

WELL HISTORY REPORT

for

SOCIETY MOBIL WESTERN MINERALS

WEST PARKIN WT D-51

Latitude $66^{\circ} 10' 8.5''$ N

Longitude $137^{\circ} 26' 4.5''$ W

Society Mobil Oil of Canada, Ltd.
Dawson Creek District



G. A. Atkinson
DISTRICT GEOLOGIST

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- D.S.T. Technical Reports (1-5)

WELL MISERGENCY REPORT

SECTION I - Summary of Well Data

- (a) Well Name and Number: Socony Mobil Western Minerals
West Parkin YE D-51
- (b) Permittee: Western Minerals Ltd.
- (c) Operator: Socony Mobil Oil of Canada, Ltd.
- (d) Location: Unit D Section 51
Grid N 66° 20'; W 137° 15'
Latitude 66° 10' 0.5" N
Longitude 137° 26' 4.5" W
- (e) Permit: 3354
- (f) Drilling Contractor: Parker Drilling Company of Canada, Ltd.
Rig 10 (Rotary)
- (g) Drilling Authority: 151; February 5, 1965
- (h) Classification: New Field Wildcat
- (i) Elevation: Ground 1944 (at shot point 3642)
K.B. 1560.40
- (j) Spudded: February 24, 1965
- (k) Completed Drilling: March 28, 1965
- (l) Total Depth: Driller 4950
Schlumberger 4947.5

- (n) Well Status: Dry and Abandoned
- (o) Rig Released: April 3, 1965
- (p) Hole Size: 12 1/4" to 700
8 5/8" to 4950 (T.D.)
- (q) Casing: 9 5/8" - 36" J-55 Now to 620' K.B.

SECTION II - Geological Summary

(a) Formation Tops	Sample Tops		E-log Tops	
	Depth	Elevation	Depth	Elevation
Cretaceous:				
Gedy Creek fm.	Surface	+1544		
Blackie Sand mbr.	2234	- 674	2220	- 660
Non Formation	2553	- 993	2949	- 939
Potter-Pennsylvanian:				
Alder Formation	3730	-2170	3725	-2165
Glance Sand	3885	-2325	3884	-2324

(b) Cored Intervals

Core Number	From	To	Thc.	Formation
1	4120	4129.5	9.5	Alder

(c) Core Description

Diamond Core #1

Permian-Pennsylvanian Alder

4120 - 4129.5' Recovered 9.5'

Coring times:

31, 25, 19, 18, 19, 20, 20, 9 minutes per foot.

4120 - 4129.5'

9.5'

Siltstone, very dark brown, 30% clay, 20% shaly, very slightly pyritic, calcite crystals, no apparent porosity, no fractures, oil saturated, poor hydrocarbon cut but with strong petroliferous odour. The bedding is horizontal. Fossiliferous throughout with shell bands scattered throughout. Polycopeds, crinoids, spicules and possible brachiopods, found in the bedding planes retaining original mother of pearl lustre. Good pecten family polycopeds occur at 4122.9'.

(d) Sample Description

- 0 - 2255' Shale, grey to black, micromicaceous, silty in part, interbedded with siltstone, grey to brown and sandstone, very fine to fine grained, subangular to subrounded, salt and pepper, abundant coal in part.
- 2255 - 2290' Sandstone, light to medium grey, salt and pepper, very fine to fine grained, porosity 10 - 12%.
- 2290 - 2553' Sandstone, fine grained to very fine grained, salt and pepper, grading to siltstone in part, porosity tight to 6%.
- 2553 - 2910' Shale, black, with minor siltstone and sandstone.
- 2910 - 2950' Siltstone, medium grey, sandy.
- 2950 - 3010' Sandstone, medium grey, very fine to fine grained, tight.
- 3010 - 3550' Shale, medium to dark grey, silty.
- 3550 - 3660' Siltstone, medium grey, glauconitic, minor chert pebbles.
- 3660 - 3700' Siltstone, medium grey, glauconitic.
- 3700 - 3710' Shale, brown, micromicaceous, glauconitic.

