



**Scale 1:240 (5"=100') Imperial
Measured Depth Log**

Well Name: HELEN #1
API: 15-101-22520-00-00
Location: NW SW NE SE SECTION 23 16S 27W
License Number: 5663
Spud Date: 6/17/2014
Surface Coordinates: 1786' FROM SOUTH LINE OF SECTION
1000' FROM EAST LINE OF SECTION
Bottom Hole Coordinates: 1786' FROM SOUTH LINE OF SECTION
1000' FROM EAST LINE OF SECTION
Ground Elevation (ft): 2692' **K.B. Elevation (ft):** 2703'
Logged Interval (ft): 2700' **To:** 4650 **Total Depth (ft):** 4650
Formation: MISSISSIPPI
Type of Drilling Fluid: CHEMICAL, MUD-CO

Region: LANE CO. KS.

Drilling Completed: 6/28/2014

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: HESS OIL COMPANY
Address: PO BOX 1009
MCPHERSON, KANSAS 67460-1009
(620) 241-4640

GEOLOGIST

Name: DAVID GOULD (LOGGER)
Company: DMT COMPANY
Address: 532 SUNRISE
PRATT, KANSAS 67124
(620) 388-2847

Comments

CONTRACTOR:

MURFIN Rig #22

BIT RECORD:

A1, 12 1/4, HTCO, GTC-1, 5225787, 0'-225'
1, 7 7/8, HTCO, DP506F, 7146173, 225'-3700'
2, 7 7/8, HTCO, GX223RN, 5234524, 3700'-4218'
3, 7 7/8, HTCO, GX20CNEW, 5241127, 4218'-

SURVEYS:

225, 1/4 DEGREE
1008', 1/2 DEGREE
2045', 3/4 DEGREE
3048', 1/2 DEGREE
3700', 1 DEGREE
3948', 4 DEGREE
3979', 3 1/4 DEGREE
4041', 3 1/4 DEGREE
4042', 3 DEGREE
4168', 3 1/4 DEGREE
4200', 4 1/2 DEGREE
4271', 3 1/2 DEGREE
4287', 3 1/2 DEGREE
4370', 2 3/4 DEGREE
4410', 3 1/2 DEGREE
4510', 2 3/4 DEGREE
4530', 2 3/4 DEGREE
4650', 2 1/2 DEGREE

DAILY STATUS: (7:00 AM)

6-17-2014, MOVE RIG IN, RIGUP, SPUD, SUFACE SET AT 10:45 PM
6-18-2014, 225 WOC
6-19-2014, 2780 DRILLING AHEAD
6-20-2014, 3825 DRILLING AHEAD
6-21-2014, 4067, DST #1
6-22-2014, 4165 DRILLING AHEAD
6-23-2014, 4238 DRILL AHEAD
6-24-2014, 4300 DRILLING AHEAD
6-25-2014, 4410, DST #4
6-26-2014, 4510, DST #5
6/27/2014, 4530, DST #6
6/28/2014, 4650, LOGGING, PLUG WELL

Well Name & No.: Helen #1 Company: Hess Oil Co. Test No.: 1 Interval Tested: 3977 – 4067

