

Air Drilling Specialist  
Oil & Gas Wells

**THORNTON AIR ROTARY, LLC**  
Office Phone: 520-879-2073

PO Box 449  
Caney, KS 67333

Date Started	<b>11/29/2010</b>
Date Completed	<b>11/30/2010</b>

Well No.	Operator	Lease	A.P.I #	County	State
<b>10A-28</b>	<b>Layne Energy Operating</b>	<b>Hummer</b>	<b>205-27871-00-00</b>	<b>Wilson</b>	<b>Kansas</b>

1/4	1/4	1/4	Sec.	Twp.	Rge.
			<b>28</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>40" 8 5/8</b>	<b>1237</b>	<b>6 3/4</b>

### Formation Record

0-6	DIRT	749-771	LIME	1100-1118	SHALE
6-50	SHALE	771-781	SAND	1118-1124	SAND / OIL ODOR
50-146	LIME	781-790	SANDY SHALE	1124-1143	SANDY SHALE
146-168	SANDY SHALE (DAMP)	790-808	SHALE	1143-1154	SAND / OIL ODOR
168-200	SHALE	808-814	SANDY SHALE	1154-1159	WHITE SAND
200-208	LIME	814-820	SAND	1159-1172	SANDY SHALE
208-326	SHALE	820-836	SANDY SHALE	1162	GAS TEST - NO GAS
326-380	SAND (WET)	836-857	SAND	1172-1178	SAND
361	GAS TEST - NO GAS	857-866	SHALE	1178-1208	SANDY SHALE
380-450	SANDY SHALE	866-900	LIME (PAWNEE)	1208-1225	RED SHALE
411	GAS TEST - NO GAS	900-904	SHALE	1225-1237	SHALE
450-465	LMY SHALE	904-908	LIME	1237	TD
465-488	SAND	908-915	BLK SHALE (LEXINGTON)		
488-548	LIME	915-951	SHALE		
511	WENT TO WATER	951-975	LIME (OSWEGO)		
548-556	BLACK SHALE	975-981	BLK SHALE (SUMMIT)		
556-571	LIME	981-995	LIME		
571-578	SAND	995-997	BLK SHALE (MULKEY)		
578-579	COAL	997-998	COAL		
579-594	SANDY SHALE	998-1000	LIME		
594-614	LIME	1000-1042	SHALE		
614-625	SHALE	1012	GAS TEST - NO GAS		
625-653	LIME	1042-1043	COAL		
653-662	SHALE	1043-1054	SHALE		
662-671	BLACK SHALE	1054-1056	LIME		
671-683	SHALE	1056-1058	SHALE		
683-685	LIME	1058-1059	COAL (CROWBERG)		
685-715	SHALE	1059-1099	SHALE		
715-729	LIME	1062	GAS TEST - NO GAS		
729-749	SHALE	1099-1100	COAL		