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GEOLOGICAL REPORT

FRONTIER OIL COMPANY

NO. 2 REEH

C NE NW

Sec. 33-1S-35W

RAWLINS COUNTY, KANSAS

15-153-20,755

DATE COMMENCED: May 22, 1990

DATE OF RTD: June 1, 1990

GEOLOGIST

RICHARD D. PARKER

RECEIVED
STATE CORPORATION COMMISSION

JUL - 5 1990

CONSERVATION DIVISION
Wichita, Kansas

CONFIDENTIAL

33-1-35W

FRONTIER OIL COMPANY
125 N. Market, Ste. 1720
Wichita, Kansas 67202

Re: Frontier Oil Company
No. 2 Reeh
C NE NW Sec. 33-1S-35W
Rawlins County, Kansas

Dear Sir:

The following is a Geological Report, with a Time Log attached, on the above captioned well.

Drilling was supervised from 3400' to 4490', rotary total depth. Samples were examined from 3400' to rotary total depth.

All formation tops, zones of porosity and staining are based on rotary bushing measurements. Any corrections in measurements during the drilling of the well have been incorporated into this report.

ELEVATION	(American Elevations)	3238DF	-	3241KB
Anhydrite		3100		+141
Neva		3618		-377
Wabaunsee		3734		-493
Oread		4053		-812
Heebner		4114		-873
Lansing-Kansas City		4171		-930
Base of Kansas City		4437		-1196
RTD		4490		-1249
4½" Pipe at		4479		-1238

Structurally on top of the Wabaunsee, the No. 2 Reeh ran 9' low to the No. 1 Reeh, a Lansing producer located one quarter mile Southeast. On top of the Oread the No. 2 Reeh ran 10' low to the No. 1 Reeh. On top of the Lansing the No. 2 Reeh ran 8' low to the No. 1 Reeh.

ZONES OF INTEREST

WABAUNSEE (Top 3734)

3734 to 3738

White chalky to fossiliferous lime with a trace of free oil, trace of dark stain, no odor.

3774 to 3782

White to tan dolomitic fine crystalline lime with no show of oil.

OREAD (Top 4053)

4053 to 4060

Tan fine crystalline to sucrosic lime with no show of free oil, no odor, traces of black stain.

LANSING-KANSAS CITY (Top 4171)

4171 to 4176

Tan dense to cherty lime and tan fresh chert. No show of oil.

4218 to 4222

White to tan fossiliferous to vuggy lime with good vugular porosity, good show of free oil, fair spotted dark stain, no odor. (Included in DST #1)

4234 to 4238

White oolitic to fossiliferous lime with a trace of free oil, trace of stain, no odor.

DRILL STEM TEST NO. 1 (Western Testing)

4184 to 4246

60-45-60-45. First open strong blow, Second open good increasing to strong blow. Rec. 1380' Fluid consisting of 5' oil, 180' SOCM (4% Oil) 120' SO&GCWM, 1175' GW. IF 89-429, FF 468-646, ISIP 1089, FSIP 1096.

4280 to 4294

Tan fossiliferous to vuggy lime with traces of free oil, trace of stain, no odor.

DRILL STEM TEST NO. 2 (Western Testing)

4258 to 4300

60-45-30-45. First open weak blow. Second open no blow. Rec. 50' M w/a scum of oil on top of tool. IF 25-36, FF 46-46, ISIP 1253, FSIP 1242.

4328 to 4334

White chalky to fossiliferous lime with no show of oil.

DRILL STEM TEST No. 3 (Western Testing)

4294 to 4348

60-45-30-45. First open weak blow. Second open no blow. Rec. 40' M w/scum of oil on top of tool. IF 25-25, FF 42-42, ISIP 1246, FSIP 1236.

4374 to 4380

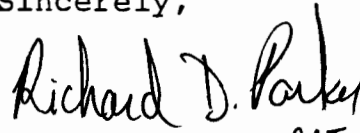
White vuggy to fossiliferous lime with good vuggy porosity fair show of free oil, good dark stain, no odor.

DRILL STEM TEST NO. 4 (Western Testing)
4334 to 4390

60-45-30-45. First open weak blow for 30 minutes. Second open no blow. Rec. 15' M w/ oil specks. IF 31-31, FF 36-36, ISIP 1064, FSIP 1016.

4½" new casing was set at 4479' with 200sx ASC cement. Zero point is 5' AGL and the shoe joint is 42.22' long.

