

Air Drilling Specialist
Oil & Gas Wells

THORNTON AIR ROTARY, LLC

Office Phone: 620-879-2073

PO Box 449
Caney, KS 67333

Date Started	12/14/2010
Date Completed	12/15/2010

Well No.	Operator	Lease	A.P.I.#	County	State
15N-34	Layne Energy Operating	Metzger	205-27864-00-00	Wilson	Kansas

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

Driller	Type/Well	Cement Used	Casing Used	Depth	Size of Hole
Billy	Oil	8	44.6' 8 5/8	1237	6 3/4

Formation Record

0-3	DIRT	861-890	LIME (PAWNEE)	1223-1237	SHALE
3-72	LIME	890-895	BLACK SHALE	1237	TD
72-176	SHALE	895-897	LIME		
176-190	LIME	897-902	BLACK SHALE		
190-280	LMY SHALE	902-948	SANDY SHALE		
280-412	SAND (DAMP)	948-972	LIME (OSWEGO)		
411	WENT TO WATER	972-978	BLK SHALE (SUMMIT)		
412-415	LIME	978-991	LIME		
415-420	SHALE	991-995	BLACK SHALE		
420-520	LIME	995-996	COAL (MULKEY)		
520-532	SHALE	996-998	SHALE		
532-546	LIME	998-1002	LIME		
546-571	SAND	1002-1042	SHALE		
561	GAS TEST-SLIGHT BLOW	1042-1043	COAL		
571-632	LIME	1043-1059	SHALE		
586	GAS TEST-45#, 1/4", MCF-87.2	1059-1060	LIME		
632-669	SHALE	1060-1061	SHALE		
669-670	COAL	1061-1062	COAL (CROWBERG)		
670-690	SHALE	1062-1106	SHALE		
690-709	LIME	1106-1107	COAL		
709-734	SHALE	1107-1157	SHALE		
734-751	LIME	1112	GAS TEST-25#, 1/2", MCF-205		
751-766	SAND	1157-1159	SANDY SHALE		
766-795	SHALE	1159-1163	SAND / LITE ODOR		
795-800	SAND	1163-1172	SANDY SHALE		
800-805	LIME	1172-1173	COAL		
805-812	SAND	1173-1186	SHALE		
812-857	SHALE	1186-1206	SANDY SHALE		
857-859	LIME	1206-1222	SHALE		
859-861	COAL (MULBERRY)	1222-1223	COAL		