squeeze down annulus with tubing closed. No feed at all. Backwashed unspent acid into tubing and set packer at 4382. Pressure tested. Held O.K. Swabbed well clean. Flowing oil on 3/4" choke but died after 1/2 hr. - produced 10 bbls. Shut infor 2 hours. SITHP of 120 psig. Opened up but again died after making 10 bbls in 1 hour, to a dribble of oil and a slight blow of gas. Shut in overnight to obtain build up.

27 SITHP after 12 hours was 150 psig
Well flowing on 1/4" choke:

Time	THP	Cum. Prod.	Remarks
10:00 A.M.	180		
10:30	140	10	SP.GR = 33.5 at 60°F Clean
1:30 P.M.	80	42.5	
2:30	40	46.5	
5:00	35	60.6	SP.GR = 32.9 at 60° Clean
6:00	35	62.5	
7:00	35	65.0	
8:00	35	67.5	
9:00	35	70.7	
10:00	30	73.2	
11:00	0	75.7	Well Died

Shut in overnight. Attempted to rig up through separator but could not get oil dump working automatically so by-passed separator Gas rate less than 20 MCF/D.

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

3-21-H

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YTG-8 FIELD:

CASING: Elev. K.B

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc:	W/L	Cake 1/32	pH

MARCH 28

SITHP at 8:00 A.M. = 130 psig

Time	THP	Cum. Prod.	Remarks
8:10	130	75.7	3/4" choke
8:30	70	87.5	
9:00	0	88.2	Well Dead

Time	Fluid Level	Cum. Prod.	Swab From	Remarks
9:30	1800	93.8	3200	
9:50	3800	96.3	TD	
10:15	4300	96.3	TD	Dry
11:05	2100	96.3	--	
12:05 P.M.	2500	97.5	--	
1:05	1800	100.0	--	Shut in for 1 Hour
2:10	1200	106.3	2300	SITHP = 50 psig
2:30		111.3		Well Heading
2:45	3700	115	TD	
3:15	3900	117.5	TD	
3:45	3900	120	TD	
4:45	3800	122.5	TD	
5:45	3700	127.5	TD	
6:00	Shut In	For Build Up		

Analysis of samples

10:00 A.M.	S.G. = 32.2° at 60°F	Oil Clean	
5:00	SG = 32.0° at 60°F	Oil Clean	
10:45	127.5		SITHP = 240 psig
11:00	Put on 10/64" choke		

29

Time	FTHP	Cum. Prod.
12:00	80	
1:00 A.M.	20	143
2:00	20	
3:00	0	149
4:00	80	
5:00	60	158.8
8:00	75	165
9:00	60	168.8
10:00	40	171.3

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

3-21-H

DAILY WELL HISTORY

WELL: SOCONY MOBIL WESTERN MINERALS CHANCE YTG-8 FIELD:

CASING: Elev. K.B

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc:	W/L	Cake 1/32	pH

MARCH

At this stage very clear that though an initial surge of up to 10 BPH would be achieved after shut in the well would quickly decline to a steady rate of 2-3 BPH

29

Continued flowing on 10/64" choke from 10 AM to 8 PM but no data recorded.

Time	BPH	THP
8:00 P.M.	3.1	120
9:00	3.1	130
10:00	2.5	150
11:00	3.1	130
12:00	3.1	140
30 1:00 A.M.	1.8	140
2:00	3.1	150
3:00	3.1	140
4:00	1.8	140
5:00	1.8	140
6:00	2.5	150
7:00	0.6	140
8:00	2.5	140
9:00	2.5	150
10:00	2.5	140
11:00	2.5	140
12:15 P.M.	3.1	140
1:00	1.8	140
2:00	1.8	140
3:00	1.8	140
4:00	2.5	140
5:00	3.1	140
6:00	2.5	140
7:00	3.7	140
8:00	3.7	140
9:00	1.2	160
10:00	3.7	150
11:00	2.5	160

MOBIL OIL OF CANADA, LTD.
Petroleum Engineering Department

3-21-H

DAILY WELL HISTORY

WELL: Socony Mobil Western Minerals Chance YT G-8 **FIELD:**

CASING: **Elev. K.B**

Date	PROGRESS AND REMARKS	MUD				
		Wt.	Visc:	W/L	Cake 1/32	pH
March 31						

Time	BPH	THP
12:00	2.5	140
1:00 a.m.	1.8	140
2:00	1.8	160
3:00	1.2	160
4:00	1.2	160
5:00	1.8	160
6:00	1.2	150
7:00	1.8	160
8:00	3.1	175
9:00	1.8	165
10:00	3.1	165
11:00	2.5	160
12:00	2.5	160
1:00 p.m.	1.8	155
2:00	1.2	155
3:00	2.5	150

During the above flow period, the gas flow was less than 20 MCF/D indicating a GOR less than 300 SCF/bbl.

