



Cement

Well Name: Sorin Natural Resources 2R-323

Cement

Surface Casing Cement, Casing, 9/9/2014 10:00

Type Casing	String Surface, 931.0ftKB	Start Date 9/9/2014	Cementing End Date 9/9/2014	Wellbore Original Hole	Job Drilling - original, 9/8/2014 20:00	Cementing Company Cementers Energy	Cement Objective	Eval Method Returns to Surface
----------------	------------------------------	------------------------	--------------------------------	---------------------------	--	---------------------------------------	------------------	-----------------------------------

Cement Stages

Stg #	Description	Objective				Top Depth (ftKB)	Bottom Depth (ftKB)	Pump Start Date	Pump End Date	Top Plug?	Btm Plug?								
1	Surface Casing Cement					13.0	931.0	9/9/2014		Yes	No								
Initial Pump Rate (bbl/min)		Final Pump Rate (bbl/min)		Avg Pump Rate (bbl/min)		Final Pump Pressure (psi)		Plug Bump Pressure (psi)		Pressure Held (psi)		Pressure Release Date		Full Return?		Vol Cement Ret (bbl)		Volume Lost (bbl)	
4		5		5		800.0								Yes		6.0			
Recip?	Stroke (ft)	Recip Rate (...)	Rotat...	RPM (rpm)	Pipe Movement Note				MD Tagged (...)			Tag Method	Tag Wt (100...)	Prop...	Depth Plug...	Tag Cement Date	Drill Out Date	Drill Out Dia (...)	
No			No										No						

Cement Fluids

Fluid	Est Top (ftKB)	Est Btm (ftKB)	Pump Start Date	Pump End Date	Class	Amount (sacks)	Mix H2O Ratio (gal/sack)	Yield (ft ³ /sack)	Vol Pumped (bbl)	Excess (%)	Dens (lb/gal)
Tail	13.0	931.0	9/9/2014		G	780		1.18	163.9	100.0	15.20

Intermediate Casing Cement, Casing, 9/13/2014 20:00

Type Casing	String Intermediate, 7,529.0ftKB	Start Date 9/13/2014	Cementing End Date 9/13/2014	Wellbore Original Hole	Job Drilling - original, 9/8/2014 20:00	Cementing Company Baker Hughes	Cement Objective	Eval Method Returns to Surface
----------------	-------------------------------------	-------------------------	---------------------------------	---------------------------	--	-----------------------------------	------------------	-----------------------------------

Cement Stages

Stg #	Description	Objective				Top Depth (ftKB)	Bottom Depth (ftKB)	Pump Start Date	Pump End Date	Top Plug?	Btm Plug?								
1	Intermediate Casing Cement					13.0	7,529.0	9/13/2014		Yes	No								
Initial Pump Rate (bbl/min)		Final Pump Rate (bbl/min)		Avg Pump Rate (bbl/min)		Final Pump Pressure (psi)		Plug Bump Pressure (psi)		Pressure Held (psi)		Pressure Release Date		Full Return?		Vol Cement Ret (bbl)		Volume Lost (bbl)	
3		5		5		1,917.0		2,500.0		0.0				Yes		6.0			
Recip?	Stroke (ft)	Recip Rate (...)	Rotat...	RPM (rpm)	Pipe Movement Note				MD Tagged (...)			Tag Method	Tag Wt (100...)	Prop...	Depth Plug...	Tag Cement Date	Drill Out Date	Drill Out Dia (...)	
No			No										No						

Cement Fluids

Fluid	Est Top (ftKB)	Est Btm (ftKB)	Pump Start Date	Pump End Date	Class	Amount (sacks)	Mix H2O Ratio (gal/sack)	Yield (ft ³ /sack)	Vol Pumped (bbl)	Excess (%)	Dens (lb/gal)
Lead	13.0	4,800.0	9/13/2014		Premium Lite	314		2.99	167.2		11.20
Tail	4,800.0	7,529.0	9/13/2014		50/50 poz	350		1.38	86.0		14.60

--