



Cement

Well Name: Bernhardt 6G-323

Cement

Surface Casing Cement, Casing, 3/12/2015 07:00

Type Casing	String Surface, 926.0ftKB	Start Date 3/12/2015	Cementing End Date 3/12/2015	Wellbore Original Hole	Job Drilling - original, 3/10/2015 14:00	Cementing Company Cementers Well Service Inc	Cement Objective ISOLATION	Eval Method Returns to Surface
----------------	------------------------------	-------------------------	---------------------------------	---------------------------	---	---	-------------------------------	-----------------------------------

Cement Stages

Stg # 1	Description Surface Casing Cement					Objective ISOLATION		Top Depth (ftKB) 13.0	Bottom Depth (ftKB) 926.0	Pump Start Date 3/12/2015			Pump End Date 3/12/2015		Top Plug? No	Btm Plug? Yes					
Initial Pump Rate (bbl/min) 4		Final Pump Rate (bbl/min) 5		Avg Pump Rate (bbl/min) 5		Final Pump Pressure (psi) 900.0		Plug Bump Pressure (psi) 900.0		Pressure Held (psi) 400.0		Pressure Release Date 3/12/2015			Full Return? Yes	Vol Cement Ret (bbl) 5.0		Volume Lost (bbl) 0.0			
Recip? No	Stroke (ft)	Recip Rate (...)		Rotat... No	RPM (rpm)		Pipe Movement Note			MD Tagged...	Tag Method			Tag Wt (100...	Prop... No	Depth Plug...	Tag Cement Date		Drill Out Date		Drill Out Dia (...)

Cement Fluids

Fluid	Est Top (ftKB)	Est Btm (ftKB)	Pump Start Date	Pump End Date	Class	Amount (sacks)	Mix H2O Ratio (gal/sack)	Yield (ft³/sack)	Vol Pumped (bbl)	Excess (%)	Dens (lb/gal)
Tail	13.0	930.0	3/12/2015	3/12/2015	G	770	5.30	1.18	163.7	100.0	15.20

Intermediate Casing Cement, Casing, 3/17/2015 06:00

Type Casing	String Intermediate, 7,518.0ftKB	Start Date 3/17/2015	Cementing End Date 3/17/2015	Wellbore Original Hole	Job Drilling - original, 3/10/2015 14:00	Cementing Company Sanjel (USA) Inc	Cement Objective ISOLATION	Eval Method Returns to Surface
----------------	-------------------------------------	-------------------------	---------------------------------	---------------------------	---	---------------------------------------	-------------------------------	-----------------------------------

Cement Stages

Stg # 1	Description Intermediate Casing Cement				Objective ISOLATION		Top Depth (ftKB) 13.0	Bottom Depth (ftKB) 7,518.0	Pump Start Date 3/17/2015		Pump End Date 3/17/2015		Top Plug? Yes	Btm Plug? No			
Initial Pump Rate (bbl/min) 5		Final Pump Rate (bbl/min) 2		Avg Pump Rate (bbl/min) 7		Final Pump Pressure (psi) 900.0		Plug Bump Pressure (psi) 1,500.0		Pressure Held (psi) 1,500.0		Pressure Release Date 3/17/2015		Full Return? No	Vol Cement Ret (bbl) 15.0	Volume Lost (bbl) 0.0	
Recip? No	Stroke (ft)	Recip Rate (...)	Rotat... No	RPM (rpm)	Pipe Movement Note			MD Tagged...	Tag Method Drill Bit		Tag Wt (100... 3,000	Prop... No	Depth Plug...	Tag Cement Date 3/17/2015		Drill Out Date 3/17/2015	Drill Out Dia (...) 6 1/8

Cement Fluids

Fluid	Est Top (ftKB)	Est Btm (ftKB)	Pump Start Date	Pump End Date	Class	Amount (sacks)	Mix H2O Ratio (gal/sack)	Yield (ft³/sack)	Vol Pumped (bbl)	Excess (%)	Dens (lb/gal)
Lead	13.0	5,512.0	3/17/2015		TYPE III	370	13.41	2.33	153.0	15.0	11.60
Tail	5,512.0	7,712.0		3/17/2015	G	325	5.93	1.42	82.0	15.0	14.60