



Cementing Service Report

9211100

Client Name Whiting Petroleum Corp.	Well Name Horsetail 08D-1735	Rig Unit Drilling Co. 409	Job Date May 06,2016	Call Sheet 1066114
Client Representative Mr. Kenny Ray Wilkerson	Surface Well Location Sec 8:T10N:R57W	Down Hole Well Location	Job Type Production Casing	Lead Supervisor Klosterman, Austin (27698)

Well Profile										
Well Type:		Oil								
Maximum Treating Pressure (psi):		---								
Predicted Bottom Hole Static Temperature (°F):		100.00	@	--						
Bottom Hole Circulating Temperature (°F):		80.00	@	--						
Bottom Hole Logged Temperature (°F):		---	@	--						
Open Hole										
	<u>Size (in)</u>		<u>Excess (%)</u>		<u>TMD From (ft)</u>	<u>TMD To (ft)</u>		<u>TVD From (ft)</u>		<u>TVD To (ft)</u>
	8.500		--		0.000	16,300.000		--		--
Casing										
	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Collapse Pressure</u>	<u>Internal Yield Pressure</u>	<u>Capacity</u>	<u>I.D.</u>	<u>O.D.</u>	<u>Depth From</u>	<u>Depth To</u>
	(in)	(lb/ft)		(psi)	(psi)	(bbl)	(in)	(in)	(ft)	(ft)
	9.625	36.000	---	--	--	--	--	--	0.0	2,023.0
	5.500	20.000	---	--	--	--	--	--	0.0	16,286.0

Products

Stage 1

From Depth (ft): 0

To Depth (ft): 0

Acids/Blends/Fluids :

Scavenger: 105 Sacks of 50 % Type III / 50 % Poz, Density = 11 lb/gal, Volume Pumped = 50 (bbl)
 Water Temperature(°F) = 50 , Bulk Temperature(°F) = 55 , Slurry Temperature(°F) = 60
 + 0.3 % of ASM-3 (Preblend),
 + 0.5 % of CFL-10 (Preblend),
 + 2 % of FWC-2 (Preblend),
 + 0.1 % of LTR (Preblend),
 + 0.25 lb/sack of Polyflake (Preblend),
 + 0.01 gal/bbl of CDF-3L (Add On The Fly)

Stage 2

From Depth (ft): 0

To Depth (ft): 2000

Acids/Blends/Fluids :

Lead 1: 275 Sacks of 50 % Type III / 50 % Poz, Density = 12 lb/gal, Volume Pumped = 96 (bbl)
 Water Temperature(°F) = 50 , Bulk Temperature(°F) = 55 , Slurry Temperature(°F) = 60
 + 0.3 % of ASM-3 (Preblend),
 + 0.5 % of CFL-10 (Preblend),
 + 2 % of FWC-2 (Preblend),
 + 0.1 % of LTR (Preblend),
 + 0.25 lb/sack of Polyflake (Preblend),
 + 0.01 gal/bbl of CDF-3L (Add On The Fly)

Stage 3

From Depth (ft): 2000

To Depth (ft): 5000

Acids/Blends/Fluids :

Lead 2: 405 Sacks of 50 % Type III / 50 % Poz, Density = 12 lb/gal, Volume Pumped = 141 (bbl)
 Water Temperature(°F) = 50 , Bulk Temperature(°F) = 55 , Slurry Temperature(°F) = 60
 + 0.3 % of ASM-3 (Preblend),
 + 0.5 % of CFL-10 (Preblend),
 + 2 % of FWC-2 (Preblend),
 + 0.1 % of LTR (Preblend),
 + 0.25 lb/sack of Polyflake (Preblend),
 + 0.2 % of SPC-2 (Preblend),
 + 0.01 gal/bbl of CDF-3L (Add On The Fly)

Stage 4

From Depth (ft): 5000

To Depth (ft): 11300

Acids/Blends/Fluids :

Tail: 1970 Sacks of 65% Class G / 35% Poz (1-2-0 G), Density = 13.5 lb/gal, Volume Pumped = 526 (bbl)
 Water Temperature(°F) = 50 , Bulk Temperature(°F) = 55 , Slurry Temperature(°F) = 60
 + 0.3 % of ASM-3 (Preblend),
 + 0.5 % of CFL-10 (Preblend),
 + 0.2 % of SPC-2 (Preblend),
 + 0.25 lb/sack of Polyflake (Preblend),
 + 0.01 gal/bbl of CDF-3L (Add On The Fly)

Fluid & Cement Data

Expected Cement Top:		Surface				
Wellbore Fluid						
<u>Fluid Type</u>	<u>Viscosity (cP)</u>	<u>Density (lbs/gal)</u>	<u>Yield Point (psi)</u>	<u>Temperature (°F)</u>	<u>Recorded@</u>	
Water	--	8.340	--	--	Jul 07, 2015 14:19	
Water Based Mud	--	--	--	--	Aug 24, 2015 15:49	

