

Air Drilling Specialist  
Oil & Gas Wells

**THORNTON AIR ROTARY, LLC**  
Office Phone: 620-879-2073

PO Box 449  
Caney, KS 67333

Date Started	<b>4/5/2011</b>
Date Completed	<b>4/6/2011</b>

Well No.	Operator	Lease	A.P.I #	County	State
<b>16C-34</b>	<b>Layne Energy Operating</b>	<b>Metzger</b>	<b>15-205-27926-00-00</b>	<b>Wilson</b>	<b>Kansas</b>

1/4	1/4	1/4	Sec.	Twp.	Rge.
			<b>34</b>	<b>30</b>	<b>14</b>

Driller	Type/Well	Cement Used	Casing Used	Depth	Size of Hole
<b>Billy</b>	<b>Oil</b>	<b>8</b>	<b>42.8' 8 5/8</b>	<b>1262</b>	<b>6 3/4</b>

### Formation Record

0-8	DIRT	935-936	SAND		
8-76	LIME (WET)	936-968	SANDY SHALE		
76-290	LIME SHALE	968-995	LIME (OSWEGO)		
290-299	LIME	995-1004	BLK SHALE (SUMMIT)		
299-408	SAND (WET)	1004-1014	LIME		
360	WENT TO WATER	1014-1018	BLK SHALE (EXCELLO)		
408-428	SANDY SHALE	1018-1019	COAL (MULKEY)		
428-432	LIME	1019-1021	SHALE		
432- 444	SHALE	1021-1025	LIME		
444-546	LIME	1025-1066	SHALE		
546-554	BLACK SHALE	1066-1067	COAL (BEVIER)		
554-650	LIME	1067-1084	SHALE		
650-704	SHALE	1084-1086	LIME (V-LIME)		
704-727	LIME SHALE	1086-1087	SHALE		
727-738	SANDY SHALE	1087-1088	COAL (CROWBERG)		
738-749	SHALE	1088-1129	SANDY SHALE		
749-759	LIME	1129-1130	COAL (MINERAL)		
759-764	BLACK SHALE	1130-1172	SHALE		
764-771	LIME SHALE	1162	GAS TEST-SLIGHT BLOW		
771-780	SAND / LITE ODOR	1172-1177	BLACK SHALE		
780-791	SANDY SHALE	1177-1178	COAL		
791-876	SHALE	1178-1191	SHALE		
876-878	LIME	1191-1196	SANDY SHALE		
878-879	COAL (MULBERRY)	1196-1201	BLK SAND/LITE OIL ODOR		
879-881	SHALE	1201-1203	COAL		
881-911	LIME (PAWNEE)	1203-1205	BLACK SAND		
911-913	BLACK SHALE	1205-1247	SANDY SHALE		
913-916	LIME	1247-1262	SHALE		
916-920	BLK SHALE (LEXINGTON)	1262	TD		
920-935	SANDY SHALE				