

# Woolsey Operating Company, LLC

Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: SWARTZ A-3  
 Location: 60' E E/2 NE  
 License Number: API: 15-007-23903-00-00  
 Spud Date: July 5, 2012  
 Surface Coordinates: Section 1-T34S-R11W, 1320'FNL, 600' FEL  
 Bottom Hole Coordinates: Vertical Hole  
 Region: Barber County, Kansas  
 Drilling Completed: July 14, 2012

Ground Elevation (ft): 1423  
 Logged Interval (ft): 4000  
 Formation: McLish Shale  
 Type of Drilling Fluid: Chemical Mud, Displace at 3230'

K.B. Elevation (ft): 1433  
 Total Depth (ft): 5135  
 Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

**OPERATOR**

Company: Woolsey Operating Company, LLC  
 Address: 125 N. Market, Suite 1000  
 Wichita, KS 67202

**GEOLOGIST**

Name: W. Scott Alberg  
 Company: Alberg Petroleum, LLC  
 Address: 609 Meadowlark Lane  
 Pratt, Kansas 67124

### FORMATION TOPS

	SAMPLE TOPS	LOG TOPS
HUSHPUCKNEY SHALE	4359(2926)	4359(2926)
B/KC	4411(2978)	4413(2980)
PAWNEE	4510(3077)	4510(3077)
CHEROKEE GROUP	4560(3127)	4558(3125)
MISSISSIPPIAN	4601(3168)	4600(3167)
KINDERHOOK SHALE	4814(3381)	4811(3378)
WOODFORD SHALE	4894(3461)	4892(3459)
VIOLA	4934(3501)	4937(3504)
SIMPSON GROUP	5029(3592)	5022(3589)
SIMPSON SAND	5039(3602)	5034(3601)
MCLISH SHALE	5093(3660)	5090(3657)
MCLISH SAND	NDE	NDE
RTD	5134(3702)	5134(3701)
LTD		

### COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 216' (tailled 202') with 320 sxs Class A, 2% gel, 3% cc, plug down at 10:45 am on July 6, 2012. Cement did Circulate.  
 Production Casing: 5 1/2 Casing Ran.  
 Deviation Surveys: 3/4 - 216', 3/4 - 2116', 3/4 - 3044', 3/4 - 4406', 3-5135'.  
 Contractor Bit Record:

- 1 - 14 3/4" out at 216'..
- 2 - 17 1/2" out at 216'
- 3 - 7 7/8" (PDC) out at 4406.
- 4 - 7 7/8" out at 5135'.

Pipe Strap at 4406'  
 Board 4406.94'  
 Strap 4406.51'  
 Strap .43 short to board.

Gas Detector: Woolsey Operating Company, Trailer #1  
 Mud System: Mud Co, Brad Bortz, Engineer  
 DSTs: None Taken  
 Logged by Superior Well Services.  
 LTD - 5134'.

### DSTs

No DSTs Ran

### CREWS

Hardt Drilling, Inc Rig #1  
 Tool Pusher - Scott Adelhardt  
 Drillers - Days - Steve Myers  
 Evening - Jody Divine  
 Morning - Billy Maas

### ROCK TYPES

Anhy	Congl	Lmst	Black sh
Bent	Sdy dolo	Mlrst	Grysh
Rec	Shy dolo	Salt	Shale
Chrt	Dol	Siltst	Shylstst
Clst	Sdy lmst	Ss	Stysh
Coal			

### ACCESSORIES

MINERAL Anhy	Chlorite	Pelec	Grysh
MINERAL Arg	Dol	Pisolite	Gryst
MINERAL Bent	Sand	Plant	Lms
MINERAL Bit	Sty	Strom	Sandylms
MINERAL Brefrac		Fuss	Sh
MINERAL Calc	FOSSIL Amph	Oomoldic	Siltstn
MINERAL Carb	FOSSIL Balm	STRINGER Anhy	Boundst
MINERAL Chtdk	FOSSIL Bioclst	STRINGER Arg	Chalky
MINERAL Chttt	FOSSIL Brach	STRINGER Bent	Cryxn
MINERAL Dol	FOSSIL Bryozoa	STRINGER Coal	Earth
MINERAL Ferr	FOSSIL Cephal	STRINGER Dol	Finexn
MINERAL Glau	FOSSIL Coral	STRINGER Gyp	Grainst
MINERAL Gyp	FOSSIL Crin	STRINGER Ls	Lithoxn
MINERAL Marl	FOSSIL Echin	STRINGER Mlrst	Mudst
MINERAL Nodule	FOSSIL Fish	STRINGER Sststrg	Packst
MINERAL Phos	FOSSIL Foram	STRINGER Ssrstg	Wackest
MINERAL Pyr	FOSSIL Fossil	STRINGER Carsh	
MINERAL Salt	FOSSIL Gastro	STRINGER Clstn	
MINERAL Sandy	FOSSIL Oolite	STRINGER Dol	
MINERAL Silt			

