HALLIBURTON

NOBLE ENERGY INC E-BUSINESS
DO NOT MAIL-804 GRAND AVENUE
PLATTEVILLE, Colorado

Miller P27-4Ji

Post Job Summary
Recement Service

Prepared for:
Date Prepared: 3/19/2013
Version: 1

Service Supervisor: OZBUN, RYAN

Submitted by: FINNEY, SEAN

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Wellbore Geometry

Job Tubulars					MD	
Type	**Description**	**Size in**	**ID in**	**Wt lbm/ft**	**Top ft**	**Bottom ft**
Casing	Surface Casing	8.63	8.097	24.00	0.00	462.00
Casing	Production Casing	4.50	4.000	11.60	0.00	6,780.00
Tubing	2 3/8" tubing	2.38	1.995	4.60	0.00	6,643.00

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Pumping Schedule

Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Cement Slurry	15.8# Cement	15.80	2.00	440.0 sacks	440.0 sacks

Fluids Pumped

Stage/Plug # 1 **Fluid 1:** 15.8# Cement
HALCEM (TM) SYSTEM

Fluid Weight:	15.80 lbm/gal
Slurry Yield:	1.15 ft3/sack
Total Mixing Fluid:	4.97 Gal
Surface Volume:	440.0 sacks
Sacks:	440.0 sacks
Pump Rate:	2.00 bbl/min

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Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)		Comments
08/22/2012 08:30		Start Job							PERFORM WATER TEST ALL RESULTS NORMAL AND OK TO MIX WITH
08/22/2012 08:34		Test Lines							TEST LINES TO 4000 PSI CHECK FOR VISIBLE LEAKS AND PRESSURE LOSS. HAD TO REPLACE 1 INCH RELEASE LINE VALVE AND RE TEST AGAIN ALL CHECKED OUT GOOD ON SECOND TEST
08/22/2012 08:36		Pump Spacer 1	2	10				1500.0	PUMP 10 BBL FRESH WATER AHEAD TO ESTABLISH INJECTION RATE
08/22/2012 08:44		Pump Cement	2	25.7				38.0	PUMP 440 SKS HALCEM 15.8 PPG 1.15 YEILD 4.98 GAL/SK 90 BBL MIXED ON THE FLY WITH TESTED WATER
08/22/2012 09:30		Pump Displacement	2	25.7				700.0	PUMP 25.7 BBL FRESH WATER DISPLACEMENT
08/22/2012 09:44		End Job							END JOB

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Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242	**Ship To #:** 2946893	**Quote #:**	**Sales Order #:** 9761336
Customer: NOBLE ENERGY INC E-BUSINESS		**Customer Rep:** Hohenstein, Chris	
Well Name: Miller	**Well #:** P27-4Ji	**API/UWI #:** 05-123-20159	
Field: WATTENBERG	**City (SAP):** PLATTEVILLE	**County/Parish:** Weld	**State:** Colorado
Lat: N 40.202 deg. OR N 40 deg. 12 min. 6.66 secs.		**Long:** W 104.884 deg. OR W -105 deg. 6 min. 56.484 secs.	
Job Purpose: Recement Service			
Well Type: Development Well	**Job Type:** Recement Service		
Sales Person: FLING, MATTHEW	**Srvc Supervisor:** OZBUN, RYAN	**MBU ID Emp #:** 475709	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
DIRKS, RICHARD E	0.0	485940	HINKLE, BRADLEY Dean	0.0	512123	OZBUN, RYAN Jacob	0.0	475709
SANSONI, NICHOLAS Sterling J	0.0	502962						

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*
10246780C	15 mile	11398490	15 mile	11562544C	15 mile	11605597	15 mile
11764054C	15 mile	11764737	15 mile				

Job Hours

Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours	Date	*On Location Hours*	Operating Hours
TOTAL		*Total is the sum of each column separately*						

Job

Formation Name					
Formation Depth (MD)	**Top**		**Bottom**		
Form Type		**BHST**			
Job depth MD	6780. ft	**Job Depth TVD**	6780. ft		
Water Depth		**Wk Ht Above Floor**			
Perforation Depth (MD)	*From*		**To**		

Job Times

	Date	Time	Time Zone
Called Out	22 - Aug - 2012	04:00	MST
On Location	22 - Aug - 2012	06:30	MST
Job Started	22 - Aug - 2012	08:30	MST
Job Completed	22 - Aug - 2012	09:45	MST
Departed Loc	22 - Aug - 2012	10:30	MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Production Casing	Used		4.5	4.	11.6		L-80	.	6780.	.	6780.
Surface Casing	Used		8.625	8.097	24.		J-55	.	462.	.	462.
2 3/8" tubing	Used		2.375	1.995	4.6			.	6643.	.	6643.

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk

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Cementing Job Summary

1	**15.8# Cement**	**HALCEM (TM) SYSTEM (452986)**	**440.0**	**sacks**	**15.8**	**1.15**	**4.97**	**2.0**	**4.97**
	4.966 Gal	FRESH WATER							

The Information Stated Herein Is Correct	***Customer Representative Signature***