

Air Drilling Specialist  
Oil & Gas Wells

**THORNTON AIR ROTARY, LLC**

Office Phone: 620-879-2073

PO Box 449  
Caney, KS 67333

Date Started	<b>12/15/2010</b>
Date Completed	<b>12/16/2010</b>

Well No.	Operator	Lease	A.P.I.#	County	State
<b>15K-34</b>	<b>Layne Energy Operating</b>	<b>Metzger</b>	<b>205-27876-00-00</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>44' 8 5/8</b>	<b>1263</b>	<b>6 3/4</b>

**Formation Record**

0-4	DIRT	901-907	BLK SHALE (LEXINGTON)	1225-1263	SHALE
4-80	LIME	907-953	SANDY SHALE	1263	TD
80-162	SHALE	953-978	LIME (OSWEGO)		
162-221	LIME	978-986	BLK SHALE (SUMMIT)		
221-288	LMY SHALE	986-998	LIME		
288-400	SAND (DAMP)	998-1002	BLK SHALE (EXCELLO)		
387	WENT TO WATER	1002-1003	COAL (MULKEY)		
400-434	SANDY SHALE	1003-1007	LIME		
434-460	LIME	1007-1050	SHALE		
437	GAS TEST - NO GAS	1050-1051	COAL		
460-464	SHALE	1051-1065	SHALE		
464-527	LIME	1065-1066	LIME		
527-548	SHALE	1066-1069	SHALE		
548-552	LIME	1069-1070	COAL (CROWBERG)		
552-577	SAND	1070-1110	SANDY SHALE		
577-603	LIME	1110-1112	COAL (MINERAL)		
603-606	SHALE	1112-1118	SHALE		
606-640	LIME	1118-1128	SANDY SHALE		
640-697	SHALE	1128-1129	COAL		
697-713	LIME	1129-1158	SANDY SHALE		
713-715	SANDY SHALE	1138	GAS TEST-B#, 1/4", MCF-27		
715-716	COAL	1158-1160	SANDY SHALE		
716-740	SANDY SHALE	1160-1180	SAND / GOOD ODOR		
740-756	LIME	1180-1183	SANDY SHALE		
756-771	SAND	1183-1185	COAL		
771-778	SANDY SHALE	1185-1207	SANDY SHALE		
778-866	SHALE	1188	GAS TEST - SAME		
866-867	COAL (MULBERRY)	1207-1214	SAND		
867-870	SHALE	1214-1224	SHALE		
870-901	LIME (PAWNEE)	1224-1225	COAL		