



Cementing Service Report

9209310

Client Name Whiting Petroleum Corp.	Well Name Horsetail Federal 08C-1707	Rig Unit Drilling Co. 409	Job Date May 24, 2016	Call Sheet 1066251
Client Representative Mr. Kenny Ray Wilkerson	Surface Well Location SW NE Sec 8:T10N:R57W	Down Hole Well Location	Job Type Production Casing	Lead Supervisor Hall, Andrew J (25267)

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	0.000	15,953.000	--	--

Casing

<u>Size</u> <u>(in)</u>	<u>Weight</u> <u>(lb/ft)</u>	<u>Grade</u>	<u>Collapse Pressure</u> <u>(psi)</u>	<u>Internal Yield Pressure</u> <u>(psi)</u>	<u>Capacity</u> <u>(bbl)</u>	<u>I.D.</u> <u>(in)</u>	<u>O.D.</u> <u>(in)</u>	<u>Depth From</u> <u>(ft)</u>	<u>Depth To</u> <u>(ft)</u>
5.500	20.000	P-110	11,080.0	12,640.0	352.47	4.778	6.050	0.0	15,894.0

Products

Stage 1

From Depth (ft):

To Depth (ft):

Acids/Blends/Fluids :

Scavenger: 105 lb of 50 % Type III / 50 % Poz, Density = 11 lb/gal

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): 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) = 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): 2000

To Depth (ft): 5000

Acids/Blends/Fluids :

Lead 2: 405 Sacks of 50 % Type III / 50 % Poz, Density = 12 lb/gal, Volume Pumped = 141.4 (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),

+ 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): 15953

Acids/Blends/Fluids :

Tail: 1970 Sacks of 65% Class G / 35% Poz (1-2-0 G), Density = 13.5 lb/gal, Volume Pumped = 526.84 (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)



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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>
449083	TRAILER	Utility Trailer	201191	PICKUP	1 Ton	05/24/2016 05:00	05/24/2016 15:30
445052	TRAILER	SCM Twin	745052	TRACTOR	Tandem - Tractor	05/24/2016 05:00	05/24/2016 15:30
445051	TRAILER	SCM Twin	745051	TRACTOR	Tandem - Tractor	05/24/2016 05:00	05/24/2016 15:30
449200	TRAILER	Utility Trailer	201352	PICKUP	1 Ton	05/24/2016 05:00	05/24/2016 15:30

Crew and Bonuses

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Hall, Andrew J (25267)	05/24/2016 05:00	05/24/2016 15:30		
Hansen, Ted (29055)				
Barden, Sean (27711)				
Pyfer, Kevin (29802)				

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	May 24,2016 05:00	Arrive On Location		--	--	--	--	0.00
2	May 24,2016 05:30	Crew Briefing (Rig in)		--	--	--	--	0.00
3	May 24,2016 06:00	Rig in Complete		--	--	--	--	0.00
4	May 24,2016 06:15	Stop		--	--	--	--	0.00
		Remarks: Wait on rig to finish running casing.						
5	May 24,2016 10:30	Crew Briefing (Pre Job)		--	--	--	--	0.00
6	May 24,2016 11:30	Pressure Test Start	Water	1.00	5,000.0	--	3.00	3.00
7	May 24,2016 11:35	Pressure Test Complete		--	--	--	--	3.00
8	May 24,2016 11:36	Pump Preflush	Water	6.00	1,000.0	--	30.00	33.00
		Remarks: Mud flush						
9	May 24,2016 11:41	Pump Preflush	Water	6.00	1,000.0	--	30.00	63.00
		Remarks: Visweep						
10	May 24,2016 11:46	Pump Spacer	Water	6.00	1,000.0	--	10.00	73.00
11	May 24,2016 11:50	Pump	50 % Type III / 50 % Poz	9.00	1,200.0	--	50.00	123.00
12	May 24,2016 12:03	Pump	50 % Type III / 50 % Poz	9.00	1,000.0	--	96.00	219.00
13	May 24,2016 12:14	Pump	50 % Type III / 50 % Poz	9.00	700.0	--	141.40	360.40
14	May 24,2016 12:30	Pump	65% Class G / 35% Poz (1-2-0 G)	9.00	500.0	--	526.30	886.70
		Remarks: Cement head quit rotating @ 350 away. We got cement 2720'in to the annular. Time was 13:10						
15	May 24,2016 13:25	Wash	Water	2.00	100.0	--	10.00	896.70
		Remarks: Wash lines						
16	May 24,2016 13:30	Drop Plug		--	--	--	--	896.70
17	May 24,2016 13:31	Displace Fluid	Water	12.00	1,400.0	--	352.84	1,249.54
18	May 24,2016 14:15	Bump Plug		--	2,000.0	--	--	1,249.54
19	May 24,2016 14:20	Check Float		--	--	--	--	1,249.54
20	May 24,2016 15:00	Job Complete		--	--	--	--	1,249.54
		Remarks: AAR						
21	May 24,2016 15:30	Leave Location		--	--	--	--	1,249.54
Did Float Hold:		Yes						
Fluid Returns :		Yes						
Type :		Cement						
Volume (bbl) :		30						
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>	
67354	
67355	
67326	
67357	
67358	
67359	

