

Miami County, KS
 Well: Howell-Gorges AI-10
 Lease Owner: AltaVista

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

Commenced Spudding:
 4/8/16

WELL LOG

Thickness of Strata	Formation	Total Depth
0-7	Soil-Clay	7
20	Lime	27
10	Shale	37
1	Lime	38
6	Shale	44
10	Lime	54
25	Shale	79
1	Lime	80
16	Shale	96
16	Lime	112
9	Shale	121
30	Lime	151
8	Shale	159
20	Lime	179
4	Shale	183
4	Lime	187
2	Shale	189
5	Lime	194
26	Shale	220
14	Sand	234
112	Shale	346
10	Sand	356
10	Lime	366
2	Shale	368
4	Lime	372
45	Shale	417
9	Lime	426
9	Shale	435
3	Lime	438
15	Shale	453
7	Lime	460
20	Shale	480
2	Lime	482
1	Shale	483
1	Lime	484
2	Shale	486
7	Lime	493
6	Shale	499
11	Sandy Shale	510
10	Sand	520

Short Cuts

TANK CAPACITY

BBLs. (42 gal.) equals $D^2 \times 14xh$

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 $\text{SPM} \times d$

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

* Need these to figure belt length

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

746 WATTS equal 1 HP

Log Book

Well No. AT-10

Farm Howell Gorges

KS Miami
(State) (County)

1 18 21
(Section) (Township) (Range)

For Altavista Energy Inc
(Well Owner)

Town Oilfield Services, Inc.

1207 N. 1st East

Louisburg, KS 66053

913-710-5400

Howell
Crosses Farm: Miami County
KS State; Well No. KI-10

Elevation 564

Commenced Spuding 4-8 20 16

Finished Drilling 4-12 20 19

Driller's Name Wesley Dillard

Driller's Name

Driller's Name

Tool Dresser's Name Ryan Ward

Tool Dresser's Name

Tool Dresser's Name

Contractor's Name TOS
1 18 21

(Section) (Township) (Range)
Distance from S line, 1670 ft.

Distance from E line, 60 ft.

3 seals
8 hrs
5 5/8 borehole
2 7/8 casing

CASING AND TUBING RECORD

10" Set _____ 10" Pulled _____
8" Set _____ 8" Pulled _____
6 3/4" Set 20 _____ 6 3/4" Pulled _____
4" Set _____ 4" Pulled _____
2" Set _____ 2" Pulled _____

CASING AND TUBING MEASUREMENTS

Feet	In.	Feet	In.	Feet	In.
576		Baffle			
608		Float			
620		TD		27	18

Thickness of Strata	Formation	Total Depth	Remarks
0-7	soil-clay	7	
20	Lime	27	
10	Shale	37	
1	Lime	38	
6	Shale	44	
10	Lime	54	
25	Shale	79	
1	Lime	80	
16	Shale	96	
16	Lime	112	
9	Shale	121	
30	Lime	151	
8	Shale	159	
20	Lime	179	
4	Shale	183	
4	Lime	187	
2	Shale	189	
5	Lime	194	Hysteria
26	Shale	220	
14	Sand	234	no oil
112	Shale	346	
10	Sand	356	limy - broken oil
10	Lime	366	
2	Shale	368	
4	Lime	372	
45	Shale	417	
9	Lime	426	

426

Thickness of Strata	Formation	Total Depth	Remarks
9	Shale	435	
3	Lime	438	
15	Shale	453	
7	Lime	460	
20	Shale	480	
2	Lime	482	
1	Shale	483	
1	Lime	484	
2	Shale	486	
7	Lime	493	odor
6	Shale	499	
11	sandy shale	510	
10	sand	520	solid - good saturation
16	sandy shale	536	
84	Shale	620	T.D.



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

Invoice

Invoice#

807435

Invoice Date: 04/13/16

Terms: Net 30

Page 1

ALTAVISTA ENERGY INC

PO BOX 128
WELLSVILLE KS 66092
USA
7858834057

HOWELL GORGES #AI-10

Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0450	Cement Pump Charge 0 - 1500'	1.000	1,500.0000	62.000	570.00
CE0002	Equipment Mileage Charge - Heavy Equipment	20.000	7.1500	62.000	54.34
CE0711	Minimum Cement Delivery Charge	1.000	660.0000	62.000	250.80
WE0853	80 BBL Vacuum Truck (Cement Services)	1.500	100.0000	62.000	57.00
CC5840	Poz-Blend I A (50:50)	80.000	13.5000	62.000	410.40
CC5965	Bentonite	234.000	0.3000	62.000	26.68
CC5326	Sodium Chloride, Salt	155.000	1.0000	62.000	58.90
CC6077	Kolseal	400.000	0.5000	62.000	76.00
CP8176	2 7/8" Top Rubber Plug	1.000	45.0000	62.000	17.10
CC6128	Mud Flush - C	0.500	50.0000	62.000	9.50

Subtotal 4,028.20

Discounted Amount 2,497.48

SubTotal After Discount 1,530.72

Amount Due 4,154.22 If paid after 05/13/16

Tax: 47.89

Total: 1,578.61



CONSOLIDATED
Oil Well Services, LLC

5637
5543

TICKET NUMBER 50037
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 # 807435

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
4-12-16	3244	Howell-Gorges # AI-10	SE 1	18	21	MI
CUSTOMER			TRUCK #			
Alta Vista Energy Inc			712	Driver	TRUCK #	DRIVER
MAILING ADDRESS			495	Fred Mader		
P.O. Box 128			675	Hor. Bac		
CITY	STATE	ZIP CODE	510	Ki. Det		
Wellsville	KS	66092		Mikhaa		

JOB TYPE Longstring HOLE SIZE 5 7/8 HOLE DEPTH 620' CASING SIZE & WEIGHT 2 7/8 EUE
CASING DEPTH 608' DRILL PIPE Bafflem TUBING Q 576 OTHER _____
SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 30' plug
DISPLACEMENT 3.35 BBL DISPLACEMENT PSI _____ MIX PSI _____ RATE 48 BPM

REMARKS: Hold safety meeting. Establish pump rate. Pump 1/2 Gal Mod
Flush "C" Polymer. Circulate well to condition hole. Mix
Pump 100# Gel Flush. Mix + Pump 500# Por Blend IA
Cement 2% Gel 5% salt 5# Kal Seal/st. 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.

TDS Drilling: Wally Dollard Fred Mader

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0450	1	PUMP CHARGE	475	1500.00
CE0002	20 mi.	MILEAGE	475	14300.00
CE0711	Minimum	Ten Miles Delivery	510	6600.00
WE085	1 1/2 hr	80 BBL Vac Truck	675	15000.00
		Sub Total		24500.00
		less 62%	- 15200.00	9300.00
CC5840	30 siks	Por Blend IA Cement	1080.00	
CC5965	234#	Bentonite Gel	70.20	
CC5326	155#	Salt	155.00	
CC6077	400#	Kal seal	200.00	
CP6176	1	2 1/2" Rubber plug	45.00	
CC6128	1/2 Gal	Mud Flush - C.	25.00	
		Sub Total		1575.20
		less 62%	- 976.62	598.58
		8%		47.89
		SALES TAX		47.89
		ESTIMATED TOTAL		1578.61
				(4154.22)

AUTHORIZATION Bryan Miller TITLE _____ 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.