



Cement

Well Name: Hunt Federal 28X-314

Cement

Surface Casing Cement, Casing, 12/25/2015 13:30

Type Casing	String Surface, 899.0ftKB	Start Date 12/25/2015	Cementing End Date 12/25/2015	Wellbore Original Hole	Job Drilling - original, 12/24/2015 14:15	Cementing Company Cementers Well Service Inc	Cement Objective	Eval Method Returns to Surface
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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	899.0	12/25/2015		12/25/2015		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		425.0		950.0		950.0		12/25/2015		Yes		6.0		0.0		
Recip? No	Stroke (ft)	Recip Rate (...)	Rotat... No	RPM (rpm)	Pipe Movement Note				MD Tagged... 899.0	Tag Method Drill Bit			Tag Wt (100...	Prop... No	Depth Plug... 899.0	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)
Lead	13.0	899.0	12/25/2015	12/25/2015	G	480	5.30	1.18	100.8	100.0	15.20

Intermediate Casing Cement, Casing, 12/28/2015 20:00

Type Casing	String Intermediate, 7,744.0ftKB	Start Date 12/28/2015	Cementing End Date 12/28/2015	Wellbore Original Hole	Job Drilling - original, 12/24/2015 14:15	Cementing Company Halliburton Energy Services	Cement Objective	Eval Method Returns to Surface
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Cement Stages

Stg # 1		Description Intermediate Casing Cement				Objective			Top Depth (ftKB) 13.0	Bottom Depth (ftKB) 7,744.0	Pump Start Date 12/28/2015		Pump End Date 12/28/2015		Top Plug? No	Btm Plug? Yes			
Initial Pump Rate (bbl/min) 6		Final Pump Rate (bbl/min) 3		Avg Pump Rate (bbl/min) 7		Final Pump Pressure (psi) 2,030.0		Plug Bump Pressure (psi) 2,500.0		Pressure Held (psi) 1,500.0		Pressure Release Date 12/28/2015		Full Return? Yes		Vol Cement Ret (bbl) 3.0		Volume Lost (bbl) 0.0	
Recip? No	Stroke (ft)	Recip Rate (...)	Rotat... No	RPM (rpm)	Pipe Movement Note				MD Tagged... 7,744.0	Tag Method Drill Bit		Tag Wt (100...	Prop... No	Depth Plug... 7,744.0	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)
Lead	13.0	7,744.0	12/28/2015	12/28/2015	EXPANDACEM	834	7.08	1.60	239.0		13.80

Liner Cement, Casing, 1/4/2016 11:30

Type Casing	String Liner, 14,933.0ftKB	Start Date 1/4/2016	Cementing End Date 1/4/2016	Wellbore Original Hole	Job Drilling - original, 12/24/2015 14:15	Cementing Company Halliburton Energy Services	Cement Objective	Eval Method Calculated
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Cement Stages

Stg # 1		Description Liner Cement				Objective			Top Depth (ftKB) 6,577.0		Bottom Depth (ftKB) 14,933.0		Pump Start Date 1/4/2015			Pump End Date 1/4/2016		Top Plug? Yes	Btm Plug? No		
Initial Pump Rate (bbl/min) 4			Final Pump Rate (bbl/min) 2		Avg Pump Rate (bbl/min) 5		Final Pump Pressure (psi) 1,170.0		Plug Bump Pressure (psi) 2,130.0		Pressure Held (psi) 0.0		Pressure Release Date 1/4/2016			Full Return? Yes		Vol Cement Ret (bbl) 2.0		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)
Lead	6,577.0	14,933.0	1/4/2016	1/4/2015	Expandacem	615	7.72	1.67	182.0	32.0	13.80