

ORIGINAL

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January 8, 1999

BoomCo
P. O. Box 37
Moline, Kansas 67353

KCC License # 30484

Reference:

Your Glasscock #10 Well
API # 15-049-223670000

Spot Location:

1580' FSL, 2220' FEL
SE SW NW SE
Section 11 - T31S - R10E
Elk County, Kansas
Webb Oil & Gas Field

Ground Elevation(GL):

Estimated 1062' Mean Sea Level(MSL)

Topography/Vegetation:

Flat/Pasture

TD (Total Depth):

2271½' Driller (from GL)
N/A Electric Log (from GL)

Drilling Contractor:

Heyliger Oil & Gas Corp.
885 South Colorado Blvd.
Denver, Colorado 80246
(303) 722-0723

Drilling Rig Model:

Unit U-17 Mud Rotary
Powered by 8V71 Detroit Diesel

Mud Pump Model:

Oil Well (7" x 12")
Powered by 400 Cummings Diesel

Hole Data:

12" surface hole to 40.0'
(40' of 8 5/8" casing installed)
7 7/8" production hole to 2271½'

Drilling Commenced:
Drilling Completed:

December 8, 1998 (Tuesday)
December 31, 1998 (Thursday)

Current Status:

5½" Production casing installed
to 2270½', Cemented by Blue Star
Acid and Cement of Eureka, KS.

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This geological report concludes partial wellsite supervision and sample examination on the above referenced test well. This well was drilled as an offset to a known producing Arbuckle well located approximately 800 feet to the south, southeast. The well was drilled to an exact total depth (TD) of 2271½ feet. 5½" Production well casing was installed and cemented at 2270½ feet. Future plans allow for a cable tool drilling rig to be utilized to drill the balance of the Chattanooga Shale before "scratching" the Arbuckle formation.

All formations are fully described in the following lithology report. The estimated ground elevation of this well location is 1062 feet (MSL) from which all measurements were made. The depths mentioned below are based from the "drilling time" established by the drilling rig. A slight discrepancy may develop with any future electric log survey.

<u>DEPTH (feet)</u>	<u>LITHOLOGY</u>
000 - 1000	No samples observed.
1000 - 1088	Gray shale, slightly sandy.
1088 - 1091	Limestone - White, fine crystalline, poor porosity, no shows.
1091 - 1140	Layton Sand Zone - Gray shale, laminated with sand, poor porosity, no shows, increasing in sand towards base.
1140 - 1146	Black shale.
1146 - 1185	Limestone - Buff to brown, fine crystalline, fossiliferous, poor porosity, gas fluorescence only, grayish to black at base.
1185 - 1225	Gray shale, sandy.
1225 - 1322	Drum Limestone - Buff, cream to grayish, fine crystalline, poor to fair porosity, shaley, no significant shows. Dark gray to black shale between 1266 - 1280.
1322 - 1328	Black shale.
1328 - 1386	Dennis Limestone - Buff to grayish, fine crystalline, poor porosity at top, fair porosity towards middle/base, no shows.

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1386 - 1428	Dark gray shale.
1428 - 1434	Lenapah Limestone - Cream to grayish, tite, fine crystalline, no shows.
1434 - 1481	Nowata Shale/Wayside Sandstone zone - Greenish, very fine grained to silty sand, poor porosity, no shows.
1481 - 1506	Altamont Limestone - Buff to cream, tite, fine crystalline, poor porosity, no shows. Black shale between 1493 - 1498'.
1506 - 1582	Weiser Sandstone - Clear, very fine grained, shaley at top, poor porosity, no shows.
1582 - 1615	Pawnee Limestone - Buff to dark brown, tite, poor to fair porosity fine, crystalline, no significant shows. Black shale between 1585 - 1590.
1615 - 1618	Black shale.
1618 - 1639	Gray to dark gray shale, silty.
1639 - 1672	Oswego Limestone - Cream to grayish, fine crystalline, fair porosity, scattered gas fluorescence from 1646 - 1653'. Limestone as above, poor porosity, no shows from 1653 - 1659'. Black shale 1659 - 1667'. Limestone as before, cream to light gray, no shows balance of formation.
1672 - 1676	Mulky Coal zone - Black shale.
1676 - 1735	Gray shale.
1735 - 1737	Verdigris Limestone - Brown, tite, no shows.
1737 - 1740	Black shale.
1740 - 1965	Variegated shales, silts and sands, no shows.
1965 - 2142	Mississippian Lime - White dolomitic limestone, soft, cherty, fair porosity, good to strong odor, good fluorescence, fair cut with acid, possible commercial zone from 1965 - 1986' (recommended for additional testing).

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1965 - 2142 Mississippian Lime (continued) - Limestone
as above, cream to brown, dense, poor porosity,
cherty, no significant shows balance of
formation.

2142 - 2225 Northview Shale - gray, dark gray to greenish
shale, limy.

2225 - 2234 Compton Limestone - White, tite, poor porosity,
no shows.

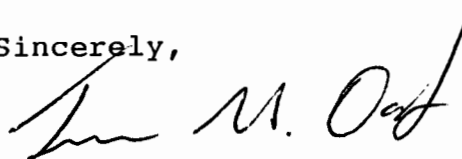
2234 - 2271½ Chattanooga/Woodford/Kinderhook Shale - Black
to golden black, strong odor.

2271½ Drillers total depth.

5½" Production casing installed and cemented @ 2270½'.

Please feel free to contact me if you have any questions concerning this report.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Th. M. Oast', written in a cursive style.

Thomas H. Oast
Geological Consultant