

Johnson County, KS
Well: Donovan I-13
Lease Owner: D Z

Town Oilfield Service, Inc.
(913) 837-8400

Commenced Spudding:
1/24/2014

WELL LOG

Thickness of Strata	Formation	Total Depth
7	Soil-Clay	7
13	Sandstone	20
14	Shale	24
9	Lime	43
20	Shale	63
4	L	67
5	Shale	72
15	Lime	87
3	Shale	95
8	Lime	103
9	Shale	112
16	Lime	128
21	Shale	149
19	Lime	168
7	Shale	175
58	Lime	233
10	Shale	253
10	Lime	263
17	Shale	280
7	Lime	287
4	Shale	291
9	Lime	300
33	Shale	333
1	Lime	334
12	Shale	346
24	Lime	370
8	Shale	378
24	Lime	402
4	Shale	406
5	Sand	411
4	Shale	415
6	Lime	421
114	Shale	535
7	Sand	542
4	Sandy Shale	546
50	Shale	596
4	Lime	600
12	Shale	612
5	Lime	617
17	Shale	634

Short Cuts

TANK CAPACITY

BBLS. (42 gal.) equals $D^2 \times .14 \times h$
 D equals diameter in feet.
 h equals height in feet.

BARRELS PER DAY

Multiply gals. per minute x 34.2

HP equals BPH x PSI x .0004

BPH - barrels per hour

PSI - pounds square inch

TO FIGURE PUMP DRIVES

- * D - Diameter of Pump Sheave
- * d - Diameter of Engine Sheave
- SPM - Strokes per minute
- RPM - Engine Speed
- R - Gear Box Ratio
- *C - Shaft Center Distance

D - $RPM \times d$ over $SPM \times R$

d - $SPM \times R \times D$ over RPM

SPM - $RPM \times D$ over $R \times D$

R - $RPM \times D$ over $SPM \times d$

$$BELT LENGTH - 2C + 1.57(D + d) + \frac{(D-d)^2}{4C}$$

* Need these to figure belt length

$$TO FIGURE AMPS: \frac{WATTS}{VOLTS} = AMPS$$

746 WATTS equal 1 HP

Log Book

Well No. # 1-13

Farm Dennis

KS Johnson
 (State) (County)

28 14 22
 (Section) (Township) (Range)

For D+2 Exploration
 (Well Owner)

Town Oilfield Services, Inc.

1207 N. 1st East

Louisburg, KS 66053

913-710-5400

Thickness of Strata	Formation	Total Depth	Remarks
7	red / clay	7	
13	sandstone	20	
14	shale	34	
9	Lime	43	
20	shale	63	
4	Lime	67	
5	shale	72	
15	Lime	87	
3	shale	90	
8	Lime	98	
9	shale	107	
16	Lime	123	
21	shale	144	
19	Lime	163	
7	shale	170	
58	Lime	228	
20	shale	248	
10	Lime	258	
17	shale	275	
7	Lime	282	
4	shale	286	
9	Lime	295	
33	shale	328	
1	Lime	329	
12	shale	341	
24	Lime	365	
8	shale	373	

378

Thickness of Strata	Formation	Total Depth	Remarks
24	Lime	402	
4	shale	406	
5	Lime	411	
4	shale	415	
6	Lime	421	Harder
14	shale	535	
7	sand	542	grey, no oil
4	sandy shale	546	
50	shale	596	
4	Lime	600	
12	shale	612	
5	Lime	617	
17	shale	634	
3	Lime	637	
6	shale	643	
12	Lime	655	
102	shale	757	red bed - 662'
6	Buckan sand	763	oily, little oil
7	sandy shale	770	
32	shale	802	
5	sand	807	grey, no oil
73	shale	880	
5	sandy lime	885	oily, 24-26% oil, Buckan
1	sand	886	30% - 40% oil
2	sand	888	75% oil, ok bleeding
4	sand	892	60% - 70% oil
2	Buckan sand	894	29% oil

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Thickness of Strata	Formation	Total Depth	Remarks
6	sandy shale	900	no oil
60	shale	960	TO