



Cathedral Energy Services
1949 North Pyrite Road
Casper, Wyoming 82604

145210

5":100' - TVD

7/8/2014 9:46:50 AM

CATHEDRAL

Oper. Company: Encana Oil & Gas (USA) Inc.

Country: U.S.A.

State / Province: Colorado

County / Parish: Weld

Started: 06/22/2014 02:30 PM

API/UWI: 05-123-3922000

Field: Wattenburg

Well: Mumby State 4B-36H

Rig: Helmerich & Payne 522

Ended: 07/04/2014 05:00 PM

Gamma Ray
Section Plane: 0.00
Magnetic North: 8.41
Gamma Attenuation Factor:
Gamma Averaging: 7%

Personnel

Day Hand: J. Nichols/A. Stewart

Night Hand: T.Kapsch/C. Horkin

Comp. Emp:

Maximum Temperature: 228° f

Location

Latitude: 40.090827

Longitude: -104719659

Elev. GL: 5018

Elev. DF:

Elev. KB: 5048

Log and Survey Depth Relative to Kelly Bushing (KB) Depth

Hole Data

Size	From	To
12-1/4	0	1149
8-3/4	1149	7846
6.125	7846	11987

Casing Data

Size	From	To
9-5/8	0	1139
7	0	7836
4	0	11.977

Bit Sizes

Size	From	To
12-1/4	0	1149
8-3/4	1149	7846
6.125	7846	11987

Mud Data

Type	Weight	Density	Viscosity	Rm	Rmf	Rmc	From	To
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Tool Run Data

Serial Number	Gamma Offset	Resist. Offset	Start Time	Start Depth	End Time	End Depth
232	36.39	0	6/22/2014 2:30:34 PM	1149	6/30/2014 9:30:34 AM	7846
232	38.12	0	7/1/2014 1:00:36 PM	7846	7/4/2014 5:00:36 PM	11987

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.

0.00 Gamma Ray(API) 150.00 TVD 0.00 ROP (FT/HR) 600.00
150.00 2 300.00 FT























