ALLIED OIL & GAS SERVICES, LLC

CEMENTING LOG

Date 5/14/2014 District Liberal # 21 Ticket No.
Company AMERICAN WARRIOR Rig DUKE # 9
Lease HANDY Well No 5-29
County SEWARD State KS
Location
Field
Casing Data ☐ Conductor ☐ PTA ☐ Squeeze ☐ Misc. ☑ Surface ☐ Intermediate ☐ Production ☐ Liner
Size 8 5/8 Type Weight 24 Collar

Casing Depths Top Bottom 1741.04

Drill Pipe:	BBLS/LIN. FT		LIN. FT/BBL	
Open Hole:	BBLS/LIN. FT		LIN. FT/BBL	
Capacity Factors:	BBLS/LIN. FT		LIN. FT/BBL	
Casing	BBLS/LIN. FT		LIN. FT/BBL	
Open Holes	BBLS/LIN. FT		LIN. FT/BBL	
Drill Pipe	BBLS/LIN. FT		LIN. FT/BBL	
Annulus	BBLS/LIN. FT		LIN. FT/BBL	
	BBLS/LIN. FT		LIN. FT/BBL	

Perforations From ft to ft Amt

CEMENT DATA
Spacer Type 10 BBL FRESH WATER
Amt. Sks Yield ft³/sk Density PPG

LEAD: Time hrs. Type ALWC TYPE 1 - CLASS A
3% CC, 1/4# FLOSEAL Excess
Amt. 625 Sks Yield 2 ft³/sk Density 12.46 PPG
TAIL: Time hrs. Type CLASS A
3% CC, 1/4# FLOSEAL Excess
Amt. 200 Sks Yield 1.2 ft³/sk Density 15.6 PPG
WATER Lead 10.9 Gal/sk Tail 5.2 Gal/sk Total BBLS

Pump Trucks Used: 549 - 550
Bulk Equipment 956 - 554
955 - 528

Float Equipment: Manufacturer WEATHERFORD
Shoe: Type REGULAR GUIDE SHOE Depth 1741.04
Float: Type AFU INSERT FLOAT Depth 1697.52
Centralizers: Quantity 3 Plugs Top 1 Bottom
Stage Collars
Special Equipment CEMENT BASKET
Disp: Fluid Type FRESH WATER Amt 108 bbls Weight 8.33 PPG
Mud Type Weight

COMPANY REPRESENTATIVE CEMENTER KIRBY HARPER

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	PUMPED PER TIME PERIOD	RATE BBLS/MIN	
1600						ON LOCATION -- SPOT AND RIG UP
1930						CASING ON BOTTOM -- BREAK CIRCULATION
1940						SAFETY MEETING
2013	2000					PRESSURE TEST
2017	200			222	6	START MIXING 625 SK ALWC @ 12.5 PPG
2053	200			43	6	START MIXING 200 SK COMMON @ 15.6 PPG
2108						SHUT DOWN -- DROP TOP PLUG
2112	100		0		6	START DISPLACING WITH FRESH WATER
2124	450		98		2	SLOW RATE
2129	500-1000		108			BUMP PLUG
2131	1000-0					RELEASE PRESSURE -- FLOAT HELD
			3			CIRCULATE CEMENT TO THE PIT

FINAL DISP. PRESS 500 PSI BUMP PLUG TO 1000 PSI BLEEDBACK 0.5 BBLS THANK YOU

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer Palmer Oil/American Warrior		Lease No.	Date 5-27-14
Lease Handy		Well # 5-29	Service Receipt
Casing 5 1/2 15.5#	Depth 6513'	County Seward	State KS
Job Type 2-42	Formation	Legal Description 29-34-31	

Pipe Data		Perforating Data		Cement Data
Casing size 5 1/2 15.5#	Tubing Size	Shots/Ft		Lead 200 SX @ 14.8 PPG 5% W-60, 10% Salt 6% C-15, 1/4# Defoamer 3# Gilsonite AA2 Cement
Depth 6513	Depth	From	To	
Volume 154.5 bbl	Volume	From	To	
Max Press	Max Press	From	To	Tail in 50 SX @ 13.5 PPG Neat
Well Connection	Annulus Vol.	From	To	
Plug Depth 6492'	Packer Depth	From	To	60/40 Poz

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
2300					On location
0100					Rig up
0245					Safety Meeting
0305	2000				Pressure Test
0310	100		12	5	Pump 500 gallons of Mud flush
0315	100		8	3.5	Plug Rat Hole 30 SX @ 13.5 PPG
0325	100		5	3.5	Plug Mouse Hole 20 SX @ 13.5 PPG
0333	200		54	5	Pump 200 SX @ 14.8 PPG
0348					Drop Plug - Washup
0353	100			5	Start Displacement
0415	600		135	2	Slow Rate
0419	1300		154	2	Bump Plug
0424	0				Release Pressure - Float Held
					Shut Down Rig Down

Service Units	78940	38750 19842	30463 19564			
Driver Names	Ruben	Carlos	Daniel			

Joe Smith Jerry Bennett Ruben Martinez