- 3718 - 3730' Limestone and sandstone conglomerate, with chert pebbles, average porosity 5%, mainly bitumen infill, petroliferous odour, good scattered oil stain.
- 3730 - 3760' Limestone, light grey to buff brown, dense, rare crinoids.
- 3760 - 3800' Limestone, light grey to buff brown, dense, poor oil stain, tight.
- 3800 - 3885' Limestone, as above, sandy in part.
- 3885 - 3940' Sandstone, light grey, quartz and chert grains, very fine to medium grained, calcite cemented, tight.
- 3940 - 3970' Limestone, light to dark grey, very silty.
- 3970 - 4000' Siltstone, very limy with interbedded limestone bands.
- 4000 - 4020' Shale, medium to dark brown, limy.
- 4020 - 4103' Shale as above, grading into very limy siltstone.
- 4103 - 4147' Siltstone, very limy, tight.
- 4147 - 4187' Limestone, tan to brown, silty, calcite in fractures, crinoids, slightly bituminous, poor hydrocarbon cont.

- 4137 - 4200' Limestone, tan to brown, silty, calcite in fractures, crinoidal in part, slightly bituminous, poor hydrocarbon cut.
- 4200 - 4290' Limestone as above, becoming very cherty and slightly sandy, scattered bitumen blebs.
- 4290 - 4340' Limestone as above.
- 4340 - 4350' Limestone as above, grading to crinoidal and cherty.
- 4350 - 4370' Sandstone, light grey, quartz and chert grains and chert pebbles, trace porosity.
- 4370 - 4390' Dolomite, light tan, with chert pebbles.
- 4390 - 4420' Sandstone, very fine to coarse grained, 5% porosity with oil stain.
- 4420 - 4425' Sandstone as above, tight.
- 4425 - 4456' Dolomite, dense, cherty.
- 4456 - 4513' Limestone, light grey to tan, trace sandy at top, very cherty and slightly argillaceous at base.
- 4513 - 4634' Limestone very cherty and slightly argillaceous.
- 4634 - 4720' Limestone, light tan grey to dark brownish grey, silty throughout with interbedded chert, slightly sandy in part.

4720 - 4730'

Sandstone, light grey, salt and pepper, rounded to subrounded, poor sorting, clear quartz, coloured chert, bituminous and limy cement. 50% sample porous, estimated maximum porosity 12%.

4730 - 4740'

Dolomite, light buff brown, with white quartz silt, and interbedded chert.

4740 - 4950'

Limestone, light buff brown to dark grey, with white quartz silt, much interbedded chert and brown argillaceous material, poor hydrocarbon cut throughout with petroliferous odour.

SECTION III - Engineering Summary

(a) Report of Drill Stem Tests (See Attachments)

No.	Date	From	To	Formation	
1	3-21-65	4305	4455	Alder	
2	3-30-65	4342	4376	Alder	
3	3-31-65	3960	3730	Cretaceous - Alder	MR
4	3-31-65	3640	3726	Cretaceous	MR
5	4-1-65	2250	2356	Blackie Sand (Cretaceous)	

(b) Casing Record

Casing Size (inches)	Weight	Amount	Set At	Cement	Method
9 5/8"	36'	22 Jnts.	680' K.B.	275 sacks # 31 CaCl ₂	Displacement <i>60 sacks Insulated from +3% CaCl₂ the top, outside casing.</i>

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SOCONY MOBIL OIL OF CANADA, LTD.