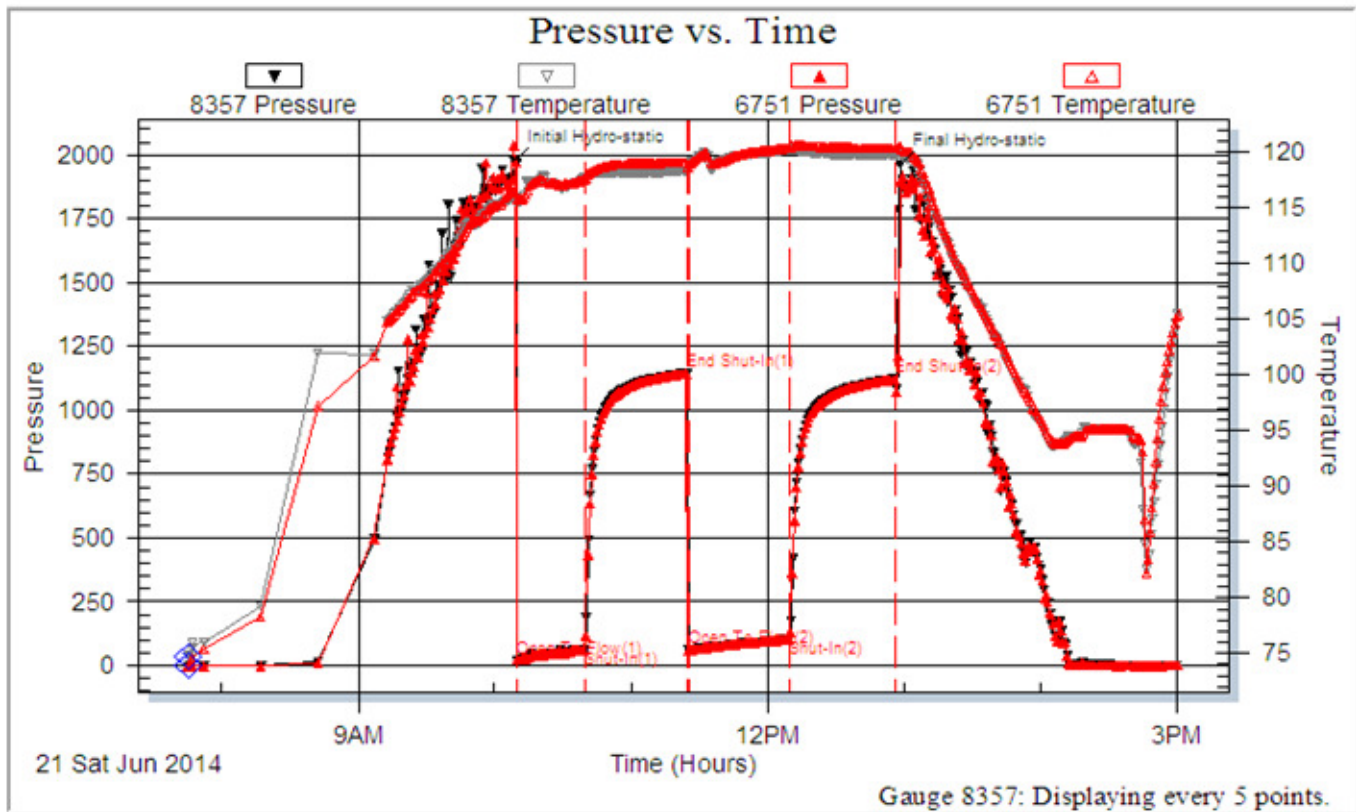
Zone Tested: Lansing Times: 30-45-45-45

Blow Description: IFP: 3" Blow ISI: No blow back FFP: 2" Blow FSI: No blow back

Rec: 116 Feet of WM 40% Water 60% Mud, 59 Feet of M 100% Mud Rec. Total: 175', BHT: 120 Gravity: N/A

Initial Hydrostatic: 1977 First Initial Flow: 22 First Final Flow: 60 Initial Shut-In: 1144

Second Initial Flow: 63 Second Final Flow: 103 Final Shut-In: 1123 Final Hydrostatic: 1963



Well Name & No.: Helen #1 Company: Hess Oil Co. Test No.: 2 Interval Tested: 4139 – 4218

