

**Well Name: Apache Canyon 07-05**

**Conductor Casing Cement**

API/UWI 05071086520000	Location T34S-R67W-S07	Field Name Purgatoire River	Permit Number 2005430	State/Province Colorado	Well Configuration Type Vertical
Gr Elev (ft) 7,862.00	Casing Flange Elevation (ft)	KB-Ground Distance (ft) 0.00	KB-Casing Flange Distance (ft)	Spud Date 2/13/2006 00:00	Rig Release Date 2/15/2006 00:00

**Conductor Casing Cement, 2/13/2006 13:00**

Type Casing	Cementing Start Date 2/13/2006	Cementing End Date	Wellbore Original Hole	String Conductor, 23.4ftKB
Cementing Company	Evaluation Method	Cement Evaluation Results		

Comment

**1, 0.0-23.4ftKB**

Top Depth (ftKB) 0.0	Bottom Depth (ftKB) 23.4	Full Return? No	Vol Cement Ret (bbl)	Top Plug? No	Bottom Plug? No
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)		Final Pump Pressure (psi)	Plug Bump Pressure (psi)
Pipe Reciprocated? No	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)		Pipe Rotated? No	Pipe RPM (rpm)
Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)		Drill Out Diameter (in)	Drill Out Date

**<typ>**

Fluid Type	Fluid Description	Amount (sacks) 9	Class	Volume Pumped (bbl)
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)
Free Water (%)	Density (lb/gal)	Plastic Viscosity (cP)	Thickening Time (hr)	1st Compressive Strength (psi)

**Cement Fluid Additives**

Add	Type	Conc

**Surface Casing Cement, 2/13/2006 21:00**

Type Casing	Cementing Start Date 2/13/2006	Cementing End Date	Wellbore Original Hole	String Surface, 229.6ftKB
Cementing Company	Evaluation Method	Cement Evaluation Results		

Comment  
Cmt'd csg w/125 sx Midcon II cmt w/Trinidad Surface Blend (mixed @ 14.0 ppg, 1.66 cuft/sx). Circ 16 bbls cmt to surf.

**1, 0.0-230.0ftKB**

Top Depth (ftKB) 0.0	Bottom Depth (ftKB) 230.0	Full Return? No	Vol Cement Ret (bbl)	Top Plug? No	Bottom Plug? No
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)		Final Pump Pressure (psi)	Plug Bump Pressure (psi)
Pipe Reciprocated? No	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)		Pipe Rotated? No	Pipe RPM (rpm)
Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)		Drill Out Diameter (in)	Drill Out Date

**<typ>**

Fluid Type	Fluid Description	Amount (sacks) 125	Class	Volume Pumped (bbl)
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)
Free Water (%)	Density (lb/gal)	Plastic Viscosity (cP)	Thickening Time (hr)	1st Compressive Strength (psi)

**Cement Fluid Additives**

Add	Type	Conc

**Production Casing Cement, 2/15/2006 00:00**

Type Casing	Cementing Start Date 2/15/2006	Cementing End Date	Wellbore Original Hole	String Production, 2,289.4ftKB
Cementing Company	Evaluation Method	Cement Evaluation Results		

Comment  
Stage 1: Pmpd 60 BPW f/b 60 bbls LCM f/b 145 sx Midcon II cmt w/Trinidad prod blend (mixed @ 13.0 ppg & 2.04 cuft/sx). Float held. Circ 8 bbls cmt. Stage 2: Pmpd 40 BPW f/b 40 bbls LCM f/b 260 sx Midcon II cmt w/Trinidad Prod blend (mixed @ 13.0 ppg & 2.04 cuft/sx). Float held. Circ 42 bbls cmt to surf.

**1, 1,508.0-2,289.4ftKB**

Top Depth (ftKB) 1,508.0	Bottom Depth (ftKB) 2,289.4	Full Return? No	Vol Cement Ret (bbl)	Top Plug? No	Bottom Plug? No
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)		Final Pump Pressure (psi)	Plug Bump Pressure (psi)
Pipe Reciprocated? No	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)		Pipe Rotated? No	Pipe RPM (rpm)
Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)		Drill Out Diameter (in)	Drill Out Date

**Well Name: Apache Canyon 07-05**

**Conductor Casing Cement**

API/UWI 05071086520000	Location T34S-R67W-S07	Field Name Purgatoire River	Permit Number 2005430	State/Province Colorado	Well Configuration Type Vertical
Gr Elev (ft) 7,862.00	Casing Flange Elevation (ft)	KB-Ground Distance (ft) 0.00	KB-Casing Flange Distance (ft)	Spud Date 2/13/2006 00:00	Rig Release Date 2/15/2006 00:00

**<typ>**

Fluid Type	Fluid Description	Amount (sacks) 405	Class	Volume Pumped (bbl)
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)
Free Water (%)	Density (lb/gal)	Plastic Viscosity (cP)	Thickening Time (hr)	1st Compressive Strength (psi)

**Cement Fluid Additives**

Add	Type	Conc

**2, 0.0-1,508.0ftKB**

Top Depth (ftKB) 0.0	Bottom Depth (ftKB) 1,508.0	Full Return? No	Vol Cement Ret (bbl)	Top Plug? No	Bottom Plug? No
Initial Pump Rate (bbl/min)	Final Pump Rate (bbl/min)	Avg Pump Rate (bbl/min)	Final Pump Pressure (psi)	Plug Bump Pressure (psi)	
Pipe Reciprocated? No	Reciprocation Stroke Length (ft)	Reciprocation Rate (spm)	Pipe Rotated? No	Pipe RPM (rpm)	
Tagged Depth (ftKB)	Tag Method	Depth Plug Drilled Out To (ftKB)	Drill Out Diameter (in)	Drill Out Date	

**<typ>**

Fluid Type	Fluid Description	Amount (sacks)	Class	Volume Pumped (bbl)
Estimated Top (ftKB)	Estimated Bottom Depth (ftKB)	Percent Excess Pumped (%)	Yield (ft³/sack)	Mix H2O Ratio (gal/sack)
Free Water (%)	Density (lb/gal)	Plastic Viscosity (cP)	Thickening Time (hr)	1st Compressive Strength (psi)

**Cement Fluid Additives**

Add	Type	Conc