

Air Drilling Specialist
Oil & Gas Wells

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

PO Box 449
Caney, KS 67333

Date Started	7/8/2014
Date Completed	7/9/2014

Operator	A.P.I #	County	State
Larry Watt	15-125-32430-00-00	Montgomery	Kansas

Well No.	Lease	Section	Township	Range
19	Longhorn	9	35	15 E

Type of Well	Driller	Cement	Surface	TD	Size of Hole
Oil	Billy Thornton	4	21' 2" 8 5/8	1287	6 3/4

0-6	DIRT	546-580	SHALE	1124-1131	SANDY SHALE
6-8	CLAY	580-624	LIME	1131-1140	SAND
8-11	LIME	624-733	SHALE	1140-1151	SANDY SHALE
11-26	SHALE	733-735	LIME	1151-1154	SHALE
26-96	SAND / WET	735-738	SHALE	1154-1155	LIME
96-100	BLACK SHALE	738-760	LIME	1155-1156	SHALE
100-106	SANDY SHALE	760-768	BLACK SHALE	1156-1158	SAND
106-175	SHALE	768-790	SHALE	1158-1172	SHALE
186	WENT TO WATER	790-807	SAND	1172-1176	SAND
175-208	SAND	807-816	SANDY SHALE	1176-1208	SHALE
208-210	LIME	816-822	SHALE	1208-1213	SAND
210-251	SHALE	822-845	SANDY SHALE	1213-1217	SHALE
251-258	LIME	845-877	SHALE	1217-1220	SAND / LT ODOR
258-295	SAND	877-902	LIME	1220-1226	BRN SAND/ GOOD ODOR
295-296	COAL	902-908	BLACK SHALE	1226-1231	BLACK SAND
296-312	SAND	908-909	COAL	1231-1275	SHALE
312-338	SHALE	909-934	LIME	1275-1287	SANDY SHALE
338-363	SAND	934-941	BLACK SHALE	1287	TD
363-468	SHALE	941-954	LIME		
468-471	LIME	954-960	BLACK SHALE		
471-480	BLACK SHALE	960-961	COAL		
480-482	LIME	961-963	SHALE		
482-500	SHALE	963-980	SAND		
500-501	COAL	980-985	SANDY SHALE		
501-502	SHALE	985-987	LIME		
502-510	LIME	987-992	BLACK SHALE		
510-513	SHALE	992-1036	SHALE		
513-515	SANDY SHALE	1036-1037	LIME		
515-544	SAND / NO ODOR	1037-1123	SHALE		
544-546	SANDY SHALE	1123-1124	COAL		