

Johnson County, KS
Well:Schroeder I-4
Lease Owner:DE Exploration

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

Commenced Spuding:
03/12/2014

WELL LOG

Thickness of Strata	Formation	Total Depth
19	soil/clay	19
12	shale	31
23	lime	54
8	shale	62
8	lime	70
5	shale	75
21	lime	96
11	shale	107
11	sandy shale	118
4	sandy shale	122
3	lime	145
45	shale	190
10	lime	200
17	shale	217
7	lime	224
4	shale	228
12	lime	240
18	shale	258
6	lime	264
11	shale	275
3	lime	278
33	shale	311
1	lime	312
11	shale	323
24	lime	347
6	shale	353
24	lime	377
4	shale	381
5	lime	386
3	shale	389
5	lime	394
6	shale	400
34	sandy shale	434
7	sandy shale	441
3	sandy shale	444
121	shale	565
3	lime	568
4	shale	572
2	lime	574
11	shale	585

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 $BPH \times PSI \times .0004$

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. 1-4

Farm Schwoeder

KS Johnson
(State) (County)

1 15 21
(Section) (Township) (Range)

For DE. Exploration
(Well Owner)

Town Oilfield Services, Inc.

1207 N. 1st East

Louisburg, KS 66053

913-710-5400

Thickness of Strata	Formation	Total Depth	Remarks
19	soil/clay	19	
12	shale	31	
23	Lime	54	
8	shale	62	
8	Lime	70	
5	shale	75	
21	Lime	96	
11	shale	107	
11	sand	118	
4	sandy shale	122	very, no oil
23	Lime	145	
45	shale	190	
10	Lime	200	
17	shale	217	
7	Lime	224	
4	shale	228	
12	Lime	240	
18	shale	258	
6	Lime	264	
11	shale	275	
3	Lime	278	
33	shale	311	
1	Lime	312	
11	shale	323	
24	Lime	347	
6	shale	353	
24	Lime	377	

377			
Thickness of Strata	Formation	Total Depth	Remarks
4	shale	381	
5	Lime	386	
3	shale	389	
5	Lime	394	Horther
6	shale	400	
34	sandy shale	434	
7	sand	441	
2	sand, shale	444	
121	shale	565	
3	Lime	568	
4	shale	572	
2	Lime	574	
11	shale	585	
8	Lime	593	
14	shale	607	
3	Lime	610	
11	shale	621	
13	Lime	635	
22	shale	647	
3	Lime	650	
69	shale	719	
11	sand	730	odor, no oil, Biscan sand
5	sandy shale	735	
113	shale	848	with some lime seams
2	sand, Lime	850	odor, 20% - 40% oil ok bleeding
2	sand	852	50% - 60% , sand bleeding
4	sand	856	50% - 60% oil



CONSOLIDATED
Oil Well Services, LLC

REMIT TO
Consolidated Oil Well Services, LLC
Dept. 970
P.O. Box 4346
Houston, TX 77210-4346

MAIN OFFICE
P.O. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
Fax 620/431-0012

INVOICE

Invoice # 266632

Invoice Date: 03/19/2014 Terms: 0/30/10,n/30

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D.E. EXPLORATION
DOUG EVANS
P.O. BOX 128
WELLSVILLE KS 66092
(785) 883-4057

SCHROEDER I-4
42679
SW 1-15-21
03-13-2014
KS

Part Number	Description	Qty	Unit Price	Total
1124	50/50 POZ CEMENT MIX	122.00	11.5000	1403.00
1118B	PREMIUM GEL / BENTONITE	305.00	.2200	67.10
1111	SODIUM CHLORIDE (GRANULA	236.00	.3900	92.04
1110A	KOL SEAL (50# BAG)	610.00	.4600	280.60
4402	2 1/2" RUBBER PLUG	1.00	29.5000	29.50
1401	HE 100 POLYMER	.50	47.2500	23.63

Sublet Performed	Description	Total
9996-120	CEMENT MATERIAL DISCOUNT	-552.82

Description	Hours	Unit Price	Total
368 CEMENT PUMP	1.00	1085.00	1085.00
368 EQUIPMENT MILEAGE (ONE WAY)	30.00	4.20	126.00
368 CASING FOOTAGE	920.00	.00	.00
369 80 BBL VACUUM TRUCK (CEMENT)	2.00	100.00	200.00
558 MIN. BULK DELIVERY	1.00	368.00	368.00

Amount Due 3814.69 if paid after 03/29/2014

Parts:	1895.87	Freight:	.00	Tax:	99.05	AR	3221.10
Labor:	.00	Misc:	.00	Total:	3221.10		
Sublt:	-552.82	Supplies:	.00	Change:	.00		

Signed _____ Date _____

BARTLESVILLE, OK 918/338-0808 EL DORADO, KS 316/322-7022 EUREKA, KS 620/583-7664 PONCA CITY, OK 580/762-2303 OAKLEY, KS 785/672-8822 OTTAWA, KS 785/242-4044 THAYER, KS 620/839-5269 GILLETTE, WY 307/686-4914 CUSHING, OK 918/225-2650



CONSOLIDATED
Oil Well Services, LLC

266632

TICKET NUMBER 42679

LOCATION Ottawa

FOREMAN Alan Mader

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT

CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
3-13-14	2355	Schroeder #I-4	SW 1	15	21	To
CUSTOMER DE Exploration			TRUCK #			
MAILING ADDRESS P.O. Box 128			DRIVER			
CITY Wellsville			TRUCK #			
STATE KS			DRIVER			
ZIP CODE 66092			TRUCK #			
			DRIVER			

JOB TYPE long string HOLE SIZE 5 7/8 HOLE DEPTH 940 CASING SIZE & WEIGHT 2 7/8
 CASING DEPTH 920 DRILL PIPE _____ TUBING _____ OTHER baffle 888
 SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING yes
 DISPLACEMENT 5.16 DISPLACEMENT PSI 800 MIX PSI 200 RATE 1.5pm

REMARKS: Hold meeting. Established rate down casing. Mixed & pumped 1/2 gal polymer. Circulated into new pt. Mixed & pumped 100# gal followed by 122 gal 30/150 cement plus 2 1/2 gal gel, 3 1/2 salt, & 5# Kolseal per sack. Circulated cement. Flushed pump. Pumped plug to baffle. Well held 800 PSI. Set float. Closed valve.

725 Chad

Alan Mader

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	368	1285
5406	30	MILEAGE	368	10800
5402	920'	casing footage	368	338560
5407	mi	tan miles	338	30800
5502L	2	30 vcc	369	738
1124	122	50/150 cement	1403.00	171166
118B	305#	gel	67.10	20565.50
1111	236#	541x	92.04	21721.44
110A	610#	Kolseal	280.60	171166
		material cyp less 30%	1842.74	17289.92
1402	1	2 1/2 plug	100	29.50
1401	1/2 gal	polymer	47.16	23.63
			3674.87-552.80	3122.05
			7.375	99.05
			ESTIMATED TOTAL	3221.10

Ravin 3737

AUTHORIZATION Bryan Miller TITLE completed DATE _____

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.