Gravities were taken frequently - the oil was clean and the average gravity was 33° API at 60°F.

3:30 p.m. Killed tubing with fresh water. Unseated packer and reverse circulated hydrocarbons from tubing.

Removed BOPs and installed wellhead. Displaced hole to oil inhibited with IC-IOC.

Landed tubing, in bonnet with wrap-around dognut in place, at approximately 4380' KB. Set packer at 4345. Pressure tested. Held o.k. Swabbed well in and blew well clean. Rig released after well blown down. (March 31, 1965)

CORE LABORATORIES-CANADA LTD.
CALGARY ALBERTA

Company - SOCONY MOBIL OIL OF CANADA, LTD.
Well - S.M.W.M. CHANCE YT G-8
Field - WILDCAT, YUKON TERRITORY
Date - FEBRUARY 24, 1965

Page - 1 of 1
File - CBH-2-WA-2978
Analysts - GS
Remarks - ACID SOLUBILITIES

SAMPLE NUMBER	DEPTH REPRESENTED FEET	FOOTAGE REPRESENTED	PERMEABILITY MILLIDARCYS	POROSITY PER CENT	WEIGHT % ACID SOLUBLE
10 & 11	4397.0-4399.3	2.3	27	13.2	11.46
12 & 13	4399.3-4401.5	2.2	2.0	11.1	16.10
14 & 15	4401.5-4403.9	2.4	0.2	7.8	18.95
16 & 17	4403.9-4405.7	1.8	0.10	2.5	24.22
18 & 19	4551.5-4553.4	1.9	0.2	2.0	25.72
20	4553.4-4554.3	0.9	91	9.9	15.40
21	4554.3-4555.2	0.9	17	8.4	16,81
22	4555.2-4556.1	0.9	1.5	5.6	19.04

CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-1 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. _____ Grd. _____

Zone and Formation: Cretaceous Cody Creek Sample Interval: _____

Method of Production: _____ Well Production or Recovery at Sampling Time: _____

Sampled from: Blooie line sample 850' Sampled by: _____ Date: December 15, 1964

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na & K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
738	86	16		28	55		2,170		

Milligram Equivalents

32.11	4.29	1.32		0.58	1.55		35.59		

Iron _____ Hydrogen Sulfide _____

Total Solids in Milligrams Per Liter:

By evaporation 2,780

After ignition 1,752

Calculated 1,991

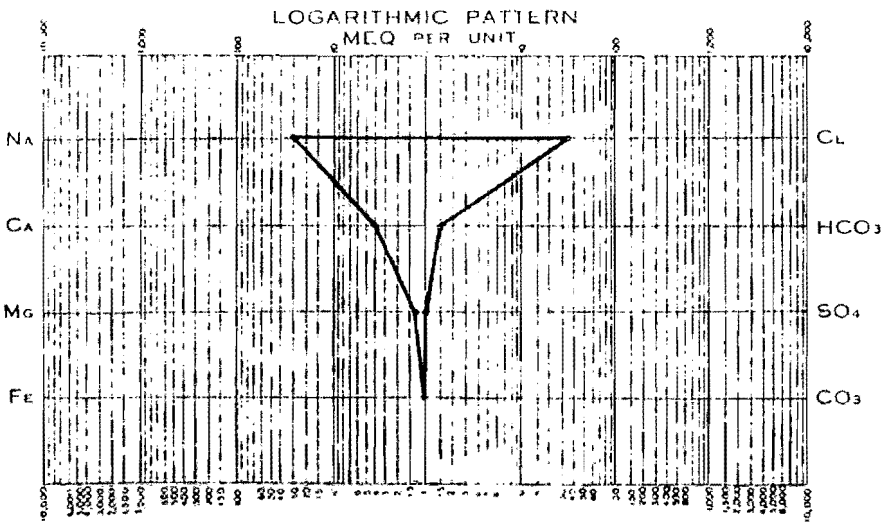
Physical Properties:

Resistivity 3.59 ohm meters @ 68°F.

