



Cementing Service Report

9209305

Client Name Whiting Petroleum Corp.	Well Name Horsetail Fed 07G - 0611	Rig Unit Drilling Co. 409	Job Date April 22,2016	Call Sheet 1066005
Client Representative Mr. Kenny Ray Wilkerson	Surface Well Location Sec 18:T10N:R57W	Down Hole Well Location	Job Type Production Casing	Lead Supervisor Johnson, Quintin (23945)

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	15.000	2,000.000	13,408.000	--	--

Casing

<u>Size (in)</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Collapse Pressure (psi)</u>	<u>Internal Yield Pressure (psi)</u>	<u>Capacity (bbl)</u>	<u>I.D. (in)</u>	<u>O.D. (in)</u>	<u>Depth From (ft)</u>	<u>Depth To (ft)</u>
9.625	36.000	J-55	2,020.0	3,520.0	154.62	8.921	10.625	0.0	2,000.0
5.500	20.000	P-110	11,080.0	12,640.0	297.34	4.778	6.050	0.0	13,408.0

Products

Stage 1

From Depth (ft):

To Depth (ft):

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) = 60 , Slurry Temperature(°F) = 70

+ 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): 2025

Acids/Blends/Fluids :

Lead 1: 280 Sacks of 50 % Type III / 50 % Poz, Density = 12 lb/gal, Volume Pumped = 97.7 (bbl)

Water Temperature(°F) = 50 , Bulk Temperature(°F) = 60 , Slurry Temperature(°F) = 70

+ 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): 2025

To Depth (ft): 5000

Acids/Blends/Fluids :

Lead 2: 400 Sacks of 50 % Type III / 50 % Poz, Density = 12 lb/gal, Volume Pumped = 139.6 (bbl)

Water Temperature(°F) = 50 , Bulk Temperature(°F) = 60 , Slurry Temperature(°F) = 70

+ 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): 13408

Acids/Blends/Fluids :

Tail: 1480 Sacks of 65% Class G / 35% Poz (1-2-0 G), Density = 13.5 lb/gal, Volume Pumped = 395.4 (bbl)

Water Temperature(°F) = 50 , Bulk Temperature(°F) = 60 , Slurry Temperature(°F) = 70

+ 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)



9209305

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>
449087	TRAILER	Utility Trailer	201025	PICKUP	1 Ton	04/22/2016 05:30	04/22/2016 16:00
445046	TRAILER	SCM Twin	745046	TRACTOR	Tandem - Tractor	04/22/2016 05:30	04/22/2016 16:00
445044	TRAILER	SCM Twin	745044	TRACTOR	Tandem - Tractor	04/22/2016 05:30	04/22/2016 16:00
449134	TRAILER	Utility Trailer	201520	PICKUP	1/2 Ton	04/22/2016 05:30	04/22/2016 16:00
446172	TRAILER	Bulker	746172	TRACTOR	Tandem - Tractor	04/22/2016 05:30	04/22/2016 16:00
449183	TRAILER	1600 Porta Bulker				04/22/2016 05:30	04/22/2016 16:00
449122	TRAILER	1600 Porta Bulker				04/22/2016 05:30	04/22/2016 16:00

Crew and Bonuses

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Hall, Andrew J (25267)	04/22/2016 05:30	04/22/2016 16:00		
Pigg, Martin (28301)				
Devine, Richard (29733)				
Scott, Derek (24184)				
Daylong, Eric (28076)				
Schroeder, Stephen (25442)	04/22/2016 05:30	04/22/2016 16:00		
Daylong, Eric (28076)				
Daylong, Eric (28076)				
Devine, Richard (29733)				
Joyner, Barlen (28603)	04/22/2016 05:30	04/22/2016 16:00		

Treatment Reports & Remarks

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	Apr 22,2016 05:30	Arrive On Location		--	--	--	--	0.00
2	Apr 22,2016 05:45	Crew Briefing (Rig in)		--	--	--	--	0.00
3	Apr 22,2016 06:45	Rig in Complete		--	--	--	--	0.00
4	Apr 22,2016 07:00	Stop		--	--	--	--	0.00
		Remarks: Wait on rig to finish running casing						
5	Apr 22,2016 11:45	Crew Briefing (Pre Job)		--	--	--	--	0.00
6	Apr 22,2016 12:20	Pressure Test Start	Water	1.00	5,000.0	--	3.00	3.00
7	Apr 22,2016 12:22	Pressure Test Complete		--	--	--	--	3.00
8	Apr 22,2016 12:23	Pump Preflush	Water	8.00	600.0	--	30.00	33.00
		Remarks: Mud flush						
9	Apr 22,2016 12:27	Pump Preflush	Water	8.00	600.0	--	30.00	63.00
		Remarks: Visweep						
10	Apr 22,2016 12:31	Pump Spacer	Water	8.00	600.0	--	10.00	73.00
11	Apr 22,2016 12:40	Pump	50 % Type III / 50 % Poz	8.00	500.0	--	50.00	123.00
12	Apr 22,2016 12:47	Pump	50 % Type III / 50 % Poz	8.00	500.0	--	97.70	220.70
13	Apr 22,2016 13:00	Pump	50 % Type III / 50 % Poz	8.00	500.0	--	139.40	360.10
14	Apr 22,2016 13:15	Pump	65% Class G / 35% Poz (1-2-0 G)	8.00	500.0	--	395.40	755.50
15	Apr 22,2016 13:50	Stop		--	--	--	--	755.50
		Remarks: Wash lines						
16	Apr 22,2016 13:55	Drop Plug		--	--	--	--	755.50
17	Apr 22,2016 14:00	Displace Fluid	Water	12.00	1,500.0	--	296.28	1,051.78
18	Apr 22,2016 14:43	Bump Plug		--	2,000.0	--	--	1,051.78
19	Apr 22,2016 14:45	Check Float		--	--	--	--	1,051.78
20	Apr 22,2016 15:00	Rig Out		--	--	--	--	1,051.78
21	Apr 22,2016 15:30	Job Complete		--	--	--	--	1,051.78
		Remarks: AAR						
22	Apr 22,2016 16:00	Leave Location		--	--	--	--	1,051.78
Did Float Hold:		Yes						
Fluid Returns :		Yes						
Type :		Cement						
Volume (bbl) :		20						
Temperature (°F) :		90						
FDAS Functioning Correctly :		Yes						
Was the Program Followed As Per Design? :		Yes						



Treatment Reports & Remarks	
Material Transfer Sheet Number	
<u>Material Transfer Sheet Number</u>	
67255	
67256	
67257	
67258	
67259	



Client Whiting
Ticket No. 9209305
Location Sec 18:T10N:R57W
Comments Pumped job according to prog.

Client Rep Kenny
Well Name Horsetail Federal 07G-0611
Job Type Production Casing

Supervisor Andy Hall
Unit No. 445044
Service District 505 Fort Lupton
Job Date 04/22/2016