BIT RECORD

 Well SOCONY MOBIL WESTERN MINERALS
WEST PARKIN YT D-51

 Date Spudded FEB 24, 1965

 Area EAGLE PLAINS, YUKON

 Date Completed APRIL 3, 1965

DATE	BIT No.	BIT SIZE	TYPE	SERIAL No.	JET SIZE	DEPTH		FOOT AGE	TIME HRS.	ACCUMLATED DRILLING TIME	ACCUMLATED REAMING TIME	CONDITION	REMARKS wt. rpm PSI
						FROM	TO						
1521-42	1	8 5/8	OWV	64368 ^{RR}	CON.	712	725	13	1/2	1/2		1-2-1	20-95-500
✓	3	2	DT	85155	✓	725	1395	670	19	19 1/2		1-2-0	✓ ✓ ✓
✓	4	3	OSC	42088	✓	1395	2098	703	22 3/4	42 1/4		2-3-1	25-60-575
✓	5	4	OWV	43967	✓	2098	2413	315	13 3/4	56		3-4-0	40-70-750
✓	6	5	W7	71346	✓	2413	2650	237	13 1/2	69 1/2		2-4-0	✓ ✓ ✓
✓	7	6	OSC	42091	✓	2650	3007	357	13 1/2	83		1-3-1	45-65-700
✓	8	7	✓	42090	✓	3007	3372	365	22 1/4	105 1/2		1-4-1	✓ ✓ 800
✓	9	8	✓	42093	✓	3372	3611	239	19	124 1/4		?	40 ✓ ✓
✓	10	9	✓	42085	✓	3611	3731	120	9	133 1/4		4-2-0	45 ✓ 900
✓	11	10	MHWG	E74480	✓	3731	3763	32	11 1/2	144 3/4		3-3-1	✓ ✓ 1000
✓	12	11	RG7XJ	57089	3-29/64	3763	4001	238	60 1/2	205 1/4		1-1-1	50 42-600
✓	15	12	W7R	36847	CON	4001	4120	119	24 3/4	230		?	✓ 65 ✓
✓	15	11	6 1/8 CHRIST.	EC1505	-	4120	4129	9	3 1/4			?	9 62 650
✓	16	13	8 5/8 W7R	36051	CON	4129	4170	41	11 1/4	241 1/4	9	2-3-1	52 65-1000
✓	17	14	✓ RG7XJ	69471	3-29/64	4170	4314	144	35 1/2	276 3/4		4-2-0	✓ 45 700
✓	19	15	✓ 57089 ^{RR}		3-29/64	4314	4352	34	9	285 3/4		2-2-1	✓ ✓ ✓
✓	20	16	✓ YCG	E93155	3-29/64	4352	4426	74	17 1/4	303		4-3-0	52 38 800
✓	20	17	✓ RG1J	74594	3-29/64	4426	4455	29	8 1/2	311 1/2		1-1-1	✓ ✓ ✓
✓	21	18	✓ H8J	752095	3-29/64	4455	4539	84	19 1/4	330 3/4		4-3-1	50 44 700
✓	23	19	✓ RG1J	66429	3-22/64	4539	4622	83	27 1/4	358		?	✓ ✓ ✓
✓	24	20	✓ ✓	38384	3-22/64	4622	4700	78	25	383		3-4-1	✓ ✓ ✓
✓	26	21	✓ RG7XJ	17727	3-20/64	4700	4822	122	29 1/2	402 1/2		4-2-1	54 30 900
✓	27	22	✓ H8-J	752751	3-22/64	4822	4883	61	15	417 1/2		4-2-1	50 38 600
✓	28	23	✓ YCG	E35279	3 1/16	4883	4950	67	16	433 1/2		?	54 40 ✓

(d) Mud Report

Margocel	398 bags
Soltex	173 bags
Peltex	149 bags
Caustic	17 bags
C-Bronin	3 bags
Soda Ash	7 bags
Ethyl Mercaptan	22 gals
Acrysol A-3	8 1/2 gals
Tanner	5 bags

(e) Deviation Record

Depth	Degrees	Depth	Degrees
0 - 295	3 surveys, no recording	2250	2°
296	1/4°	2413	2°
354	1/2°	2690	2 1/2°
410	1/2°	2930	2 1/4°
463	1/2°	3150	2 1/2°
530	1/2°	3372	2 3/4°
700	1/2°	3555	3°
1000	1/2°	3611	3 1/8°
1300	3/4°	3763	N/R
1310	1°	4001	2 3/4°
1920	1 3/8°	4120	2 3/4°
2075	1 3/4°	4539	1 1/4°
		4822	7/8°

