



**Pumping
Service Report**

9191314

Client Name Whiting Petroleum Corp.	Well Name Razor 26I-2314B	Job Date May 06, 2014	Call Sheet 1041755
Client Representative Kenny Wilkerson	Location Sec 26:T10N:R58W	Job Type Liner Casing	Rig Frontier Drilling 26

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):	--- @ --

Open Hole

Size (in)	Excess (%)	TMD From (ft)	TMD To (ft)	TVD From (ft)	TVD To (ft)
13.500	50.000	0.000	1,560.000	--	--
8.750	30.000	1,560.000	6,100.000	--	--
6.000	15.000	8,160.000	14,060.000	--	--

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	120.60	8.921	10.625	0.0	1,560.0
7.000	29.000	L-80	7,030.0	8,160.0	224.26	6.184	7.656	0.0	6,037.0
4.500	11.600	L-80	6,350.0	7,780.0	139.96	4.000	5.000	5,035.0	14,040.0

Drill Pipe

Size	Weight	Grade	Collapse Pressure	Capacity	I.D.	O.D.	Depth From	Depth To
(in)	(lb/ft)		(psi)	(bbl)	(in)	(in)	(ft)	(ft)
4.000	14.000	---	--	--	--	--	0.000	443.000
4.000	20.000	---	--	--	--	--	443.000	5,035.000

Products

Stage 1

From Depth (ft): 5035

To Depth (ft): 14040

Acids/Blends/Fluids:

Tail: 605 Sacks of 1-1-0 G, Density = 13.7 lb/gal, Volume Pumped = 169 (bbl)

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

+ 8 % of SilFume (Preblend),

+ 2 % of Gel (Preblend),

+ 0.12 % of CFR-5 (Preblend),

+ 0.7 % of CFL-4 (Preblend),

+ 1 % of FWCA-H (Preblend),

+ 0.45 % of LTR (Preblend),

+ 0.2 % of AS-3 (Preblend),

+ 0.25 lb/sack of Polyflake (Preblend)

Yield 1148

H₂O 6.74

Fluid & Cement Data

Expected Cement Top: --

Wellbore Fluid

Fluid Type	Viscosity (cP)	Density (lbs/gal)	Yield Point (psi)	Temperature (°F)	Recorded@
Water	--	--	--	--	May 05, 2014 17:37

Acidizing • Cementing • Coiled Tubing • Fracturing • Nitrogen
Canada • USA • International

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Attachment & Tools

Down Hole Tools

<u>Tool Type</u>	<u>Depth (ft)</u>	<u>Supplier</u>
Liner Hanger	5,035.000	Third Party

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>
449086	TRAILER	Utility Trailer	200868	PICKUP	3/4 Ton	05/06/2014 06:00	05/06/2014 22:00
445047	TRAILER	SCM Twin	745047	TRACTOR	Tandem - Tractor	05/06/2014 06:00	05/06/2014 22:00
446171	TRAILER	Bulker	446171	TRAILER	Bulker	05/06/2014 06:00	05/06/2014 22:00
446153	TRAILER	Bulker	746153	TRACTOR	Tandem - Tractor	05/06/2014 06:00	05/06/2014 22:00
200910	PICKUP	1/2 Ton				05/06/2014 06:00	05/06/2014 22:00

Crew and Bonuses

<u>Employee</u>	<u>Start Shift</u>	<u>End Shift</u>	<u>Second Start Shift</u>	<u>Second End Shift</u>
Price, Ryan	05/06/2014 06:00	05/06/2014 22:00		
Durham, Adrian	05/06/2014 06:00	05/06/2014 22:00		
Young, Craig	05/06/2014 06:00	05/06/2014 22:00		
Paiu, Vladislav	05/06/2014 06:00	05/06/2014 22:00		
Paiu, Corneliu	05/06/2014 06:00	05/06/2014 22:00		
Lampp III, Larry	05/06/2014 06:00	05/06/2014 22:00		
Graves, Douglas	05/06/2014 06:00	05/06/2014 22:00		

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	May 06,2014 06:00	Arrive On Location	---	--	--	--	--	0.00
2	May 06,2014 06:05	Tailgate Meeting	---	--	--	--	--	0.00
3	May 06,2014 06:10	Wait On Instructions	---	--	--	--	--	0.00
Remarks: rig had problems still running pipe down hole								
4	May 06,2014 15:00	Rig In	---	--	--	--	--	0.00
5	May 06,2014 16:30	Safety Meeting	---	--	--	--	--	0.00
6	May 06,2014 16:45	Sign-off on Safety	---	--	--	--	--	0.00
7	May 06,2014 16:52	Pump	---	--	--	--	--	0.00
Remarks: filled lines for pressure test								
8	May 06,2014 16:59	Pressure Test	---	--	5,000.0	--	--	0.00
9	May 06,2014 17:04	Pump Preflush	---	5.00	1,000.0	--	30.00	0.00
Remarks: pumped 30 bbls Visweep								
10	May 06,2014 17:14	Mix Cement	1-1-0 G	4.00	200.0	--	169.00	0.00
11	May 06,2014 18:02	Stop	---	--	--	--	--	0.00
12	May 06,2014 18:02	Pump Out Lines	Water	2.00	0.0	--	10.00	0.00
Remarks: cleared cement from lines and dropped dart								
13	May 06,2014 18:10	Pump Displacement	Water	5.00	1,500.0	--	170.00	0.00
14	May 06,2014 18:54	Bump Plug	---	--	1,700.0	--	--	0.00
15	May 06,2014 18:57	Check Float	---	--	--	--	--	0.00
Remarks: bled psi off and got 1.25 bbls back								
16	May 06,2014 19:11	Pressure Test Lines	---	--	--	1,500.0	--	0.00
Remarks: pressure tested back side for 5 min at 1500 psi								
17	May 06,2014 19:28	Reverse Circulate	Water	2.50	--	200.0	132.00	0.00
18	May 06,2014 20:28	Stop	---	--	--	--	--	0.00
19	May 06,2014 20:45	Rig Out	---	--	--	--	--	0.00
20	May 06,2014 21:25	Wash	---	--	--	--	--	0.00
21	May 06,2014 21:45	Job Complete	---	--	--	--	--	0.00
22	May 06,2014 21:50	Pre-Departure Meeting	---	--	--	--	--	0.00
23	May 06,2014 22:00	Leave Location	---	--	--	--	--	0.00

Did Float Hold: Yes

Fluid Returns : Yes

Type : Cement

Volume (bbl) : 15

Temperature (°F) : 70

FDAS Functioning Correctly : Yes

Was the Program Followed As Per Design? : Yes

Material Transfer Sheet Number

Material Transfer Sheet Number

46212

46045

46044



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Comments To Service Report

Job went very well and customer rep was happy. We pumped 9 bbls more slurry than program planned. Bumped plug at 170 bbls. Reverse circulated until fluid return was clean.



Client	Whiting	Client Rep	Kenny Wilkerson	Supervisor	Ryan Price
Ticket No.	91191314	Well Name	Razor 261-2314B	Unit No.	445032
Location	Sec 26; T10N; R58W	Job Type	2-Stage Production	Service District	Fort Lupton
Comments				Job Date	05/06/2014

