

Air Drilling Specialist  
Oil & Gas Wells

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

PO Box 449  
Caney, KS 67333

Date Started	<b>5/26/2011</b>
Date Completed	<b>6/2/2011</b>

Well No.	Operator	Lease	A.P.I #	County	State
<b>7L-1</b>	<b>Layne Energy Operating</b>	<b>Tull</b>	<b>15-125-32090-00-00</b>	<b>Montgomery</b>	<b>Kansas</b>

1/4	1/4	1/4	Sec.	Twp.	Rge.
			<b>1</b>	<b>31</b>	<b>13</b>

Driller	Type/Well	Cement Used	Casing Used	Depth	Size of Hole
<b>Sean</b>	<b>Oil</b>	<b>4</b>	<b>21.10 8 5/8</b>	<b>1770</b>	<b>6 3/4</b>

**Formation Record**

0-5	DIRT	1052-1080	LIME (PAWNEE)	1451-1485	SHALE
5-12	CLAY	1080-1082	BLACK SHALE	1485-1535	CHAT/CHIRT (MISS.)
12-18	SHALE	1082-1084	LIME	1505	LITE ODOR
18-22	LIME	1084-1089	BLACK SHALE	1535-1586	LIME
22-305	SHALE	1089-1101	SHALE	1586-1627	CHAT
305-313	LIME	1101-1131	SANDY SHALE	1638	WATERED OUT
313-324	SHALE	1131-1149	LIME (OSWEGO)	1627-1734	LIME/PICKED UP WATER @1665
324-339	LIME	1149-1158	BLACK SHALE	1734-1740	BLK SHALE (WOODFORD)
339-399	SHALE	1158-1165	LIME	1740-1750	LIME
399-414	LIME	1165-1169	BLACK SHALE	1750-1759	SHALE
414-570	SHALE	1169-1170	COAL	1759-1770	LIME (ARBUCKLE)
510-543	SAND	1170-1173	LIME	1770	TD
543-544	COAL	1173-1195	SHALE		
544-605	SAND	1195-1196	COAL?		
605-615	LIME	1196-1223	SHALE		
615-623	SHALE	1223-1224	COAL		
623-730	LIME	1224-1232	SHALE		
710	WENT TO WATER	1232-1233	LIME		
730-768	SAND	1233-1236	SHALE		
768-806	LIME	1236-1237	COAL		
806-847	SHALE	1237-1280	SHALE		
847-858	LIME	1280-1281	COAL		
858-890	SHALE	1281-1310	SHALE		
890-899	LIME	1310-1311	COAL		
899-927	SANDY SHALE	1311-1323	SHALE		
927-942	LIME	1323-1336	SAND / LITE ODOR		
942-952	SAND	1336-1353	SHALE		
952-1048	SANDY SHALE	1353-1360	SAND		
1048-1051	LIME	1360-1450	SHALE		
1051-1052	COAL	1450-1451	COAL		