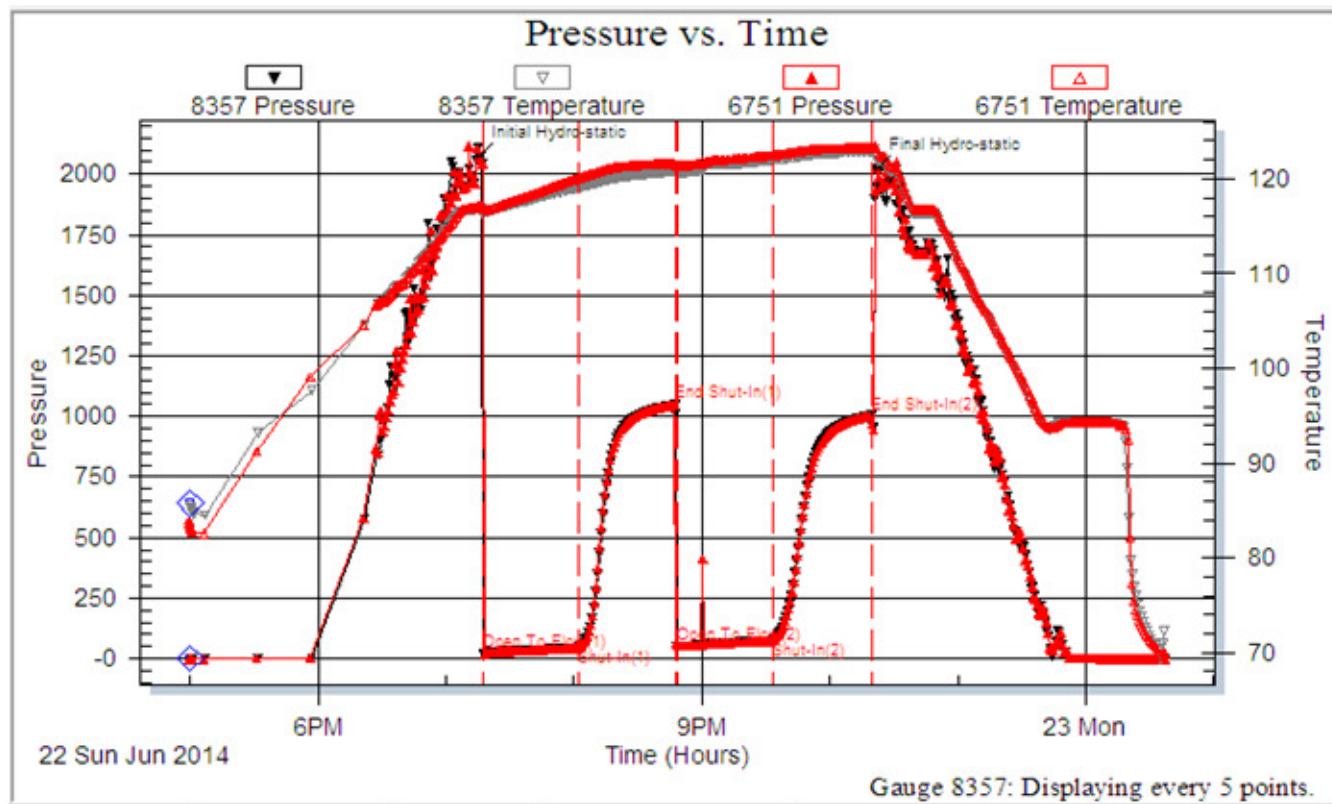
Zone Tested: KC Times: 45-45-45-45

Blow Description: IFP: 1 1/2" Blow ISI: No blow back FFP: No blow, Flush Tool, No blow FSI: No blow back

Rec: 1 Feet of O 100% Oil, 118 Feet of OSWM 15% Water, 85% Mud Rec. Total: 119', BHT: 123 Gravity: N/A

Initial Hydrostatic: 2072 First Initial Flow: 21 First Final Flow: 45 Initial Shut-In: 1050

Second Initial Flow: 53 Second Final Flow: 74 Final Shut-In: 1004 Final Hydrostatic: 2020



Well Name & No.: Helen #1 Company: Hess Oil Co. Test No.: 3 Interval Tested: 4240 – 4287

