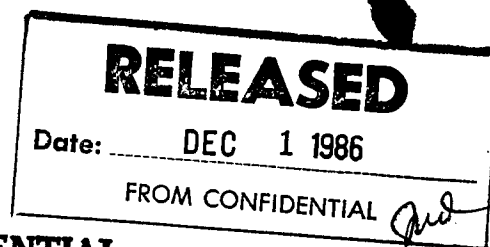


15-195-21746

16-15-23W

CONFIDENTIAL X



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GEOLOGICAL REPORT

FRONTIER OIL COMPANY

SCHNEIDER "F" NO. 1

C SE NW 16-15S-23W

TREGO COUNTY, KANSAS

AUG 28 1985

State Geological Survey
WICHITA BRANCH

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Wichita, Kansas

Commenced: July 12, 1985

Date of RTD: July 20, 1985

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Richard D. Parker
Geologist

16-15-23W

Frontier Oil Company
1720 Kansas State Bank Bldg.
Wichita, Kansas 67202

Re: Frontier Oil Company
No. 1 Schneider "F"
C SE NW 16-15S-23W
Trego County, Kansas

Dear Sir:

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

Drilling was supervised from 3300' to 4278', rotary total depth. Samples were examined from 3300' 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 the report.

Elevation	2307 DF ---	2310 KB
Anhydrite	1702	(+ 608)
Howard	3365	(-1055)
Topeka	3409	(-1099)
Heebner	3676	(-1366)
Toronto	3692	(-1382)
Lansing-Kansas City	3712	(-1402)
Base of Kansas City	3985	(-1675)
Marmaton	3994	(-1684)
Fort Scott	4181	(-1871)
Cherokee	4207	(-1897)
Mississippi	4273	(-1963)
RTD	4278	(-1968)
5-1/2" pipe at	4274	(-1964)

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Structurally on top of the Lansing-Kansas City the No. 1 Schneider "F" ran 3' high to Frontier's No. 1 Schneider "D", a dry hole located approximately one half mile East. On top of the Fort Scott the No. 1 Schneider "F" ran 1' high to the Schneider "D" No. 1. On top of the Mississippi the No. 1 Schneider "F" ran 5' high to the No. 1 Schneider "D".

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ZONES OF INTEREST

TOPEKA (Top 3409)

3439 to 3462

Tan to light grey fine crystalline lime with abundant small oolitic to pin point porosity. Barren. No show of free oil and no odor.

3564 to 3572

Tan fine crystalline lime with scattered pin point porosity. No show of free oil and no odor.

3642 to 3650

Tan fine crystalline to chalky lime with no show of oil and no odor.

TORONTO (Top 3692)

3692 to 3700

Light tan fine crystalline lime with no show of oil and no odor.

LANSING-KANSAS CITY (Top 3712)

3712 to 3718

Tan chalky to fossiliferous lime with no show of free oil and no odor.

3764 to 3774

White to light tan fine crystalline to fossiliferous lime with trace of free oil, trace of dark stain, and no odor.

3816 to 3822

Tan well developed oolitic lime with no show of oil and no odor.

3832 to 3838

Tan well developed oolitic lime with no show of oil and no odor.

3884 to 3890

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

3914 to 3918

Tan oolitic lime with no show of oil and no odor.

3944 to 3948

Tan oolitic lime with no show of oil and no odor.

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FORT SCOTT (Top 4181)

4190 to 4196

Tan fine crystalline lime with a trace of free oil, no odor, and traces of oil stain.

CHEROKEE (Top 4207)

4214 to 4220

Light tan fine crystalline lime with no show of free oil and no odor.

MISSISSIPPI (Top 4273)

4273 to 4278

White to opaque chert and tan fine crystalline dolomite with a fair odor, fair to good show of free oil and fair light oil stain.

DRILL STEM TEST NO. 1 (FOC Test)

4238 to 4278

60-45-60-45 First open strong blow.
Second open strong blow.
Recovered 180' clean gassy oil,
480' heavy mud cut oil,
420' heavily oil cut mud.
Initial flows 105 to 367#.
Final flows 367 to 528#.
Initial shut in pressure 1266#.
Final shut in pressure 1266#.

