

Air Drilling Specialist
Oil & Gas Wells

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

PO Box 449
Caney, KS 67333

Date Started	3/11/2014
Date Completed	3/12/2014

Operator	A.P.I #	County	State
L R Energy, Inc.	15 125 32399 00 00	Montgomery	Kansas

Well No.	Lease	Sec.	Twp.	Rge.
12F-30	Gartner	30	32	14

Type	Driller	Cement Used	Casing Used	Depth	Size of Hole
Oil	Billy Thornton	4	21'4" 8 5/8	1011	6 3/4

Formation Record

0-3	MUD	788-799	LIME		
3-20	CLAY	799-806	BLACK SHALE		
20-81	SHALE	806-812	SHALE		
81-91	LIME	812-822	LIME		
91-159	SHALE	822-835	SANDY SHALE/ LT ODOR		
159-164	LIME	835-846	SAND/ GOOD ODOR & SHOW		
164-172	SANDY SHALE	846-852	DK GRAY SAND/ GOOD ODOR		
172-200	SAND / DAMP	852-866	LT SAND/ LT ODOR		
211	WENT TO WATER	866-870	LMNT SANDY SHALE		
200-280	SHALE	870-874	GRAY SAND / GOOD ODOR		
280-314	LMY SHALE	874-877	SANDY SHALE		
314-320	LIME	877-879	SAND / LT ODOR		
320-388	SHALE	879-880	SANDY SHALE		
388-398	LIME	880-890	GRAY SAND / ODOR		
398-413	SANDY SHALE	890-900	SAND / OIL SHOW		
413-436	SHALE	900-918	SANDY SHALE		
436-482	SAND	918-939	SHALE		
482-539	LIME	939-941	BLACK SHALE		
539-548	SHALE	941-962	LIME (PAWNEE)		
548-560	SAND	962-973	SHALE		
560-600	SANDY SHALE	973-975	LIME		
600-637	SHALE	975-1011	SHALE		
637-642	LIME	1011	TD		
642-714	SHALE				
714-718	BLACK SHALE				
718-723	LIME				
723-733	SHALE				
733-743	LIME				
743-760	SAND				
760-788	SHALE				