

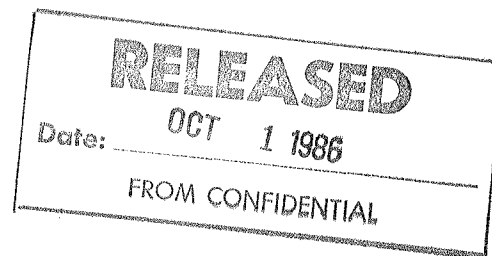
21-20-18W

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GEOLOGICAL REPORT



FRONTIER OIL COMPANY

COX "A" NO. 2

NW NW SW 21-20S-18W
PAWNEE COUNTY, KANSAS

JUL 2 5 1985
State Geological Survey
WICHITA BRANCH

RECEIVED
STATE CORPORATION COMMISSION
JUL 22 1985
CONSERVATION DIVISION
Wichita, Kansas

Commenced: June 24, 1985

Date of RTD: July 2, 1985

Richard D. Parker

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Frontier Oil Company
1720 Kansas State Bank Building
Wichita, Kansas 67202

Re: Frontier Oil Company
No. 2 Cox "A"
NW NW SW 21-20S-18W
Pawnee County, Kansas

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Dear Sir:

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

Drilling was supervised from 3000' to 4120', rotary total depth. Samples were examined from 3000' 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	2215 DF	--- 2218 KB
Anhydrite	1298	(+ 920)
Tarkio	3062	(- 844)
Elmont	3122	(- 904)
Topeka	3262	(-1044)
Heebner	3608	(-1390)
Toronto	3624	(-1406)
Lansing Kansas City	3658	(-1440)
Base of Kansas City	3952	(-1734)
Sand	4091	(-1873)
Arbuckle	4099	(-1881)
RTD	4120	(-1902)

Structurally, on top of the Topeka, the No. 2 Cox "A" ran 4' higher than the No. 1 Cox "A" located three quarter mile Northeast. On top of the Lansing-Kansas City, the No. 2 Cox "A" ran 5' higher than the Cox "A" No. 1.

21-205-184

ZONES OF INTEREST

TOPEKA (Top 3262)

3290 to 3296

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

3338 to 3342

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

3376 to 3384

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

3402 to 3410

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

3442 to 3446

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

3540 to 3546

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

3580 to 3600

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

TORONTO (Top 3624)

3624 to 3631

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

3686 to 3692

Tan fine crystalline to fossiliferous lime with some fossilcastic porosity. No show of oil and no odor.

3716 to 3726

White fine crystalline to chalky lime with some pin point porosity. No show of free oil and no odor.

3756 to 3762

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

3770 to 3778

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

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3850 to 3858

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

SAND (Top 4091)

4091 to 4095

Clear to white sand in clusters with a trace of free oil and a fair odor.

DRILL STEM TEST NO. 1 (FOC Test)

4077 to 4095

30-30-30 First open weak blow for 20 minutes. Second open no blow, flushed tool, no help. Recovered 10' mud. Initial flows 47 to 47#. Final flows 47 to 47#. Initial shut in pressure 70#.

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ARBUCKLE (Top 4099)

4099 to 4106

4106 to 4112

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White dense dolomite with no show of free oil, scattered flakes of black oil and no odor. (Included in DST No. 2).

White medium crystalline lime with a trace of free oil, fair odor.

DRILL STEM TEST NO. 2 (FOC Test)

4072 to 4112

30-30-30-30 First open weak blow 15 minutes. Second open no blow, flushed tool, no help. Recovered 10' mud. Initial flows 47 to 47#. Final flows 47 to 47#. Initial shut in pressure 175#. Final shut in pressure 117#.

4112 to 4120

21 - 205-184
White to tan medium crystalline dolomite with traces of free oil, good odor.

DRILL STEM TEST NO. 3 (FOC Test)

4110 to 4120

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60-30-60-30 First open strong blow.
Second open strong blow.
Recovered 543' muddy salt water.
Initial flows 47 to 47#.
Final flows 117 to 175#.
Initial shut in pressure 1195#.
Final shut in pressure 1195#.

Due to negative shows of oil and negative drill stem test results the No. 2 Cox "A" was plugged and abandoned, a dry hole.

Sincerely,

Richard D. Parker

Richard D. Parker
Geologist

Si

RDP:ss

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21-20-18W

DRILLING INFORMATION ON THE COX "A" NO. 2

Contractor: Red Tiger Drilling Company

Drillers: Ogle, J. R.
Ogle, W. C.
Bates, Allan

Tool Pusher: W. C. "Jerb" Ogle

Spud Date: June 24, 1985

Date of RTD: July 2, 1985

Surface Pipe: 8-5/8" @ 207' w/150 sx

Casing: None

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TOTAL FOOTAGE DRILLED PER DAY

Under Surface At 8:00 P.M. On June 24, 1985

1230	Feet	At	7:00 A.M.	On	June 25, 1985
2355	"	"	" "	"	June 26, 1985
2950	"	"	" "	"	June 27, 1985
3455	"	"	" "	"	June 28, 1985
3715	"	"	" "	"	June 29, 1985
3915	"	"	" "	"	June 30, 1985
4095	"	"	" "	"	July 1, 1985
4120	"	"	3:04 A.M.	"	July 2, 1985

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