Boxberger Geological Services
6344 CR 144 Unit C
Parachute, CO 81635
Cell: (970) 216-0442
Fax: 970-285-9442

Operator: TEP Rocky Mountain LLC
Well: TR 421-21-597
Location: Sec. 21 T5S R97W
Field: Trail Ridge
County: Garfield
State: Colorado

Drilling Rig: SST 273
Ground Elevation: 8292
KB Elevation: 8316
TVD vs. MD: 308'
Spud Date: 01/16/17
TD Date: 01/31/17

Surface Hole: 697' FSL x 1907' FWL
Bottom Hole: 1778' FSL x 471' FWL
Drilling Fluid: LSND; Aer.Mud
Dates Logged: 01/17/17 - 01/31/17
Depth Logged: 9322' - 9304'
Logger: Tarin Boxberger

Tongue	WOB	Stand Pipe Pressure	Flow	Total Mud
ppm Cl-	klbs	psi	gpm	barrels
0 - 120	0 - 50	0 - 3000	0 - 800	0 - 1000

ROP	Rotary	Differential Pressure	PVT Mud Gain/Loss	Total Mud
minutes/foot	RPM	psi	barrels	barrels
0 - 120	0 - 120	0 - 1000	-200 - 200	0 - 1000

Comments

Logging depth = 9322'
ROP, survey begins on 01/17/17 at 06:47
Connection at 9322 ft
Pump Sweep

Prog Lower Cozzette = 8322' MD
Jet: 8.5 / 18
Dull: 8.3 / 35
Smith
M1044A
Jet at 275'

Jet: 9.0 / 37
Dull: 8.9 / 35

Connection at 9417.3

Pump Sweep

Jet: 9.1 / 38
Dull: 9.0 / 38

Connection at 9511.7
Jet: 9.1 / 44
Dull: 9.1 / 41
Pump Sweep

Trassfer Mud

Trassfer Mud

Trassfer Mud
Connection at 9606.2
Trassfer Mud
Jet: 8.7 / 49
Dul: 8.7 / 49

Jet: 8.8 / 44
Dul: 8.9 / 44
Connection at 9700.8

Pump Sweep

Prog Rollins SS = 9720' MD

Connection at 9795.3
Jet: 8.9 / 44
Dul: 8.9 / 32

Pump Sweep

Pump Sweep
Connection at 9889.9
Jet: 8.8 / 32
Dul: 8.8 / 32

Prog Cozzette = 9969' MD

Jet: 8.8 / 39
Dul: 8.8 / 30

Trassfer Mud

Connection at 9984.3
Jet: 8.7 / 50
Dul: 8.7 / 60
Pump Sweep

Jet: 8.7 / 32
Dul: 8.7 / 45

Trassfer Mud
Connection at 9979

Jet: 8.8 / 31
Dul: 8.8 / 60

Trassfer Mud

Prog Corcoran = 9140' MD

Connection at 9173.3

Jet: 8.7 / 60
Dul: 8.8 / 60

Connection at 9268.2

Jet: 8.9 / 60
Dul: 8.9 / 39

Prog Sego = 9360' MD

Trassfer Mud

Connection at 9362.7

Pump Sweep

Connection at 9457.3

Jet: 9.0 / 75
Dul: 8.9 / 75

Connection at 9551.7

Bit #2
PDG 6HC
HKS-70

TF 423-21-597 TD'd at 9304' on 01/31/17 at 03:00