

Air Drilling Specialist
Oil & Gas Wells

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

PO Box 449
Caney, KS 67333

Date Started	9/23/2011
Date Completed	9/26/2011

Well No.	Operator	Lease	A.P.I #	County	State
15 R-34 WIW	Layne Energy Operating	Metzger	15-205-27974-00-00	Montgomery	Kansas

1/4	1/4	1/4	Sec.	Twp.	Rge.
			34	30	14 E

Driller	Type/Well	Cement Used	Casing Used	Depth	Size of Hole
Billy	Oil	8	43' 8 5/8	1237	6 3/4

Formation Record

0-5	DIRT	937-963	SANDY SHALE		
5-80	LIME	963-986	LIME (OSWEGO)		
80-180	SHALE	986-995	BLK SHALE (SUMMIT)		
180-295	LMY SHALE	995-1004	LIME		
295-400	SAND (DAMP)	1004-1008	BLACK SHALE		
336	WENT TO WATER	1008-1009	COAL (MULKY)		
400-425	SANDY SHALE	1009-1010	SHALE		
425-431	LIME	1010-1014	LIME		
431-440	LMY SHALE	1014-1056	SHALE		
440-531	LIME	1056-1057	COAL		
531-538	BLACK SHALE	1057-1072	SHALE		
538-550	SHALE	1072-1074	LIME (V-LIME)		
550-560	LIME	1074-1077	SHALE		
560-583	SAND	1077-1078	COAL (CROWBERG)		
583-609	LIME	1078-1118	SHALE		
609-616	SHALE	1118-1119	COAL (MINERAL)		
616-651	LIME	1119-1168	SHALE		
651-709	SHALE	1168-1178	BLACK SAND/OIL ODOR		
709-727	LIME	1178-1220	SHALE		
727-730	SANDY SHALE	1212	G.T.- SLIGHT BLOW		
730-744	SHALE	1220-1228	SAND		
744-758	LIME	1228-1237	SHALE		
758-766	SHALE	1237	TD		
766-780	SAND				
780-873	SHALE				
873-874	COAL (MULBERRY)				
874-877	SHALE				
877-911	LIME (PAWNEE)				
911-918	BLK SHALE (LEXINGTON)				
918-937	SAND				