

Computer Inventoried

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706 ORPHEUM BUILDING
WICHITA 2, KANSAS

10-9-17W
NE SE SE

August 14, 1962

GEOLOGICAL REPORT

Re: Lee H. Cornell, et al
No. 1 Minnie Oswald
NE SE SE 10-9-17W
Rooks County, Kansas

Drilling progress of the above captioned well was observed from 3030' to total depth. One foot drilling time was kept and five foot samples saved from 2800' to total depth. Samples were delivered to the Kansas Well Sample Bureau and a washed cut was ordered for the sample library of the State Geological Survey.

MISCELLANEOUS DATA

Contractor: D & D Drilling Inc., Wichita, Kansas
Surface Hole: August 4, 1962
Surface Casing: 8 5/8" set at 175' and cemented with 175 sacks.
Rotary Drilling Completed: 12:34 a.m., August 14, 1962
Oil String: 5 1/2" set at 3445' and cemented with 125 sacks.
Centralizers at: 1305 (Anhydrite), 3210, 3275, 3400, 3440
Elevation: 2031' K.B.; 2028' DF; 2026' Gr.

FORMATION TOPS

	<u>By Samples & Drilling Time</u>	<u>By Schlumberger</u>
Top Anhydrite	1291 + 740	1291 + 740
Base Anhydrite	1327 + 704	1324 + 707
Topeka	2911 - 880	2911 - 880
Heebner	3128 -1097	3127 -1098
Toronto	3150 -1129	3151 -1130
Lansing	3170 -1139	3171 -1140
Base Kansas City	3408 -1377	3408 -1377
Conglomerate	3414 -1383	3414 -1383
Arbuckle	3448 -1417	3448 -1417
Total Depth	3455 -1424	*3453 -1422

*Schlumberger did not get to bottom because of 2' of casing in the hole.

STRUCTURAL POSITION

No. 1 Oswald was about 10 feet lower structurally than was expected and is slightly lower than Lansing producers in the Westhusin Pool, but on the Arbuckle it is within the limits of Arbuckle production in both the Westhusin Pool to the east and the Nyra Pool to the west.

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The datums on the Lansing and Arbuckle at No. 1 Oswald, coupled with the Lansing (-1151) and the Arbuckle (-1441) of the relatively high D. G. Hanson well in the SW SW SW of 3-9-17W, completed August 14th as a dry hole, indicates a probable higher closure to the northwest than was originally expected, making all of the SE $\frac{1}{4}$ of section 10 look more favorable for production.

LANSING SECTION

- 3178-3179 ✓ Limestone, fair vugular porosity, very slight show of oil, spotted staining. 8% porosity, 75% water saturation. Zone of no value.
- 3206-3208, 3212-3214 Limestone, fair vugular porosity, fair staining, no free oil or odor. 9% porosity, 64 to 75% water saturation. Zone of no value.
- 3269-3271 ✓ Limestone, oolitic, slight odor, fair show of free oil, good staining. 9% porosity, 35% water saturation.

Halliburton DST No. 1, 3253-3280, open 2 hours, weak, diminishing blow for 2 hours, recovered 5' of oil cut mud, 180 feet of thin salty mud; ICIP - 310#/30 minutes; FCIP - 360#/30 minutes; IFP - 25#; FFP - 125#. Although the results of DST No. 1 are negative, the packer was set above a water zone and probably most of the fluid recovered came from the water zone. The oil zone covered in the test is thin, but should be considered as a possible producing zone before the well is abandoned.

- 3333-3340 ✓ Limestone, crystalline, poor porosity, no odor, very small show of free oil, scattered pieces with fair to poor staining. 8 to 10% porosity, 100% water saturation.
- 3354-3356 ✓ Limestone, fair vugular porosity, no odor, small show of free oil, slight staining. 17% porosity, 33% water saturation.
- 3383-3384 ✓ Limestone, pin hole porosity, faint odor, small show of free
- 3385-3388 ✓ oil, fair to good staining.

Halliburton DST No. 2, 3320-3387, open 45 minutes, weak blow for 15 minutes, recovered 20 feet of drilling mud with a few spots of oil on top. ICIP - 360#/30 minutes; FCIP - 325#/30 minutes; IFP - 10#; FFP - 25#.

The above DST covered three zones having small shows of oil with negative results. The upper zone is definitely of no value, but the two lower zones should be considered for possible perforating before the well is abandoned.

CONGLOMERATE SECTION

- 3414-3419 ✓ Sandstone, fine grained, well sorted, angular, good show of free oil, no odor, good staining. 14 to 22 $\frac{1}{2}$ % porosity, 35 to 53% water saturation.

Halliburton DST No. 3, 3403-3445, open 1 hour and 40 minutes, weak, diminishing blow for 1 hour and 25 minutes, recovered 63 feet of muddy oil, no water. ICIP - 975#/30 minutes; FCIP - 920#/30 minutes; IFP - 35#; FFP - 55#. Gravity 33 at 76° = 31.4 corrected. (subject to correction)

This zone should be perforated and tested before abandonment.

