

ORIGINAL

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GEOLOGICAL REPORT

15-121-27448-0000
Someday #1-12

SW 1/4 NE 1/4 4940' FSL & 340' FEL Sec. 12-T16S-R24E
Miami County, Kansas
API NO: 15-121-27448
1063 G.L. Topo.

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OPERATOR: Osborn Energy L.L.C. #32294

CONTRACTOR: Bill McPherson Drilling

COMMENCED: May 15, 1998

COMPLETED: May 25, 1998

SURFACE CASING: 8 5/8" casing @ 20' with 5 sacks cement.

PRODUCTION CASING: 4 1/2" casing @ 1138' with 203 sacks
portland A cement 2% gel, 2% CaCl, 2%
flo-seal, 3% gil.

SAMPLE DEPTHS: 10' samples were examined from 100' to
1148' R.T.D.

DRILLING TIME: 1' dilling time kept from 50' to 1148' R.T.D.

ELECTRIC LOGS: Log-Tech Gamma Ray Neutron-Cased Hole

FORMATION TOPS

	Sample	Log
Muncie Creek	212 (+851)	213 (+850)
Stark Shale	307 (+756)	308 (+755)
Hushpuckney Shale	336 (+729)	336 (+729)
Base Kansas City	355 (+708)	354 (+709)
Knobstown Sand	408 (+655)	409 (+654)

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Big Lake Sand	466 (+597)	464 (+599)
South Mound	511 (+552)	511 (+552)
Peru Sand	566 (+497)	566 (+497)
Lexington Coal	589 (+474)	588 (+475)
Summit Coal Zone	633 (+430)	632 (+431)
Mulky Coal Zone	657 (+406)	658 (+405)
Squirrel Sand "Upper"	674 (+389)	673 (+390)
Bevier Coal Zone	729 (+334)	730 (+333)
Croweburg Shale	733 (+330)	733 (+330)
Fleming Coal Zone	Absent	
Mineral Coal Zone	763 (+300)	770 (+293)
Scammon Coal Zone	Absent	
Tebo Coal Zone	812 (+251)	809 (+254)
Weir/Pittsburg Coal Zone	820 (+243)	818 (+245)
Stuart Coal Zone	Absent	
Drywood Coal Zone	898 (+165)	898 (+165)
Rowe Coal Zone	918 (+145)	916 (+147)
Neutral Coal Zone	931 (+132)	930 (+133)
Burgess Sand	986 (+77)	986 (+77)
Mississippian	1017 (+46)	1016 (+47)
Total Depth	1148 (-85)	1124 (-61) cased hole

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SAMPLE DESCRIPTIONS

(Depths are electric log measurements)

Stark Shale 308' to 312'. Shale, black carbonaceous, some dark gray, very hard, slightly calcareous, trace pyrite, very weak show gas. Open flow tested faint blow with little water. Sample was bagged.

Hushpuckney Shale 336' to 340'. Shale, dark gray to black carbonaceous, hard, some calcareous, weak increasing to fair show gas, better show gas bubbles when broken. Open flow tested slight increase in faint blow and little water.

Base Kansas City 354' to 362'. Shale, gray, dark gray, black carbonaceous, trace coal, with slight show gas in all the shale.

Big Lake Sand 468' to 472'. Sandstone, light gray to white, fine grain quartz clusters, some friable, scattered black flaky dead oil, show free gas when broken, scattered poor intergranular porosity.

South Mound 511' to 513'. Shale, black carbonaceous, trace interbedded calcite, firm, fair to good show free gas. Sample was bagged. Open flow tested no increase blow.

Peru Sand 565' to 572'. Sandstone, light gray to gray, very fine to fine grained quartz clusters, micaeous, silica cement in part, scattered pyrite, trace friable, good odor, dark stain, some saturated, good show free oil - dark brown, very few gas bubbles,

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scattered poor intergranular porosity. Open flow tested with no increase blow.

Lexington Coal Zone 588' to 592'. Shale, black carbonaceous, grading to coal, fair show free gas increasing to good show free gas when broken, trace pyrite. Open flow tested 1 1/2 pounds through 3/8" choke, approximately 22,000 MCF. Sample was bagged.

Summit 632' to 636'. Shale, black carbonaceous, trace coal, very slight show free gas. Sample was bagged. Open flow tested weak surging blow, estimated 40 gallons of water per minute.

Mulky Coal Zone 658' to 664'. Shale, black carbonaceous, some coal, some very dark brown in the lower part, slight show free gas increasing to good show free gas. Sample was bagged and canned (661' to 664'). Open flow test failed from leak through nipple. Open flow test next morning found no increase in blow.

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Squirrel Sand 672' to 681'. Sandstone, light gray, very fine to fine grained quartz, few clusters, abundant loose grains, friable, trace micaeous, dark brown stain, some saturated, some black dead stain, fair show free oil, fair increasing to good show free gas, good odor, good intergranular porosity, show oil on pits. Open flow tested no increase in gas, surging. Show oil in water.

Note: The open flow test after the Lexington were determined to be invalid due to the amount of formation water in the well bore.

Bevier Coal 730' to 731'. Shale, gray, green, slightly sandy, trace coal with show free gas.
Croweburg Coal 733' to 736'. Same as above. These zones were not bagged or canned due to the lack of coal in sample.

Mineral Coal 765' to 767' & 771' to 774'. Coal, good show free gas, trace pyrite, some black carbonaceous shale with slight show free gas. Sample was bagged and canned.

Tebo Coal 809' to 812'. Shale, dark gray, black, some carbonaceous, with pyrite, 15-20% coal, fair show free gas.

Weir-Pittsburg Coal. Shale, dark gray to black, no shows, coal absent.

Drywood Coal 899' to 901'?. Sample was mostly sandstone from above with trace coal, trace free gas.

Rowe Coal 916' to 918'. Shale, light gray, gray, with 15-20% coal, with fair show free gas.

Neutral Coal 930' to 932'. Shale, gray, some sandy, micaecous, with coal, very pyritic - laminated, fair show free gas, some black carbonaceous shale at very last.

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WELL SUMMARY

The hole was drilled with air to a depth of 956' at this depth mud was added and drilled to a depth of 1148' (RTD). While air drilling the use of a gas detector is not possible. After adding mud the gas detector was used with no shows of gas in the Burgess Sand or the Mississippian. Lost circulation was encountered at 1148' (RTD). After a reasonable attempt was made to regain circulation the decision was made to run 4 1/2" casing to further evaluate the numerous gas shows and the shows of oil in the Peru Sand and the Squirrel Sand. A Log-Tech Gamma Ray Neutron cased hole log was run.

Respectfully Submitted,

Bil Stout

William M. Stout

Geologist

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