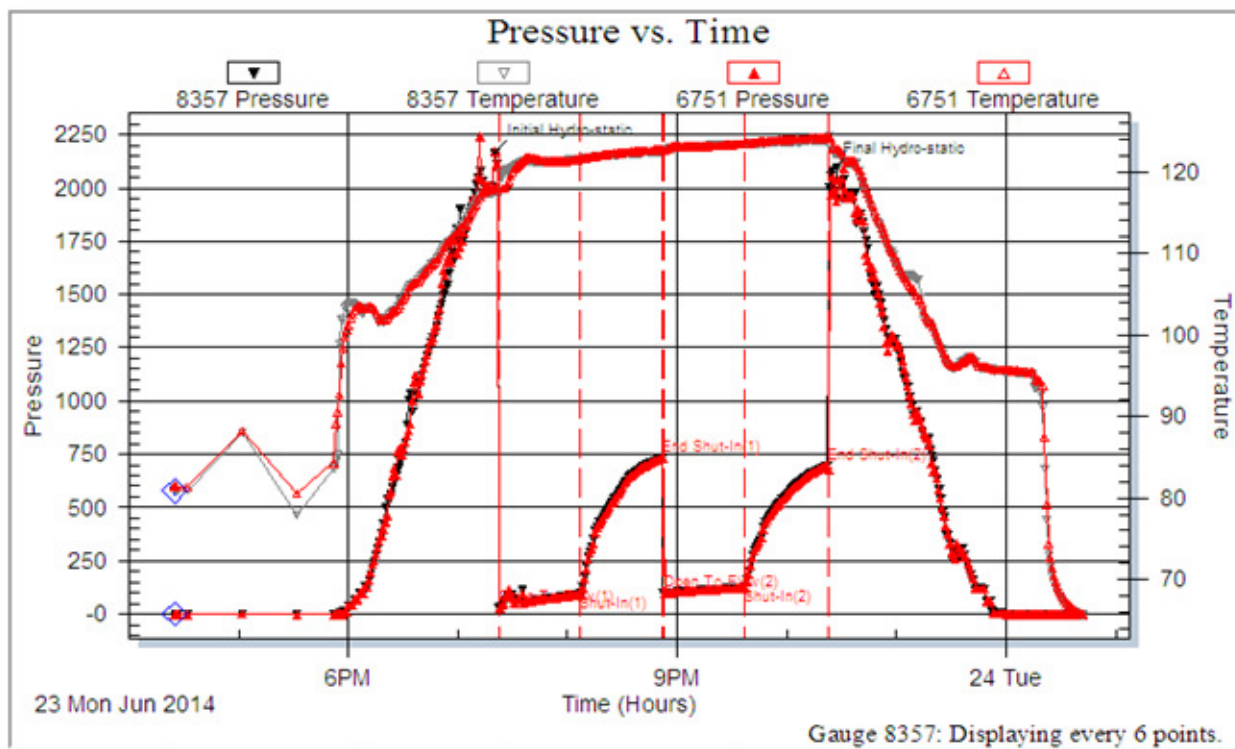
Zone Tested: KC Times: 45-45-45-45

Blow Description: IFP: BOB in 20 Min. ISI: 1/4" Blow back died in 30 Min. FFP: BOB in 12 Min. FSI: 4" Blow back

Rec: 30 Feet of GMCO 10% Gas, 50% Oil, 0% Water, 40% Mud, 118 Feet of GOCM Emulsion 25% Gas, 12% Oil, 35% Emulsion, 28% Mud, 118 Feet of GOCWM 12% Emulsion 15% Gas, 3% Oil, 25% Water, 45% Mud, 570 Feet of GIP Rec. Total: 266', BHT: 124 Gravity: 36

Initial Hydrostatic: 2162 First Initial Flow: 28 First Final Flow: 92 Initial Shut-In: 733

Second Initial Flow: 99 Second Final Flow: 123 Final Shut-In: 699 Final Hydrostatic: 2078



Well Name & No.: Helen #1 Company: Hess Oil Co. Test No.: 4 Interval Tested: 4292 – 4410

