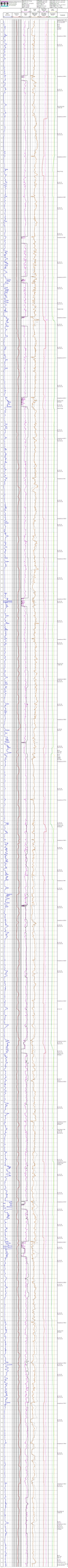

Boxberger Geological Services
0294 Cliff View Circle
Parachute, CO 81635
Phone: 970-285-2494
Fax: 970-285-2492

Operator: WPX Energy
Well: PA 23-2
Location: Sec. 2 T7S R95W
Field: Parachute
County: Garfield
State: Colorado

Drilling Rig: Aztec 1000
Ground Elevation: 5821'
KB Elevation: 5846'
TVD vs. MD: 25'
Spud Date: 02/23/14
TD Date: 02/28/14

Surface Hole: 2054' FSL x 1545' FWL
Bottom Hole: 2367' FSL x 1874' FWL
Drilling Fluid: LSND
Dates Logged: 02/25/14 - 02/28/14
Depth Logged: 3934' - 7580'
Loggers: T. Kipp/T. Boxberger

ROP (Minutes/Foot)	Total Gas (Units)	Torque (KFt Lbs) / Rotary (RPM)	WOB (Klbs) / Differential Pressure (PSI)	Stand Pipe Pressure (PSI) / PVT Mud Gain/Loss (Barrels)	Flow (Percent) / Total Mud (Barrels)	Comments
0.0 – 4.0	1.0 – 10000.0	0.0 – 20.0 0.0 – 60.0	0.0 – 40.0 0.0 – 800.0	0.0 – 4200.0 -150.0 – 150.0	0.0 – 90.0 600.0 – 900.0	

Logging depth = 3934'. BGS service begins on 02/25/14 at 19:07.

Bit #2
8 3/4
Varel
VM416P2
In at 913'

Connection at 3968.6'

In: 10.2/61
Out: 10.3/79

Connection at 4063.6'

In: 10.3/53
Out: 10.3/78

Prog Mesaverde = 4134' MD

Connection at 4158.5'

In: 10.2/54
Out: 10.2/63

Connection at 4253.2'

Pump Sweep

In: 10.2/55
Out: 10.2/66

Connection at 4348'

In: 10.2/53
Out: 10.2/64

In: 10.2/51
Out: 10.2/54

Connection at 4443'

In: 10.1/53
Out: 10.2/57

Connection at 4537.8'

In: 10.1/51
Out: 10.1/53

In: 10.1/52
Out: 10.2/54

Transfer Mud

Connection at 4632.6'

In: 10.0/50
Out: 10.2/55

In: 10.0/47
Out: 10.0/51

Connection at 4727.5'

In: 10.2/45
Out: 10.1/50

Connection at 4822.3'
Transfer Mud
40 Barrels
In: 10.2/48
Out: 10.1/44
Pump Sweep

In: 10.2/45
Out: 10.1/52

Connection at 4917.3'
In: 10.2/45
Out: 10.0/49

In: 10.2/45
Out: 10.2/54

Connection at 5012'

In: 10.3/46
Out: 10.1/48

Connection at 5106.8'

In: 10.5/45
Out: 10.4/51

In: 10.5/46
Out: 10.4/43

Connection at 5201.6'

In: 10.5/45
Out: 10.5/48

Connection at 5296.3'
In: 10.7/46
Out: 10.5/52

In: 10.7/47
Out: 10.6/51

Connection at 5391.1'
In: 10.7/45
Out: 10.6/53

Prog Top Gas = 5448' MD

Connection at 5485.8'
In: 10.6/48
Out: 10.5/52

In: 10.7/48
Out: 10.5/55

Connection at 5580.6'

In: 10.8/46
Out: 10.6

In: 10.6/46
Out: 10.5/54

Bit #2
FTG: 4750'
HRS: 49.5
Bit #3
8 3/4
Hughes
Q505FX
In at 5663'
Connection at 5675.6'

In: 10.7/46
Out: 10.4/52

Connection at 5770.4'

In: 10.8/46
Out: 10.7/50
Transfer Mud
100 Barrels

Connection at 5865.3'

In: 10.8/45
Out: 10.8/48

In: 10.9/45
Out: 10.6/48

Connection at 5960'

In: 10.9/48
Out: 10.8/57

In: 10.9/47
Out: 10.9/53

Connection at 6054.9'

In: 10.9/46
Out: 10.6/59

In: 11.1/45
Out: 10.8/48

Connection at 6149.5'

In: 11.2/50
Out: 10.6/58

Connection at 6244.5'

In: 11.2/50

Connection at 6339.5'
In: 11.2/49
Out: 11.3/52

In: 11.2/51
Out: 11.3/56
Transfer Mud
68 Barrels

In: 11.3/52
Out: 56
Connection at 6434.4'

In: 11.2/46
Out: 10.9/60

Connection at 6529.3'
Pump Sweep
40 Barrels

Prog Cameo Coals = 6548' MD
In: 11.2/48
Out: 10.8/59

In: 11.2/54
Out: 10.8/60
Connection at 6624.3'
Transfer Mud
35 Barrels

In: 11.2/50
Out: 10.9/56

In: 11.2/45
Out: 11.1/49

Connection at 6718.9'

In: 11.2/45
Out: 11.0/48

In: 11.2/49
Out: 11.0/53

In: 11.4/48
Out: 11.2/65

Connection at 6813.7'

In: 11.4/63
Out: 11.3/62

In: 11.4/60
Out: 11.1/75

Connection at 6908.8'

In: 11.3/60
Out: 11.0/71

In: 11.4/58
Out: 11.2/76

Connection at 7003.6'

Transfer Mud
40 Barrels

In: 11.3/55
Out: 11.0/81

Connection at 7098.6'
In: 11.4/58
Out: 11.2/89

In: 11.4/58
Out: 10.7/87

In: 11.4/50
Out: 11.1/63

Connection at 7193.7'

In: 11.4/48
Out: 11.2/60

Connection at 7288.6'

In: 11.3/50
Out: 10.9/70

Connection at 7383.5'
In: 11.5/55
Out: 10.8/65

Prog Rollins SS =7448' MD

In: 11.5
Out: 11.1
Connection at 7478.2'
In: 11.5/53
Out: 11.0/57
Transfer Mud
15 Barrels

Bit #3
FTG: 1917'
HRS: 37
In: 11.5
Out: 11.1
Connection at 7573'
PA 23-2 TD'd at 7580' on 02/28/14 at 21:57.