

Miami County, KS
Well: Howell-Gorges AI-2
Lease Owner: AltaVista

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

Commenced Spudding:
3/30/16

WELL LOG

Thickness of Strata	Formation	Total Depth
0-3	Soil-Clay	3
14	Lime	17
8	Shale	25
9	Sand	34
79	Shale	113
18	Lime	131
12	Shale	143
4	Lime	147
6	Shale	153
9	Lime	162
41	Shale	203
15	Lime	218
9	Shale	227
29	Lime	256
8	Shale	264
21	Lime	285
5	Shale	290
5	Lime	295
3	Shale	298
4	Lime	302
136	Shale	438
11	Sand	449
15	Shale	464
12	Lime	476
45	Shale	521
8	Lime	529
12	Shale	541
2	Lime	543
16	Shale	559
5	Lime	564
21	Shale	585
2	Lime	587
3	Shale	590
7	Lime	597
2	Shale	599
1	Sand	600
15	Sand	615
3	Sand	618
1	Sand	619
6	Sand & Sandy Shale	625

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-2

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

Thickness of Strata	Formation	Total Depth	Remarks
0-3	Soil-clay	3	
14	Lime	17	
8	Shale	25	
9	Sand	34	no oil
79	Shale	113	
18	Lime	131	
12	Shale	143	
4	Lime	147	
6	Shale	153	
9	Lime	162	
41	Shale	203	
15	Lime	218	
9	Shale	227	
29	Lime	256	
8	Shale	264	
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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#

807362

Invoice Date: 03/31/16

Terms: Net 30

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ALTAVISTA ENERGY INC
 PO BOX 128
 WELLSVILLE KS 66092
 USA
 7858834057

howell gorges #a1-2

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)	90.000	13.5000	62.000	461.70
CC5965	Bentonite	251.000	0.3000	62.000	28.61
CC5326	Sodium Chloride, Salt	174.000	0.7500	62.000	49.59
CC6077	Kolseal	450.000	0.5000	62.000	85.50
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 4,168.80

Discounted Amount 2,584.66

SubTotal After Discount 1,584.14

Amount Due 4,306.06 If paid after 04/30/16

Tax: 52.16

Total: 1,636.30



CONSOLIDATED
Oil Well Services, LLC

5578
5483

TICKET NUMBER 50033
LOCATION Ottawa KS
FOREMAN Fred Mader

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

Invoice # 807362
FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
3-31-16	3244	Howell-Gargas #A1-2	SW 1	18	21	MI
CUSTOMER			TRUCK #			
Mailing Address			DRIVER			
CITY			TRUCK #			
STATE			DRIVER			
ZIP CODE			TRUCK #			
Wellsville			Ks			
128			66069			

JOB TYPE Long string HOLE SIZE 5 7/8 HOLE DEPTH 720 CASING SIZE & WEIGHT 2 7/8 EUE
 CASING DEPTH 714 DRILL PIPE Baffle x TUBING @ 682' OTHER _____
 SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 30' + Plug
 DISPLACEMENT 4 BBL DISPLACEMENT PSI _____ MIX PSI _____ RATE 4 BPM

REMARKS: Hold safety meeting. Establish pump rate. Pump 1/2 Gal Mud
 Flush "C" Polymer. Circulate well to condition hole. Mix &
 pump 100# Gal Flush. Mix & Pump 90 sks Por Blend IA Cement
 2% Gel 5% Salt 5# Kol 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.

TOS - WCC

Fred Mader

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0450	1	PUMP CHARGE	495	1500 ⁰⁰
CE0002	20 mi	MILEAGE	495	143 ⁰⁰
CE0711	Minimum	Ten Miles Delivery	510	660 ⁰⁰
WE0853	1 1/2 hr	80 BBL Vac Truck	675	150 ⁰⁰
		Sub Total		2453 ⁰⁰
		less 62%		1520 ⁸⁰
872 CC5840	90 SKS	Por Blend IA Cement		1215 ⁰⁰
CC5965	251#	Bentonite Gel		75 ³⁰
CC5326	174#	Salt		130 ⁵⁰
CC6077	2150#	Kol Seal		225 ⁰⁰
CP8176	1	2 1/2" Rubber Plug		45 ⁰⁰
CC6128	1/2 Gal	Mud Flush "C"		25 ⁰⁰
		Sub Total		1715 ⁸⁰
		less 62%		1063 ⁸⁰
			8%	SALES TAX
				ESTIMATED TOTAL
				1636 ³⁰

Ravin 9737

AUTHORIZATION WCC Co Rep on Site TITLE _____ DATE 3/31/16

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.

CASING MECHANICAL INTEGRITY TEST

DOCKET# E-21,949

Disposal Well

Enhanced Recovery:

NO-OP

Repressuring
 Flood
 Tertiary

SE-SW-SE-SW, Sec 1, T 18 S,R 2 EW

260 Feet from South Section Line

3370 Feet from East Section Line

Date injection started

API #15- 121-31,246

Lease Hawell-Gorges Well # AI-2

County Miami

Operator: Altavista Energy, Inc

Operator License# 34350

Name & Address 4545 K 33 Highway

Contact Person Doug Evans

P.O. Box 128

Wellsville KS 66092

Phone 785-883-4051

Max. Auth. Injection Press _____ Psi; Max Inj. Rate _____ bbl/d;

If Dual Completion - Injection above production _____ Injection below production _____

	Conductor	Surface	Production	Liner	Tubing
Size		<u>7"</u>	<u>2 7/8"</u>		Size _____
Set at		<u>20'</u>	<u>714.6'</u>		Set at _____
Cement Top		<u>0.0'</u>	<u>0.0'</u>		Type _____
" Bottom		<u>20'</u>	<u>714.6'</u>		
DV/Perf.					<u>720</u> ft. depth
Packer type		TD (and plug back)		Set at	
Zone of injection		ft. to ft.		Perf. or open hole	<u>well not perforated</u>

Type MIT: Pressure: Radioactive Tracer Survey: Temperature Survey:

F Time: Start 10 Min 20 Min 30 Min

I Pressures: 775 775 775 Set up 1 System Pres. during test _____

L _____ Set up 2 Annular Pres. during test _____

D _____ Set up 3 Fluid loss during test _____ bbls.

A Tested: Casing or Casing - Tubing Annulus

The bottom of the tested zone in shut in with Pressure Test (Rubber Plug)

Test Date 4/4/2016 Using Midwest Surveys Inc Company's Equipment

The operator hereby certifies that the zone between 0 feet and 714.6' feet

was the zone tested Ryan Hernandez Signature Contractor Title

The results were Satisfactory Marginal _____ Not Satisfactory _____

State Agent: Tanya C. Heron Title: ECRS Witness: YES _____ NO

REMARKS: Pressured casing up to 775# (well not perforated)

Origin. Conservation Div.: KDHE/T: Dist. Office LU APR 13 2016

Computer Update Is there Chemical Sealant or a Mechanical Casing patch in the annular space? (Y/N)

GPS Lat _____ GPS Long _____ (If YES please describe in REMARKS) KCC Form LI-7