



Precision Directional Service, Inc.

27610 Commerce Oaks Drive  
Oak Ridge North, TX 77385

70 Ranch 4-63-3-4841CH

Scale 5":100' - TVD

1/2/2014 2:02 AM

**Oper. Company:** Bill Barrett Corporation  
**Well:** 70 Ranch 4-63-3-4841CH  
**Field:** Wattenburg  
**Rig:** Nabors M-37  
**Well ID:** 05-123-37993  
**Job Number:** DL2062  
**Notes:**

**State:** Colorado  
**County:** Weld  
**Country:** USA

**Start Date:** 12/27/2013 00:30:00  
**End Date:** 01/02/2014 01:42:00

**Latitude:** 40° 20' 21.660" North  
**Longitude:** 104° 25' 58.044" West

**Elev KB:** 4,582'  
**Elev DF:** 4,582'  
**Elev GL:** 4,559'

**Notes:**

**Operator 1:** David Rask  
**Notes:**

**Operator 2:** Andrew Skoog

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	6038	6132	6132		
Bit Size	8 3/4	8 3/4	6 1/8		
Cal Factor	3.53	3.50	1.45		
Gamma Offset	41.00	40.00	38.00		
Resisitivity Offset	58.00	60.00	58.00		
Start Depth	817.00	5940.00	6524.00		
StartDate	12/27/2013	12/28/2013	12/30/2013		
StartTime	12:30 AM	11:00 AM	10:00 AM		
EndDepth	5940.00	6524.00	10889.00		
EndDate	12/28/2013	1/1/2014	1/2/2014		
EndTime	9:30 AM	7:00 PM	1:42 AM		
Mud Type	WBM	WBM	WBM		
Mud Weight	9	9	9		
Funnel Viscosity					
Plastic Viscosity					
Yield Point					
Gel Strength					
Solids Content					
Sand Content					
Mud Alkalinity					
Filtrate Alkalinity					
Chlorides					
Mud RM					
Mud RMF					
Mud RMC					
Mud RM at BHT					
Hole Data			Casing Data		
Size	From	To	Size	From	To
13 3/8	0.00	832.00	9 5/8	0.00	817.00
9 5/8	832.00	6734.00	7	0.00	6501.00
4 1/2	6734.00	10889.00			

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

150.00

2

300.00

FT

4,010

4,020

4,030

4,040

4,050

4,060

4,070

4,080

4,090

4,100

4,110

4,120

4,130

4,140

4,150

4,160

4,170

4,180

4,190

4,200

4,210

MD: 4022.00 INC: 1.40 AZ: 334.90

4,021.57























