KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1066047

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 3882
Name: Samuel Gary Jr. & Associates, Inc.
Address 1: 1515 WYNKOOP, STE 700
Address 2:
City: DENVER State: CO Zip: 80202 + __ __ __ __
Contact Person: NEIL SHARP
Phone: (303) 831-4673
CONTRACTOR: License # 5822
Name: Val Energy, Inc.
Wellsite Geologist: TIM HEDRICK
Purchaser: GARY WILLIAMS ENERGY COMPANY

Designate Type of Completion:

- [x] New Well [ ] Re-Entry [ ] Workover
- [x] Oil [ ] WSW [ ] SWD [ ] SIOW
- [ ] Gas [ ] D&A [ ] ENHR [ ] SIGW
- [ ] OG [ ] GSW [ ] Temp. Abd.
- [ ] CM *(Coal Bed Methane)*
- [ ] Cathodic [ ] Other *(Core, Expl., etc.)*:

If Workover/Re-entry: Old Well Info as follows:

Operator:
Well Name:
Original Comp. Date: Original Total Depth:

- [ ] Deepening [ ] Re-perf. [ ] Conv. to ENHR [ ] Conv. to SWD
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

06/28/2011	07/07/2011	07/15/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-165-21926-00-00
Spot Description:
SW - SE - SE - SW Sec. 10 Twp. 16 S. R. 16 [ ] East [x] West
264 Feet from [ ] North / [x] South Line of Section
2265 Feet from [ ] East / [x] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[ ] NE [ ] NW [ ] SE [x] SW
County: Rush
Lease Name: LEGLEITER ET AL Well #: 1-10
Field Name:
Producing Formation: MARMATON
Elevation: Ground: 1943 Kelly Bushing: 1953
Total Depth: 3650 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1069 Feet
Multiple Stage Cementing Collar Used? [ ] Yes [x] No
If yes, show depth set: Feet
If Alternate II completion, cement circulated from:
feet depth to: w/ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 44000 ppm Fluid volume: 1200 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: TDI, INC
Lease Name: DREILINB B #1 License #: 4787
Quarter SW Sec. 22 Twp. 14 S. R. 16 [ ] East [x] West
County: ELLIS Permit #: D-25112

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- [x] **Letter of Confidentiality Received**
  Date: 10/25/2011
- [x] **Confidential Release Date:** 10/24/2013
- [x] **Wireline Log Received**
- [ ] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [x] **I** [ ] **II** [ ] **III** **Approved by:** NAOMI JAMES **Date:** 10/26/2011

Side Two

[redacted]

1066047

Operator Name: Samuel Gary Jr. & Associates, Inc. Lease Name: LEGLEITER ET AL Well #: 1-10

Sec. 10 Twp. 16 S. R. 16 ☐ East ☑ West County: Rush

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

List All E. Logs Run:
Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
TOPEKA	2953	-1000
HEEBNER	3177	-1224
DOUGLAS	3212	-1259
LANSING	3233	-1280
ARBUCKLE	3538	-1585
TD	3650	

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
SURFACE	12.25	8.625	23	1069	COMMON	370	2% GEL, 3% CC
PRODUCTION	7.75	5.5	15.5	3641	Q-PRO	175	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth
4	3470'-76'	500 gal of 28% MCA with 3% MAS	3470'-76'

TUBING RECORD: Size: 2.875 Set At: 3645 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 07/20/2011

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	15		0		

DISPOSITION OF GAS:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:
3470'-76'

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Samuel Gary Jr. & Associates, Inc.
Well Name	LEGLEITER ET AL 1-10
Doc ID	1066047

All Electric Logs Run

DEN
IND
MICRO
SONIC
SPECTRAL

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

October 25, 2011

NEIL SHARP
Samuel Gary Jr. & Associates, Inc.
1515 WYNKOOP, STE 700
DENVER, CO 80202

Re: ACO1
API 15-165-21926-00-00
LEGLEITER ET AL 1-10
SW/4 Sec.10-16S-16W
Rush County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office at 303-831-4673.

Respectfully,
NEIL SHARP

QUALITY OILWELL CEMENTING, INC.
PO Box 32 - 740 West Wichita Ave, Russell KS 67665
Phone:785-324-1041 Fax:785-483-1087
Email: cementing@ruraltel.net

Date: 7/2/2011
Invoice # 3846

P.O.#:

Due Date: 8/1/2011
Division: *Russell*

V1107-AP-573 7/21

Invoice

Contact:
Samuel Gary Jr & Associates Inc
Address/Job Location:
Samuel Gary Jr & Associates Inc
3111 W. 10th Street
Great Bend, KS 67503

☑ DRLG ☐ COMP ☐ W/O ☐ LOE ☐ GG

Account	8200-128
Well/Prospect	LEGLEITER 1-10
Deck	
AFE	
Approval	
Description	

Reference:
LEGLEITER 1-10

Description of Work:
LONG SURFACE JOB

Services / Items Included:	Quantity	Price	Taxable
Labor		$ 977.42	No
Common-Class A	370	$ 4,831.89	Yes
8 5/8" Basket	3	$ 1,014.76	Yes
Bulk Truck Matl-Material Service Charge	390	$ 834.93	No
Calcium Chloride	13	$ 524.06	Yes
Pump Truck Mileage-Job to Nearest Camp	26	$ 277.75	No
8 5/8" Centralizer	3	$ 205.52	Yes
Flo Seal	92	$ 196.96	Yes
Bulk Truck Mileage-Job to Nearest Bulk Plant	26	$ 162.53	No
Premium Gel (Bentonite)	7	$ 121.99	Yes
8 5/8" Top Rubber Plug	1	$ 113.46	Yes

Item	Quantity	Price	Taxable
Baffle Plate Aluminum, 8 5/8"	1	$96.34	Yes

Invoice Terms:
Net 30

SubTotal:	$	*9,357.61*
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	$	(1,403.64)
SubTotal for Taxable Items:	$	6,039.23
SubTotal for Non-Taxable Items:	$	1,914.74
Total:	$	7,953.97
6.30% Rush County Sales Tax Tax:	$	380.47
Amount Due:	**$**	**8,334.44**
Applied Payments:		
Balance Due:	**$**	**8,334.44**

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
This does not include any applicable taxes unless it is listed.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 3846

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-29-11	10	16	16	Rush	KS		10:00PM

Lease Ingleiter Well No. 1-10 Location Gorham S to CL 2W 2S 1½W N into

Contractor Val II 6

Type Job Long Surface

Hole Size 12¼ T.D. 1069'

Csg. 8⅝ 23# Depth 1068.79'

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 42.35' Shoe Joint 42.35'

Meas Line Displace 65¼ bbls

EQUIPMENT

Pumptrk 9 No. Cementer Helper Brandon

Bulktrk 17 No. Driver Driver Craig

Bulktrk 84 No. Driver Driver Matt

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Cement did Circ

Signature

Owner

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To Sam Gary jr. & Assoc.

