Well Name: THOMSEN #1B
Location: Section 30 - Township 22 South - Range 14 East
Licence Number: 15-031-23,496 - 01.00
Region: Coffee County, KS.
Spud Date: 12 June 2013
Drilling Completed:
Surface Coordinates: 1,485' FSL & 1,485' FEL, SE/W
(Aproximately SE SE NW SE)
Bottom Hole Coordinates: 'MD' reported to be
'North' & 'West' of surface coordinates.
Ground Elevation (ft): 1,181' K.B. Elevation (ft):
Logged Interval (ft): 935' MD To: 'MD' Total Depth (ft):
Formation: Lansing Mississippi GEOLOG 1
Type of Drilling Fluid: Chemical; Low Solids (non-dispersed)

OPERATOR
Company: STEPHEN C. JONES
Address: 12 North Armstrong Street
Bixby, Oklahoma 74008
(918) 366-3710

POC: Steve Jones

GEOLOGIST
Name: Curtis Covey
Company: COVEY - The Well Watchers
Address: 6548 Bedford Circle
Derby, Kansas 67037
Office: (316) 776-0367 Cell: (316) 217-4679

KB: NA

FORMATION TOPS

<table>
<thead>
<tr>
<th>Formation</th>
<th>Rotary Sample Depth (Datum from GL)</th>
<th>E-log Depth (Datum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stark Sh</td>
<td>1,058' MD / TVD 1,058' (+123')</td>
<td>No open hole log was performed on the well.</td>
</tr>
<tr>
<td>B / KG</td>
<td>1,114' MD / TVD 1,114' (+67')</td>
<td></td>
</tr>
<tr>
<td>Altamont</td>
<td>1,274' MD / YVD 1,260' (-78')</td>
<td></td>
</tr>
<tr>
<td>Lexington Coal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scammon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Riverton Coal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Miss (Chert)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MRTD: LTD: NA ATD: NA

GL: 1,181'
14-3/4" Hole

12 June — Spud @ 1pm.
Drill to 44'.
Run 10-3/4" casing (1 #)
Set casing @ 40'.
Cemented w/ 6x
Class A (2% Gel + 3% CC).
[Hurricane Well Service]
Cement circulated to surface.
Plug down @ 6:30pm.
WOC.

9-1/2" Hole (Vertical)

13 June — Under surface casing @ 2:30pm.
7am @ 771'. Drill to 935'.

GEOLOG 1 - VERTICAL & CURVE

9-1/2" Hole (Curve)

14 June — CHC.
7am @ 935'.
BHA Tripped @ 935'.

15 — Resumed Drilling @ 3am.
7am @ 982'. Drill to 1,248'.
Mud Pump Clutch Problem.

16 — 7am @ 1,248'.
Resumed Drilling @ 10pm.

17 — 7am @ 1,383'.

18 — 7am @

6-1/8" Hole (Horizontal)

GEOLOG 2 - HORIZONTAL
### HOLE DEVIATION (44')

<table>
<thead>
<tr>
<th>DEPTH / TVD</th>
<th>INCLINATION</th>
<th>AZIMUTH</th>
<th>NORTH</th>
<th>SOUTH</th>
<th>EAST</th>
<th>WEST</th>
<th>DOGLEG</th>
</tr>
</thead>
<tbody>
<tr>
<td>44' / 44'</td>
<td>0 (Surface)</td>
<td>0</td>
<td>11.5'</td>
<td>4.9'</td>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>937' / 936.9'</td>
<td>1.0</td>
<td>211.4</td>
<td>11.6'</td>
<td>5.4'</td>
<td>8.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>965' / 966.9'</td>
<td>2.1</td>
<td>316.2</td>
<td>10.0'</td>
<td>6.5'</td>
<td>10.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000' / 999.8'</td>
<td>10.7</td>
<td>300.2</td>
<td>4.8'</td>
<td>13.9'</td>
<td>9.1</td>
<td></td>
<td></td>
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<tr>
<td>1,065' / 1,063.3'</td>
<td>14.5</td>
<td>334.5</td>
<td>30.7'</td>
<td>20.2'</td>
<td>7.7</td>
<td></td>
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</tbody>
</table>

### CONTRACTOR

**KAN-DRILL Drilling — Rig #1**

610 East Main
Blue Mound, Kansas 66010
Office: (913) 756-2619
Rig #1 -
Toolpusher: Donnie Rhynerson (620)

**Pump:** Gardner Denver FXN
5-1/2" x 14" @ 80 SPML
650 PSI @ Standpipe.

**Drill Pipe:** 4-1/2"KH. (16#/ft - used)

**After BHA Trip @ 835':**
Con Ensco F-660
6-1/2" X 8" @ 58 SPML,
776 psi @ Standpipe.

### BIT RECORD

<table>
<thead>
<tr>
<th>DATE</th>
<th>SIZE</th>
<th>TYPE</th>
<th>JET SIZE</th>
<th>DEPTH IN / OUT</th>
<th>CUM. FT</th>
<th>HOURS</th>
<th>ROP</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 June 2013</td>
<td>14-3/4&quot;</td>
<td>R-T</td>
<td>NA</td>
<td>0' / 44'</td>
<td>44'</td>
<td>4.0</td>
<td>11.0</td>
</tr>
<tr>
<td>13 June 2013</td>
<td>9-1/2&quot;</td>
<td>SMAH HAL351GX</td>
<td>20 - 30 - 20</td>
<td>44' /</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

SH - tr Lt/ mostly Med Gray, rare Dark Green Gray. tr Dark Gray mixed in. Sing/ tr Mixed.


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F/R Mud Pump
Clutch @ 1,248'

ALTAMONT
1,274' MD/ TVD 1,266' (- 79')