

GEOLOGICAL CONSULTING

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Computer inventoried

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ALJU Co.

George Sage

Box 12
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ALJU Oil and Gas

Re: Liebau #1
165' FSL, 3665' FEL
Section 13-T25S-R13E
Woodson County, Kansas
API#15-207-26258

Dear Sir:

The following report on the subject well is based on microscopic examination of rotary cuttings from 350' to 390' and from 1100' to a rotary total depth of 1555'. All measurements were taken from ground level which was estimated at 970'. The following sample tops were picked:

Lansing	361	+609
"Webb" Sand Zone	372	+598
Cherokee	1173	-203
Squirrel	1194	-224
Ardmore	1239	-269
Lower Cattlemen Sand	1328	-358
Bartlesville Zone	1371	-401
Bartlesville Sand	1383	-413
	1397	-427
	1426	-456
Base Bartlesville Sand	1451	-481
Mississippi "Chat"	1506	-536
Rotary Total Depth	1555	-585

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WIDENBACH

MAJOR ZONES OF INTEREST

"Webb" Sand. 372 - 379. Shale, dark grey with grey, coarse grained, rounded to sub-rounded very calcareous sandstone, poor to very poor intergranular porosity, dense, no show.

Squirrel Sand. 1194 - 1210. Sandstone, grey, trace white, very fine to fine grained, angular, poor to moderately sorted, moderately to well consolidated, poor intergranular porosity, micaceous and silty in most, with intermittent shale breaks, no show.

Lower Cattlemen Sand. 1328 - 1342. Sandstone, white, very fine to fine grained, angular, well sorted, well consolidated, friable, fair to good intergranular porosity, trace pyritic, speckled with very dark grey shale fragments with gives the effect of a salt and pepper sand, no show.

Lower Bartlesville Sand. 1383 - 1387. Sandstone, very light tans with light greenish tint due to green to light green shale and clay particles, fine grained, poorly to moderately sorted, well consolidated, friable, poor to fair intergranular porosity, fair fluorescence, weak odor, weak to more of "sheen" show of free oil.

1397 - 1405. Sandstone, light tan, tan, fine to medium grained, mostly angular grained with very few very angular coarse grains, moderately sorted, very well consolidated, semi-firm to firm, with shale platelets and becoming a little shaley at base, good fluorescence, fair to good odor, fair to good show of free oil.

1426 - 1434. Sandstone, tan, fine to medium grained, trace coarse grained, angular, moderately to well sorted, moderately to well consolidated, friable, good porosity, good fluorescence, good to very good odor, fair with trace good shows of free oil.

1434 - 1438. Sandstone, dark tan, light brown, medium to coarse grained, angular to very angular, fairly well sorted, well consolidated, fair to good porosity, friable to semi-firm, fair fluorescence, fair to good odor, fair show of free oil.

1438 - 1451. Sandstone, very light tan, medium grained, sub-angular, well to moderately well sorted, poor to moderately well consolidated, very friable to loose, good to very good intergranular porosity, fair to good fluorescence, fair to good odor, weak with traces of fair show of free oil. NOTE: Zone appears to become watery with depth.

Mississippi. 1506 - 1514. Chert, white, off-white, sharp, blocky, tripolitic in part, poor to fair leached and fractured porosity, no show.

1514 - 1521. Chert, off-white, light grey, tripolitic, trace chalky limestone, no show.

1521 - 1528. Chert, light tan, light grays, semi-translucent in part, with mottled tan argillaceous limestone fragments, trace pale green shale, no show.

1528 - 1536. Dolomite, dark cream, light to medium tan, fine crystalline, sucrosic in most, fair to good crystalline porosity, fair fluorescence, no odor, no stain, no show of free oil.

1536 - 1539. Dolomite, dark cream, with grayish tint, very fine crystalline, very poor porosity, trace chert.

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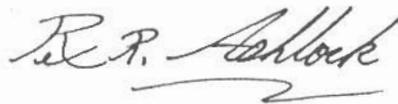
1539 - 1547. Dolomite, grey to medium grey, very fine to medium crystalline, trace glauconitic, trace argillaceous, trace oolitic chert.

1547 - 1555. Dolomite, "dirty" grays and off whites, very fine to very coarse crystalline, very poor crystalline porosity, very glauconitic, trace limey, no shows.

SUMMARY

Due to the show of oil found in the Bartlesville sands, the decision was made to run 5 1/2" production casing for further testing of these zones. It is recommended to perforate and test the sand found at 1397' and the sand at 1426'. The sand at 1371' does not seem to merit testing at this time. Some adjustments with the Cased Hole Gamma Ray-Neutron log will be needed to match up with the geological strip log depths.

Sincerely,



Rex R. Ashlock
Petroleum Geologist

STATE OF OKLAHOMA
OIL & GAS COMMISSION
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WILLIAMSON