Observed pH 8.1

Specific Gravity 1.001

Remarks and Conclusions. **Organic matter present in total solids.**



CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-2 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. _____ Grd. _____

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 4708' - 4797'

Method of Production: D.S.T. #14 Well Production or Recovery at Sampling Time: _____

Sampled from: 2000' above tool. Sampled by: _____ Date: February 2, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na + K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
7,784	80	17		206	6,062	576	9,120		

Milligram Equivalents

338.59	3.99	1.40		4.28	170.95	19.18	149.57		

Iron _____ Hydrogen Sulfide _____

Total Solids in Milligrams Per Liter:

By evaporation 22,110

After ignition 18,550

Calculated 19,213

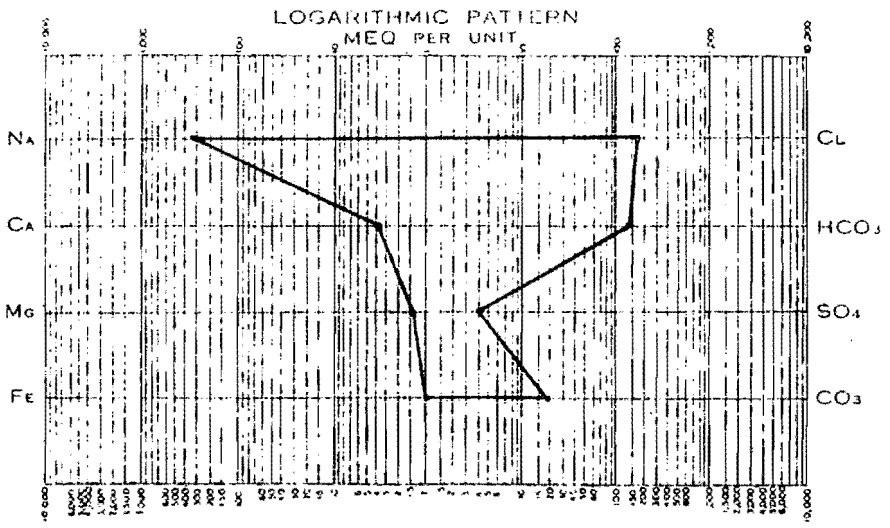
Physical Properties:

Resistivity 0.378 ohm meters @ 68°F.

Observed pH 8.4

Specific Gravity 1.014

Remarks and Conclusions: **Organic matter present in total solids. The sample appears to be filtrate contaminated.**



CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-3 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. _____ Grd. _____

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 4700' - 4797'

Method of Production: D.S.T. #14 Well Production or Recovery at Sampling Time: _____

Sampled from: 90' above tool Sampled by: _____ Date: February 2, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na & K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
7,749	90	18		91	6,212	527	9,050		

Milligram Equivalents

337.06	4.49	1.49		1.89	175.18	17.55	148.42		

Iron _____ Hydrogen Sulfide Present

Total Solids in Milligrams Per Liter:

By evaporation 22,160

After ignition 18,990

Calculated 19,140

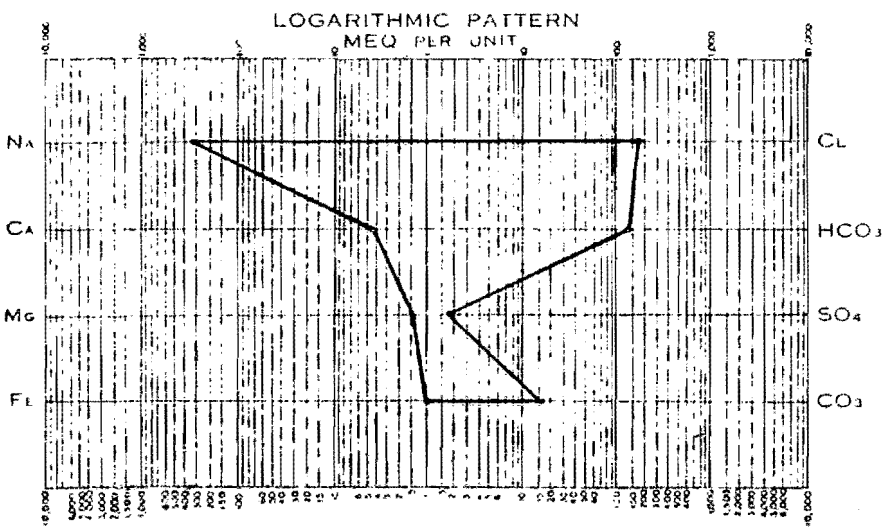
Physical Properties:

Resistivity 0.375 ohm meters @ 68° F

Observed pH 8.4

Specific Gravity 1.014

Remarks and Conclusions: **The sample appears to be filtrate contaminated.**



CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-4 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. _____ Grd. _____

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 4906' - 5022'

Method of Production: D.S.T. #16 Well Production or Recovery at Sampling Time: 630' filtrate cut mud.