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 370 com 3% cc 2% gel ¼# flo

Common	370
Poz. Mix	
Gel.	7
Calcium	13
Hulls	
Salt	
Flowseal	92#
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	390
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	– 3
Baskets	– 3
AFU Inserts	
Float Shoe	
Latch Down	
	1-8⅝ baffle plate
	1-8⅝ solid rubber plug
Pumptrk Charge	Long Surface
Mileage	26
Tax	
Discount	
Total Charge	

QUALITY OILWELL CEMENTING, INC.
PO Box 32 - 740 West Wichita Ave, Russell KS 67665
Phone:785-324-1041 fax:785-483-1087
Email: cementing@ruraltel.net

Date: 7/10/2011
Invoice # 4900
P.O.#:
Due Date: 8/9/2011
Division: *Russell*

7/28

Invoice

V1107-AP-616

Contact:
Samuel Gary Jr & Associates Inc
Address/Job Location:
Samuel Gary Jr & Associates Inc
3111 W. 10th Street
Great Bend, KS 67503

☐ DRLG ☑ COMP ☐ W/O ☐ LOE ☐ GG

Account	8306-238
Well/Prospect	LEGLEITER 1-10
Deck	
AFE	
Approval	
Description	

Reference:
LEGLEITER 1-10

Description of Work:
PROD LONG STRING

Services / Items Included:	Quantity	Price	Taxable
Labor		$ 963.85	No
Common-Class A	225	$ 2,897.50	Yes
Gilsonite	1057	$ 1,673.58	Yes
CFL 117	176	$ 1,144.39	Yes
5 1/2" Basket	3	$ 728.33	Yes
CD-110	117	$ 494.00	Yes
5 1/2" Turbolizer	8	$ 489.78	Yes
Bulk Truck Matl-Material Service Charge	225	$ 475.00	No
Mud Clear	500	$ 390.56	Yes
Auto Fill Float Shoe, 5 1/2"	1	$ 323.00	Yes
Salt (Fine)	19	$ 279.98	Yes

Item	Quantity	Price	Taxable
Pump Truck Mileage-Job to Nearest Camp	26	$273.90	No
Latch Down Plug & Baffle, 5 1/2"	1	$236.44	Yes
Bulk Truck Mileage-Job to Nearest Bulk Plant	26	$160.28	No
Flo Seal	56	$118.22	Yes
KCL	2	$63.04	Yes

Invoice Terms:
Net 30

SubTotal:	$	*10,711.84*
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	$	(1,606.78)
SubTotal for Taxable Items:	$	7,513.00
SubTotal for Non-Taxable Items:	$	1,592.07
Total:	$	9,105.06
6.30% Rush County Sales Tax Tax:	$	473.32
Amount Due:	**$**	**9,578.38**
Applied Payments:		
Balance Due:	**$**	**9,578.38**

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
This does not include any applicable taxes unless it is listed.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

785-483-2025
785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 4900

Date	Sec.	Twp.	Range	County	State	On Location	Finish
7/7/11	10	16	16	Rush	KS		9:00 AM

Lease LEGLEITER A1 Well No. 1-10 Location Gorham, Sto County line, 2W, 25, 1½W, N into

Contractor VAL #6

Type Job Production String

Hole Size 7⅞" T.D. 3650'

Csg. 5½" 15.50# Depth 3641'

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 22' Shoe Joint 22'

Meas Line Displace 86 ¼ Bbls.

EQUIPMENT

Pumptrk 9 No. Cementer Paul

Helper

Bulktrk 14 No. Driver Nicole

Driver

Bulktrk PV No. Driver Rocky

Driver

JOB SERVICES & REMARKS

Remarks:

Rat Hole 30 sx

Mouse Hole 20 sx

Centralizers 1, 3, 5, 7, 9, 11, 13, 15

Baskets 3, 9, 15

D/V or Port Collar

Est. Circ. - 1 hour

Pump 500 gal. Mud Clear - 78

Ping Rat / Mouse

Mix 175 sx down 5½"

Displace

Land Plug

Float Held

Thank You

Owner

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To Samuel Gary Jr. + Associates, Inc.

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 225 sx Q-Pro C 10% Salt 5% Gilsonite ¼# Flocele, .3% CD110, .8% CFL-117

Common .25% CAF-38 225 @ Pro-C

Poz. Mix

Gel. ~~20~~ 2 gal KCL

~~Calcium~~

~~Hulls~~ CD-110 117#

Salt 19

Flowseal 56#

Kol-Seal 1057#

Mud CLR 48 500 gal. / 20 Bbl. KCL

CFL-117 or CD110 CAF 38 50#

Sand CFL-117 176#

Handling

Mileage

FLOAT EQUIPMENT

Guide Shoe

Centralizer 8 - Turbos

Baskets 3

AFU Inserts

Float Shoe 1

Latch Down 1

Rotating Head

Pumptrk Charge prod Long String

Mileage 76

Tax

Discount

Total Charge

X Signature

DRILL STEM TEST REPORT

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43533 **DST#: 1**

Test Start: 2011.07.03 @ 07:01:45

GENERAL INFORMATION:

Formation: **E-F-G**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:48:30
Time Test Ended: 13:56:15

Test Type: Conventional Bottom Hole
Tester: Jason McLemore
Unit No: 54

Interval: 3285.00 ft (KB) To 3330.00 ft (KB) (TVD)
Total Depth: 3330.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

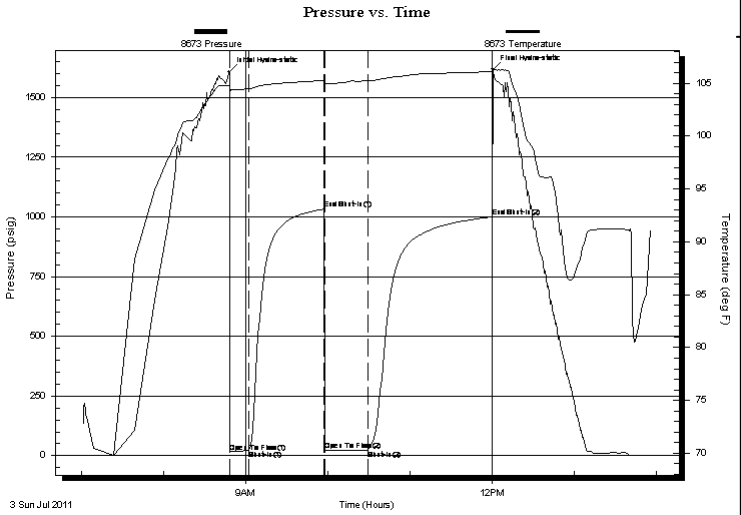
Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8673 **Inside**

Press@RunDepth: 23.67 psig @ 3322.00 ft (KB)
Start Date: 2011.07.03 End Date: 2011.07.03
Start Time: 07:01:47 End Time: 13:56:15

Capacity: 8000.00 psig
Last Calib.: 2011.07.03
Time On Btm: 2011.07.03 @ 08:48:15
Time Off Btm: 2011.07.03 @ 12:00:45

TEST COMMENT: IFP-Weak Surface Blow
ISI-Dead
FFP-Very Weak Surface Blow ,Died in 12 Min.
FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1607.97	104.82	Initial Hydro-static
1	16.04	104.06	Open To Flow (1)
14	20.76	104.49	Shut-In(1)
70	1033.03	105.27	End Shut-In(1)
70	20.71	104.78	Open To Flow (2)
101	23.67	105.22	Shut-In(2)
192	1000.44	106.09	End Shut-In(2)
193	1617.97	106.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
11.00	Mud W/Oil Scum	0.15