(f) Abandonment Plugs

Plug #1 4310 - 4460 120 sack plus 3% CaCl_2

Plug #2 3640 - 3760 57 sack plus 3% CaCl_2

Plug #3 2170 - 2290 57 sack plus 3% CaCl_2

Plug #4 606 - 730 57 sack plus 3% CaCl_2

Plug at surface 5 sack, wold on plate

(g) Lost Circulation Zones

None

(h) Report of Blowouts

None

SECTION IV - Logs (See Attachment)

Run No.	Date	Type of Log	From	To
1	3-30-65	IES	4943	677
1	3-29-65	EOL CR-C	4986	670
1	3-29-65	IL-C	4937	677
1	3-30-65	IES	4930	500
1	3-28-65	GEN	4941	3400

SECTION V - Analysis

(a) Core Analysis

None

(b) Water Analysis (See Appendix)

Lab No.	From	To	Source	Remarks
B 25610-1	4389	4456	D.S.T. 71	Filtrate water
B 25610-2	4342	4375	D.S.T. 72	Filtrate water
B 25610-3	2250	2356	D.S.T. 75	Filtrate Water

(c) Gas Analysis

None

(d) Oil Analysis

None

SECTION VI - Completion Summary

DONE

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton

Fort St. John

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WATER ANALYSIS REPORT: Lab. No. E25610-1 Received: June 18, 1965 Reported: June 22, 1965

Well: S.M.W.M. W. Parkin Y.T. D-51 Operator: Socony Mobil Oil Of Canada Limited

Field or Area: Eagle Plain, Yukon Location: 66° 10' 08.5" N. 137° 26' 04.5" W Elev.: K.B. Grd.

Zone and Formation: Permo-Pennsylvanian Alder Sample Interval: 4385' - 4456'

Method of Production: D.S.T. #1 Well Production or Recovery at Sampling Time:

Sampled from: 1000' above packer Sampled by: Date: March 21, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter

NA & K	CA	Mg		SO4	CL	CO3	HCO3	OH	
5820	33	29		486	3470	Trace	9100		

Milligram Equivalents

253.17	1.65	2.38		10.11	97.85		149.24		
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Iron Present Hydrogen Sulfide Nil

Total Solids in Milligrams Per Liter:

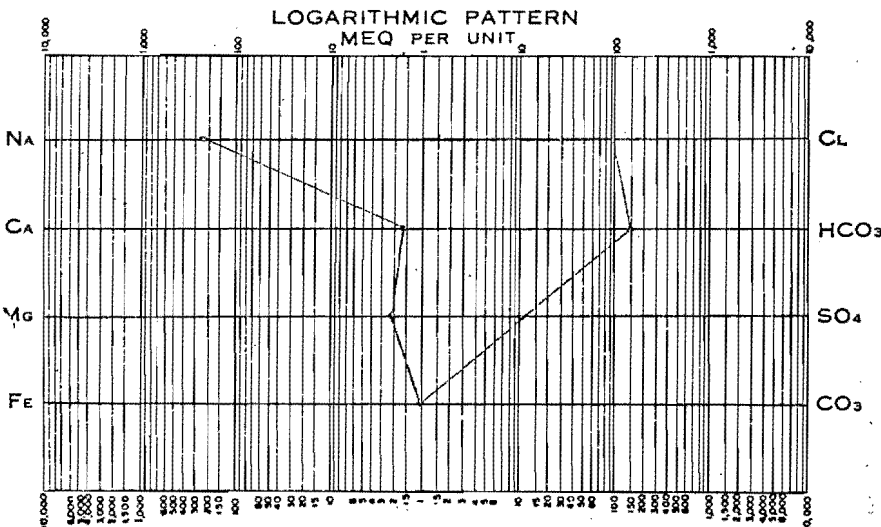
By evaporation 17,690
After ignition 10,690
Calculated 14,320

Physical Properties:

Resistivity 0.587 ohm meters @ 68°F.
Observed pH 8.3
Specific Gravity 1.012

Remarks and Conclusions: The total solids contained a large amount of organic matter.
The sample has the characteristics of a filtrate water. There

may be some formation water present.