Sampled from: just above tool. Sampled by: _____ Date: February 11, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na & K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
5,447	100	12		770	3,056	591	7,380		

Milligram Equivalents

236.93	4.99	0.99		16.02	86.18	19.68	121.03		

Iron _____ Hydrogen Sulfide _____

Total Solids in Milligrams Per Liter:

By evaporation 17,270

After ignition 12,560

Calculated 13,607

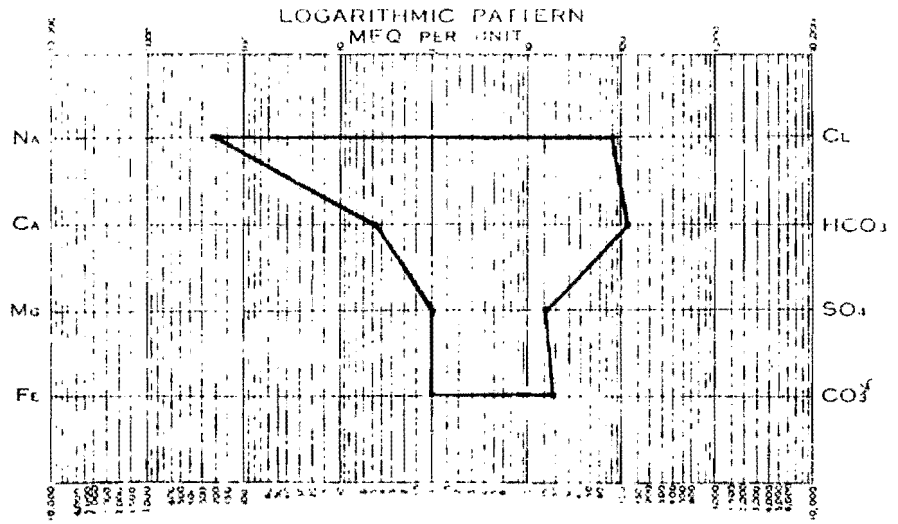
Physical Properties:

Resistivity 0.523 ohm meters @ 68° F.

Observed pH 8.6

Specific Gravity 1.010

Remarks and Conclusions: **Organic matter present in total solids. The sample appears to be filtrate contaminated.**



CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-5 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. _____ Grd. _____

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 5022' - 5047'

Method of Production: D.S.T. #17 Well Production or Recovery at Sampling Time: 1500'

filt. c.xw..

Sampled from: 270' above tool Sampled by: _____ Date: February 12, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na & K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
7,162	124	17		247	5,110	266	9,820		

Milligram Equivalents

311.56	6.19	1.40		5.14	144.10	8.86	161.05		

Iron _____ Hydrogen Sulfide _____

Total Solids in Milligrams Per Liter:

By evaporation 20,010

After ignition 16,270

Calculated 17,758

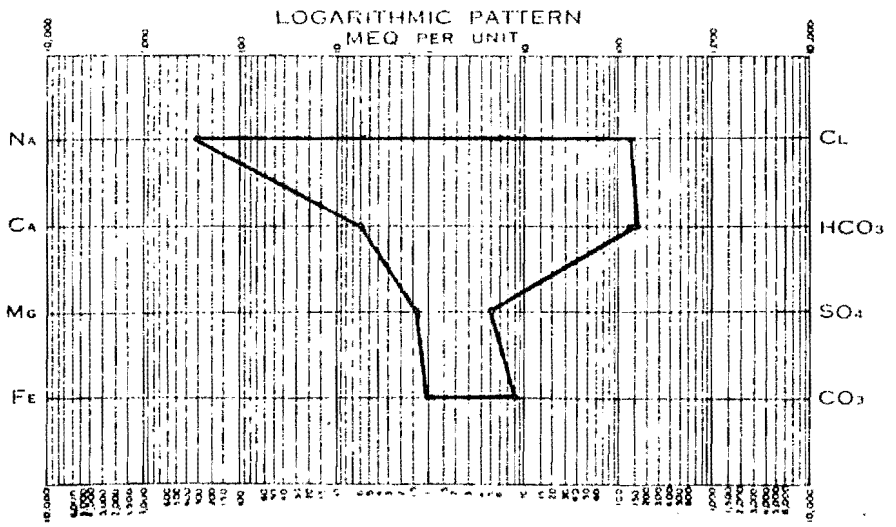
Physical Properties:

Resistivity 0.408 ohm meters @ 68°F.