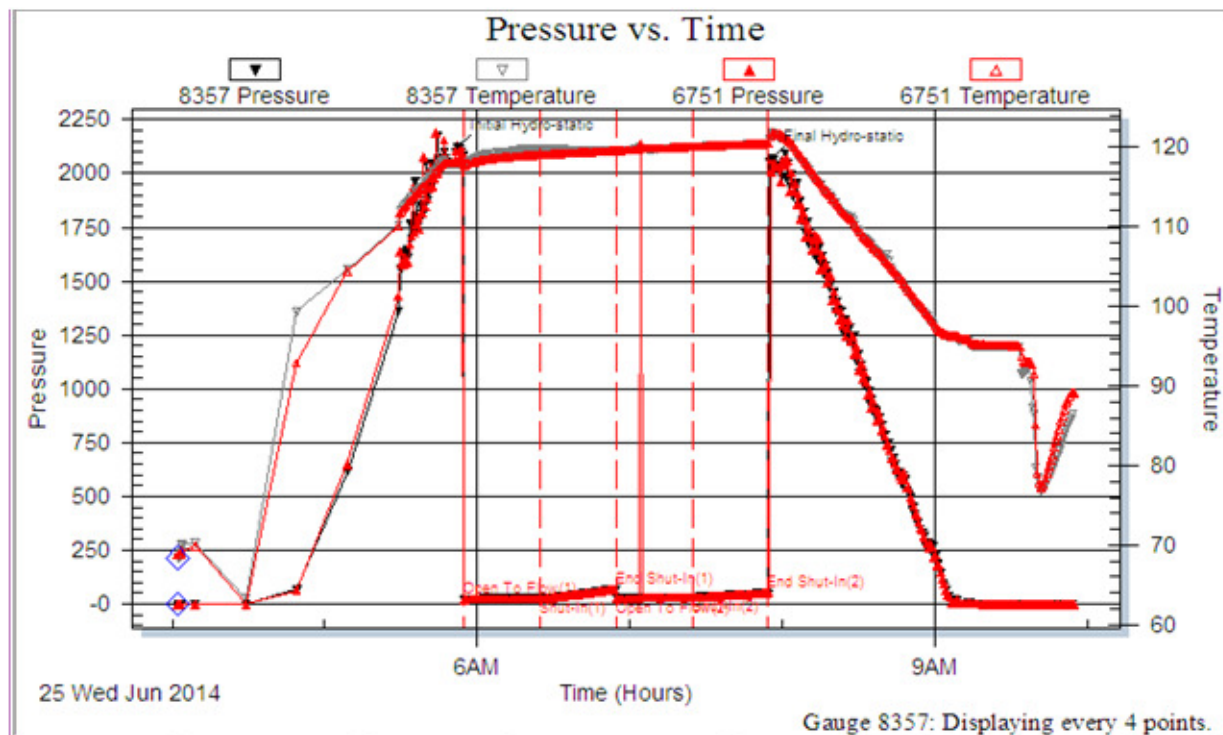
Zone Tested: Pawnee Times: 30-30-30-30

Blow Description: IFP: 1/2" Blow died in 20 Min. ISI: No blow back FFP: No blow Flushed Tool No Blow FSI: No blow back

Rec: 30 Feet of OSM 100% Mud Rec. Total: 30', BHT: 120 Gravity: N/A

Initial Hydrostatic: 2124 First Initial Flow: 24 First Final Flow: 27 Initial Shut-In: 71

Second Initial Flow: 26 Second Final Flow: 33 Final Shut-In: 51 Final Hydrostatic: 2072



Well Name & No.: Helen #1 Company: Hess Oil Co. Test No.: 5 Interval Tested: 4478 – 4510