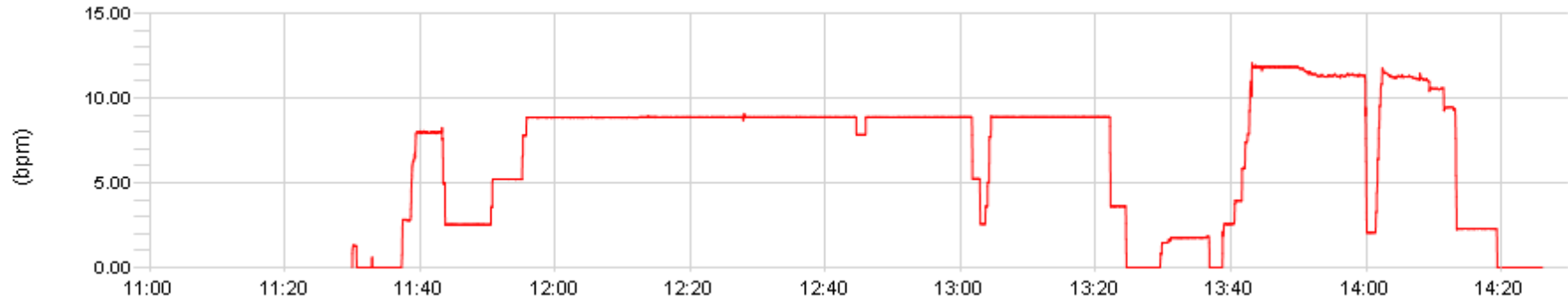


Client Whiting
Ticket No. 9209310
Location SW NE Sec8:T10N:R57W
Comments

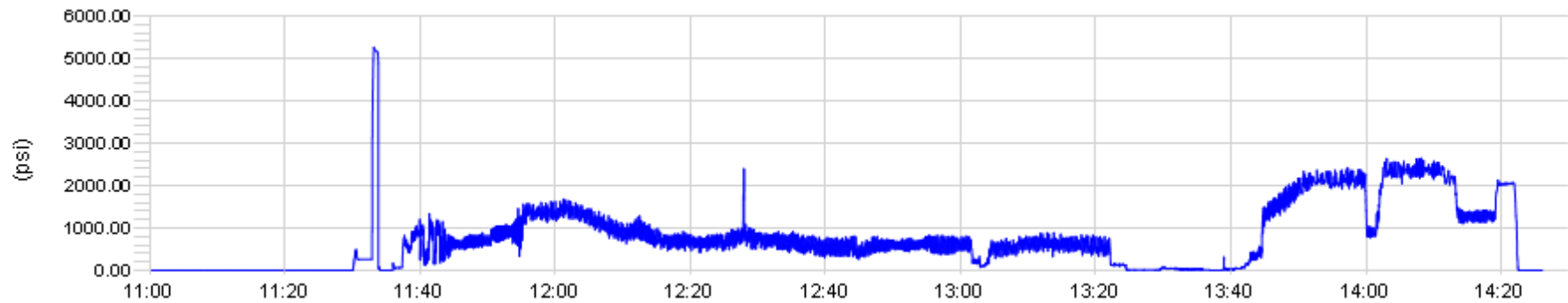
Client Rep Unit #409
Well Name Horsetail 08C-1707
Job Type Production Casing

Supervisor Andy Hall
Unit No. 445052
Service District 505 Fort Lupton
Job Date 05/24/2016

Unit 445052 Rate Total



Unit 445052 Pump Pressure



Unit 445052 Density

