



Cement

Well Name: Hunt Federal 28X-234

Cement

Surface Casing Cement, Casing, 12/15/2015 05:00

Type Casing	String Surface, 912.0ftKB	Start Date 12/15/2015	Cementing End Date 12/15/2015	Wellbore Original Hole	Job Drilling - original, 12/14/2015 06:00	Cementing Company Cementers Well Service Inc	Cement Objective	Eval Method Returns to Surface
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Cement Stages

Stg # 1		Description Surface Casing Cement				Objective			Top Depth (ftKB) 13.0		Bottom Depth (ftKB) 912.0		Pump Start Date 12/15/2015			Pump End Date 12/15/2015		Top Plug? Yes	Btm Plug? No		
Initial Pump Rate (bbl/min) 4			Final Pump Rate (bbl/min) 5		Avg Pump Rate (bbl/min) 5		Final Pump Pressure (psi) 480.0		Plug Bump Pressure (psi) 720.0		Pressure Held (psi) 720.0		Pressure Release Date 12/15/2015			Full Return? Yes		Vol Cement Ret (bbl) 8.0		Volume Lost (bbl) 0.0	
Recip? No	Stroke (ft)	Recip Rate (...)	Rotat... No	RPM (rpm)	Pipe Movement Note				MD Tagged... 865.0	Tag Method Drill Bit			Tag Wt (100...) 5	Prop... No	Depth Plug... 925.0	Tag Cement Date 12/16/2015		Drill Out Date 12/16/2015		Drill Out Dia (...) 8 3/4	

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	912.0	12/15/2015	12/15/2015	G	485	5.30	1.18	102.0	100.0	15.20

Intermediate Casing Cement, Casing, 12/19/2015 10:15

Type Casing	String Intermediate, 7,510.0ftKB	Start Date 12/19/2015	Cementing End Date 12/19/2015	Wellbore Original Hole	Job Drilling - original, 12/14/2015 06:00	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) 7,510.0		Pump Start Date 12/19/2015			Pump End Date 12/19/2015		Top Plug? No	Btm Plug? Yes		
Initial Pump Rate (bbl/min) 6			Final Pump Rate (bbl/min) 2		Avg Pump Rate (bbl/min) 4		Final Pump Pressure (psi) 1,818.0		Plug Bump Pressure (psi) 3,188.0		Pressure Held (psi) 1,500.0		Pressure Release Date 12/19/2015			Full Return? Yes		Vol Cement Ret (bbl) 30.0		Volume Lost (bbl) 0.0	
Recip? No	Stroke (ft)	Recip Rate (...)	Rotat... No	RPM (rpm)	Pipe Movement Note				MD Tagged... 7,465.0		Tag Method Drill Bit		Tag Wt (100...) 5	Prop... No	Depth Plug... 7,530.0	Tag Cement Date 12/19/2015		Drill Out Date 12/19/2015		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	7,510.0	12/19/2015	12/19/2015	EXPANDACEM	809	7.08	1.60	230.0		13.80

Liner Cement, Casing, 12/24/2015 06:00

Type Casing	String Liner, 14,791.0ftKB	Start Date 12/24/2015	Cementing End Date 12/24/2015	Wellbore Original Hole	Job Drilling - original, 12/14/2015 06:00	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) 6,470.0	Bottom Depth (ftKB) 14,791.0	Pump Start Date 12/24/2015		Pump End Date 12/24/2015		Top Plug? No	Btm Plug? Yes					
Initial Pump Rate (bbl/min) 3		Final Pump Rate (bbl/min) 3		Avg Pump Rate (bbl/min) 5		Final Pump Pressure (psi) 1,478.0		Plug Bump Pressure (psi) 2,008.0		Pressure Held (psi) 0.0		Pressure Release Date 12/24/2015		Full Return? Yes	Vol Cement Ret (bbl) 1.0		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	6,470.0	14,791.0	12/24/2015	12/24/2015	Expandacem	600	7.72	1.67	178.5	30.0	13.80