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WATER ANALYSIS REPORT: Lab. No. E25610-2 Received: June 18, 1965 Reported: June 22, 1965

Well: S.M.W.M. W. Parkin Y.T. D-51 Operator: Socony Mobil Oil Of Canada Limited

Field or Area: Eagle Plain, Yukon Location: 66° 10' 08.5" N. 137° 26' 04.5" W. Elev.: K.B. Grd.

Zone and Formation: Parno-Pennsylvanian Alder Sample Interval: 4342' - 4376'

Method of Production: D.S.T. #2 Well Production or Recovery at Sampling Time:

Sampled from: 100' above packer Sampled by: Date: March 30, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter

Na & K	Ca	Mg	SO4	Cl	CO3	HCO3	OH
3405	26	16	782	2860	640	6900	

Milligram Equivalents

148.12	1.30	1.32	16.27	80.65	21.31	113.16	
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Iron Present Hydrogen Sulfide Nil

Total Solids in Milligrams Per Liter:

By evaporation 15,730
 After ignition 9,900
 Calculated 11,127

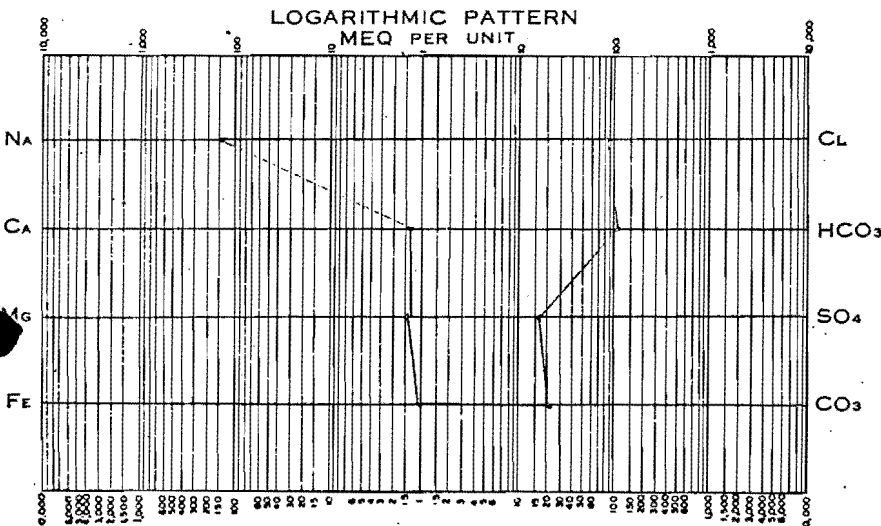
Physical Properties:

Resistivity 0.639 ohm meters @ 68°F.
 Observed pH 8.6
 Specific Gravity 1.010

Remarks and Conclusions: The total solids contained a large amount of organic matter.

The sample has the characteristics of a filtrate water. There may

be a slight amount of formation water present.



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WATER ANALYSIS REPORT: Lab. No. E25610-3 Received: June 18, 1965 Reported: June 23, 1965

Well: S.M.W.M. W. Parkin Y.T. D-51 Operator: Socony Mobil Oil Of Canada Limited

Field or Area: Eagle Plain, Yukon Location: 66° 10' 08.5" N. Elev.: K.B. Grd.

Zone and Formation: Cretaceous Blackie 137° 26' 04.5" W. Sample Interval: 2250' - 2356'

Method of Production: D.S.T. #5 Well Production or Recovery at Sampling Time:

Sampled from: 100' above packer Sampled by: Date: April 1, 1965

OTHER PERTINENT DATA

(Signed)

Milligrams Per Liter

Na & K	Ca	Mg		SO ₄	CL	CO ₃	HCO ₃	OH	
1655	48	16		2053	95	74	1700		

Milligram Equivalents

72.00	2.40	1.32		42.70	2.68	2.46	27.88		
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Iron Present Hydrogen Sulfide Nil

Total Solids in Milligrams Per Liter:

By evaporation 8,030
After ignition 4,440
Calculated 4,778

Physical Properties:

Resistivity 1.56 ohm meters @ 68°F.
Observed pH 8.7
Specific Gravity 1.006

Remarks and Conclusions: The total solids contained a very large amount of organic matter. The sample has the characteristics of a filtrate water.

