



Precision Directional Services, Inc.  
27610 Commerce Oaks Drive  
Oak Ridge North, TX 77385

**DL 1924**

2":100' - MD  
10/19/2013 10:27:08 PM

**Oper. Company:** Carrizo Oil & Gas, Inc.  
**Country:** United States of America  
**State / Province:** Colorado  
**County / Parish:** Weld County  
**Started:** 10/14/2013 09:00 AM

**API/UWI:** 05-123-37896  
**Field:** Niobrara CONZ'83  
**Well:** State 3-36-9-61  
**Rig:** Xtreme 17  
**Ended:** 10/19/2013 12:00 AM

### Personnel

**Day Hand:** Luis Suarez  
**Night Hand:** Andrew Thomson  
**Comp. Emp:** Joe Covington

### Location

**Latitude:** 40.42'00.383N  
**Longitude:** 104.08'54.414W  
**Elev. GL:** 4932  
**Elev. DF:** 17  
**Elev. KB:** 4949

### Hole Data

Size	From	To
12 1/4	0	1502
8 3/4	1502	6596
6 1/8	6596	10587

### Casing Data

Size	From	To
9 5/8	0	1502
7	1502	6596
4 1/2	6596	10587

### Bit Sizes

Size	From	To
12 1/4	0	1502
8 3/4	1502	6596
6 1/8	6596	10587

### Mud Data

Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
WBM	9.5						0	1502
WBM	9.8						1502	6213
WBM	10.5						6213	10587

### Tool Run Data

Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
1148	40	0	10/14/2013 9:32:30 PM	5844	10/15/2013 9:32:30 PM	6213
1148	42	0	10/15/2013 9:36:58 PM	6213	10/19/2013 9:36:58 PM	10587

*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.*





















