



Cementing Service Report

9206649

Client Name Whiting Petroleum Corp.	Well Name Razor Federal 12F-0105A	Rig Unit Drilling Co. 409	Job Date November 04,2015	Call Sheet 1062220
Client Representative Kenny	Surface Well Location SE NW Sec 12:T10N:R58W	Down Hole Well Location	Job Type Surface Casing	Lead Supervisor Doran, Benjamin (27933)

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

Size (in)	Excess (%)	TMD From (ft)	TMD To (ft)	TVD From (ft)	TVD To (ft)
13.500	--	0.000	1,895.000	--	--

Casing

Size	Weight	Grade	Collapse Pressure	Internal Yield Pressure	Capacity	I.D.	O.D.	Depth From	Depth To
(in)	(lb/ft)		(psi)	(psi)	(bbl)	(in)	(in)	(ft)	(ft)
9.625	36.000	J-55	2,020.0	3,520.0	145.11	8.921	10.625	0.0	1,877.0

Products

Stage 1

From Depth (ft):	0
To Depth (ft):	1370

Acids/Blends/Fluids :

Lead 1: 355 Sacks of Control Set C, Density = 12 lb/gal, Volume Pumped = 155.5 (bbl)
Water Temperature(°F) = 65 , Bulk Temperature(°F) = 65 , Slurry Temperature(°F) = 70
+ 0.25 lb/sack of LCL-7 (Preblend)

Stage 2

From Depth (ft):	1375
To Depth (ft):	1895

Acids/Blends/Fluids :

Tail: 240 Sacks of 0:1:0 Type III, Density = 14.2 lb/gal, Volume Pumped = 62.4 (bbl)
Water Temperature(°F) = 65 , Bulk Temperature(°F) = 65 , Slurry Temperature(°F) = 70
+ 2 % of CaCl₂ (Preblend),
+ 0.25 lb/sack of LCL-7 (Preblend)

Stage 3

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 07, 2015 14:19
Water Based Mud	--	--	--	--	Aug 24, 2015 15:49

**Attachment & Tools****Down Hole Tools**

<u>Tool Type</u>	<u>Depth (ft)</u>	<u>Supplier</u>
Float Collar	1,831.000	Third Party
Guide/Float Shoe	1,877.000	Third Party

Tubular Plugs

<u>Tubular Plug Type</u>	<u>Size (in)</u>	<u>Supplier</u>
Rubber Top	9.625	Sanjel

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>
200925	PICKUP	1 Ton	449095	TRAILER	Utility Trailer	11/05/2015 02:00	11/05/2015 09:40
445070	TRAILER	SCM Twin	745070	TRACTOR	Tandem - Tractor	11/05/2015 02:00	11/05/2015 09:40

Crew and Bonuses

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Doran, Benjamin (27933)	11/05/2015 02:00	11/05/2015 09:40		
Pyfer, Kevin (29802)	11/05/2015 02:00	11/05/2015 09:40		
Dunsbergen, Scott (29737)	11/05/2015 02:00	11/05/2015 09:40		
Maguire, Matthew (26325)	11/05/2015 02:00	11/05/2015 09:40		

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	Nov 05,2015 02:00	Arrive On Location		--	--	--	--	0.00	
2	Nov 05,2015 02:05	Crew Briefing (Rig in)		--	--	--	--	0.00	
3	Nov 05,2015 06:45	Rig in Complete		--	--	--	--	0.00	
4	Nov 05,2015 06:50	Crew Briefing (Pre Job)		--	--	--	--	0.00	
5	Nov 05,2015 07:10	Pressure Test Start	Water	2.00	200.0	--	3.00	0.00	
		Remarks: Fill lines							
6	Nov 05,2015 07:11	Pressure Test Complete		--	3,000.0	--	--	0.00	
		Remarks: All lines held pressure							
7	Nov 05,2015 07:13	Pump Spacer	Water	7.00	200.0	--	20.00	0.00	
8	Nov 05,2015 07:19	Mix Cement	Control Set C	7.40	400.0	--	155.50	0.00	
		Remarks: Mix/Pump 355 Sacks @ 12 PPG							
9	Nov 05,2015 07:44	Mix Cement	0:1:0 Type III	7.00	240.0	--	62.40	0.00	
		Remarks: Mix/Pump 240 Sacks @ 14.2 PPG							
10	Nov 05,2015 07:58	Drop Plug		--	--	--	--	0.00	
11	Nov 05,2015 08:04	Displace Fluid	Water Based Mud	6.00	300.0	--	141.50	0.00	
12	Nov 05,2015 08:41	Bump Plug		--	1,200.0	--	--	0.00	
13	Nov 05,2015 08:42	Check Float		--	--	--	--	0.00	
		Remarks: 1 BBL Back							
14	Nov 05,2015 08:50	Rig Out		--	--	--	--	0.00	
15	Nov 05,2015 09:30	Job Complete		--	--	--	--	0.00	
16	Nov 05,2015 09:40	Leave Location		--	--	--	--	0.00	
Did Float Hold:		Yes							
Fluid Returns :		Yes							
Type :		Cement							
Volume (bbl) :		80							
Temperature (°F) :		70							
FDAS Functioning Correctly :		Yes							
Was the Program Followed As Per Design? :		Yes							