L-K WIRELINE

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CORIE OIL COMPANY
~~CHET LOVING OIL OPERATIONS~~
~~RTD 2~~
Russell, Kansas

GEOLOGICAL REPORT

Holland C-2
C W/2 NE SW of Section 13
Twp. 14 South, Rge. 15 West
Russell County, Kansas

April 18, 1977

CHET LOVING OIL OPERATIONS
RED 2
Russell, Kansas

Holland C-2
C W/2 NE SW of Section 13-14s-15w
Russell County, Kansas

Contractor: Red Tiger Drilling Co. Rig 5

Drilling Commenced: April 9, 1977

Drilling Completed: April 16, 1977

Casing Record: 851' of 8 5/8" surface casing
3224' of 5 1/2" production casing, cemented with 100 sacks.

Samples: Saved and examined from 2700' to 3226', R.T.D. Zones of interest are described in this report.

Drilling Time: Recorded by geolograph, and plotted from 2700' to 3226'. A copy of the drilling time is included with this report.

Drillstem Tests: 2 by Swift Formation Testers

Elevations: Laughlin-Simmons Co. of Kansas

Kelly Bushing:	1812'
Ground Level:	1807
Measurements From:	K.B.

Formations:	Depths:	Subsea Datums:
Anhydrite	841 to 879	+ 971
Heebner Shale	2921	-1109
Toronto Lime	2940	-1128
Lansing-Kansas City	2976	-1164
Base of Kansas City	3206	-1394
Arbuckle Dolomite	3224	-1412
Total Depth	3226	-1414

Lithology; Zones of Interest & Test Data:

Topeka Lime:

2812-2820: LS; white, buff, dense, with trace of light oil stain.

2872-2880: LS; buff, light gray, fossiliferrous, with trace of light oil stain.

2882-2892: LS; white, light gray and buff, fossiliferrous, chalky with scattered light oil stain and fair porosity. No free oil or odor.

Toronto Lime:

2940-2950: LS; light gray, buff, crystalline, granular and chalky with rare spotty oil stain in slight fossil porosity. Also, cherty. No free oil or odor.

Lansing-Kansas City:

2978-2990: A zone — LS; white, buff, crystalline, dense to slight vuggy, with fair scattered oil stain, very slight show of free oil and faint odor. Tested by DST #1.

3000-3005: B zone — LS; white, buff, fossiliferrous, with fair scattered oil stain in fair porosity. Slight show of free oil and faint odor. Tested by DST #1.

3018-3025: C Zone — LS; white, some buff, fossiliferrous, slight porous, with fair scattered light oil stain, show free gassy oil and good oil odor. Tested by DST #1.

DRILLSTEM TEST No. 1: 2978 to 3025: 30-30-60-30 with fair blow increasing to good

Recovery:
270' of gas
90' of slight oil & gas cut mud
60' of muddy water

IFP: 73 to 81 psi
IBHP: 487 psi
FFP: 97-121 psi
FBHP: 422 psi

3058-3062: E zone — LS; white, buff, crystalline, fossiliferrous, vuggy and cherty. Trace of light oil stain, fair porosity.

3068-3086: G zone — LS; white, chalky, oolitic-oolicastic, with trace of oil stain. Porous with barren porosity.

3118-3130: H zone — LS; gray, tan, dense, some white and chalky, with trace of oil stain.

3138-3150: I zone — LS; light gray, tan, dense and fossiliferrous, with scattered light oil stain in slight porosity. No free oil or odor.

Lithology, cont...

Lansing-Kansas City, cont...

3157-3180: LS; white, tan, dense to slight chalky, with trace of
J zone light oil stain. Poor porosity and faint odor.

Arbuckle Dolomite:

3224-3226: DOL; white, fine crystalline, slight porous, with some coarse sand grains and medium sand inclusions in dolomite (Gorham Sand appearance). Rare oil stain and fair oil odor. Tested by DST #2.

DRILLSTEM TEST No. 2: 3203 to 3226: 30-30-30-30 with weak blow 14 minutes. Flushed tool.

Recovery: 10' of very slight oil cut mud

All Pressures: 23 psi

Remarks & Recommendations:

On top of the Lansing and the Arbuckle, the Holland C-2 ran somewhat lower than expected, but appeared to still be within the limits of commercial production. Zones that appeared to have commercial value were tested by drillstem test but the results were negative.

Only two feet of Arbuckle (sandy) was drilled and tested by DST #2. The results of the test were negative, but perhaps did indicate that oil would be present if another foot or two were drilled. It was decided that casing would be set for more conclusive testing, and probable oil production.

I recommend that the well be cleaned out to total depth and tested, and that another foot or two of Arbuckle be drilled with cable tools. If this well responds as have others in this immediate area, it may be that the well can be produced natural, without acid stimulation.

Respectfully submitted;

F. C. Whisler

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DRILLING TIME: Minutes per Foot:

2700-2800: 2 2 3 3 3 3 2 2 3 3 3 3 3 2 2 3 2 2 3 3 2 3 3 4
4 4 3 3 3 4 3 3 3 3 3 4 5 6 6 5 4 4 4 4 5 4 4 4 4

5 4 4 6 5 5 4 6 5 3 5 5 6 5 5 4 5 5 5 5 5 5 5 4
4 4 4 2 3 5 6 6 3 3 4 3 4 3 3 4 3 4 3 4 5 4 5 2 2

2800-2900: 3 5 5 6 5 4 5 4 5 6 2 6 5 6 7 6 5 5 7 5 4 6 5 4 5
4 4 3 3 3 3 3 5 6 4 4 4 5 5 3 1 2 7 5 3 3 5 5 5 3

5 5 4 5 5 5 5 5 4 4 4 5 5 4 4 5 5 6 5 4 3 4 3 5 4
3 4 3 3 3 3 4 4 3 3 2 2 3 2 2 2 2 3 3 4 3 4 4 3 4

2900-3000: 2 3 4 6 5 5 6 4 6 5 5 5 5 4 5 4 5 5 6 5 6 3 3 1 2
5 7 6 2 2 3 3 2 3 3 3 2 4 2 3 5 4 6 4 4 3 3 5 5 5

5 4 6 5 5 4 4 3 3 3 3 3 3 2 2 2 2 2 1 2 2 5 3 4 4
2 5 3 4 4 4 4 5 5 5 5 5 4 5 4 4 4 6 4 4 3 3 2 3 5

3000-3100: 4 4 3 2 3 5 6 6 5 6 7 7 5 5 7 5 3 4 4 4 5 7 7 8 6
8 9 7 8 10 9 9 10 10 9 9 9 10 10 8 9 6 6 7 6 6 5 6 10 11

12 10 10 10 11 11 10 7 7 4 5 5 8 8 9 9 8 7 4 4
2 5 5 6 6
7 7 7 7 7 7 8 4 5 4 7 8 10 8 10 11 8 9 9 9 9 8 9 8 5

3100-3200: 10 6 6 7 7 7 8 6 8 8 7 7 8 7 5 6 5 5 7 5 7 7 8 8 7
7 7 7 7 7 10 7 6 5 6 6 5 5 5 7 8 6 8 8 10 9 8 7 7 6

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

3200-3226: 7 9 8 8 8 8 6 6 5 4 4 6 5 5 8 8 7 9 4 3 4 6 6 8 4
3