



**Pumping
Service Report**

9199357

Client Name Whiting Petroleum Corp.	Well Name Cottonwood OAE-0504	Rig Pioneer Drilling 54	Job Date November 08, 2014	Call Sheet 1050115
Client Representative Dave	Surface Well Location Sec 8: T9N: R57W	Down Hole Well Location	Job Type Surface 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)
	13.500	25.000	0.000	1,500.000	--	--

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	120.52	8.921	10.625	0.0	1,558.9

Products

Stage 1

From Depth (ft): 0

To Depth (ft): 1558.9

Acids/Blends/Fluids :

Tail: 635 Sacks of 0:1:0 Type III, Density = 14.2 lb/gal, Volume Pumped = 166 (bbl)

Water Temperature(°F) = 60 , Bulk Temperature(°F) = 58 , Slurry Temperature(°F) = 60

+ 1 % of CaCl₂ (Preblend),

+ 0.25 lb/sack 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	--	8.400	--	--	Jul 14, 2014 20:27

Attachment & Tools

Down Hole Tools

Tool Type	Depth (ft)	Supplier
Guide Shoe	1,558.900	Third Party
Float Collar	1,516.000	Third Party

Tubular Plugs

Tubular Plug Type	Size (in)	Supplier
Rubber Top	9.625	Third Party



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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>
449086	TRAILER	Utility Trailer	201173	PICKUP	1 Ton	11/08/2014 15:00	11/08/2014 20:00
445024	TRAILER	SCM Twin	745024	TRACTOR	Tandem - Tractor	11/08/2014 15:00	11/08/2014 20:00
446172	TRAILER	Bulker	746172	TRACTOR	Tandem - Tractor	11/08/2014 15:00	11/08/2014 20:00
446173	TRAILER	Bulker	746173	TRACTOR	Tandem - Tractor	11/08/2014 15:00	11/08/2014 20:00

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	11/08/2014 15:00	11/08/2014 20:00		
Laeger, Kacey	11/08/2014 15:00	11/08/2014 20:00		
Morris, Theodore	11/08/2014 15:00	11/08/2014 20:00		
Bark, Eric	11/08/2014 15:00	11/08/2014 20:00		
Paiu, Vladislav	11/08/2014 15:00	11/08/2014 20:00		

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	Nov 08,2014 15:00	Arrive On Location	---	--	--	--	--	0.00
2	Nov 08,2014 15:02	STEACS Briefing	---	--	--	--	--	0.00
		Remarks: Held						
3	Nov 08,2014 15:32	Rig In	---	--	--	--	--	0.00
4	Nov 08,2014 16:00	Safety Meeting	---	--	--	--	--	0.00
		Remarks: Held						
5	Nov 08,2014 16:30	Sign-off on Safety	---	--	--	--	--	0.00
6	Nov 08,2014 16:32	Start - Fluid	Water	1.00	20.0	--	1.00	1.00
		Remarks: Filled lines						
7	Nov 08,2014 16:34	Pressure Test	Water	--	--	--	--	1.00
		Remarks: 3500						
8	Nov 08,2014 16:36	Pump Preflush	Water	4.50	50.0	--	20.00	21.00
		Remarks: 20bbls fresh ahead						
9	Nov 08,2014 16:41	Pump Spacer	Water	2.00	80.0	--	10.00	31.00
		Remarks: 10bbls red dye						
10	Nov 08,2014 16:46	Mix Cement	0:1:0 Type III	3.00	150.0	--	166.00	197.00
		Remarks: 635sks of typelll at 14.2 lb/gal						
11	Nov 08,2014 17:57	Stop	---	--	--	--	--	197.00
12	Nov 08,2014 17:57	Drop Plug	---	--	--	--	--	197.00
13	Nov 08,2014 17:58	Start - Fluid	Water	6.50	255.0	--	--	197.00
		Remarks: Start displacement						
14	Nov 08,2014 18:19	Bump Plug	Water	2.00	1,000.0	--	114.00	311.00
		Remarks: Bumped plug 500psi over						
15	Nov 08,2014 18:21	Check Float	---	--	--	--	--	311.00
		Remarks: 3/4bbl back						
16	Nov 08,2014 18:22	Stop	---	--	--	--	--	311.00
17	Nov 08,2014 18:30	Wash	---	--	--	--	--	0.00
18	Nov 08,2014 19:00	Tailgate Meeting	---	--	--	--	--	0.00
19	Nov 08,2014 19:15	Rig Out	---	--	--	--	--	0.00
20	Nov 08,2014 19:40	Job Complete	---	--	--	--	--	0.00
21	Nov 08,2014 19:50	Pre-Departure Meeting	---	--	--	--	--	0.00
22	Nov 08,2014 20:00	Leave Location	---	--	--	--	--	0.00

Did Float Hold: Yes

Fluid Returns : Yes

Type : Cement

Volume (bbl) : 24

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

Material Transfer Sheet Number

54916

54914

54915

Comments To Service Report

Arrive on location steacs briefing rig in hold safty meeting sign off on safty fill lines pressure test 3500 pump 20bbls fresh ahead 10bbls dye pump 635sks of typeIII at 14.2 lb/gal stop drop plug displace 114bbls fresh water bump plug 500psi over circulating pressure stop bleed off check floats wash up pump tailgate meeting rig out leave location