

Franklin County, KS
Well: Hoehn 23
Lease Owner: TDR

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

Commenced Spudding:
05/28/2014

15-059-26453-00-00

WELL LOG

Thickness of Strata	Formation	Total Depth
0-36	soil-clay	36
3	lime	39
4	shale	43
17	lime	60
7	shale	67
11	lime	78
7	shale	83
16	lime	101
40	shale	141
22	lime	163
71	shale	234
24	lime	258
23	shale	281
6	lime	287
25	shale	312
2	lime	314
16	shale	330
2	lime	332
16	shale	348
7	lime	355
3	shale	358
13	lime	371
11	shale	382
21	lime	403
4	shale	407
4	lime	411
5	shale	416
4	lime	420
47	shale	467
12	sand	479
67	shale	546
6	sand	552
50	shale	602
58	lime	607
6	shale	613
7	lime	620
6	shale	626
10	lime	636
10	shale	646
5	lime	651

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. 23

Farm Hoehn

KS Franklin
 (State) (County)

5 16 21
 (Section) (Township) (Range)

For TDR
 (Well Owner)

Town Oilfield Services, Inc.

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

Hoehn Farm: Franklin County
 KS State; Well No. 23

Elevation 989
 Commenced Spuding 05/28 .20 14
 Finished Drilling 05/29 .20 14
 Driller's Name Greg Perry
 Driller's Name _____
 Driller's Name _____
 Tool Dresser's Name John Lohse
 Tool Dresser's Name Ryan Ward
 Tool Dresser's Name Justin Lyons
 Contractor's Name TOS
5 16 21

(Section) (Township) (Range)
 Distance from S line, 3135 ft.
 Distance from E line, 4060 ft.

2 bags of cement

**CASING AND TUBING
 RECORD**

10" Set _____ 10" Pulled _____
 8" Set _____ 8" Pulled _____
~~7" Set~~ 21" _____ 6 1/4" Pulled _____
 4" Set _____ 4" Pulled _____
 2" Set _____ 2" Pulled _____

CASING AND TUBING MEASUREMENTS

Feet	In.	Feet	In.	Feet	In.
725	95	Baffle			
757	20	Total		27 1/2"	

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3	Lime	39	
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17	Lime	60	
7	Shale	67	
11	Lime	78	
7	Shale	85	
16	Lime	101	
40	Shale	141	
22	Lime	163	
71	Shale	234	
24	Lime	258	
23	Shale	281	
6	Lime	287	
25	Shale	312	
2	Lime	314	
16	Shale	330	
2	Lime	332	
16	Shale	348	
7	Lime	355	
3	Shale	358	
13	Lime	371	
11	Shale	382	
21	Lime	403	
4	Shale	407	
4	Lime	411	
5	Shale	416	

416

Thickness of Strata	Formation	Total Depth	Remarks
4	Lime	420	Hertha
47	Shale	467	
12	Sand	479	No Oil
67	Shale	546	Broken - Good Saturation Good Bleed
6	Sand	552	
50	Shale	602	
5	Lime	607	
6	Shale	613	
7	Lime	620	
6	Shale	626	
10	Lime	636	
10	Shale	646	
5	Lime	651	
16	Shale	667	
3	Lime	670	
17	Shale	687	
2	Lime	689	
7	Shale	696	Broken - Good Saturation
4	Sand	700	
4	Sand	704	Broken - Poor Saturation
76	Shale	780	TD

Town Oilfield Service

P.O Box 339 Louisburg, Ks 66053
913-837-8400

Ticket Number _____
Location _____
Foreman _____

Field Ticket & Treatment Report Cement

Date	Customer#	Well Name & Number	Section	Township	Range	County
5-29-14		Hoehn 23	5	16	21	Franklin
Customer TDR Cont.		Mailing Address				
		City	State	Zip Code		

Job Type long string Hole Size 5 7/8 Hole Depth 780 Casing Size & Weight 2 7/8
Casing Depth 757 Drill Pipe _____ Tubing _____ Other _____
Displacement 4.6 Displacement PSI 300 Mix PSI 200 Rate 4 BPM

Remarks Bigged up, Established Rate down casing. Mixed & pumped 100% cement, circulated cement. Flushed pump & pumped plug.

Account Code	Quantity or Units	Description of Services or Product	Unit Price	Total
		Pump Charge		700
		Cement Truck		250
		Water Truck		150
	120	Cement	8.5	1020
		Gel		
	1	Plug	25	25
			Sales Tax	
Estimated Total				

Authorization [Signature] Title _____ Date 5-29-14

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.