



# 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. AI-3

Farm Knoche

KS Miami  
 (State) (County)

16 18 24  
 (Section) (Township) (Range)

For Altavista Energy Inc  
 (Well Owner)

## Town Oilfield Services, Inc.

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

Knoche Farm: Miami County

KS State; Well No. AI-3

Elevation 936

Commenced Spuding 1-19 20 16

Finished Drilling 1-21 20 16

Driller's Name Wesley Dollard

Driller's Name

Driller's Name

Tool Dresser's Name Ryan Ward

Tool Dresser's Name

Tool Dresser's Name

Contractor's Name TOS

16 18 24

(Section) (Township) (Range)

Distance from S line, 1765 ft.

Distance from E line, 3670 ft.

3 sacks  
9 hrs  
5 5/8 borehole  
2 7/8 casing

**CASING AND TUBING RECORD**

10" Set \_\_\_\_\_ 10" Pulled \_\_\_\_\_

8" Set \_\_\_\_\_ 8" Pulled \_\_\_\_\_

7 3/4" Set 23 \_\_\_\_\_ 6 1/4" Pulled \_\_\_\_\_

4" Set \_\_\_\_\_ 4" Pulled \_\_\_\_\_

2" Set \_\_\_\_\_ 2" Pulled \_\_\_\_\_

**CASING AND TUBING MEASUREMENTS**

Feet	In.	Feet	In.	Feet	In.
539.	95	Back	1/8		
571.	65	Floct			
580	TD			2 7/8	

Thickness of Strata	Formation	Total Depth	Remarks
0-20	soil-clay	20	
6	Shale	26	
8	Lime	34	
13	Shale	47	
32	Lime	79	
7	Shale	86	
20	Lime	106	
4	Shale	110	
2	Lime	112	
4	Shale	116	
7	Lime	123	
25	Shale	148	Heitha
7	sand	155	odor
25	sandy shale	180	
100	Shale	280	
14	sand	294	water
38	Shale	332	
6	Lime	338	
7	Shale	345	
5	Lime	350	
10	Shale	360	
6	Lime	366	
16	shale	382	
4	Lime	386	
13	Shale	399	
24	Lime	423	
18	shale	441	

441

Thickness of Strata	Formation	Total Depth	Remarks
2	Lime	443	
50	Shale	493	
4	sandy shale	497	
prf - 8	sand	505	broken - laminated sandy shale - good show in sand
10	sandy shale	515	
65	shale	580	TD



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

MAIN OFFICE

P.O.Box884  
 Chanute,KS 66720  
 620/431-9210,1-800/467-8676  
 Fax 620/431-0012

Invoice

Invoice#

806869

Invoice Date: 01/25/16

Terms: Net 30

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ALTAVISTA ENERGY INC

4595 K-33 HWY, PO BOX 128  
 WELLSVILLE KS 66092  
 USA  
 7858834057

knoche # ai-3

Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0450	Cement Pump Charge 0 - 1500'	1.000	1,500.0000	46.000	810.00
CE0002	Equipment Mileage Charge - Heavy Equipment	30.000	7.1500	46.000	115.83
CE0711	Minimum Cement Delivery Charge	1.000	660.0000	46.000	356.40
WE0853	80 BBL Vacuum Truck (Cement Services)	1.500	100.0000	46.000	81.00
CC5840	Poz-Blend I A (50:50)	71.000	13.5000	46.000	517.59
CC5965	Bentonite	219.000	0.3000	46.000	35.48
CC5326	Sodium Chloride, Salt	137.000	0.7500	46.000	55.49
CC6077	Kolseal	355.000	0.5000	46.000	95.85
CP8176	2 7/8" Top Rubber Plug	1.000	45.0000	46.000	24.30
CC6128	Mud Flush - C	0.500	50.0000	46.000	13.50

Subtotal 3,898.95

Discounted Amount 1,793.52

SubTotal After Discount 2,105.43

Amount Due 4,008.91 If paid after 02/24/16

Tax: 59.37

Total: 2,164.81



**CONSOLIDATED**  
Oil Well Services, LLC

5187  
5093

TICKET NUMBER 49966  
LOCATION Ottawa KS  
FOREMAN Fred Mader

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

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

**Invoice #806869**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
1-21-16	3244	Knoche # A 1.3	SW 16	18	24	MI
CUSTOMER			TRUCK #			
Alta Vista Energy Inc			DRIVER			
MAILING ADDRESS			TRUCK #			
P.O. Box 128			DRIVER			
CITY		STATE	ZIP CODE			
Wellsville		KS	66092			

JOB TYPE Logging HOLE SIZE 5 7/8 HOLE DEPTH \_\_\_\_\_ CASING SIZE & WEIGHT 2 7/8 EUE  
 CASING DEPTH 571 DRILL PIPE Baffle Tubing @ 5 1/2 OTHER \_\_\_\_\_  
 SLURRY WEIGHT \_\_\_\_\_ SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 31' x Plug  
 DISPLACEMENT 3.14 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE 4 BPM

REMARKS: Hold Safety meeting. Establish pump rate. Pump 1/2 Gal Mud Flush C  
 + Circulate until to condition hole. Mix Pump 100# Gal Flush.  
 Mix + Pump 71 SKS Por Blend IA Cement 2% Gel 5% Salt 5" Kal Seal/sk.  
 Cement to Surface. Flush pump + lines clean. Displace 2 1/2"  
 rubber plug to Baffle in casing. Pressure to 800# PSI.  
 Release pressure to set float valve. Shut in casing

TAS Drilling (wcs)

Fred Mader

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0450	1	PUMP CHARGE	495	1500.00
CE0002	30 mi	MILEAGE	495	214.50
CE0711	Minimum	Ten Miles Delivery	510	660.00
WE0853	15 hr	BO BBL Vac Truck	369	150.00
		Sub Total		2524.50
		Less 46%		1161.27
				1363.23
CC5840	71 SKS	Por Blend IA Cement	958.50	958.50
CC5965	219#	Bentonite Gel	65.20	65.20
CC5326	137#	Salt	102.25	102.25
CC6077	355#	Kal Seal	177.50	177.50
CP8176	1	2 1/2" Rubber Plug	15.00	15.00
CC6128	1/2 Gal	Mud Flush C	25.00	25.00
		Sub Total		1394.45
		Less 46%		-632.25
				742.20
		8%	SALES TAX	59.38
			ESTIMATED TOTAL	2164.81

7545

Revin 3737

AUTHORIZATION No Co Rep on site TITLE \_\_\_\_\_ DATE 2164.81  
4008.91

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.