Sincerely,



Richard D. Parker
CST

DRILLERS TIME LOG

FRONTIER OIL COMPANY
No. 2 Reeh

C NE NW
Sec. 33-1S-35W
Rawlins County

Elev.: 3236 GR
3241 KB

DEPTH	MINUTES	REMARKS
	1 Foot Drilling Time	
3400 to 3410	2-2-3-3-3-3-3-2-3-1	
3420	1-1-1-1-1-1-1-2-3-1	
3430	1-1-2-2-3-3-2-2-3-2	
3440	3-2-2-2-3-3-3-3-3-3	
3450	2-2-2-2-3-3-3-2-2-4	
3460	3-3-2-4-5-4-2-3-2-2	
3470	2-2-3-3-3-3-2-3-2-3	
3480	3-2-2-3-3-3-3-2-2-2	
3490	2-2-2-3-3-3-3-3-2-3	
3500	3-2-2-2-2-2-3-3-3-3	
3500 to 3510	3-3-4-3-3-2-3-2-2-2	
3520	2-2-4-4-4-2-2-2-2-2	
3530	3-4-3-3-3-3-3-3-2-4	
3540	3-2-3-3-3-3-3-2-2-2	
3550	1½-1½-2-2-3-3-4-5-5-3	
3560	3-4-3-3-2-3-4-4-3-3	
3570	3-4-4-4-5-4-5-5-6-5	
3580	3-3-4-3-5-6-5-6-5-4	
3590	4-4-4-4-3-3-5-5-4-3	
3600	5-5-4-4-5-4-4-4-5-3	
3600 to 3610	5-5-3-3-3-3-2-2-3-3	
3620	3-2-1-2-1-2-3-3-2-2	
3630	2-2-2-2-2-2-2-3-4-2	
3640	3-3-2-2-2-3-2-2-4-5	
3650	4-3-4-4-3-3-2-3-3-3	
3660	4-4-3-4-4-3-4-3-4-4	
3670	3-3-4-4-2-3-3-2-3-2	
3680	3-1-2-2-2-1-2-2-3-3	
3690	2-2-4-5-3-3-3-2-2-2	
3700	4-5-4-5-4-7-4-3-3-2	
3700 to 3710	1-3-2-3-4-6-5-5-4-6	
3720	5-5-3-4-4-5-4-5-5-5	
3730	5-4-5-6-6-3-4-5-5-3	
3740	4-3-4-4-5-5-4-4-4-8	
3750	8-7-3-6-8-6-6-7-7-7	
3760	4-3-5-5-5-5-4-4-4-5	
3770	6-6-6-6-6-5-5-1-1-3	
3780	3-4-3-3-2-2-3-1-1-1	
3790	1-1-5-5-6-4-5-5-4-5	
3800	7-6-6-6-5-4-4-4-4-4	

3800 to	3810	5-6-4-5-4-4-4-4-5-4	
	3820	4-5-8-5-7-4-4-2-3-5	
	3830	5-5-5-4-6-5-6-5-5-4	
	3840	4-4-3-2-4-2-2-3-4-5	
	3850	4-4-4-4-5-5-4-4-4-2	
	3860	4-2-3-4-3-2-3-3-4-4	
	3870	6-7-6-6-5-5-5-3-6-4	
	3880	4-5-5-5-5-5-5-5-5-5	
	3890	3-5-5-5-4-4-4-4-6-4	
	3900	6-5-5-4-4-4-5-4-3-5	
3900 to	3910	5-3-5-5-4-5-5-4-5-6	
	3920	3-4-3-4-4-3-3-4-3-1	
	3930	2-3-4-7-3-4-5-4-4-4	
	3940	4-3-2-5-4-5-4-6-4-5	
	3950	4-3-4-4-5-4-4-5-5-4	
	3960	4-4-5-5-5-5-5-5-4-5	
	3970	4-4-5-5-4-4-4-5-4-4	
	3980	4-3-6-4-4-4-4-4-4-4	
	3990	6-5-5-6-7-5-5-4-2-2	
	4000	2-1-1-2-2-1-1-1-1-1	
4000 to	4010	2-3-4-4-5-3-4-4-4-5	
	4020	4-4-4-4-3-4-5-6-6-6	
	4030	7-8-7-6-6-7-8-6-8-9	
	4040	8-8-7-7-8-4-7-7-8-7	
	4050	8-7-6-6-4-4-4-4-5-3	
	4060	4-3-4-3-2-2-2-2-2-2	
	4070	3-4-4-4-4-3-3-5-4-6	
	4080	7-7-4-6-5-7-7-8-7-6	
	4090	9-8-7-8-8-8-8-8-6-6	
	4100	6-6-5-5-6-6-6-6-3-6	
4100 to	4110	5-5-6-5-6-6-6-5-6-7	
	4120	6-5-6-7-6-6-6-5-6-6	
	4130	6-5-6-6-5-6-5-5-5-4	
	4140	6-4-3-4-4-2-1-1-2-1	
	4150	1-2-1-1-1-2-1-1-2-3	
	4160	3-4-3-4-4-4-4-4-5-5	
	4170	5-3-5-4-7-6-6-5-6-5	
	4180	6-5-4-4-4-5-6-4-4-3	DST #1 (4184-4246)
	4190	4-4-3-4-4-3-4-4-5-5	
	4200	5-5-5-4-5-5-3-1-1-1	
4200 to	4210	2-3-3-3-4-5-4-4-4-5	
	4220	3-5-3-4-4-4-3-3-2-2	
	4230	3-2-3-5-4-5-5-5-4-4	
	4240	5-4-4-5-3-4-4-4-5-4	
	4250	5-5-6-8-7-5-9-7-6-6	DST #2 (4258-4300)
	4260	5-4-7-7-8-7-8-9-9-10	
	4270	10-9-5-6-5-6-7-6-6-6	
	4280	6-7-7-8-7-9-6-9-7-6	
	4290	7-6-6-5-3-5-4-7-5-4	DST #3 (4294-4348)
	4300	4-4-3-3-6-8-6-7-7-7	

4300 to 4310
4320
4330
4340
4350
4360
4370
4380
4390
4400
4400 to 4410
4420
4430
4440
4450
4460
4470
4480
4490

6-8-9-9-8-7-8-7-8-5
6-7-7-6-5-6-9-9-7-7
9-8-7-7-7-10-8-6-7-7
6-3-3-3-5-8-9-10-8-8
8-5-6-5-4-6-8-6-4-6
6-5-6-6-5-5-5-5-7-6
6-6-7-7-6-7-7-7-9-8
7-6-7-6-5-3-3-4-4-5
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7-8-7-10-8-8-7-8-6-5
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2-2-4-4-8-6-5-4-5-4
3-5-6-4-6-5-6-7-6-6
7-8-6-7-5-4-4-5-4-2
2-3-5-6-6-6-5-5-6-5
5-6-7-9-8-6-7-9-9-8

DST #4 (4334-4390)

RTD 4490'