

Air Drilling Specialist
Oil & Gas Wells

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

PO Box 449
Caney, KS 67333

Date Started	1/4/2011
Date Completed	1/5/2011

Well No.	Operator	Lease	A.P.I #	County	State
1G-3	Layne Energy Operating	Zook	125-32022-00-00	Montgomery	Kansas

	1/4	1/4	1/4	Sec.	Twp.	Rge.
				3	31S	14E

Driller	Type/Well	Cement Used	Casing Used	Depth	Size of Hole
Billy	Oil	4	21.4' 8 5/8	1262	6 3/4

Formation Record

0-4	DIRT	1074-1076	SHALE		
4-76	LIME	1076-1077	COAL (CROWBERG)		
76-280	LMY SHALE	1077-1114	SHALE		
280-290	LIME	1114-1124	SAND		
290-434	SAND (DAMP)	1124-1125	COAL (MINERAL)		
336	WENT TO WATER	1125-1130	SHALE		
434-520	LIME (WET)	1130-1134	SANDY SHALE		
520-619	LMY SHALE	1134-1155	SHALE		
619-651	LIME	1162	GAS TEST-17#,1/4",MCF-42.4		
651-721	SHALE	1155-1160	BLACK SHALE		
721-751	LMY SHALE	1160-1170	SANDY SHALE		
751-760	LIME	1170-1184	SAND / OIL ODOR		
760-780	SHALE	1184-1186	SANDY SHALE		
780-784	SAND	1186-1187	COAL (WEIR)		
784-875	SANDY SHALE	1187-1262	SHALE		
875-876	COAL (MULBERRY)	1212	GAS TEST - SAME		
876-879	SHALE	1262	TD		
879-912	LIME (PAWNEE)				
912-919	BLK SHALE (LEXINGTON)				
919-963	SHALE				
963-985	LIME (OSWEGO)				
985-995	BLK SHALE (SUMMIT)				
995-1006	LIME				
1006-1009	BLACK SHALE				
1009-1010	COAL (MULKEY)				
1010-1016	LIME				
1016-1057	SHALE				
1057-1058	COAL				
1058-1072	SHALE				
1072-1074	LIME				