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43533 **DST#: 1**

Test Start: 2011.07.03 @ 07:01:45

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

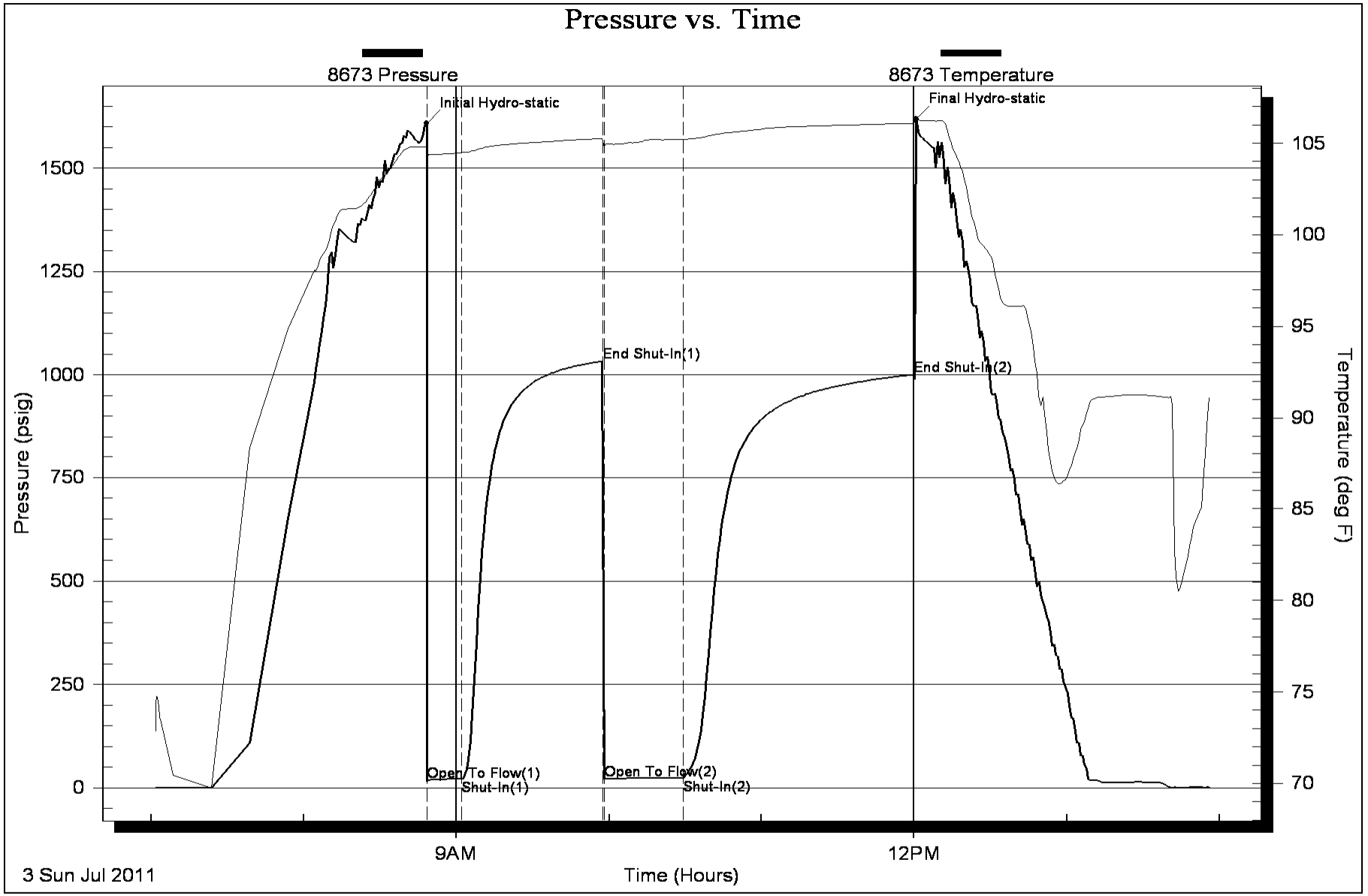
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
11.00	Mud W/Oil Scum	0.154

Total Length: 11.00 ft Total Volume: 0.154 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: Sampler: 45#, 2000ml Mud W Oil /Scum


Pressure vs. Time
8673 Pressure
8673 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure (psig)
Temperature (deg F)
1500
1250
1000
750
500
250
0
105
100
95
90
85
80
75
70
9AM
12PM
3 Sun Jul 2011
Time (Hours)

DRILL STEM TEST REPORT

Prepared For: **Sam Gary Jr and Associates**

1515 Wynkoop Street
Suite 700
Denver, CO. 80202

ATTN: Neil Sharp

10-16s-16w-Rush

Legleiter et al 1-10

Start Date: 2011.07.04 @ 05:16:11
End Date: 2011.07.04 @ 13:30:11
Job Ticket #: 43534 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

DRILL STEM TEST REPORT

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43534 **DST#: 2**

Test Start: 2011.07.04 @ 05:16:11

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:02:56
Time Test Ended: 13:30:11

Test Type: Conventional Bottom Hole
Tester: Jason McLemore
Unit No: 54

Interval: 3445.00 ft (KB) To 3496.00 ft (KB) (TVD)
Total Depth: 3496.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

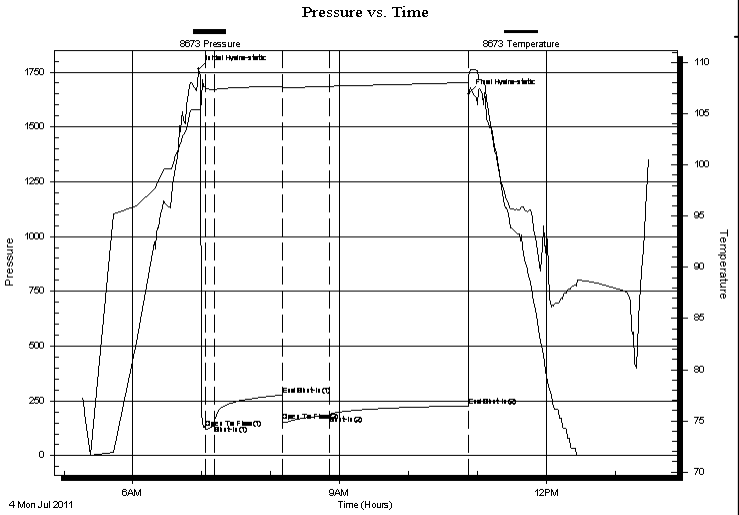
Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8673 **Inside**

Press@RunDepth: 183.68 psig @ 3482.00 ft (KB)
Start Date: 2011.07.04 End Date: 2011.07.04
Start Time: 05:16:13 End Time: 13:30:11

Capacity: 8000.00 psig
Last Calib.: 2011.07.04
Time On Btm: 2011.07.04 @ 06:57:26
Time Off Btm: 2011.07.04 @ 10:52:41

TEST COMMENT: IFP-Strong,BOB in 1 Min.
ISI-Blow back Built to 4"
FFP-Good Blow ,BOB in 8 Min.
FSI-Blow back Built to 3/4",Died Off to Nothing By 45 Min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1762.27	105.39	Initial Hydro-static
6	126.66	107.56	Open To Flow (1)
14	138.68	107.34	Shut-In(1)
73	277.84	107.69	End Shut-In(1)
74	156.82	107.62	Open To Flow (2)
114	183.68	107.67	Shut-In(2)
235	227.49	108.05	End Shut-In(2)
236	1649.63	108.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM-75%O-25%M	0.84
315.00	Gassy Oil-10%G-90%O	4.42

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43534 **DST#: 2**

Test Start: 2011.07.04 @ 05:16:11

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:02:56
Time Test Ended: 13:30:11

Test Type: Conventional Bottom Hole
Tester: Jason McLemore
Unit No: 54

Interval: 3445.00 ft (KB) To 3496.00 ft (KB) (TVD)
Total Depth: 3496.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

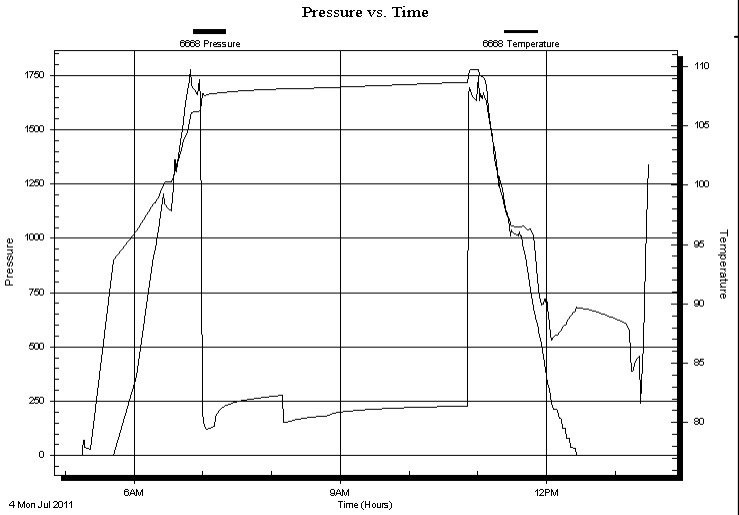
Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6668 **Outside**

Press@RunDepth: psig @ 3482.00 ft (KB)
Start Date: 2011.07.04 End Date: 2011.07.04
Start Time: 05:14:58 End Time: 13:29:26

