



Cementing Service Report

9207885

Client Name PDC Energy, Inc.	Well Name National Hog Farm 17-21	Rig Ensign Drilling Inc. 354	Job Date September 01, 2015	Call Sheet 1060452
Client Representative Mr. Eloy Cosslo	Surface Well Location NE NW Sec 17:T5N:R63W	Down Hole Well Location	Job Type Bradenhead Squeeze	Lead Supervisor Svoboda, Miloslav (28226)

Well Profile

Well Type:	Oil
Maximum Treating Pressure (psi):	---
Predicted Bottom Hole Static Temperature (°F):	--- @ --
Bottom Hole Circulating Temperature (°F):	--- @ --
Bottom Hole Logged Temperature (°F):	--- @ --

Open Hole

Size (in)	Excess (%)	TMD From (ft)	TMD To (ft)	TVD From (ft)	TVD To (ft)
9.000	--	380.000	3,250.000	--	--

Casing

Size (in)	Weight (lb/ft)	Grade	Collapse Pressure (psi)	Internal Yield Pressure (psi)	Capacity (bbl)	I.D. (in)	O.D. (in)	Depth From (ft)	Depth To (ft)
8.625	24.000	J-55	1,370.0	2,950.0	24.77	8.097	9.625	0.0	389.0
4.500	11.800	K-55	4,960.0	5,350.0	50.51	4.000	5.000	0.0	3,250.0

Tubing

Size (in)	Weight (lb/ft)	Grade	Collapse Pressure (psi)	Capacity (bbl)	I.D. (in)	O.D. (in)	Depth From (ft)	Depth To (ft)
1.660	0.000	C-75	---	--	--	--	0.000	3,200.000

Products

Stage 1

From Depth (ft): 0
To Depth (ft): 3200

Acids/Blends/Fluids :

Tail: 500 Sacks of 1-2-4 G, Density = 13.5 lb/gal, Volume Pumped = 135 (bbl)
Water Temperature(°F) = 70 , Bulk Temperature(°F) = 75 , Slurry Temperature(°F) = 82
+ 0.25 % of LTR (Preblend)

Stage 2

From Depth (ft):
To Depth (ft):

Acids/Blends/Fluids :

Fluid & Cement Data

Expected Cement Top: Surface

Wellbore Fluid

Fluid Type	Viscosity (cP)	Density (lbs/gal)	Yield Point (psi)	Temperature (°F)	Recorded@
Water	--	8.340	--	--	Jul 20, 2015 15:46



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Units & Personnel

Units							
<u>Truck Unit No.</u>	<u>Main Type</u>	<u>Sub Type</u>	<u>Tractor Unit No.</u>	<u>Main Type</u>	<u>Sub Type</u>	<u>Time On Location</u>	<u>Time Off Location</u>
201017	PICKUP	1 Ton	449083	TRAILER	Utility Trailer	09/01/2015 06:44	09/01/2015 13:30
445046	TRAILER	SCM Twin	745046	TRACTOR	Tandem - Tractor	09/01/2015 06:44	09/01/2015 13:30
446171	TRAILER	Bulker	746171	TRACTOR	Tandem - Tractor	09/01/2015 06:44	09/01/2015 13:30
446172	TRAILER	Bulker	746172	TRACTOR	Tandem - Tractor	09/01/2015 06:44	09/01/2015 13:30

Crew and Bonuses				
<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Svoboda, Miloslav (28226)	09/01/2015 04:30	09/01/2015 16:45		
Meisner, Jeremy (27681)	09/01/2015 04:30	09/01/2015 16:45		
Bark, Eric (28944)	09/01/2015 04:30	09/01/2015 16:45		
Martinez, Fernando (28421)	09/01/2015 04:30	09/01/2015 16:45		



Treatment Reports & Remarks									
Treatment Report									
Event #	Event Time	Event Description	Fluid Type	Rate (bbl/min)	Tubular Pressure (psi)	Annular Pressure (psi)	Stage Volume (bbl)	Total Volume (bbl)	
1	Sep 01, 2015 06:50	Arrive On Location		--	--	--	--	0.00	
		Remarks: sign in; spot trucks with cat							
2	Sep 01, 2015 08:25	Crew Briefing (Rig in)		--	--	--	--	0.00	
		Remarks: tallgate meeting							
3	Sep 01, 2015 09:15	Rig in Complete		--	--	--	--	0.00	
4	Sep 01, 2015 09:20	Crew Briefing (Pre Job)		--	--	--	--	0.00	
		Remarks: JSA with crew							
5	Sep 01, 2015 09:33	Pressure Test Start	Water	2.00	3,800.0	--	2.00	2.00	
6	Sep 01, 2015 09:35	Pressure Test Complete	Water	--	--	--	--	2.00	
		Remarks: pressure held							
7	Sep 01, 2015 09:37	Pump Spacer	Water	2.00	1,700.0	--	10.00	12.00	
		Remarks: fresh water spacer							
8	Sep 01, 2015 09:41	Mix Cement	1-2-4 G	2.00	2,300.0	--	135.00	147.00	
		Remarks: mixed & pumped away							
9	Sep 01, 2015 11:00	Displace Fluid	Water	2.00	2,200.0	--	1.00	148.00	
10	Sep 01, 2015 11:03	Stop		--	--	--	--	148.00	
		Remarks: open return							
11	Sep 01, 2015 11:10	Wash	Water	--	--	--	--	148.00	
		Remarks: wash pump							
12	Sep 01, 2015 11:50	Rig Out		--	--	--	--	148.00	
13	Sep 01, 2015 12:30	Job Complete		--	--	--	--	148.00	
14	Sep 01, 2015 13:00	Leave Location		--	--	--	--	148.00	
Did Float Hold:		Not Applicable							
Fluid Returns :		Yes							
Type :		Cement							
Volume (bbl) :		5							
Temperature (°F) :		95							
FDAS Functioning Correctly :		Yes							
Was the Program Followed As Per Design? :		Yes							
Material Transfer Sheet Number									
<u>Material Transfer Sheet Number</u>									
65629									



Client	PDC Energy	Client Rep	Eloy Cossio	Supervisor	Milo Svoboda
Tricket No.	9207885	Well Name	National Hog Farm 17-2j	Unit No.	445046
Location	NE NW Sec 17:15N:R63W	Job Type	Bradenhead Squeeze	Service District	D505
Comments	755 sks of 1-2-4 G @ 13.5 ppg displace 1 bbl fresh				
				Job Date	09/01/2015

