



**Pumping  
Service Report**

**9191934**

Client Name Whiting Petroleum Corp.	Well Name Razor Federal 26I - 3514B	Rig Frontier Drilling 26	Job Date June 28,2014	Call Sheet 1043479
Client Representative Kenny Wilkerson	Surface Well Location Sec 26:T10N:R58W	Down Hole Well Location	Job Type Surface Casing	

**Well Profile**

Well Type:	Oil
Maximum Treating Pressure (psi):	---
Predicted Bottom Hole Static Temperature (°F):	200.00 @ --
Bottom Hole Circulating Temperature (°F):	200.00 @ --
Bottom Hole Logged Temperature (°F):	--- @ --

**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)
9.625	36.000	J-55	2,020.0	3,520.0	119.75	8.921	10.625	0.0	1,549.0

**Products**

**Stage 1**

From Depth (ft): 0  
To Depth (ft): 1570

Acids/Blends/Fluids :

Tail: 680 Sacks of 0:1:0 Type III, Density = 14.2 lb/gal, Volume Pumped = 172.79 (bbl)  
Water Temperature(°F) = 60 , Bulk Temperature(°F) = 70 , Slurry Temperature(°F) = 80  
+ 1 % of CaCl<sub>2</sub>,  
+ 0.25 lb/sack of Polyflake

**Fluid & Cement Data**

Expected Cement Top: --

**Wellbore Fluid**

Fluid Type	Viscosity (cP)	Density (lbs/gal)	Yield Point (psi)	Temperature (°F)	Recorded@
Water	--	--	--	--	May 20, 2014 04:37

**Attachment & Tools**

**Tubular Plugs**

Tubular Plug Type	Size (in)	Supplier
Rubber Top	9.625	Sanjel



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**Units & Personnel**

Units							
Truck Unit No.	Main Type	Sub Type	Tractor Unit No.	Main Type	Sub Type	Time On Location	Time Off Location
201274	PICKUP	3/4 Ton				06/27/2014 20:30	06/28/2014 03:00
445047	TRAILER	SCM Twin	745047	TRACTOR	Tandem - Tractor	06/27/2014 20:30	06/28/2014 03:00
446145	TRAILER	Bulker	746145	TRACTOR	Tandem - Tractor	06/27/2014 20:30	06/28/2014 03:00
446152	TRAILER	Bulker	746152	TRACTOR	Tandem - Tractor	06/27/2014 20:30	06/28/2014 03:00

Crew and Bonuses				
Employee	Start Shift	End Shift	Second Start Shift	Second End Shift
Hall, Andrew J	06/27/2014 20:30	06/28/2014 03:00		
Feigenbaum, Andrew	06/27/2014 20:30	06/28/2014 03:00		
Dash, Chris	06/27/2014 20:30	06/28/2014 03:00		
Martinez, Fernando	06/27/2014 20:30	06/28/2014 03:00		
Coronado, Sebastian	06/27/2014 20:30	06/28/2014 03:00		

**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	Jun 27,2014 20:30	Arrive On Location		--	--	--	--	0.00
2	Jun 27,2014 20:45	Tailgate Meeting		--	--	--	--	0.00
3	Jun 27,2014 21:45	Rig In		--	--	--	--	0.00
4	Jun 27,2014 22:30	Safety Meeting		--	--	--	--	0.00
5	Jun 27,2014 22:45	Sign-off on Safety		--	--	--	--	0.00
6	Jun 27,2014 23:00	Pressure Test	Water	1.00	3,000.0	--	3.00	3.00
7	Jun 27,2014 23:05	Pump Preflush	Water	4.00	250.0	--	20.00	23.00
8	Jun 27,2014 23:10	Pump	0:1:0 Type III	3.00	300.0	--	172.79	195.79
9	Jun 28,2014 00:20	Drop Plug		--	--	--	--	195.79
10	Jun 28,2014 00:30	Displace Fluid	Water	4.00	600.0	--	116.30	312.09
11	Jun 28,2014 01:05	Bump Plug	Water	--	1,255.0	--	--	312.09
12	Jun 28,2014 01:10	Check Float		--	--	--	--	312.09
13	Jun 28,2014 01:30	Wash	Water	1.50	22.0	--	20.00	332.09
14	Jun 28,2014 02:00	Rig Out		--	--	--	--	332.09
15	Jun 28,2014 02:30	Job Complete		--	--	--	--	332.09
16	Jun 28,2014 02:45	Pre-Departure Meeting		--	--	--	--	332.09
17	Jun 28,2014 03:00	Leave Location		--	--	--	--	332.09



**Treatment Reports & Remarks**

Did Float Hold: Yes  
Fluid Returns : Yes  
Type : Cement  
Volume (bbl) : 40  
Temperature (°F) : 90  
FDAS Functioning Correctly : Yes  
Was the Program Followed As Per Design? : Yes

**Material Transfer Sheet Number**

Material Transfer Sheet Number  
46617  
46618  
46619

**Comments To Service Report**

We pressure tested to 3000 psi, pumped 20 bbl of fresh water ahead, 172.79 bbl of slurry @ 14.2, dropped the plug, displaced 116.3 bbl of water, bumped the plug 600 psi over @ 1255 psi, held pressure for 5 minutes, bleed off pressure checked the floaters, floaters held, rigged out and left location. All Sanjel equipment worked well. The crew did a good job. Company man was happy with the jo