



Precision Directional Services, Inc.

27610 Commerce Oaks Drive
Oak Ridge North, TX 77385
713-435-6250

Shull 1-35-9-60
Scale 2":100' - MD
9/3/2014 10:39 PM

Oper. Company: Carrizo Oil & Gas, Inc.

Well: Shull 1-35-9-60

Field: Niobrara CONZ'83

Rig: Xtreme 19

Well ID: 05-123-37239-00

Job Number: DL2356

State: Colorado

County: Weld

Country: USA

Location: Keota

Start Date: 08/31/2014 10:15:00

End Date: 09/03/2014 22:30:00

Latitude: 40.7131694444444
Longitude: -104.054327777778


Elev KB: 17'
Elev DF: 4940'
Elev GL: 4923'


Operator 1: Paul Brown

Operator 2: Kyle Elliott

Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	G2034	G2034			
Bit Size	8 3/4	6 1/8			
Cal Factor	3.08	1.37			
Gamma Offset	42.00	45.00			
Resistivity Offset	0.00	0.00			
Start Depth	5672.00	6443.00			
StartDate	7/31/2014	9/1/2014			
StartTime	12:26 PM	12:29 PM			
EndDepth	6443.00	10722.00			
EndDate	9/1/2014	9/3/2014			
EndTime	12:00 AM	12:00 AM			
Mud Type	WBM	WBM			
Mud Weight	9.7 - 9.8	9.7 - 9.8			
Funnel Viscosity	41 - 43	41 - 42			
Plastic Viscosity	14 - 17	13 - 14			
Yield Point	15 - 22	17 - 18			
Gel Strength	5 - 14	5 - 13			
Solids Content	7.4 - 7.6	6.8 - 6.9			
Sand Content	0.5	0.5 - 0.75			
Mud Alkalinity	0.3 - 0.5	0.4 - 0.6			
Filtrate Alkalinity	0.2 - 1.1	0.4 - 1.5			
Chlorides	800	800			
Mud RM	N/A	N/A			
Mud RMF	N/A	N/A			
Mud RMC	N/A	N/A			
Mud RM at BHT	N/A	N/A			
Temperature	110	190			

Hole Data			Casing Data		
Size	From	To	Size	From	To
12 1/4	0.00	1476.00	9 5/8	0.00	1458.00
8 3/4	1476.00	6443.00	7	0.00	6422.00
6 1/8	6443.00	10722.00	4.5	6422.00	10722.00

BHA Data			
Picture	Type	Length	Description
	Bit	1	

	Motor	29.38	Precision Mud Motor
	Sub1	2.62	Float Sub
	Sub1	2.99	MWD UBHO
	Sub1	31.13	Non-Mag Drill Collar
	Sub1	31.13	Non-Mag Drill Collar
	Sub1	2.93	Crossover Sub
	Sub1	5099.78	60 Stands Drill Pipe
	Sub1	1370.67	15 Stands HWDP
<p><i>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.</i></p>			