Capacity: 8000.00 psig
Last Calib.: 2011.07.04
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Strong,BOB in 1 Min.
ISI-Blow back Built to 4"
FFP-Good Blow ,BOB in 8 Min.
FSI-Blow back Built to 3/4",Died Off to Nothing By 45 Min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM-75%O-25%M	0.84
315.00	Gassy Oil-10%G-90%O	4.42

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43534 **DST#: 2**

Test Start: 2011.07.04 @ 05:16:11

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:02:56
Time Test Ended: 13:30:11

Test Type: Conventional Bottom Hole
Tester: Jason McLemore
Unit No: 54

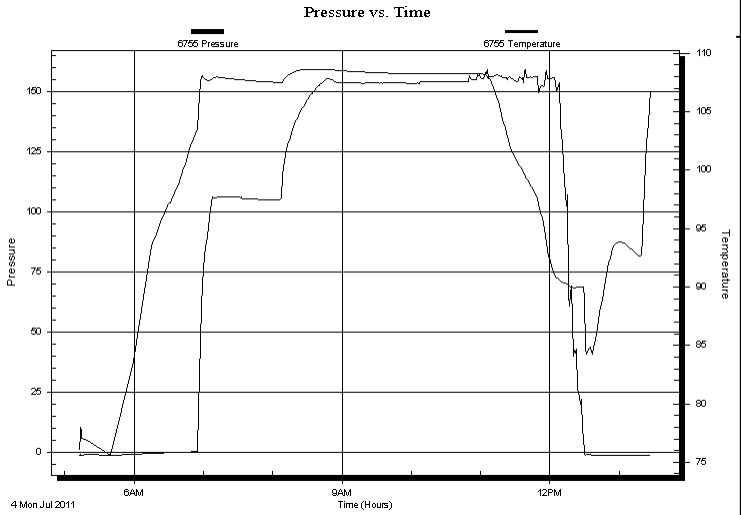
Interval: 3445.00 ft (KB) To 3496.00 ft (KB) (TVD)
Total Depth: 3496.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6755 **Fluid**
Press@RunDepth: psig @ 3411.00 ft (KB)
Start Date: 2011.07.04 End Date: 2011.07.04
Start Time: 05:12:50 End Time: 13:27:18

Capacity: 8000.00 psig
Last Calib.: 2011.07.04
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Strong,BOB in 1 Min.
ISI-Blow back Built to 4"
FFP-Good Blow ,BOB in 8 Min.
FSI-Blow back Built to 3/4",Died Off to Nothing By 45 Min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM-75%O-25%M	0.84
315.00	Gassy Oil-10%G-90%O	4.42

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43534 **DST#: 2**

Test Start: 2011.07.04 @ 05:16:11

Tool Information

Drill Pipe:	Length:	3439.00 ft	Diameter:	3.80 inches	Volume:	48.24 bbl	Tool Weight:		2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:		70000.00 lb
					Total Volume:	48.24 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		28.00 ft					String Weight:	Initial	47000.00 lb
Depth to Top Packer:		3445.00 ft						Final	48000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		51.00 ft							
Tool Length:		85.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Recorder	0.00	6755	Fluid	3411.00		
Change Over Sub	5.00			3416.00		
Shut In Tool	5.00			3421.00		
Sampler	2.00			3423.00		
Hydraulic tool	5.00			3428.00		
Jars	5.00			3433.00		
Safety Joint	2.00			3435.00		
Packer	5.00			3440.00	34.00	Bottom Of Top Packer
Packer	5.00			3445.00		
Stubb	1.00			3446.00		
Perforations	3.00			3449.00		
Change Over Sub	1.00			3450.00		
Blank Spacing	31.00			3481.00		
Change Over Sub	1.00			3482.00		
Recorder	0.00	8673	Inside	3482.00		
Recorder	0.00	6668	Outside	3482.00		
Perforations	11.00			3493.00		
Bullnose	3.00			3496.00	51.00	Bottom Packers & Anchor
Total Tool Length:	**85.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43534 **DST#: 2**

Test Start: 2011.07.04 @ 05:16:11

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	32 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.97 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OCM-75%O-25%M	0.842
315.00	Gassy Oil-10%G-90%O	4.419

Total Length: 375.00 ft Total Volume: 5.261 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: Sampler: 100#, 3000 ml Gassy Oil-

Sam Gary Jr and Associates

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Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43534 **DST#: 2**

