



# Cement

Well Name: Collins 18Q-301

## Cement

### Surface Casing Cement, Casing, 9/27/2015 07:15

Type Casing	String Surface, 949.0ftKB	Start Date 9/27/2015	Cementing End Date 9/27/2015	Wellbore Original Hole	Job Drilling - original, 9/25/2015 06:00	Cementing Company Cementers Well Service Inc	Cement Objective ISOLATION	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) 949.0	Pump Start Date 9/27/2015		Pump End Date 9/27/2015		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) 500.0	Plug Bump Pressure (psi) 900.0	Pressure Held (psi) 900.0		Pressure Release Date 9/27/2015		Full Return? No	Vol Cement Ret (bbl) 9.0		Volume Lost (bbl)		
Recip? No	Stroke (ft)	Recip Rate (...)	Rotat... No	RPM (rpm)	Pipe Movement Note			MD Tagged... 903.0	Tag Method Drill Bit		Tag Wt (100... 5	Prop... No	Depth Plug... 955.0	Tag Cement Date 9/27/2015		Drill Out Date 9/27/2015	Drill Out Dia (...) 8 3/4

#### Cement Fluids

Fluid	Est Top (ftKB) 13.0	Est Btm (ftKB) 949.0	Pump Start Date 9/27/2015	Pump End Date 9/27/2015	Class G	Amount (sacks) 505	Mix H2O Ratio (gal/sack) 5.30	Yield (ft³/sack) 1.18	Vol Pumped (bbl) 106.1	Excess (%)	Dens (lb/gal) 15.20
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### Intermediate Casing Cement, Casing, 9/30/2015 20:30

Type Casing	String Intermediate, 7,547.5ftKB	Start Date 9/30/2015	Cementing End Date 9/30/2015	Wellbore Original Hole	Job Drilling - original, 9/25/2015 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 ISOLATION		Top Depth (ftKB) 13.0	Bottom Depth (ftKB) 7,547.5	Pump Start Date 9/30/2015		Pump End Date 9/30/2015		Top Plug? Yes	Btm Plug? Yes							
Initial Pump Rate (bbl/min) 4		Final Pump Rate (bbl/min) 6		Avg Pump Rate (bbl/min) 5		Final Pump Pressure (psi) 1,600.0		Plug Bump Pressure (psi) 2,200.0		Pressure Held (psi) 2,498.0		Pressure Release Date 9/30/2015		Full Return? Yes	Vol Cement Ret (bbl) 10.0		Volume Lost (bbl) 0.0					
Recip? No	Stroke (ft)	Recip Rate (...)		Rotat... Yes	RPM (rpm)		Pipe Movement Note			MD Tagged... 7,493.0		Tag Method Drill Bit		Tag Wt (100... 5	Prop... No	Depth Plug... 7,555.0	Tag Cement Date 10/1/2015		Drill Out Date 10/1/2015		Drill Out Dia (...) 8 3/4	

#### Cement Fluids

Fluid	Est Top (ftKB) 13.0	Est Btm (ftKB) 7,547.5	Pump Start Date 9/30/2015	Pump End Date 9/30/2015	Class Expandacem (TM) System	Amount (sacks) 855	Mix H2O Ratio (gal/sack) 7.08	Yield (ft³/sack) 1.60	Vol Pumped (bbl) 243.6	Excess (%) 20.0	Dens (lb/gal) 13.80
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### Liner Cement, Casing, 10/3/2015 13:00

Type Casing	String Liner, 11,571.0ftKB	Start Date 10/3/2015	Cementing End Date 10/3/2015	Wellbore Original Hole	Job Drilling - original, 9/25/2015 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) 6,522.9	Bottom Depth (ftKB) 11,571.0	Pump Start Date 10/3/2015		Pump End Date 10/3/2015		Top Plug? Yes	Btm Plug? No				
Initial Pump Rate (bbl/min) 2		Final Pump Rate (bbl/min) 4		Avg Pump Rate (bbl/min) 4		Final Pump Pressure (psi) 1,623.0		Plug Bump Pressure (psi) 1,623.0		Pressure Held (psi) 2,302.0		Pressure Release Date 10/3/2015		Full Return? No	Vol Cement Ret (bbl) 10.0		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) 6,522.9	Est Btm (ftKB) 11,571.0	Pump Start Date 10/3/2015	Pump End Date 10/3/2015	Class Expandacem (TM) System	Amount (sacks) 360	Mix H2O Ratio (gal/sack) 7.73	Yield (ft³/sack) 1.67	Vol Pumped (bbl) 107.0	Excess (%)	Dens (lb/gal) 13.80
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