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CONFIDENTIAL

GEOLOGICAL REPORT

FRONTIER OIL COMPANY

JUN O & 1986

NO. 1 WYRILL "A"

NW SE SE 19-6S-20W
ROOKS COUNTY, KANSAS

MAR 2

1985

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State Geological Survey
WICHITA BRANCH

Commenced: January 31, 1985

Date of RTD: February 8, 1985

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Richard D. Parker Geologist

FEB 2 7 1835

Frontier Oil Company 1720 Kansas State Bank Building Wichita, Kansas 67202 Re: Frontier Oil Company No. 1 Wyrill "A" NW SE SE 19-6S-20W Rooks County, Kansas

Dear Sir:

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

Drilling was supervised from 3100' to 3755', rotary total depth. Samples were examined from 3100' to rotary total depth.

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

Elevation: L&S	2259 DF	2262 KB
Anhydrite	1873	(+ 389)
Topeka	3264	(-1002)
Heebner	3470	(-1208)
Toronto	3494	(-1232)
Lansing-Kansas City	3510	(-1248)
Base of Kansas City	3699	(-1437)
Marmaton	3718	(-1456)
Reworked Arbuckle	3737	(-1475)
Arbuckle	3746	(-1484)
RTD	3755	(-1493)

Structurally, on top of the Lansing-Kansas City the No. 1 Wyrill "A" ran 5' low to the Wyrill No. 1, a Frontier Oil dry hole located approximately one quarter mile Southwest. On top of the Arbuckle the No. 1 Wyrill "A" ran 6' low to the No. 1 Wyrill.

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DRILL STEM TEST NO. 2 (FOC Test)

3528 to 3554

30-45-30-45 First open weak blow. Second open weak blow. Recovered 15' mud. Initial flows 40 to 40#. Final flows 61 to 51#. Initial shut in pressure 1206#. Final shut in pressure 1185#.

3557 to 3562

Tan fine crystalline to fossiliferous lime with traces of free oil, good odor, trace of light stain. (Included in DST No. 3).

3574 to 3580

Tan fine crystalline lime with a good odor, trace of free oil, trace of light stain. (Included in DST No. 3).

3584 to 3588

White to tan fine crystalline lime, some vuggy porosity, trace free oil, fair odor, trace light oil stain.

DRILL STEM TEST NO. 3 (FOC Test)

3552 to 3590

60-45-60-45 First open weak increasing to fair. Second open weak blow. Recovered 75' mud, 565' salt water. Initial flows 63 yo 192#. Final flows 222 to 328#. Initial shut in pressure 1205#. Final shut in pressure 1185#.

3592 to 3597

White chalky to fine crystalline lime with no show of oil, no odor.

3632 to 3638

White to tan fine crystalline to cherty lime with a trace of free oil, trace of stain and no odor.
(kacluded in DST No. 4).

3658 to 3663

Tagn fine crystalline lime with a trace of free oil, no odor, and a trace of stain. (Included in DST No. 4).

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3670 to 3676

White fossiliferous lime with a trace of free oil, very faint odor, trace of stain.
(Included in DST No. 4).

3685 to 3690

White fine crystalline lime with no show of oil, no odor.

DRILL STEM TEST NO. 4 (FOC Test)

3616 to 3700

30-45-30-45 First open weak blow. Second open no blow. Recovered 25' mud. Initial flows 80 to 80#. Final flows 80 to 80#. Initial shut in pressure 1135#. Final shut in pressure 1074#.

MARMATON (Top 3718)

3718 to 3724

White fine crystalline to chalky lime with no show of oil. (Included in DST No. 5).

REWORKED ARBUCKLE (Top 3737)

3737 to 3746

White fine crystalline to vuggy dolomite along with tan fresh and weathered or dolomitized cherts some clear calcite with abundant capalliary tubes full of oil. The sample carried a strong odor, good show of free oil some floating in tray.

DRILL STEM TEST NO. 5 (FOC Test)

3680 to 3745

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60-30-60-30 First open weak blow. Second open very weak blow. Recovered 5' oil specked mud, 25' mud. Initial flows 81 to 81#. Final flows 91 to 91#. Initial shut in pressure 385#. Final shut in pressure 245#.

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ARBUCKLE (Top 3746)

3746 to 3755

White medium crystalline dolomite with a scattered show of free oil, strong odor, fair dark stain.

DRILL STEM TEST NO. 6 (FOC Test)

3747 to 3755

Packer failure

DRILL STEM TEST NO. 6 RERUN (FOC Test)

3680 to 3755

30-30-30-30 First open weak blow. Second open weak blow. Recovered 75' watery mud with a few specks of oil. Initial flows 81 to 81#. Final flows 122 to 122#. Initial shut in pressure 1014#. Final shut in pressure 994#.

Due to low structual position and negative drill stem test results the No. 1 Wyrill "A" was plugged and abandoned, a dry hole.

Sincerely,

Richard D. Parker

Richard D. Parker

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DRILLING INFORMATION ON THE WYRILL "A" NO. 1

Drilling Contractor: Red Tiger Drilling Co.

Drillers: Schmidt

Oden Arnold

Tool Pusher: Walter Oden, Jr.

Spud Date: January 31, 1985

Date of RTD: February 8, 1985

Surface Pipe: 8-5/8" @ 222' w/150 sx

Casing: None

TOTAL FOOTAGE DRILLED PER DAY

Under Surface At 1:00 A.M. On February 1, 1985

582	Feet	At	7:00 A.M.	On	February 1, 1985
2095	11	11	11 11	11	February 2, 1985
2924	11	11	II II	II .	February 3, 1985
3455	11	11	11 11	11	February 4, 1985
3530	11	11	11 11	ti	February 5, 1985
3590	11	11	11 11	11	February 6, 1985
3700	11	II	H H	11	February 7, 1985
3755	II	11	6:30 A.M.	11	February 8, 1985

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BIT RECORD

BITS	<u>TYPE</u>	FOOTAGE	
No. 1	Reed FP 52D (New)	225' to 3590'	
No. 2	Smith F 27 (Rebuilt)	3590' to 3755'	

MUD RECORD

(Mudco Driscose)

Surface	28 sx premium gel, 8 sx hulls, 2 sx lime
1695'	7 sx premium gel, 18 sx hulls
2660'	1 sx hulls
3311'	50 sx premium gel, 8 sx soda ash, 7 sx caustic soda, 4 sx lignite,
	3 sx driscose, 15 sx hulls
3520'	20 sx premium gel, 6 sx hulls
3590'	10 sx premium gel, 1 sx caustic soda, 3 sx hulls
3692¹	10 sx premium gel, 6 sx hulls, 2 sx mud seal, 1 sx caustic soda

Manny July O 1988

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