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5-1/2" used casing was set at 4274', 4' off bottom and 1' in the Mississippi with 125 sacks common cement 10% added salt. The shoe joint is 40-08' long and zero point is 5' AGL.

Before plugging the No. 1 Schneider "F" if the Mississippi zone no longer becomes commercial to produce, I recommend opening the Fort Scott zones from 4190' to 4196'. This zone is currently being produced in the Stauffer Oil and Gas wells to the Northeast and are presently producing approximately 5 bbl. of oil per day per well.

Sincerely,

Richard D. Parker

Richard D. Parker

RDP:ss

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DRILLING INFORMATION ON THE SCHNEIDER "F" NO. 1

Drilling Contractor: Red Tiger Drilling Co.

Drillers: Honas
Bieker
Newell

Tool Pusher: Kenneth Bieker

Spud Date: July 12, 1985

Date of RTD: July 20, 1985

Surface Pipe: 8-5/8" @ 301' w/180 sx

Casing: 5-1/2" @ 4274' w/125 sx

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TOTAL FOOTAGE DRILLED PER DAY

Under Surface At 2:00 A.M. On July 13, 1985

800	Feet	At	7:00 A.M.	On	July 13, 1985
2020	"	"	" "	"	July 14, 1985
2765	"	"	" "	"	July 15, 1985
3320	"	"	" "	"	July 16, 1985
3728	"	"	" "	"	July 17, 1985
3958	"	"	" "	"	July 18, 1985
4120	"	"	" "	"	July 19, 1985
4278	"	"	2:44 A.M.	"	July 20, 1985

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BIT RECORDBITSTYPEFOOTAGE

No. 1	CP - ESIC	305' to 1737'
No. 2	CP - EHE17A (Rerun)	1737' to 3983'
No. 3	Walker McDonald - 53C (New)	3983' to 4278'

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MUD RECORD

Surface	32 sx premium gel, 4 sx hulls, 1 sx lime
3621'	130 sx salt gel, 28 sx starch, 16 sx hulls, 3 sx preservative
3889'	30 sx salt gel, 14 sx starch, 10 sx hulls
4057'	15 sx salt gel, 15 sx starch, 10 sx hulls
4250'	30 sx salt gel, 7 sx starch, 4 sx hulls

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WES-21-21

DRILLERS TIME LOG

Frontier Oil Company
No. 1 Schneider "F"

C SE NW
16-15S-23W
Trego County

Elev.: 2307 DF
2310 KB

DEPTH

MINUTES

REMARKS

1 Foot Drilling Time

3300 to 3310	4-4-5-5-5-3-4-6-6-5
3320	5-4-5-5-4-4-4-5-5-5
3330	4-5-4-3-4-4-4-4-5-6
3340	5-5-5-4-4-5-4-5-4-2
3350	3-4-3-4-4-4-3-4-5-4
3360	4-4-4-4-3-3-2-4-4-2
3370	2-2-3-2-3-3-4-4-4-4
3380	4-3-4-3-4-4-3-3-3-4
3390	4-3-3-4-3-4-4-3-3-4
3400	4-4-3-4-4-4-3-2-2-2
3400 to 3410	2-1-2-2-2-2-1-2-2-3
3420	4-4-4-3-4-5-4-3-4-3
3430	4-3-4-4-4-3-4-4-4-3
3440	4-4-3-3-3-4-4-3-4-3
3450	2- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1-1
3460	4-4-4-3-3-3-1-1- $\frac{1}{2}$ - $\frac{1}{2}$
3470	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1-1-2-2-3-2
3480	2-2-3-4-3-3-3-3-4-3
3490	2-4-3-4-3-4-3-3-3-3
3500	3-1-2-3-2-2-3-3-4-3
3500 to 3510	3-3-3-2-2-1-2-2-2-1
3520	1-1-1-1-3-3-2-3-3-1
3530	2-2-2-2-1-1-2-2-1-2
3540	2-1-1- $\frac{1}{2}$ - $\frac{1}{2}$ -2-1-1-1-1
3550	1-4-3-2-2-2-2-3-3-3
3560	4-3-4-2-3-3-2-2-3-2
3570	2-2-3-4-2- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$
3580	1 $\frac{1}{2}$ -3-4-2-3-3-1-1-1-1
3590	1-1-4-4-4-4-2-2-2-2
3600	3-3-3-4-4-2-2-3-4-4