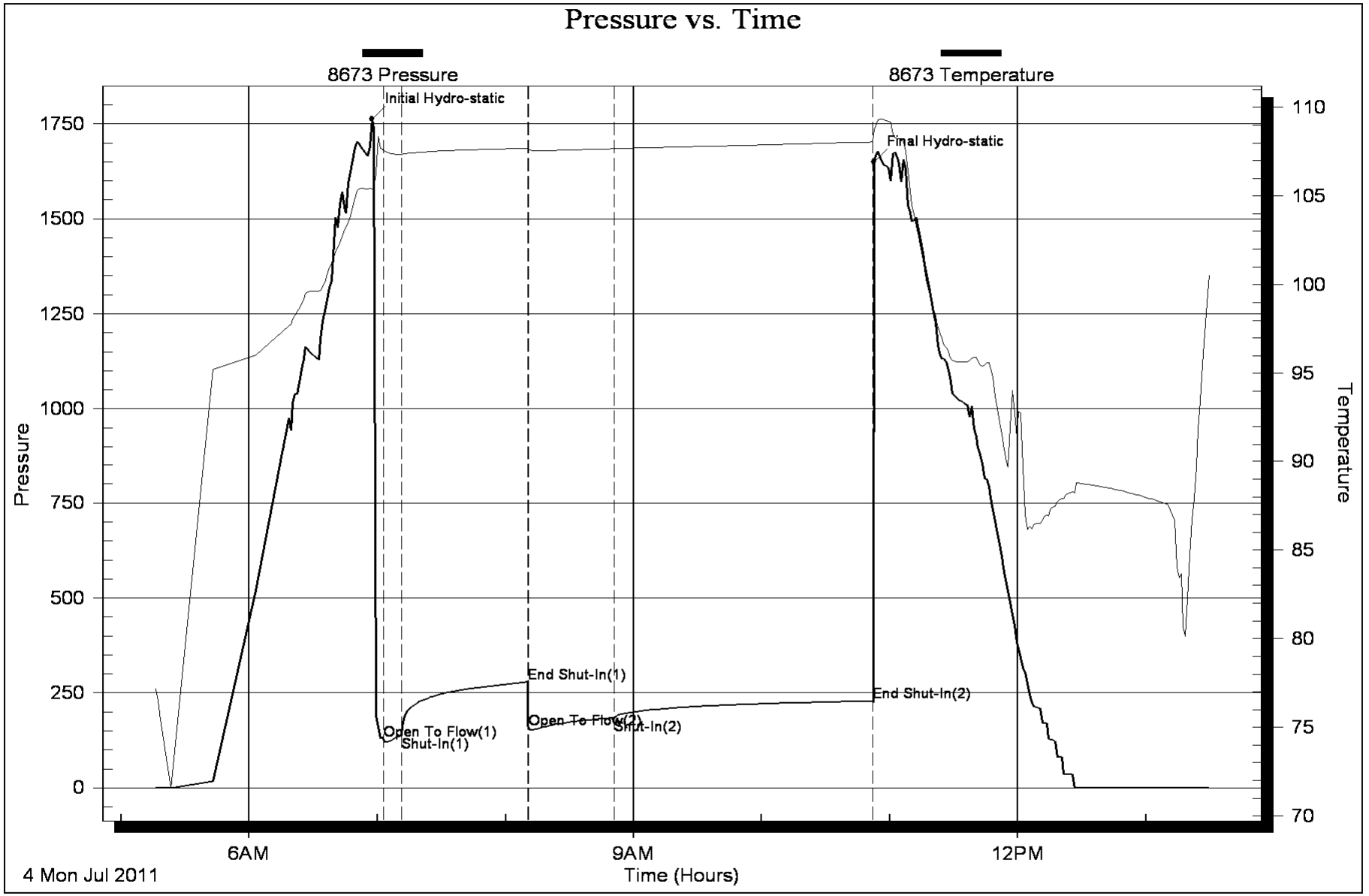
Test Start: 2011.07.04 @ 05:16:11

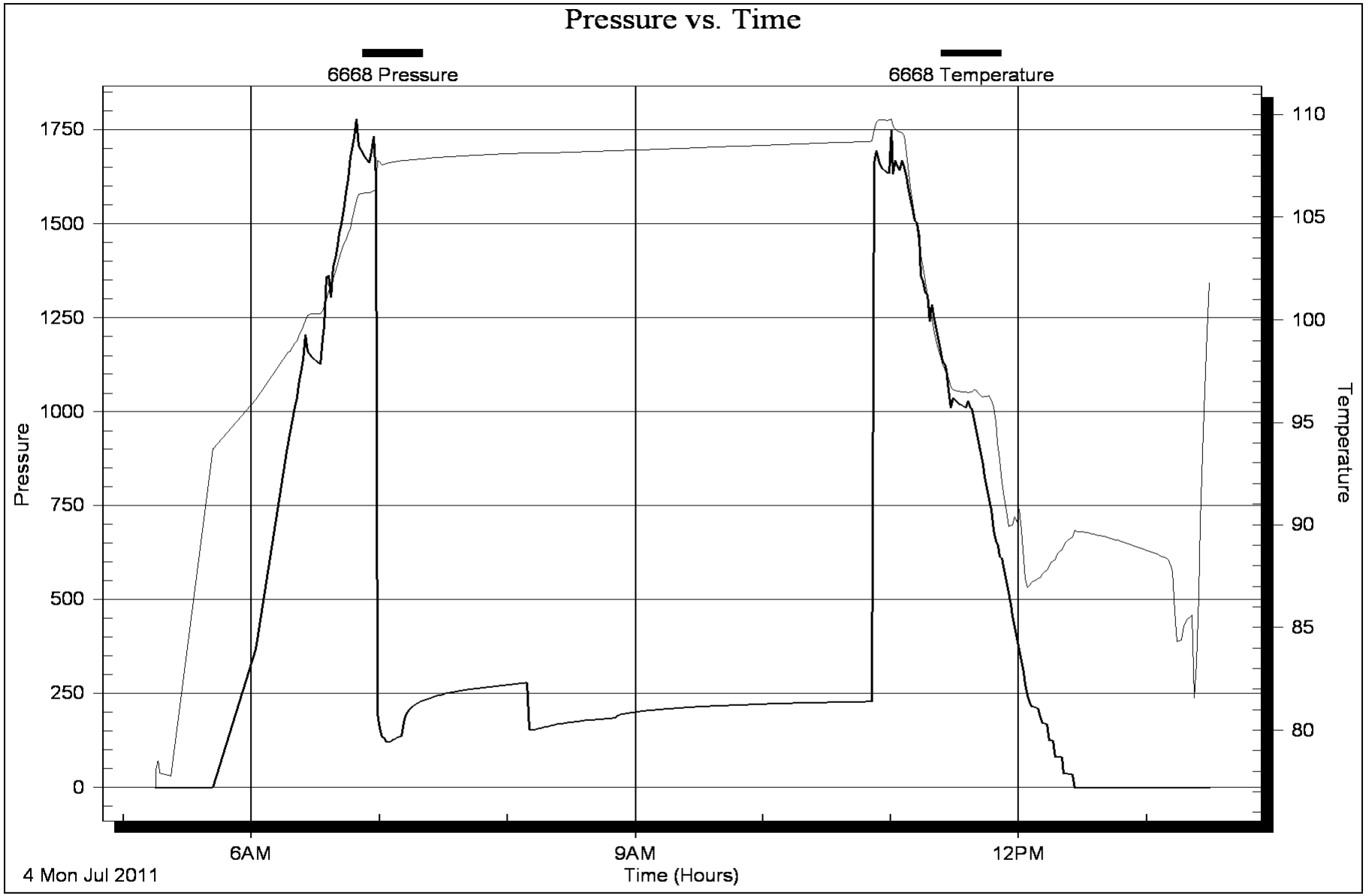
Gas Rates Information

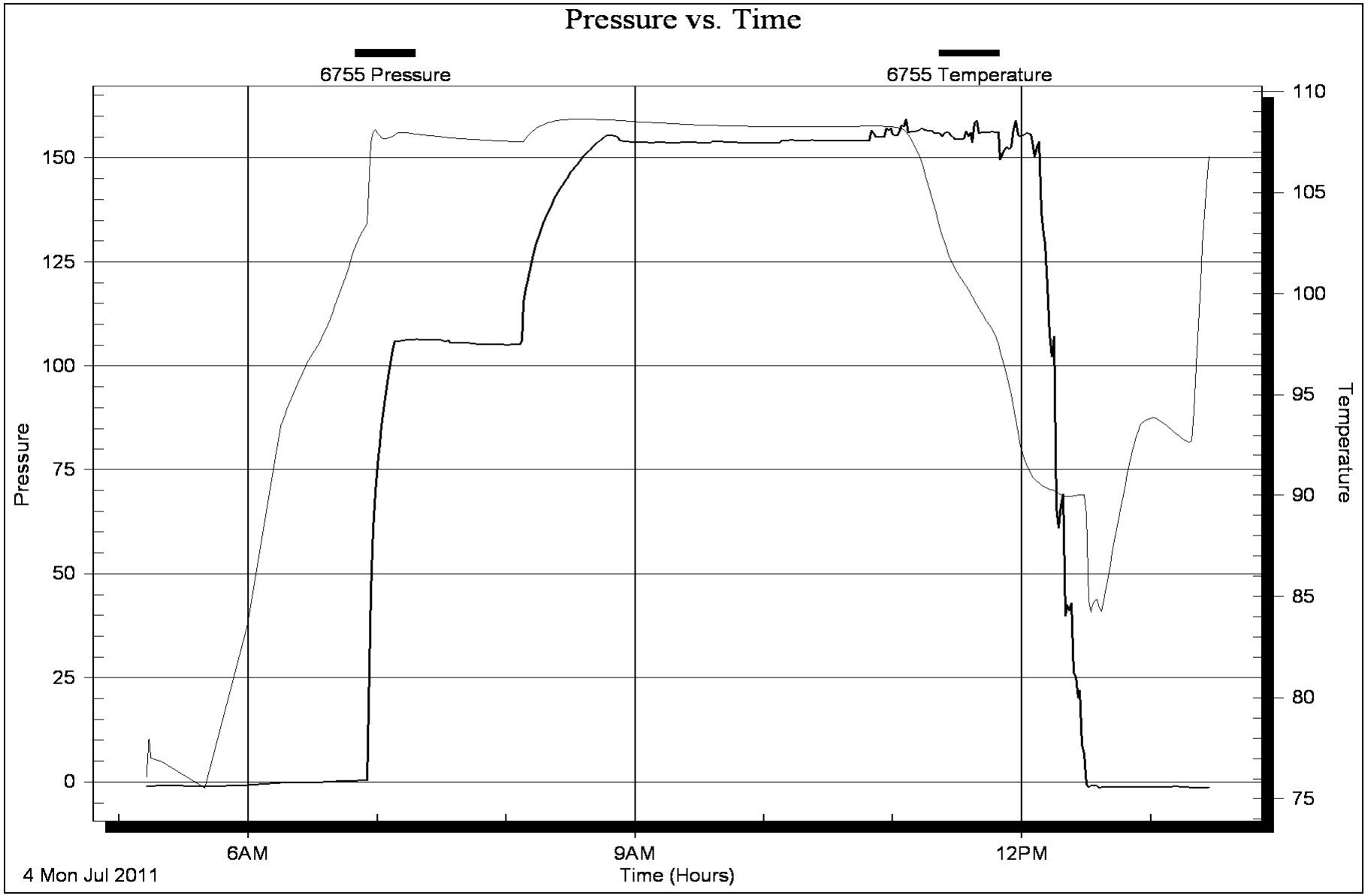
Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m^3/d)
		0.00	0.00	0.00