Observed pH 8.3

Specific Gravity 1.014

Remarks and Conclusions: Organic matter present in total solids. The sample appears to be filtrate contaminated.



CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. F2189-6 Received: March 1, 1965 Reported: March 5, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. _____ Grd. _____

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 5022' - 5047'

Method of Production: D.S.T. #17 Well Production or Recovery at Sampling Time: 1500' filt. C.&W..

Sampled from: 900' above tool Sampled by: _____ Date: February 12, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter (Parts Per Million)

Na & K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
6,646	104	9		385	4,409	251	9,410		

Milligram Equivalents

289.09	5.19	0.74		8.01	124.33	8.36	154.32		

Iron _____ Hydrogen Sulfide _____

Total Solids in Milligrams Per Liter:

By evaporation 18,170

After ignition 14,850

Calculated 16,434

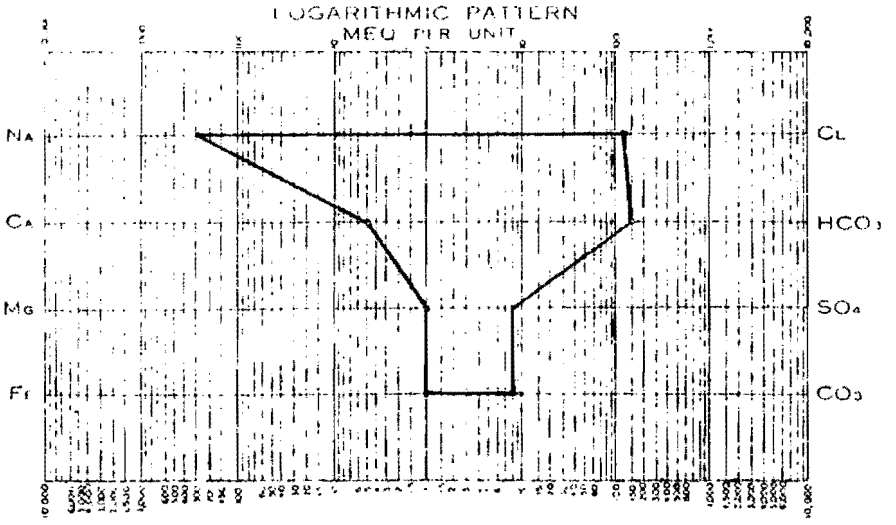
Physical Properties:

Resistivity 0.452 ohm meters @ 68°F

Observed pH 8.3

Specific Gravity 1.012

Remarks and Conclusions. **Organic matter present in total solids. The sample appears to be filtrate contaminated.**



CGL-4

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

GAS ANALYSIS REPORT: Lab. No. E24754 Received: Jan. 18, 1965 Reported: Feb. 12, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil Of Canada Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1" N. 137° 30' 50.8" W. Elev.: K.B. Grd.

Zone and Formation: Cretaceous Blackie Member Sample Interval: 2210' - 2260'

Well production at sampling time: Oil bpd; Gas MCFD; Water bpd.

Sampled from: Sampled by: Date: Dec. 21, 1964

Pressure: (a) at point of sampling psig (b) Gas Bomb pressure psig

Temperature: (a) at point of sampling °F (b) Separator °F

Pressures: Reservoir Tubing Casing Separator

OTHER PERTINENT DATA D.S.T. #1.

(Signed)

HYDROGEN SULFIDE (by Tutwiler Method)

Grains of hydrogen sulfide per 100 cu. ft. of gas at 60°F. and 14.65 p.s.i.a. Nil

GROSS B.T.U. (Calculated) 60°F. and 14.65 p.s.i.a. 983

SPECIFIC GRAVITY (Calculated) 0.591

Specific Gravity by Weight 0.590

VAPOR PRESSURE (Calculated) of actual pentanes 10.24

Remarks and conclusions

Sample container arrived with 202 psig. with no apparent liquids; however the distribution of the lower boiling hydrocarbons would indicate the presence of condensate or light crude.

