



**Pumping
Service Report**

9193381

Client Name Whiting Petroleum Corp.	Well Name Razor Federal 26I-3513A	Rig Frontier 26	Job Date July 13, 2014	Call Sheet 1044046
Client Representative Tyson	Surface Well Location Sec 26:T10N:R58W	Down Hole Well Location	Job Type Intermediate Casing	

Well Profile

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

Open Hole

Size (in)	Excess (%)	TMD From (ft)	TMD To (ft)	TVD From (ft)	TVD To (ft)
8.750	33.000	0.000	6,000.000	--	--

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)
7.000	29.000	L-80	7,030.0	8,160.0	--	6.184	7.656	--	--

Products

Stage 1

From Depth (ft):

To Depth (ft):

Acids/Blends/Fluids :

Lead 1: 445 Sacks of 1-1-6 G, Density = 12.5 lb/gal, Volume Pumped = 149.8 (bbl)

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

+ 6 % of Gel (Preblend),

+ 0.2 % of CFR (Preblend),

+ 0.5 % of CFL-4 (Preblend),

+ 0.15 % of LTR (Preblend),

+ 0.25 lb/sack of Polyflake (Preblend)

Tail: 210 Sacks of 1-1-0 G, Density = 13.5 lb/gal, Volume Pumped = 56.8 (bbl)

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

+ 8 % of Fume (Preblend),

+ 2 % of Gel (Preblend),

+ 0.1 % of CFR-5 (Preblend),

+ 0.7 % of CFL-3 (Preblend),

+ 0.3 % of LTR (Preblend),

+ 0.25 % of Polyflake (Preblend)

Fluid & Cement Data

Expected Cement Top: Surface

Wellbore Fluid

Fluid Type	Viscosity (cP)	Density (lbs/gal)	Yield Point (psi)	Temperature (°F)	Recorded@
Water Based Mud	--	--	--	--	Jul 12, 2014 17:12

Attachment & Tools

Tubular Plugs

Tubular Plug Type	Size (in)	Supplier
Rubber Top	7.000	Third Party

Acidizing • Cementing • Coiled Tubing • Fracturing • Nitrogen

Canada • USA • International

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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>
200868	PICKUP	3/4 Ton	449086	TRAILER	Utility Trailer	07/13/2014 13:00	07/13/2014 22:30
445024	TRAILER	SCM Twin	745024	TRACTOR	Tandem - Tractor	07/13/2014 13:00	07/13/2014 22:30
201174	PICKUP	1 Ton				07/13/2014 13:00	07/13/2014 22:30
201174	PICKUP	1 Ton				07/13/2014 13:00	07/13/2014 22:30

Crew and Bonuses

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Maguire, Matthew	07/13/2014 13:30	07/13/2014 22:30		
Durham, Adrian	07/13/2014 13:30	07/13/2014 22:30		
Smock, Curtis	07/13/2014 13:30	07/13/2014 22:30		
Estrada, John	07/13/2014 13:30	07/13/2014 22:30		
Curtner, Jerry	07/13/2014 13:30	07/13/2014 22:30		

Treatment Reports & Remarks



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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	Jul 13, 2014 13:30	Arrive On Location	---	--	--	--	--	0.00
2	Jul 13, 2014 13:45	Tailgate Meeting	---	--	--	--	--	0.00
3	Jul 13, 2014 16:00	Rig In	---	--	--	--	--	0.00
4	Jul 13, 2014 17:40	Safety Meeting	---	--	--	--	--	0.00
5	Jul 13, 2014 17:50	Sign-off on Safety	---	--	--	--	--	0.00
6	Jul 13, 2014 18:00	Start - Fluid	---	3.50	400.0	--	2.00	2.00
Remarks: Filled lines.								
7	Jul 13, 2014 18:04	Pressure Test Lines	---	--	3,000.0	--	--	2.00
8	Jul 13, 2014 18:07	Pump Preflush	---	4.50	500.0	--	10.00	12.00
Remarks: 10 bbls water fresh ahead.								
9	Jul 13, 2014 18:25	Pump Preflush	---	5.50	780.0	--	20.00	32.00
Remarks: Water + Visweep + Barite.								
10	Jul 13, 2014 18:45	Mix Cement	1-1-6 G	5.50	700.0	--	149.80	181.80
Remarks: Lead cement.								
11	Jul 13, 2014 19:13	Mix Cement	1-1-0 G	5.50	400.0	--	56.80	238.60
Remarks: Tail cement.								
12	Jul 13, 2014 19:30	Stop	---	--	--	--	--	238.60
13	Jul 13, 2014 19:33	Drop Plug	---	--	--	--	--	238.60
14	Jul 13, 2014 19:34	Displace Fluid	Water Based Mud	5.00	1,840.0	--	219.10	457.70
15	Jul 13, 2014 20:28	Bump Plug	---	--	1,840.0	--	--	457.70
Remarks: Held pressure for 2 minutes, bled off pressure, 1 bbl returned.								
16	Jul 13, 2014 20:31	Hold Pressure	---	--	2,000.0	--	--	457.70
Remarks: Hold pressure for 32 minutes.								
17	Jul 13, 2014 21:05	Stop	---	--	2,258.0	--	--	457.70
Remarks: Float held pressure.								
18	Jul 13, 2014 21:06	Stop	---	--	--	--	--	457.70
19	Jul 13, 2014 21:15	Wash	---	1.50	100.0	--	20.00	457.70
20	Jul 13, 2014 21:55	Rig Out	---	--	--	--	--	457.70
21	Jul 13, 2014 22:15	Pre-Departure Meeting	---	--	--	--	--	457.70
22	Jul 13, 2014 22:20	Job Complete	---	--	--	--	--	457.70
23	Jul 13, 2014 22:25	Leave Location	---	--	--	--	--	457.70

