

Johnson County, KS
Well: 4
Lease Owner: D Z Exploration

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

Commenced Spudding:
11/18/2013

WELL LOG

Thickness of Strata	Formation	Total Depth
22	soil/clay	22
13	shale	35
5	lime	40
7	shale	47
14	lime	61
9	shale	70
8	lime	78
9	sandy shale & sand	87
20	lime	107
15	shale	122
19	lime	141
7	shale	148
58	lime	206
20	shale	226
8	lime	234
19	shale	253
7	lime	260
3	shale	263
10	lime	273
35	shale	308
1	lime	309
11	shale	320
24	lime	344
7	shale	351
3	lime & shale	354
19	lime	373
5	shale	378
4	lime	382
6	shale	388
6	lime	394
6	shale	400
6	sand	406
11	sandy shale	417
88	shale	505
6	sand	511
7	sandy shale	518
29	shale	547
5	sand	552
4	sandy shale	556
12	shale	568

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4	lime	572
13	shale	585
7	lime	592
18	shale	610
3	lime	613
10	shale	623
9	lime & shale	632
37	shale	669
22	sand	691
6	sandy shale	697
37	shale	734
5	broken sand	739
11	sandy shale	750
24	shale	774
5	sand	779
5	sandy shale	784
29	shale	813
5	sand	818
22	shale	840
5	sand	845
9	shale	854
1	sand	855
13	core	868
14	sandy shale	882
58	shale	940

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 - $\text{RPM} \times d$ over $\text{SPM} \times R$

d - $\text{SPM} \times R \times D$ over RPM

SPM - $\text{RPM} \times D$ over $R \times d$

R - $\text{RPM} \times D$ over $\text{SPM} \times d$

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

* Need these to figure belt length

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

746 WATTS equal 1 HP

Log Book

Well No. 24

Farm East Gordon

KS Johnson
(State) (County)

27 14 22
(Section) (Township) (Range)

For D&Z Exploration
(Well Owner)

covered

Town Oilfield Services, Inc.

1207 N. 1st East
Louisburg, KS 66053
913-710-5400

Thickness of Strata	Formation	Total Depth	Remarks
22	oil/clay	22	
13	shale	35	
5	lime	40	
7	shale	47	
14	lime	61	
9	shale	70	
8	lime	78	
9	sandy shale/sand	87	
20	lime	107	
15	shale	122	
19	lime	141	
7	shale	148	
58	lime	206	water
20	shale	226	
8	lime	234	
19	shale	253	
7	lime	260	
3	shale	263	
10	lime	273	
35	shale	308	
1	lime	309	
11	shale	320	
24	lime	344	
7	shale	351	
3	limestone shale	354	
19	lime	373	
5	shale	378	

Thickness of Strata	Formation	Total Depth	Remarks
		378	
4	Lime	382	
6	shale	388	
6	Lime	394	Merthyr
6	shale	400	
6	sand	406	grey, no oil
11	sandy shale	417	
48	shale	505	
6	sand	511	
7	sandy shale	518	
29	shale	547	
5	sand	552	grey, no oil
4	sandy shale	556	
12	shale	568	
4	Lime	572	
13	shale	585	
7	Lime	592	
18	shale	610	
3	Lime	613	
10	shale	623	
9	Lime + shale	632	
37	shale	669	red bed - (35')
22	sand	691	grey, no oil
6	sandy shale	697	
37	shale	734	
5	Broken sand	739	odor, little oil
11	sandy shale	750	
24	shale	774	