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3600 to	3610	4-4-4-5-4-4-3-3-4-4
	3620	4-3-4-3-2-2-1-2-3-4
	3630	4-6-7-5-6-4-4-2-4-3
	3640	3-4-5-6-4-5-2-2-3-2
	3650	3-1-2-3-3-3-1-2-2-3
	3660	3-1-2-4-4-5-5-3-4-4
	3670	5-3-4-5-5-3-3-2-3-2
	3680	3-2-2-3-5-5-3-3-4-4
	3690	2-3-6-6-8-7-7-5-4-6
	3700	6-6-4-5-6-5-4-6-4-6
3700 to	3710	8-7-5-5-6-5-7-8-7-6
	3720	3-6-3-3-4-5-6-8-7-5
	3730	7-6-5-4-4-4-5-4-3-6
	3740	6-7-6-7-7-9-7-5-8-7
	3750	4-6-8-7-5-7-6-6-9-8
	3760	7-7-5-6-4-6-6-4-5-5
	3770	6-8-7-7-7-5-4-4-5-4
	3780	4-4-5-5-8-6-7-8-9-8
	3790	8-6-7-7-6-6-6-4-6-6
	3800	5-6-5-5-4-4-4-5-5-5
3800 to	3810	5-4-5-4-4-5-5-3-3-4
	3820	6-3-4-3-5-4-1-1-1-1
	3830	3-3-3-4-4-5-6-5-6-5
	3840	6-6-4-4-3-4-3-3-4-6
	3850	5-6-6-6-6-6-5-6-7-7
	3860	6-5-5-5-5-6-5-4-4-5
	3870	2-3-4-3-4-4-4-4-4-4
	3880	4-6-5-5-5-5-6-6-5-5
	3890	5-5-5-4-3-1-2-3-6-3
	3900	5-4-5-4-4-3-6-7-6-7
3900 to	3910	7-7-6-7-7-6-5-7-7-6
	3920	7-6-7-4-5-4-4-4-7-5
	3930	7-5-6-5-7-7-7-6-8-7
	3940	8-9-8-7-8-8-8-5-6-7
	3950	5-8-7-7-5-4-6-7-9-8
	3960	7-6-6-4-4-4-5-7-9-10
	3970	10-8-7-6-6-5-7-6-7-7
	3980	7-7-7-8-7-8-8-10-11-1
	3990	9-8-11-7-8-7-5-4-4-5
	4000	5-4-5-4-4-5-7-6-6-6
4000 to	4010	6-7-6-7-7-6-7-6-6-6
	4020	7-5-5-4-4-2-4-6-5-5
	4030	6-8-6-4-7-4-4-5-4-5
	4040	6-6-6-6-7-6-5-4-4-5
	4050	5-7-6-6-5-7-6-5-4-8
	4060	5-7-8-8-9-9-6-9-8-7
	4070	8-8-9-10-10-10-7-7-7-4
	4080	7-7-9-8-7-8-8-8-9-9
	4090	7-9-8-8-8-8-7-6-6-7
	4100	7-5-7-7-5-5-4-6-5-5

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4100 to 4110

4120

4130

4140

4150

4160

4170

4180

4190

4200

4200 to 4210

4220

4230

4240

4250

4260

4270

4278

6-6-4-7-8-6-8-7-6-9

7-9-10-12-10-7-10-8-7-8

7-8-8-8-8-9-7-8-9-9

8-8-7-7-8-8-6-8-7-7

8-9-8-6-8-8-8-8-8-8

7-7-7-7-8-6-6-8-7-7

6-7-7-7-6-6-6-6-6-6

6-7-6-7-4-6-5-5-6-6

5-6-6-6-6-7-6-6-6-8

8-4-6-4-3-4-6-5-6-6

5-6-5-6-5-6-10-5-7-5

4-5-6-6-5-6-8-9-6-7

8-7-6-5-5-5-6-6-7-6

8-7-8-7-7-8-6-9-8-10

9-7-7-6-6-7-6-9-8-11

7-10-9-10-10-9-10-11-5-6

7-7-10-4-5-5-5-6-5-5

4-4-4-2-3-2-2-4

DST No. 1 (4238 to 4278)

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