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



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Treatment Reports & Remarks

Material Transfer Sheet Number

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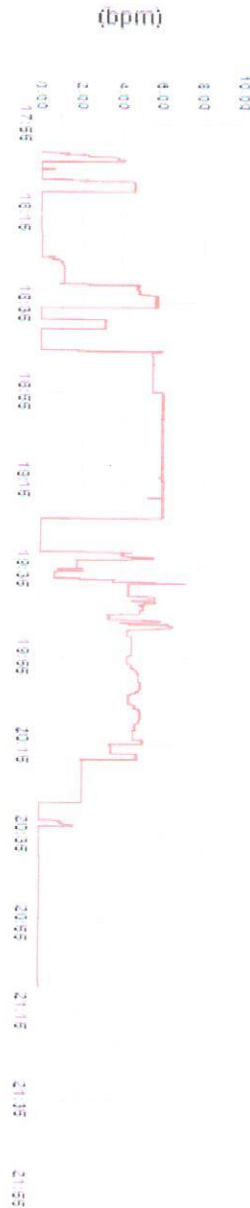
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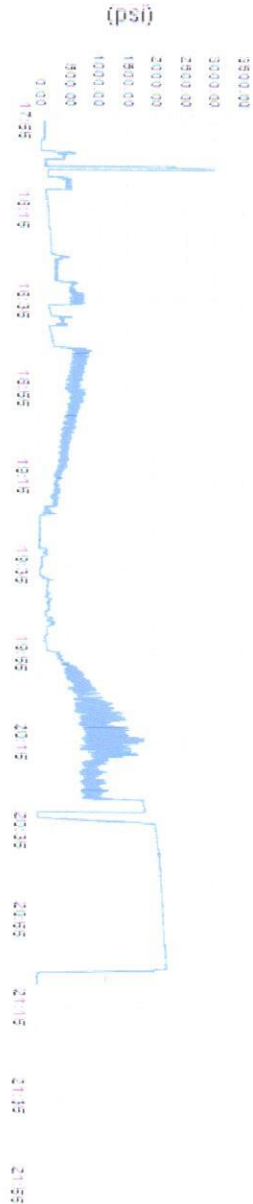
46744

Client	Client Rep	Supervisor
Whiting Petroleum Corporation	Mr. Kenny Wilkerson	Matthew Maguire
Ticket No.	Well Name	Unit No.
9193381	Razor Federal 26L-3513A	745024
Location	Job Type	Service District
Sec 26:T10N:R58W	Intermediate Casing	505
Comments	Job Date	07/13/2014
<p>Fill lines w/ 2 bbls water, PT 3000psi, 10 bbls fresh ahead, 20 bbls Visweep + Barite, LEAD: 455 sacks 1-1-6 G cement (WR = 10.14, Y = 1.89, D = 12.5, Sk Wt = 90), 149.8 bbls slurry @ 12.5 density, TAIL: 210 sacks 1-1-0 G cement (WR = 7.12, Y = 1.52, D = 13.5, Sk Wt = 91.9) 56.8 bbls slurry @ 13.5 density, displace 219.1 bbls of mud, last 20 bbls will be water, slow rate down to 2 bbls per minute last 10 bbls, bumped plug @ 1840psi, held 2 minutes, bled off pressure, got 1 bbl back, pressured up to 2000psi and held for 32 minutes, pressured up to 2258psi, bled off pressure, got 1 bbl back, stop. We had 40 bbls back to surface.</p>		

Unit 745024 Rate Total



Unit 745024 Pump Pressure



Unit 745024 Density