Pressure vs. Time
8673 Pressure
8673 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1750
1500
1250
1000
750
500
250
0
110
105
100
95
90
85
80
75
70
6AM
9AM
12PM
4 Mon Jul 2011
Time (Hours)


Pressure vs. Time
6668 Pressure
6668 Temperature
1750
1500
1250
1000
750
500
250
0
Pressure
110
105
100
95
90
85
80
Temperature
6AM
9AM
12PM
4 Mon Jul 2011
Time (Hours)


Pressure vs. Time
6755 Pressure
6755 Temperature
Pressure
Temperature
150
125
100
75
50
25
0
110
105
100
95
90
85
80
75
6AM
9AM
12PM
4 Mon Jul 2011
Time (Hours)

DRILL STEM TESTING - DATA LISTING

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43534 **DST#: 2**

Test Start: 2011.07.04 @ 05:16:11

Serial # 8673 **Inside**				**Serial # 8673** **Inside**			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	0.0	-0.01	77.2		93.7	1734.71	105.0
	0.2	0.04	77.2		95.2	1699.90	105.4
	0.4	0.06	77.0		96.7	1685.80	105.4
	0.6	0.04	76.8		98.2	1673.21	105.4
	0.8	0.05	76.7		99.7	1662.53	105.4
	1.0	0.03	76.5		100.7	1692.16	105.4
	1.2	0.00	76.4		101.0	1727.17	105.4
	1.4	-0.02	76.2	Initial Hydro-static	101.2	1762.27	105.4
	1.6	-0.04	76.0		101.5	1731.80	105.4
	1.8	-0.05	75.8		101.7	1732.98	105.4
	7.0	-0.14	71.6		102.0	1733.13	105.4
	37.0	245.63	93.6		103.5	206.30	107.0
	62.2	974.39	97.7		105.0	131.95	107.7
	63.7	981.11	98.0		106.2	134.80	107.6
	65.2	1037.62	98.3		106.5	135.89	107.6
	66.7	1071.39	98.6	Open To Flow (1)	106.7	126.66	107.6
	68.2	1102.61	98.9		107.0	122.45	107.5
	69.7	1132.91	99.3		107.2	120.88	107.5
	71.2	1156.59	99.6		107.5	120.10	107.5
	72.7	1146.91	99.6		109.0	121.67	107.4
	74.2	1138.52	99.6		110.5	125.65	107.4
	75.7	1130.93	99.6		112.0	130.09	107.4
	77.2	1182.92	99.7		113.5	134.20	107.4
	78.7	1212.63	99.9		114.5	136.68	107.3
	80.2	1288.43	100.6		114.7	137.21	107.3
	81.7	1353.78	101.1	Shut-In(1)	115.0	138.68	107.3
	83.2	1402.16	101.5		115.2	162.56	107.4
	84.7	1442.19	102.0		115.5	168.28	107.4
	86.2	1538.23	102.4		115.7	172.89	107.4
	87.7	1535.58	102.9		117.2	196.75	107.4
	89.2	1514.73	103.2		118.7	208.09	107.4
	90.7	1646.75	103.6		120.2	215.46	107.4
	92.2	1655.94	104.4		121.7	221.33	107.5

Printing every 6 samples

Serial # 8673 Inside				Serial # 8673 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	123.2	226.16	107.5		177.7	153.66	107.6
	124.7	230.17	107.5		179.2	156.10	107.5
	126.2	233.74	107.5		180.7	158.58	107.6
	127.7	237.16	107.5		182.2	160.53	107.6
	129.2	239.62	107.5		183.7	162.62	107.6
	130.7	242.24	107.5		185.2	164.40	107.6
	132.2	244.56	107.5		186.7	166.10	107.6
	133.7	246.58	107.5		188.2	167.52	107.6
	135.2	248.57	107.6		189.7	168.86	107.6
	136.7	250.35	107.6		191.2	170.13	107.6
	138.2	252.10	107.6		192.7	171.40	107.6
	139.7	253.58	107.6		194.2	172.56	107.6
	141.2	255.01	107.6		195.7	173.75	107.6
	142.7	256.51	107.6		197.2	174.73	107.6
	144.2	257.79	107.6		198.7	175.62	107.6
	145.7	258.97	107.6		200.2	176.65	107.6
	147.2	260.20	107.6		201.7	177.53	107.6
	148.7	261.37	107.6		203.2	178.39	107.6
	150.2	262.46	107.6		204.7	179.16	107.6
	151.7	263.52	107.6		206.2	179.90	107.6
	153.2	264.63	107.6		207.7	180.74	107.6
	154.7	265.73	107.6		209.2	181.32	107.6
	156.2	266.61	107.6		210.7	181.69	107.7
	157.7	267.60	107.6		212.2	182.43	107.7
	159.2	268.70	107.6		213.7	183.25	107.7
	160.7	269.58	107.7		214.2	183.39	107.7
	162.2	270.49	107.7		214.5	183.46	107.7
	163.7	271.35	107.7	Shut-In(2)	214.7	183.68	107.7
	165.2	272.35	107.7		215.0	185.79	107.7
	166.7	273.39	107.7		215.2	187.19	107.7
	168.2	274.30	107.7		215.5	188.53	107.7
	169.7	275.12	107.7		217.0	192.18	107.7
	171.2	276.01	107.7		218.5	194.06	107.7
	172.7	277.03	107.7		220.0	195.73	107.7
	173.5	277.69	107.7		221.5	197.23	107.7
	173.7	277.76	107.7		223.0	198.51	107.7
End Shut-In(1)	174.0	277.84	107.7		224.5	199.66	107.7
	174.2	163.54	107.6		226.0	200.78	107.7
Open To Flow (2)	174.5	156.82	107.6		227.5	201.75	107.7
	174.7	154.34	107.6		229.0	202.77	107.7
	176.2	151.91	107.6		230.5	203.65	107.7

Printing every 6 samples

Serial # 8673 Inside				Serial # 8673 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	232.0	204.54	107.7		293.5	222.21	107.9
	233.5	205.35	107.7		295.0	222.44	107.9
	235.0	206.06	107.7		296.5	222.69	107.9
	236.5	206.82	107.7		298.0	222.91	107.9
	238.0	207.64	107.7		299.5	223.12	107.9
	239.5	208.15	107.7		301.0	223.35	107.9
	241.0	208.80	107.8		302.5	223.56	107.9
	242.5	209.45	107.8		304.0	223.78	107.9
	244.0	210.00	107.8		305.5	224.00	108.0
	245.5	210.58	107.8		307.0	224.21	108.0
	247.0	211.18	107.8		308.5	224.42	108.0
	248.5	211.65	107.8		310.0	224.63	108.0
	250.0	212.21	107.8		311.5	224.54	108.0
	251.5	212.56	107.8		313.0	225.05	108.0
	253.0	213.15	107.8		314.5	225.24	108.0
	254.5	213.53	107.8		316.0	225.41	108.0
	256.0	213.94	107.8		317.5	225.59	108.0
	257.5	214.43	107.8		319.0	225.81	108.0
	259.0	214.82	107.8		320.5	225.99	108.0
	260.5	215.26	107.8		322.0	226.15	108.0
	262.0	215.58	107.8		323.5	226.31	108.0
	263.5	216.06	107.8		325.0	226.47	108.0
	265.0	216.41	107.8		326.5	226.64	108.0
	266.5	216.70	107.8		328.0	226.79	108.0
	268.0	217.14	107.8		329.5	226.96	108.0
	269.5	217.41	107.8		331.0	226.79	108.0
	271.0	217.74	107.8		332.5	227.28	108.0
	272.5	218.39	107.8		334.0	227.37	108.0
	274.0	218.35	107.9		335.5	227.45	108.0
	275.5	218.63	107.9		335.7	227.44	108.1
	277.0	218.96	107.9	End Shut-In(2)	336.0	227.49	108.1
	278.5	219.58	107.9		336.2	225.49	108.0
	280.0	219.51	107.9	Final Hydro-static	336.5	1649.63	108.7
	281.5	219.85	107.9		336.7	1663.88	108.7
	283.0	220.09	107.9		338.2	1678.39	109.3
	284.5	220.66	107.9		339.7	1654.47	109.3
	286.0	220.91	107.9		341.2	1641.72	109.3
	287.5	221.17	107.9		342.7	1636.30	109.2
	289.0	221.42	107.9		344.2	1600.18	109.2
	290.5	221.39	107.9		345.7	1673.62	108.4
	292.0	221.96	107.9		347.2	1659.83	108.2

