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GEOLOGICAL REPORT

J B & E Oil Company
Route One, Box 190
Hays, Kansas 67601

Re: J B & E Oil Company
#1 Worth "A" B
SW-SE-NW, Sec. 34-9S-25W
Graham County, Kansas

Gentlemen:

The following is the geological report for the above captioned test. Formation tops, zones of interest, and drill stem test intervals have been correlated to the open hole electric log. All measurements were taken from the Kelly Bushing (K.B.), five feet above ground level. A copy of the working drilling time/lithology log is included with this report.

CONTRACTOR:	Emphasis Oil Operations
COMMENCED:	8-4-81
COMPLETED:	8-12-81
ELEVATION:	2551' K.B.
DRILL STEM TESTS:	1 - Cheney Testing Company
ELECTRIC LOG:	R/A Guard - Great Guns
CASING RECORD:	Surface - 8-5/8 set @ 230' Production - 5-1/2 set @ 4083'
STATUS:	W.O.C.T.

RECEIVED
STATE CORPORATION COMMISSION
DEC 29 1981
CONSERVATION DIVISION

FORMATION TOPS

<u>FORMATION</u>	<u>SAMPLE TOP</u>	<u>E. LOG TOP</u>	<u>SUBSEA(E.log)</u>
Anhydrite	----	2193	+358
Base Anhydrite	----	2226	+325
Heebner	3805	3801	-1250
Toronto	3828	3825	-1274
Lansing	3844	3841	-1290
"D" zone	3887	3884	-1333
Lane	3967	3964	-1413
"H" zone	3984	3981	-1430
"I" zone	4004	4001	-1450
"J" zone	4023	4023	-1472
"K" zone	4044	4044	-1493
Base Kansas City	4075	4075	-1524
Total Depth	4085	4084	-1533

Rotary measurements were consistently three feet deep to electric log measurements down to the point of DST #1 (4017'). Thereafter, rotary measurements closely correlated to the electric log. All measurements used in the remainder of this report are taken from the electric log unless otherwise notes.

LOCAL STRUCTURAL COMPARISON (Subsea)

	#1 Werth "A" SW-SE-NW, Sec. 34	#1 Rome C-SW-NW, Sec. 34	#1 Rome SE-SE-NW, Sec. 34
Heebner	-1250	-1260	-1250
Lansing	-1290	-1299	-1289
"I" zone	-1450	-1464	-1451
"K" zone	-1493	-1503	-1494
Base Kansas City	-1524	----	-1522

ZONES OF INTEREST

<u>INTERVAL</u>	<u>SAMPLE DESCRIPTION</u>
Toronto *3825-3834	White, fine-medium crystalline, slightly dense LIMESTONE; occasional intercrystalline & vugular porosity; spotted stain, some residual; very slight show of free oil; electric log calculations (ELC)-unfavorable; recommend testing prior to abandonment.
Lansing *3841-3852	White, oolitic, slightly chalky LIMESTONE; spotted inter-oolitic porosity; spotted stain-occasional saturation; fair show of free oil; slight odor; ELC-slightly favorable; recommend testing prior to abandonment.

- **3873-3876 Cream-tan, fine crystalline, slightly dense-sucrosic LIMESTONE; poor visible porosity; spotted stain-saturation; fair show of free oil; ELC-favorable; recommend testing.
- *3884-3893 White-cream, fine crystalline, fossiliferous, oolitic, slightly dense LIMESTONE; very spotted interparticulate porosity; spotted stain; slight show of free oil; weak odor; ELC-slightly unfavorable; recommend testing prior to abandonment.
- 3922-3930 Light green, fine crystalline, slightly shaley-sucrosic LIMESTONE; poor visible porosity; occasional stain; trace free oil; ELC-slightly unfavorable; judged no value.
- *3981-3988 White, fine crystalline, fossiliferous, slightly chalky-dense LIMESTONE; spotted interparticulate porosity; spotted stain; slight show of free oil; ELC-slightly unfavorable; covered by DST #1; recommend testing prior to abandonment.
- **4002-4011 Tan-brown, fine crystalline, sucrosic-slightly chalky LIMESTONE; poor intercrystalline porosity; saturated; good show of free oil; slight odor; ELC-favorable; covered by DST #1; recommend testing.

DST #1 Interval: 3968-4014
 Pressures: initial flow--50-50# in 30 min.
 initial shut in--129# in 45 min.
 final flow--70-70# in 60 min.
 final shut in--129# in 45 min.
 Recovery: 70' total fluid
 10' mud
 60' oil filmed mud

- 4022-4025 White, fine crystalline, dense, chalky LIMESTONE; poor visible porosity; spotted stain mostly residual; ELC-slightly unfavorable; judged no value.
- **4044-4050 Tan, oolitic LIMESTONE; mostly dense-spotted good inter-oolitic porosity; spotted stain, trace residual; slight-fair show of free oil; ELC-favorable; recommend testing.

*recommend testing prior to abandonment

**recommend testing for primary production

SUMMARY

This hole was under geological supervision from 3750-4085' (R.T.D.) Wet and dry samples were examined and analyzed from 3800-R.T.D. An open hole electric log was run from 4084 (L.T.D.) to 3350'. One drill stem test was run without conclusive results. Due to the relatively positive structural position, the abundance of oil shows in the sample analysis, favorable electric log characteristics of some of the Lansing-Kansas City zones, and the fact that in this area some zones respond favorably to stimulation by acid, it was decided by the operator to run 4-1/2" production casing for further testing.

Respectfully submitted,

Curtis R Longpine

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