COMPOSITION	% by Volume	G.P.M. in Imp. Gal. @ 60°F. & 14.65 PSIA
Helium		
Oxygen	0	
Nitrogen	4.39	
Carbon dioxide	0.31	
Hydrogen sulfide	0	
Methane	94.53	
Ethane	0.12	
Propane	0.01	0.002
Isobutane	0.03	0.008
N-butane	0.05	0.013
Isopentane	0.12	0.036
N-pentane	0.16	0.048
Hexanes	0.15	0.051
Heptanes +	0.13	0.055
TOTAL	100.00	0.213

G.P.M.

Actual pentanes	0.190
Calculated at 12 lbs.	0.197
Calculated at 15 lbs.	0.209
Calculated at 22 lbs.	0.246
Calculated at 26 lbs.	0.273

CGL-4

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

GAS ANALYSIS REPORT: Lab. No. E25052 Received: Feb. 26,1965 Reported: March 22,1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil Of Canada Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N 137° 30' 50.8"W Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 4650' - 4706'

Well production at sampling time: Oil bpd; Gas MCFD; Water bpd.

Sampled from: Sampled by: Date: Feb. 1, 1965

Pressure: (a) at point of sampling 55 psig (b) Gas Bomb pressure psig

Temperature: (a) at point of sampling 32 F (b) Separator F

Pressures: Reservoir Tubing Casing Separator

OTHER PERTINENT DATA D.S.T. #13.

(Signed)

HYDROGEN SULFIDE (by Tutwiler Method)

Grains of hydrogen sulfide per 100 cu. ft. of gas at 60° F. and 14.65 p.s.i.a. Nil

GROSS B.T.U. (Calculated)

60°F. and 14.65 p.s.i.a 1094.

SPECIFIC GRAVITY (Calculated) 0.681

Specific Gravity by Weight 0.686

VAPOR PRESSURE (Calculated) of actual pentanes 15.00

Calculated Pc 686.8

Tc 381.0

Remarks and conclusions:

The sample was received at a pressure of 58 psig. with no apparent liquids.

COMPOSITION	% by Volume	G.P.M. in Imp. Gal. @ 60°F. & 14.65 PSIA
Helium		
Oxygen	0	
Nitrogen	0.59	
Carbon dioxide	3.99	
Hydrogen sulfide	0	
Methane	83.97	
Ethane	7.12	
Propane	2.93	0.670
Isobutane	0.30	0.081
N-butane	0.70	0.183
Isopentane	0.16	0.049
N-pentane	0.15	0.045
Hexanes	0.08	0.027
Heptanes +	0.01	0.004
TOTAL	100.00	1.059

G.P.M.

Actual pentanes	0.125
Calculated at 12 lbs	---
Calculated at 15 lbs	---
Calculated at 22 lbs	0.144
Calculated at 26 lbs	0.158

CGL-4

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

GAS ANALYSIS REPORT: Lab. No. E25053 Received: Feb. 26, 1965 Reported: March 9, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil of Canada, Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1" N 137° 30' 50.8" W Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 4708' - 4797'

Well production at sampling time: Oil bpd; Gas MCFD; Water bpd.

Sampled from: Sampled by: Date: Feb. 2, 1965

Pressure: (a) at point of sampling 6 psig (b) Gas Bomb pressure psig

Temperature: (a) at point of sampling 32 °F (b) Separator °F

Pressures: Reservoir Tubing Casing Separator

OTHER PERTINENT DATA Method of Production: D.S.T. #14.

(Signed)

HYDROGEN SULFIDE (by Tutwiler Method)

Grains of hydrogen sulfide per 100 cu. ft. of gas at 60°F. and 14.65 p.s.i.a. Nil

GROSS B.T.U. (Calculated)

60°F. and 14.65 p.s.i.a. 1156

SPECIFIC GRAVITY (Calculated) 0.734

Specific Gravity by Weight 0.739

VAPOR PRESSURE (Calculated) of actual pentanes 15.59

Remarks and conclusions

Calculated Pc 680.6

Tc 398.5

The sample was received at a pressure of 5 psig. with no apparent liquids. All figures have been corrected for 1.13% air contamination.

COMPOSITION	% by Volume	G.P.M. in Imp. Gal. @ 60°F. & 14.65 PSIA
Helium		
Oxygen	0	
Nitrogen	0.73	
Carbon dioxide	4.90	
Hydrogen sulfide	0	
Methane	77.44	
Ethane	9.68	
Propane	4.94	1.129
Isobutane	0.50	0.136
N-butane	1.15	0.301
Isopentane	0.28	0.085
N-pentane	0.26	0.078
Hexanes	0.11	0.037
Heptanes +	0.01	0.004
TOTAL	100.00	1.770

G.P.M.