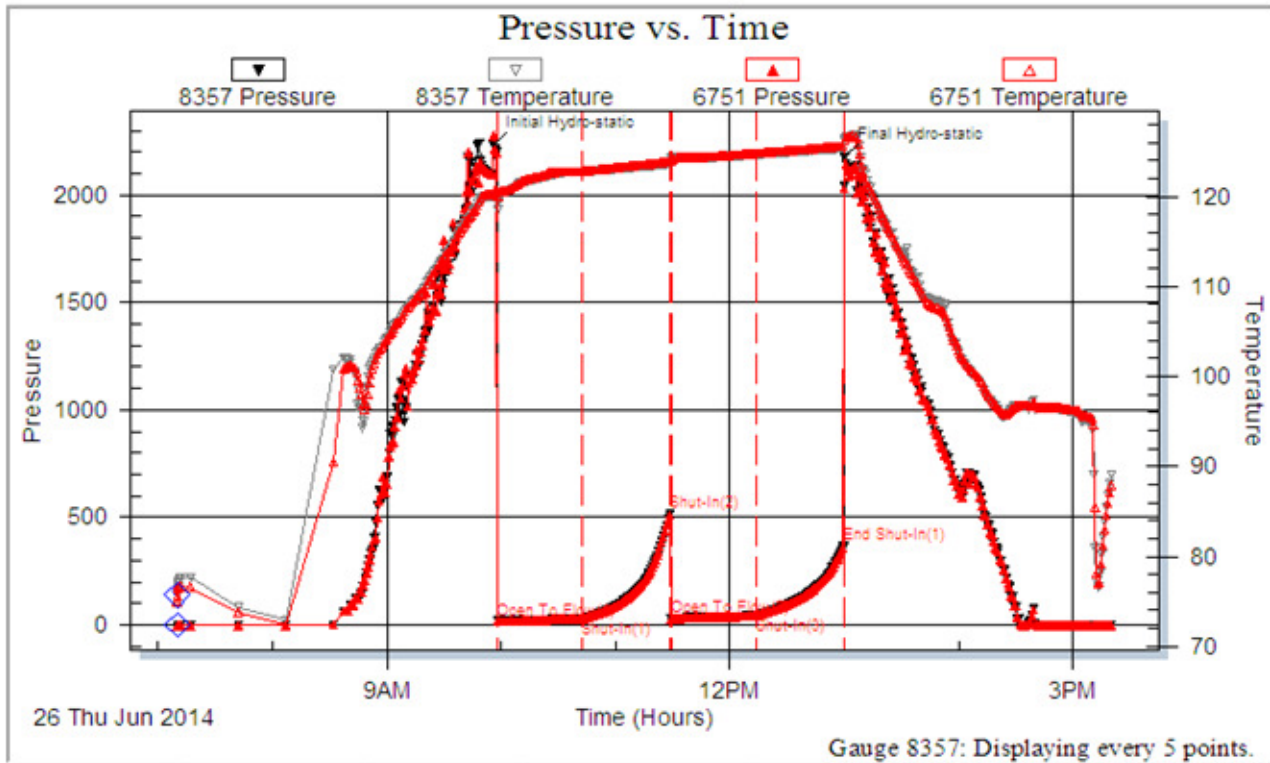
Zone Tested: Fort Scot Times: 45-45-45-45

Blow Description: IFP: 1 1/2" Blow ISI: No blow back FFP: 5" Blow FSI: No blow back

Rec: 60 Feet of GSOCM 20% Gas, 2% Oil, 0% Water 78% Mud, 118 Feet of GIP Rec. Total: 60', BHT: 125 Gravity: N/A

Initial Hydrostatic: 2235 First Initial Flow: 20 First Final Flow: 28 Initial Shut-In: 519

Second Initial Flow: 30 Second Final Flow: 42 Final Shut-In: 367 Final Hydrostatic: 2177



Well Name & No.: Helen #1 Company: Hess Oil Co. Test No.: 6 Interval Tested: 4478 – 4530