Printing every 6 samples

Serial # 8673 Inside				Serial # 8673 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	348.7	1641.23	108.2		410.2	225.63	86.2
	350.2	1656.50	108.1		411.7	213.79	86.5
	351.7	1626.97	106.8		413.2	211.39	86.5
	353.2	1517.63	105.3		414.7	183.59	86.5
	354.7	1539.16	104.3		416.2	169.09	86.9
	356.2	1502.54	103.3		417.7	167.88	87.0
	357.7	1464.25	102.5		419.2	125.32	87.4
	359.2	1411.37	101.4		420.7	124.83	87.5
	360.7	1317.14	100.6		422.2	80.54	87.7
	362.2	1320.76	99.6		423.7	80.42	87.9
	363.7	1285.01	98.9		425.2	37.54	87.9
	365.2	1226.80	98.2		426.7	35.80	88.2
	366.7	1196.46	97.4		428.2	35.52	88.2
	368.2	1132.08	97.0		429.7	35.19	88.3
	369.7	1127.54	96.5		431.2	-0.13	88.8
	371.2	1101.99	96.2		432.7	-0.16	88.8
	372.7	1041.01	95.8		434.2	-0.17	88.7
	374.2	1034.19	95.7		435.7	-0.17	88.7
	375.7	1025.56	95.7		437.2	-0.15	88.7
	377.2	1020.56	95.7		438.7	-0.15	88.7
	378.7	1015.40	95.7		440.2	-0.13	88.6
	380.2	1010.33	95.7		441.7	-0.12	88.6
	381.7	1011.21	95.9		443.2	-0.09	88.6
	383.2	948.04	95.9		444.7	-0.05	88.5
	384.7	948.70	95.8		446.2	-0.04	88.5
	386.2	877.23	95.5		447.7	-0.04	88.5
	387.7	856.55	95.5		449.2	-0.02	88.4
	389.2	811.97	95.6		450.7	0.00	88.4
	390.7	764.72	95.5		452.2	0.01	88.3
	392.2	732.18	94.8		453.7	0.00	88.3
	393.7	650.52	93.2		455.2	-0.04	88.3
	395.2	639.98	92.2		456.7	-0.09	88.2
	396.7	573.66	90.8		458.2	-0.21	88.2
	398.2	548.37	90.2		459.7	-0.25	88.1
	399.7	517.16	89.1		461.2	-0.23	88.1
	401.2	456.97	94.0		462.7	-0.19	88.0
	402.7	425.88	91.2		464.2	-0.18	87.9
	404.2	367.09	92.9		465.7	-0.17	87.9
	405.7	335.47	90.6		467.2	-0.18	87.8
	407.2	304.70	87.0		468.7	-0.19	87.8
	408.7	244.57	86.1		470.2	-0.18	87.7

Printing every 6 samples

Serial # 8673 Inside				Serial # 6668 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	471.7	-0.20	87.7				
	473.2	-0.21	87.6				
	474.7	-0.23	87.4				
	476.2	-0.29	86.9				
	477.7	-0.31	85.0				
	479.2	-0.31	83.5				
	480.7	-0.33	82.3				
	482.2	-0.35	80.1				
	483.7	-0.31	83.5				
	485.2	-0.30	86.7				
	486.7	-0.27	88.6				
	488.2	-0.22	91.8				
	489.7	-0.19	94.5				
	491.2	-0.26	97.2				
	492.7	-0.11	99.7				
	494.0	-0.19	101.7				

Printing every 5 samples

DRILL STEM TESTING - DATA LISTING

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43534 **DST#: 2**

Test Start: 2011.07.04 @ 05:16:11

Serial # 6668 Outside

Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	0.0	-1.30	77.2
	0.2	-1.26	77.9
	0.3	-1.26	78.2
	0.5	-1.23	78.2
	0.7	-1.21	78.3
	0.8	-1.19	78.5
	1.0	-1.18	78.5
	1.2	-1.17	78.5
	1.3	-1.15	78.4
	1.5	-1.15	78.3
	1.7	-1.16	78.1
	1.8	-1.17	78.0
	7.0	-1.19	77.8
	32.0	17.29	96.1
	57.0	639.92	97.3
	63.0	950.59	98.4
	64.2	981.18	98.7
	65.5	1010.58	98.9
	66.7	1007.51	99.0
	68.0	1150.53	99.4
	69.2	1138.76	99.7
	70.5	1166.28	100.1
	71.7	1157.24	100.3
	73.0	1148.99	100.3
	74.2	1141.69	100.3
	75.5	1135.05	100.3
	76.7	1129.07	100.3
	78.0	1195.87	100.4
	79.2	1228.31	100.7
	80.5	1290.50	101.1
	81.7	1320.43	101.6
	83.0	1426.66	101.9
	84.2	1408.72	102.4

Serial # 6668 Outside

Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	85.5	1441.08	102.8
	86.7	1511.91	103.1
	88.0	1524.10	103.6
	89.2	1581.68	103.9
	90.5	1594.81	104.3
	91.7	1624.98	104.7
	93.0	1651.48	105.2
	94.2	1777.55	105.8
	95.5	1703.34	106.1
	96.7	1690.74	106.2
	98.0	1680.11	106.2
	99.2	1669.86	106.2
	100.5	1661.94	106.2
	101.7	1769.01	106.3
	103.0	1735.94	106.3
	104.2	197.07	107.7
	105.5	141.88	107.6
	106.7	134.10	107.6
	108.0	119.90	107.6
	109.2	120.81	107.6
	110.5	123.83	107.7
	111.7	127.31	107.7
	113.0	130.95	107.7
	114.2	134.29	107.7
	115.5	137.37	107.7
	116.7	180.98	107.8
	118.0	198.35	107.8
	119.2	207.52	107.8
	120.5	213.99	107.8
	121.7	219.13	107.8
	123.0	223.42	107.8
	124.2	227.08	107.8
	125.5	230.39	107.8

