



Pumping Service Report

9198927

Client Name Whiting Petroleum Corp.	Well Name Horsetail 02D-0204	Rig Pioneer Drilling 54	Job Date October 08,2014	Call Sheet 1048383
Client Representative Dave	Surface Well Location NW NW Sec 2:T10N: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	1,719.000	--	--

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)
	9.625	36.000	J-55	2,020.0	3,520.0	132.89	8.921	10.625	0.0	1,719.0

Products

Stage 1

From Depth (ft): 0
To Depth (ft): 1719
Acids/Blends/Fluids :
Tail: 740 Sacks of 0:1:0 Type III, Density = 14.2 lb/gal, Volume Pumped = 166 (bbl)
Water Temperature(°F) = 59 , Bulk Temperature(°F) = 63 , Slurry Temperature(°F) = 70
+ 1 % of CaCl2 (Preblend),
+ 0.25 lb/sack of Polyflake (Preblend)

Fluid & Cement Data

Expected Cement Top: --					
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	--	Third Party
Float Collar	--	Third Party

Tubular Plugs

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



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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
449093	TRAILER	Utility Trailer	201168	PICKUP	1 Ton	10/08/2014 00:01	10/08/2014 12:30
445070	TRAILER	SCM Twin	745070	TRACTOR	Tandem - Tractor	10/08/2014 00:01	10/08/2014 12:30
446171	TRAILER	Bulker	746171	TRACTOR	Tandem - Tractor	10/08/2014 00:01	10/08/2014 12:30
446153	TRAILER	Bulker	746153	TRACTOR	Tandem - Tractor	10/08/2014 00:01	10/08/2014 12:30

Crew and Bonuses

Employee	Start Shift	End Shift	Second Start Shift	Second End Shift
Prigmore, Dominic	10/08/2014 00:01	10/08/2014 12:30		
Morris, Theodore	10/08/2014 00:01	10/08/2014 12:30		
Teegerstrom, Ty	10/08/2014 00:01	10/08/2014 12:30		
Davila, Israel	10/08/2014 00:01	10/08/2014 12:30		

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	Oct 08,2014 00:01	Arrive On Location	---	--	--	--	--	0.00
		Remarks: arrive on location						
2	Oct 08,2014 06:35	Tailgate Meeting	---	--	--	--	--	0.00
		Remarks: 2nd tailgate meeting						
3	Oct 08,2014 06:50	Rig In	---	--	--	--	--	0.00
		Remarks: rig job in						
4	Oct 08,2014 08:10	Sign-off on Safety	---	--	--	--	--	0.00
		Remarks: Sign off safety (JSA)						
5	Oct 08,2014 08:19	Safety Meeting	---	--	--	--	--	0.00
		Remarks: Safety meeting						
6	Oct 08,2014 08:26	Start - Fluid	Water	1.00	20.0	--	2.00	0.00
		Remarks: Filled the lines.						
7	Oct 08,2014 08:29	Pressure Test	Water	--	3,100.0	--	--	0.00
		Remarks: Pressure test						
8	Oct 08,2014 08:31	Establish Circulation	Water	2.00	17.0	--	20.00	0.00
		Remarks: Established circulation. Ran 10 bbls of red dye						
9	Oct 08,2014 08:41	Pump	0:1:0 Type III	3.00	70.0	--	166.00	0.00
		Remarks: Pumped slurry @ 14.2 density						
10	Oct 08,2014 10:09	Drop Plug	Water	4.00	150.0	--	129.00	0.00
		Remarks: Stopped dropped plug. Bumped @ 129bbls @ 10:50						
11	Oct 08,2014 10:50	Check Float	Water	2.00	1,400.0	--	129.00	0.00
		Remarks: Held float for 3 min.. Float held for 3 min @ 1400psi						
12	Oct 08,2014 11:00	Stop	---	--	--	--	--	0.00
		Remarks: Bled pressure off and rigged off the well head.						
13	Oct 08,2014 11:15	Wash	Water	1.00	22.0	--	15.00	0.00
		Remarks: Washed pump.						
14	Oct 08,2014 11:40	Rig Out	---	--	--	--	--	0.00
		Remarks: Rigged out.						
15	Oct 08,2014 12:00	Pre-Departure Meeting	---	--	--	--	--	0.00
		Remarks: Pre-departure meeting						
16	Oct 08,2014 12:05	Job Complete	---	--	--	--	--	0.00
		Remarks: Job Complete.						
17	Oct 08,2014 12:30	Leave Location	---	--	--	--	--	0.00
		Remarks: Left location.						

Did Float Hold: Yes
Fluid Returns : Yes
Type : Cement
Volume (bbl) : 40
Temperature (°F) : 84
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

9614

9616

Comments To Service Report

Job went according to prog. and customers request. All Sanjel equipment operated fine with no issues. Job went well.