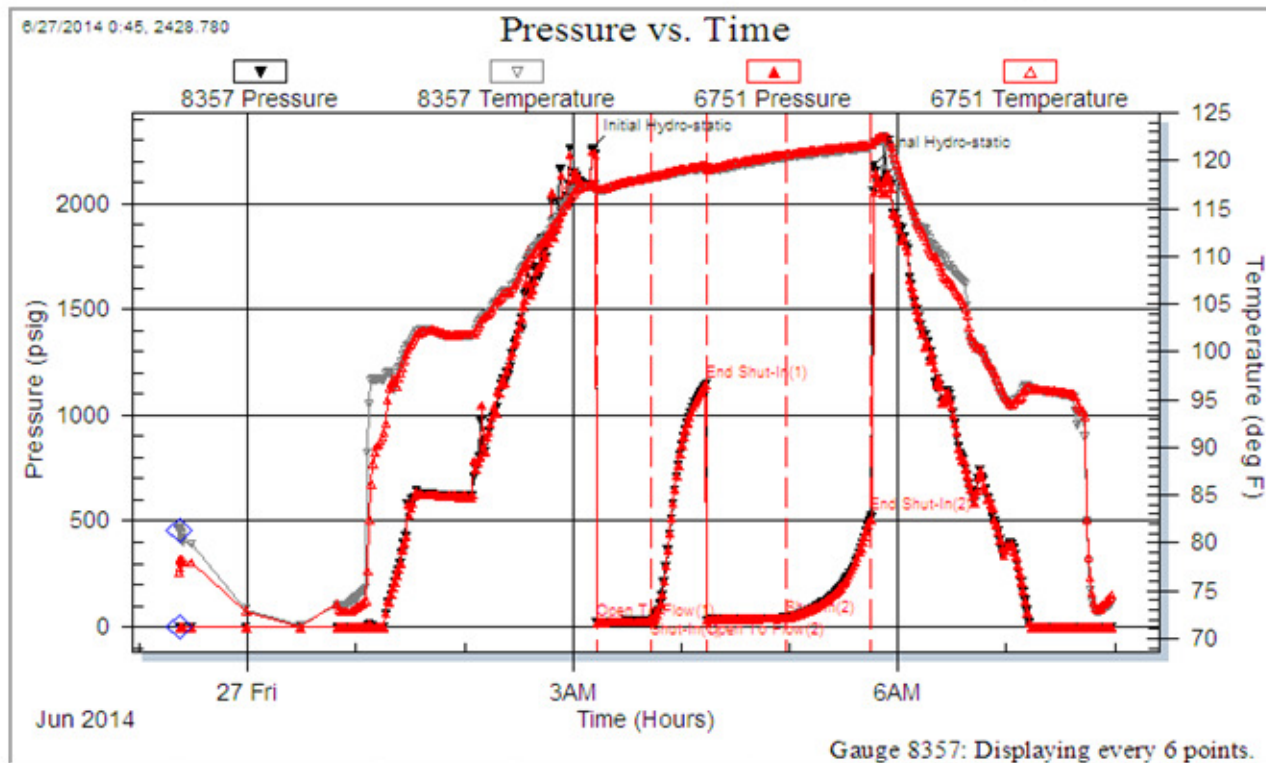
Zone Tested: Cherokee Times: 30-30-45-45

Blow Description: IFP: 1/2" Blow died in 23 Min. ISI: No blow back FFP: No blow flushed tool, 1" blow FSI: No blow back

Rec: 60 Feet of OSM 100% Mud, Rec. Total: 60', BHT: 121 Gravity: N/A

Initial Hydrostatic: 2259 First Initial Flow: 22 First Final Flow: 30 Initial Shut-In: 1151

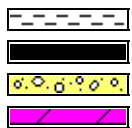
Second Initial Flow: 35 Second Final Flow: 42 Final Shut-In: 525 Final Hydrostatic: 2183



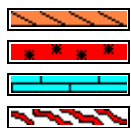
ROCK TYPES



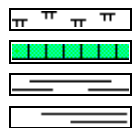
Anhy
Bent
Brec
Cht



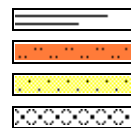
Cyst
Coal
Congl
Dol



Gyp
Igne
Lmst
Meta



Mrlst
Salt
Shale
Shcol



Shgy
Sltst
Ss
Till