Actual pentanes	0.204
Calculated at 12 lbs.	---
Calculated at 15 lbs.	---
Calculated at 22 lbs.	0.232
Calculated at 26 lbs.	0.255

CGL-4

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

GAS ANALYSIS REPORT: Lab. No. E25054 Received: Feb. 26,1965 Reported: March 9, 1965

Well: S.M.W.M. Chance YT G-8 Operator: Socony Mobil Oil Of Canada Limited

Field or Area: Eagle Plain Area, Yukon Territory Location: 66° 07' 18.1"N. 137° 30' 50.8"W. Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 5022' - 5047'

Well production at sampling time: Oil bpd; Gas MCFD; Water bpd.

Sampled from: Sampled by: Date: Feb. 12, 1965

Pressure: (a) at point of sampling 7 psig (b) Gas Bomb pressure psig

Temperature: (a) at point of sampling 20 °F (b) Separator °F

Pressures: Reservoir Tubing Casing Separator

OTHER PERTINENT DATA D.S.T. #17.

(Signed)

HYDROGEN SULFIDE (by Tutwiler Method)

Grains of hydrogen sulfide per 100 cu. ft. of gas at 60°F. and 14.65 p.s.i.a. Nil

GROSS B.T.U. (Calculated) 60°F. and 14.65 p.s.i.a. 1142

SPECIFIC GRAVITY (Calculated) 0.653

Specific Gravity by Weight 0.652

VAPOR PRESSURE (Calculated) of actual pentanes + 10.96

Calculated Pc 670.5

Tc 375.0

Remarks and conclusions:

The sample was received at a pressure of 7 psig. and 70°F. with no apparent liquids.

COMPOSITION	% by Volume	G.P.M. in Imp. Gal. @ 60°F. & 14.65 PSIA
Helium		
Oxygen	0	
Nitrogen	0.93	
Carbon dioxide	0.20	
Hydrogen sulfide	0	
Methane	86.89	
Ethane	7.42	
Propane	2.94	0.672
Isobutane	0.28	0.076
N-butane	0.67	0.175
Isopentane	0.19	0.058
N-pentane	0.17	0.051
Hexanes	0.15	0.051
Heptanes +	0.16	0.068
TOTAL	100.00	1.151

G.P.M.

Actual pentanes +	0.228
Calculated at 12 lbs.	0.232
Calculated at 15 lbs.	0.247
Calculated at 22 lbs.	0.289
Calculated at 26 lbs	0.321

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON — CALGARY — FORT ST. JOHN

Date Reported: February 6, 1965 Laboratory Report Number: E24848

SOCONY MOBIL OIL OF CANADA LIMITED

Well: S.M.W.M. Chance Y.T. G-8 Kind Of Sample: Crude Oil

Formation: Chance Sand

Date Received: February 1, 1965 Date Sampled: See below

Samples obtained by D. M. Bain.

LABORATORY NUMBER

E24848-1: D.S.T. #6. Interval: 4375' - 4397'
Recovered 1180' oil. Sampled January 15, 1965.
D.S.T. #9. Interval: 4397' - 4417'
Recovered 140' of fluid. Sampled January 18, 1965.

The samples from the two tests were mixed and the analysis were made on the composite sample.

Gravity at 60/60°F.: Specific: 0.867
A.P.I.: 31.7°

Total Sulfur (% by weight): 1.29

Pour Point: +15°F.

VISCOSITIES

Temperature °F.	Absolute Centipoises	Kinematic Centistokes	Saybolt Universal Seconds
30	28.34	32.28	151.
50	13.46	15.46	78.9
70	8.51	9.85	58.3
100	4.89	5.70	44.6

E24848-2: D.S.T. #10. Interval: 4413' - 4525'. Sampled January 20, 1965.

Gravity at 60/60°F.: Specific: 0.868
A.P.I.: 31.5°

Total Sulfur (% by weight): 1.22

Pour Point: +20°F.

VISCOSITIES

Temperature °F.	Absolute Centipoises	Kinematic Centistokes	Saybolt Universal Seconds
50	14.50	16.64	83.6
70	8.83	10.22	59.6
100	5.03	5.90	45.3

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON · CALGARY · FORT ST JOHN

(Continued) "Page 2"

Socony Mobil Oil Of Canada Limited Laboratory Number: E24848

The analysis was made on oil cleaned by centrifuging, thus excluding water and inorganic sediment.

