

Customer M and M Exploration, Inc.	Lease No.	Date 10-24-13			
Lease Z Bar	Well # 21-8				
Field Order # 9384	Station Pratt, Kansas	Casing 5 1/2 15.5 lb	Depth 5,030 feet	County Barber	State Kansas
Type Job C.N.W. - Longstring	Formation	Legal Description 21-345-15W			

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 5 1/2 15.5 lb/ft	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
Depth 5,030 feet	Depth	From	To	Pre Pad	Max		108 Salt,	
Volume 119.7 Bbl.	Volume	From	To	Pad	Min		5 Min.	
Max Press 1,500 P.S.I.	Max Press	From	To	Frac	Avg		10 Min.	
Well Connection Plug Container	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth 5,010 feet	Packer Depth	From	To	Flush	Gas Volume		Total Load	

Customer Representative Alan Kratil	Station Manager Kevin Gordley	Treater Clarence R. Messick
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Service Units	37,216	77,686	19,905	19,959	19,918				
Driver Names	Messick	McGraw	Phye						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
4:30					Trucks on location and hold safety meeting.
4:45					Hardt Drilling start to run Auto Fill Float Shoe, Shoe Joint with Latch Down Baffle screwed into collar and a total of 120 Joints new 15.5 lb/ft 5 1/2" casing. A Basset was installed above collar #9. A Turbolizer was installed on collars #1, 3, 5, 6, 10, 12, 14, 16.
7:15					Casing in well. Circulate for 30 minutes.
7:50		2,000			Shut in well. Pressure Test Open Well.
7:52	300			5	Start mixing 175 sacks AA2 cement.
	-0-		48		Stop pumping. Shut in well. Wash pump and lines. Release Latch Down Plug. Open Well.
8:05	150			6.5	Start 28 HCL Displacement.
			70	5	Start to lift cement.
8:16	1,100		119		Plug down.
	1,500				Pressure up.
					Release pressure. Float Shoe held.
			7	3	Plug Rat Hole.
					Wash up pump truck.
9:00					Job Complete.
					Thank You
					Clarence, Mitc, Dale