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>
449086	TRAILER	Utility Trailer	200925	PICKUP	1 Ton	05/07/2016 00:30	05/07/2016 11:00
445046	TRAILER	SCM Twin	745046	TRACTOR	Tandem - Tractor	05/07/2016 00:30	05/07/2016 11:00
445052	TRAILER	SCM Twin	745052	TRACTOR	Tandem - Tractor	05/07/2016 00:30	05/07/2016 11:00
201520	PICKUP	1/2 Ton				05/07/2016 00:30	05/07/2016 11:00

Crew and Bonuses				
<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Klosterman, Austin (27698)	05/07/2016 00:30	05/07/2016 11:00		
Scott, Derek (29603)				
Hansen, Ted (29055)				
Schroeder, Stephen (25442)	05/07/2016 00:30	05/07/2016 11:00		
Hall, Andrew J (25267)	05/07/2016 00:30	05/07/2016 11:00		

Treatment Reports & Remarks



9211100

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	May 07,2016 00:30	Arrive On Location		0.00	0.0	0.0	0.00	0.00
2	May 07,2016 00:40	Crew Briefing (Rig in)		0.00	0.0	0.0	0.00	0.00
3	May 07,2016 06:30	Rig in Complete		0.00	0.0	0.0	0.00	0.00
4	May 07,2016 06:45	Crew Briefing (Pre Job)		0.00	0.0	0.0	0.00	0.00
5	May 07,2016 06:50	Pressure Test Start	Water	0.00	5,000.0	0.0	0.00	0.00
6	May 07,2016 06:51	Pressure Test Complete	Water	0.00	5,000.0	0.0	0.00	0.00
7	May 07,2016 06:52	Pump Preflush	Water	8.00	800.0	0.0	30.00	30.00
		Remarks: Mudflush.						
8	May 07,2016 06:57	Pump Preflush	Water	8.00	800.0	0.0	30.00	60.00
		Remarks: Visweep.						
9	May 07,2016 07:01	Pump Preflush	Water	8.00	800.0	0.0	10.00	70.00
		Remarks: Fresh.						
10	May 07,2016 07:04	Mix Cement	50 % Type III / 50 % Poz	9.00	1,300.0	0.0	50.00	120.00
		Remarks: Mix up and pump 105sx Scavenger @11ppg.						
11	May 07,2016 07:12	Mix Cement	50 % Type III / 50 % Poz	9.00	1,200.0	0.0	96.00	96.00
		Remarks: Mix up and pump Lead @12ppg.						
12	May 07,2016 07:21	Mix Cement	50 % Type III / 50 % Poz	9.00	750.0	0.0	141.00	141.00
		Remarks: Mix up and pump Fill @12ppg.						
13	May 07,2016 07:40	Mix Cement	65% Class G / 35% Poz (1-2-0 G)	9.00	500.0	0.0	340.00	340.00
		Remarks: Mix up and pump Tail @13.5ppg.						
14	May 07,2016 08:07	Stop		0.00	0.0	0.0	0.00	340.00
		Remarks: Rotation of head stopped with 186bbbls left.						
15	May 07,2016 08:08	Mix Cement	65% Class G / 35% Poz (1-2-0 G)	9.00	500.0	0.0	186.00	526.00
		Remarks: Mix up and pump Tail @ 13.5ppg.						
16	May 07,2016 08:41	Drop Plug On The Fly	Water	0.00	0.0	0.0	0.00	526.00
17	May 07,2016 08:42	Displace Fluid	Water	12.00	1,000.0	0.0	330.00	856.00
18	May 07,2016 09:17	Decrease Pump Rate	Water	4.00	1,400.0	0.0	30.50	886.50
19	May 07,2016 09:22	Pumping Pressure Before Bump	Water	0.00	1,400.0	0.0	0.00	886.50
20	May 07,2016 09:23	Bump Plug	Water	0.00	2,000.0	0.0	0.00	886.50
21	May 07,2016 09:25	Check Float		0.00	0.0	0.0	0.00	886.50
		Remarks: 3bbbls. back.						
22	May 07,2016 09:30	Rig Out		0.00	0.0	0.0	0.00	886.50
23	May 07,2016 10:30	Job Complete		0.00	0.0	0.0	0.00	120.00
24	May 07,2016 11:00	Leave Location		0.00	0.0	0.0	0.00	120.00

Treatment Reports & Remarks

Did Float Hold: Yes
Fluid Returns : Yes
Type : Cement
Volume (bbl) : 40
Temperature (°F) : 60
FDAS Functioning Correctly : Yes
Was the Program Followed As Per Design? : Yes

Material Transfer Sheet Number

Material Transfer Sheet Number

67295
67296
67297
67298
67299
67300



Client Whiting
Ticket No. 9211100
Location Sec8:T10N:R57W
Comments Mix up Scavenger 105sx @ 11ppg
Mix up Lead 275sx @ 12ppg
Mix up Fill 405sx @ 12ppg
Mix up Tail 1970sx @ 13.5ppg
Displace 360.5bbls

Client Rep Tyson
Well Name Horsetail 08D-1735
Job Type Production Casing

Supervisor A. Klosterman
Unit No. 445052
Service District 505
Job Date 05/07/2016