The oil contained some high molecular weight substance (possibly wax) which had the tendency to segregate at the lower temperatures (approximately 30°F.). However the substance would dissolve in the oil at the higher temperatures.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON CALGARY — FORT ST JOHN

Date Reported: March 6, 1965 Laboratory Report Number: E25035

SOCONY MOBIL OIL OF CANADA LIMITED

Well: S.M.W.M. Chance YT G-8 Kind of Sample: Crude Oil

Field: (Wildcat), Yukon Territory Formation: Chance

Depths: 4547' - 4570'

Date Received: February 26, 1965 Date Sampled: Not Known

D.S.T. #12 (Straddle) Recovered 270 feet gas cut mud, 90 feet mud cut oil.

CRUDE OIL ANALYSIS

Specific Gravity: 0.909 at 60/60°F.
A.P.I. Gravity: 24.2° at 60/60°F.

Total Sulfur: 1.80% (by weight)

Pour Point: Below -30°F.

Viscosities:	Temp. °F.	Absolute Centipoises	Kinematic Centistokes	Saybolt Universal Seconds
	60	51.8	57.0	263.8
	70	39.1	43.2	200.3
	80	30.1	33.4	156.3
	100	19.2	21.4	103.8

There was insufficient sample for further analysis.

Remarks:

By U.O.P. Method 375, this crude has a characterization factor of 11.6.

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON — CALGARY — FORT ST. JOHN

Date Reported: April 20, 1965 Laboratory Report Number: E25341-1

SOCONY MOBIL OIL OF CANADA, LTD.

Well: Socony Mobil Western Minerals Chance YT G-8 Kind of Sample: Oil

Date Received: April 8, 1965 Date Sampled: Not Known

First Zone

CRUDE OIL ANALYSIS

Specific Gravity: 0.918 at 60/60°F.
A.P.I. Gravity: 22.6° at 60/60°F.

Total Sulfur: 1.87% (by weight)

Pour Point: below -25°F.

Conradson Carbon: 5.33% (by weight)

Viscosities

Temp. °F.	Absolute Centipoises	Kinematic Centistokes	Saybolt Universal Seconds
60	59.2	64.5	299.
70	44.6	48.8	226.
90	26.4	29.1	137.

Remarks:

On the basis of the A.P.I. Gravity and the gasoline content (410 - 425°F., E.P.), this crude is of a Naphthene base type.

HEMPEL DISTILLATION

Barometric Pressure: 714.2 mm. Mercury
Room Temperature: 76°F.

% Distilled	Temp. °F.
I.B.P.	94
5	280
10	354
15	391
20	422
25	450
30	480
35	517
40	553
Cracked at	562

Distillation Summary

400°F. Naphtha	16.5%
525°F. Kerosine	19.6%

There were 4 samples received from the first zone. Each of the samples was emulsified with approximately 5% water. The water was removed before analysis of the oil was made.

Gravities were determined on the 4 samples and the "complete" analysis was made on all the samples combined. The gravities of the samples are:

Specific Gravity	A.P.I. Gravity
0.915	23.1
0.916	23.0
0.916	23.0
0.920	22.3

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

EDMONTON - CALGARY - FORT ST. JOHN

Date Reported: April 20, 1965 Laboratory Report Number: E25341-2

SOCONY MOBIL OIL OF CANADA, LTD.

Well: Socony Mobil Western Minerals Chance YT G-8 Kind of Sample: Oil

Date Received: April 8, 1965 Date Sampled: Not Known

Second Zone

CRUDE OIL ANALYSIS

Specific Gravity: 0.860 at 60/60°F.
A.P.I. Gravity: 33.0° at 60/60°F.

Total Sulfur: 1.17% (by weight)

Pour Point: +15°F.

Conradson Carbon: 2.72% (by weight)

Viscosities

Temp. °F.	Absolute Centipoises	Kinematic Centistokes	Saybolt Universal Seconds
30	18.5	21.3	103.
50	11.0	12.7	68.5
70	7.18	8.39	53.3

Remarks:

On the basis of the A.P.I. Gravity and the gasoline content (410 - 425°F., E.P.), this crude is of a mixed base type, but is predominantly naphthenic.

HEMPEL DISTILLATION

Barometric Pressure: 700.6 mm. Mercury
Room Temperature: 77°F.

% Distilled	Temp. °F.
I.B.P.	83
5	168
10	220
15	258
20	297
25	340
30	391
35	441
40	489
45	530
50	570
55	603
Cracked at	605

Distillation Summary

400°F. Naphtha	30.5%
525°F. Kerosine	13.9%