



# Cement

Well Name: Stroh 13K-243

## Cement

### Surface Casing Cement, Casing, 4/21/2015 01:45

Type Casing	String Surface, 947.0ftKB	Start Date 4/21/2015	Cementing End Date 4/21/2015	Wellbore Original Hole	Job Drilling - original, 4/20/2015 06:00	Cementing Company Cementers Well Service Inc	Cement Objective TO SURFACE	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) 947.0	Pump Start Date 4/21/2015		Pump End Date 4/21/2015		Top Plug? No	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) 400.0		Plug Bump Pressure (psi) 850.0		Pressure Held (psi) 450.0		Pressure Release Date 4/21/2015		Full Return? No	Vol Cement Ret (bbl) 8.0		Volume Lost (bbl)		
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)
Preflush	13.0		4/21/2015	4/21/2015					30.0		8.50
Lead	13.0	947.0	4/21/2015	4/21/2015	G	790	5.30	1.18	166.0		15.20
Displacement	13.0	911.0	4/21/2015	4/21/2015					70.3		8.70

### Intermediate Casing Cement, Casing, 4/27/2015 01:30

Type Casing	String Intermediate, 7,543.0ftKB	Start Date 4/27/2015	Cementing End Date 4/27/2015	Wellbore Original Hole	Job Drilling - original, 4/20/2015 06:00	Cementing Company Halliburton Energy Services	Cement Objective TO SURFACE	Eval Method Calculated
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#### Cement Stages

Stg # 1	Description Intermediate Casing Cement				Objective			Top Depth (ftKB) 101.0	Bottom Depth (ftKB) 7,543.0	Pump Start Date 4/27/2015			Pump End Date 4/27/2015		Top Plug? Yes	Btm Plug? No				
Initial Pump Rate (bbl/min) 3		Final Pump Rate (bbl/min) 6		Avg Pump Rate (bbl/min) 4		Final Pump Pressure (psi)		Plug Bump Pressure (psi) 2,443.0		Pressure Held (psi) 2,526.0		Pressure Release Date 4/27/2015			Full Return? Yes	Vol Cement Ret (bbl) 0.0		Volume Lost (bbl)		
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	101.0	7,543.0	4/27/2015	4/27/2015	EXPANDACEM	835	7.08	1.60	238.0	10.0	13.80

### Liner Cement, Casing, 5/3/2015 21:30

Type Casing	String Liner, 14,131.0ftKB	Start Date 5/3/2015	Cementing End Date 5/4/2015	Wellbore Original Hole	Job Drilling - original, 4/20/2015 06:00	Cementing Company Halliburton Energy Services	Cement Objective	Eval Method Returns to Surface
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#### Cement Stages

Stg # 1	Description Liner Cement				Objective ISOLATION		Top Depth (ftKB) 6,664.0	Bottom Depth (ftKB) 14,135.0	Pump Start Date 5/3/2015			Pump End Date 5/4/2015		Top Plug? Yes	Btm Plug? No				
Initial Pump Rate (bbl/min) 3		Final Pump Rate (bbl/min) 5		Avg Pump Rate (bbl/min) 4		Final Pump Pressure (psi) 1,500.0	Plug Bump Pressure (psi) 2,000.0		Pressure Held (psi) 2,000.0		Pressure Release Date 5/3/2015			Full Return? Yes	Vol Cement Ret (bbl) 0.0		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...	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	6,950.0	14,135.0	5/3/2015	5/4/2015	EXPANDACEM	500	7.72	1.67	148.7		13.80