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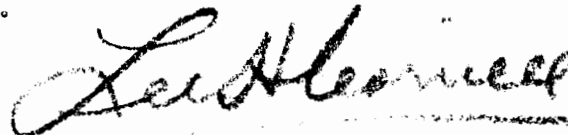
ARBUCKLE SECTION

3448-3455 Total Depth. Dolomite, medium to coarse crystalline, inter-bedded with sucrosic dolomite, some chert, partly oolitic, fair to good vugular and inter-crystalline porosity, fair odor, good show of dark, free oil, good to excellent staining. (No percentage calculations since the Schlumberger tool did not reach bottom.)

Halliburton DST No. 4, 3448-3455, open 2 hours, weak, steady blow for 2 hours, recovered 120 feet of clean oil, 30 feet of muddy oil, no water. ICIP - 695#/30 minutes, * 905#/30 minutes; IFP - 35#; FFP - 100#. Gravity 25.0 corrected.

*There was a partial failure of the recording instrument during the initial closed in pressure period. It is estimated that the ICIP should be over 925#.

It was recommended that the oil string be set and cemented 10 feet off bottom at 3445' in a hard limestone section from 3438' to 3448' and that the well be completed in open hole.



Lee H. Cornell

Finished prints of the Schlumberger logs will be mailed at a later date.

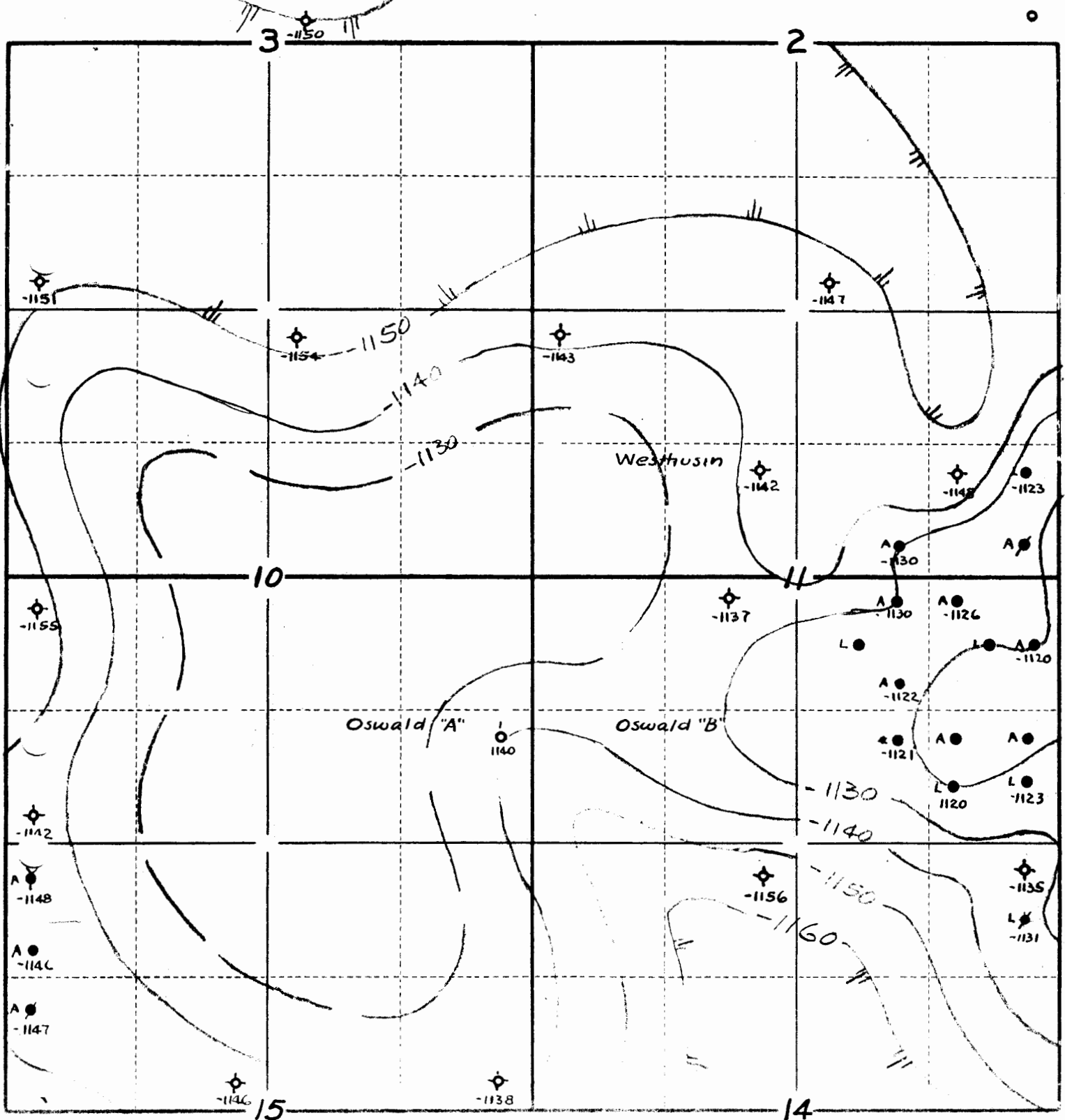
LHC:ws

L. H. Cornell, et al Top of the Lansing
Minnie Oswald #1 Contour Interval - 10 ft.

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NE SE SE

8-15-62

Township 9S Range 17W County Rooks State Kansas



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