PSI

PHOENIX SURVEYING INC.
COMPENSATED DENSITY
COMPENSATED NEUTRON

Company: Well: Field: County: State: Country: Other Services: Location: Permanent Datum: Log Measured From: Drilling Measured From: Elevation: Elev.: K.B. D.F. G.L.

Annular 1230
Phoenix Surveying Inc.
Wildcat
Cheyenne
Colorado
USA
Sec. 30 Twp. 13 S Rng. 50 W
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Apr. 2013
GR
Ground Level
0 ft above Perm. Datum
K.B. 0 ft
D.F. 0 ft
G.L. 0 ft

Date: 07-Apr-2013
Run Number: ONE
Depth Driller: 4000 ft
Depth Logger: 4000 ft
Bottom Logged Interval: 4000 ft
Top Logged Interval: 3000 ft
Casing Driller Size: 4.5 in @ 3000 ft
Casing Logger Size: 4.5 in @ 3000 ft
Bit Size: 3.875 in
Type Fluid in Hole: Water
Density: 8.33 lb/gal
Viscosity: 28 s/qt
pH: 7
Fluid Loss: 0 cc
Source of Sample: Flowline
Rm @ Meas. Temp.: 0.2 @ 70 °F
Rmf @ Meas. Temp.: 0.2 @ 70 °F
Rmc @ Meas. Temp.: 0.2 @ 70 °F
Source of Rmf and Rmc: Measured
Rm @ BHT: 0.2 @ 70 °F
Time Since Circulation: 1 hr
Max. Rec. Temp.: 70 °F
Equipment Number: 1230
Location: Cheyenne
Recorded By: Phoenix Surveying Inc.
Witnessed By: Mr. Smith

Run Number

Primary Depth Control

Logging Disclosure

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 to the extent of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

CUSTOMER

Annular volume calculated for 4.5" casing
Mid Continent Rig 1
Thank you for using Phoenix Surveys!!
API #: 05-123-34044-00

Database File: 11500.db
Dataset Pathname: final
Presentation Format: ceh1
Dataset Creation: Wed Sep 07 05:43:55 2011
Charted by: Depth in Feet scaled 1:240

Density Caliper (in) 16
Gamma Ray (CGAPI) 150
SP (mV) 100
HBHV (ft3)

Deep Resistivity (Ohm-m) .2(H)20 .2(V)20
Medium Resistivity (Ohm-m) .2(H)20 .2(V)20
Shallow Resistivity (Ohm-m) .2(H)20 .2(V)20
Bit (Ohm-m) .2(H)20

Density Porosity (pu) 0
Neutron Porosity (pu) 0

3000
3050
3100
3150
3200
3250
3300
3350
3400
3450
3500
3550
3600
3650
3700
3750
3800
3850
3900
3950
4000
4050
4100
4150
4200
4250
4300
4350
4400
4450
4500
4550
4600
4650
4700
4750
4800
4850
4900
4950