Printing every 5 samples

Serial # 6668 Outside				Serial # 6668 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	126.7	233.32	107.9		178.0	153.28	108.1
	128.0	236.21	107.9		179.2	155.14	108.1
	129.2	238.36	107.9		180.5	157.44	108.1
	130.5	240.83	107.9		181.7	158.97	108.1
	131.7	242.65	107.9		183.0	160.59	108.1
	133.0	244.68	107.9		184.2	162.46	108.1
	134.2	246.23	107.9		185.5	163.89	108.1
	135.5	247.96	107.9		186.7	165.27	108.1
	136.7	249.55	107.9		188.0	166.61	108.1
	138.0	250.87	107.9		189.2	167.86	108.1
	139.2	252.34	108.0		190.5	168.92	108.2
	140.5	253.60	108.0		191.7	169.96	108.2
	141.7	254.79	108.0		193.0	171.05	108.2
	143.0	255.95	108.0		194.2	171.94	108.2
	144.2	257.07	108.0		195.5	172.96	108.2
	145.5	258.16	108.0		196.7	173.94	108.2
	146.7	259.22	108.0		198.0	174.69	108.2
	148.0	260.17	108.0		199.2	175.61	108.2
	149.2	261.18	108.0		200.5	176.35	108.2
	150.5	262.07	108.0		201.7	177.04	108.2
	151.7	263.02	108.0		203.0	177.79	108.2
	153.0	263.80	108.0		204.2	178.57	108.2
	154.2	264.74	108.0		205.5	179.18	108.2
	155.5	265.55	108.0		206.7	179.84	108.2
	156.7	266.49	108.0		208.0	180.42	108.2
	158.0	267.22	108.1		209.2	180.93	108.2
	159.2	268.03	108.1		210.5	181.33	108.2
	160.5	268.79	108.1		211.7	181.85	108.2
	161.7	269.49	108.1		213.0	182.33	108.2
	163.0	270.40	108.1		214.2	183.08	108.2
	164.2	271.21	108.1		215.5	185.46	108.2
	165.5	271.94	108.1		216.7	190.82	108.2
	166.7	272.80	108.1		218.0	192.72	108.2
	168.0	273.57	108.1		219.2	194.23	108.2
	169.2	274.32	108.1		220.5	195.57	108.3
	170.5	275.16	108.1		221.7	196.80	108.3
	171.7	275.84	108.1		223.0	197.84	108.3
	173.0	276.63	108.1		224.2	198.91	108.3
	174.2	277.55	108.1		225.5	199.84	108.3
	175.5	153.16	108.1		226.7	200.66	108.3
	176.7	151.61	108.1		228.0	201.61	108.3

Printing every 5 samples

Serial # 6668 Outside				Serial # 6668 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	229.2	202.34	108.3		280.5	219.39	108.5
	230.5	203.14	108.3		281.7	219.92	108.5
	231.7	203.85	108.3		283.0	220.15	108.5
	233.0	204.56	108.3		284.2	220.38	108.5
	234.2	205.25	108.3		285.5	220.28	108.5
	235.5	205.81	108.3		286.7	220.47	108.5
	236.7	206.55	108.3		288.0	221.02	108.5
	238.0	207.13	108.3		289.2	221.23	108.5
	239.2	207.68	108.3		290.5	221.45	108.5
	240.5	208.19	108.3		291.7	221.64	108.5
	241.7	208.70	108.3		293.0	221.85	108.5
	243.0	209.21	108.3		294.2	222.04	108.5
	244.2	209.80	108.3		295.5	221.91	108.5
	245.5	210.20	108.3		296.7	222.14	108.5
	246.7	210.70	108.4		298.0	222.63	108.5
	248.0	211.09	108.4		299.2	222.83	108.6
	249.2	211.58	108.4		300.5	223.03	108.6
	250.5	211.94	108.4		301.7	223.25	108.6
	251.7	212.37	108.4		303.0	223.42	108.6
	253.0	212.76	108.4		304.2	223.59	108.6
	254.2	213.14	108.4		305.5	223.76	108.6
	255.5	213.50	108.4		306.7	223.93	108.6
	256.7	213.83	108.4		308.0	224.10	108.6
	258.0	214.13	108.4		309.2	224.27	108.6
	259.2	214.51	108.4		310.5	224.44	108.6
	260.5	214.93	108.4		311.7	224.64	108.6
	261.7	215.25	108.4		313.0	224.85	108.6
	263.0	215.60	108.4		314.2	224.72	108.6
	264.2	215.94	108.4		315.5	225.15	108.6
	265.5	216.23	108.4		316.7	225.29	108.6
	266.7	216.50	108.4		318.0	225.46	108.6
	268.0	216.80	108.4		319.2	225.61	108.6
	269.2	217.43	108.4		320.5	225.76	108.6
	270.5	217.35	108.4		321.7	225.91	108.6
	271.7	217.92	108.4		323.0	226.05	108.6
	273.0	217.81	108.4		324.2	226.18	108.6
	274.2	218.11	108.5		325.5	226.31	108.7
	275.5	218.33	108.5		326.7	226.45	108.7
	276.7	218.66	108.5		328.0	226.58	108.7
	278.0	218.89	108.5		329.2	226.70	108.7
	279.2	219.05	108.5		330.5	226.83	108.7

Printing every 5 samples

Serial # 6668 Outside				Serial # 6668 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	331.7	226.98	108.7		383.0	1010.97	96.5
	333.0	227.14	108.7		384.2	979.55	96.6
	334.2	227.24	108.7		385.5	947.17	96.5
	335.5	227.31	108.7		386.7	878.93	96.3
	336.7	224.62	108.7		388.0	858.37	96.3
	338.0	1701.58	109.6		389.2	825.47	96.3
	339.2	1668.28	109.7		390.5	794.54	96.3
	340.5	1652.58	109.7		391.7	763.13	96.2
	341.7	1642.08	109.7		393.0	699.89	95.8
	343.0	1637.95	109.7		394.2	655.98	95.0
	344.2	1634.12	109.7		395.5	650.54	93.8
	345.5	1676.62	109.6		396.7	608.80	92.4
	346.7	1675.42	109.4		398.0	577.94	91.4
	348.0	1655.98	109.2		399.2	547.75	90.7
	349.2	1641.48	109.2		400.5	482.68	89.7
	350.5	1660.64	109.1		401.7	457.47	90.0
	351.7	1636.20	108.8		403.0	426.00	90.4
	353.0	1599.71	107.8		404.2	395.89	90.1
	354.2	1568.76	106.5		405.5	365.54	90.6
	355.5	1536.75	105.5		406.7	319.11	89.2
	356.7	1502.75	104.7		408.0	281.60	87.6
	358.0	1421.89	104.0		409.2	244.28	87.0
	359.2	1361.87	103.1		410.5	214.44	87.1
	360.5	1384.20	102.4		411.7	213.81	87.2
	361.7	1351.28	101.5		413.0	212.38	87.3
	363.0	1318.89	100.7		414.2	209.77	87.4
	364.2	1285.11	100.1		415.5	169.97	87.4
	365.5	1196.39	99.4		416.7	168.79	87.7
	366.7	1170.84	98.8		418.0	168.07	87.8
	368.0	1165.81	98.4		419.2	124.89	88.0
	369.2	1135.17	97.9		420.5	125.03	88.2
	370.5	1125.68	97.5		421.7	122.08	88.3
	371.7	1102.05	97.3		423.0	79.79	88.6
	373.0	1016.56	96.8		424.2	80.04	88.7
	374.2	1037.72	96.6		425.5	66.17	88.8
	375.5	1029.59	96.6		426.7	35.22	89.1
	376.7	1023.55	96.5		428.0	35.15	89.2
	378.0	1019.63	96.5		429.2	34.98	89.3
	379.2	1015.29	96.5		430.5	19.54	89.4
	380.5	1010.99	96.5		431.7	-1.16	89.7
	381.7	983.25	96.5		433.0	-1.17	89.7

Printing every 5 samples

Serial # 6668 Outside				Serial # 6668 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	434.2	-1.21	89.6		485.5	-1.34	85.5
	435.5	-1.21	89.6		486.7	-1.45	83.6
	436.7	-1.20	89.6		488.0	-1.49	82.5
	438.0	-1.22	89.6		489.2	-1.45	86.6
	439.2	-1.23	89.6		490.5	-1.39	91.0
	440.5	-1.26	89.5		491.7	-1.36	95.1
	441.7	-1.26	89.5		493.0	-1.39	98.7
	443.0	-1.29	89.5		494.2	-1.16	101.8
	444.2	-1.29	89.4		494.5	-1.31	102.3
	445.5	-1.30	89.4				
	446.7	-1.29	89.4				
	448.0	-1.31	89.3				
	449.2	-1.34	89.3				
	450.5	-1.34	89.3				
	451.7	-1.36	89.2				
	453.0	-1.36	89.2				
	454.2	-1.37	89.1				
	455.5	-1.36	89.1				
	456.7	-1.37	89.1				
	458.0	-1.35	89.0				
	459.2	-1.35	89.0				
	460.5	-1.34	88.9				
	461.7	-1.34	88.9				
	463.0	-1.34	88.8				
	464.2	-1.35	88.8				
	465.5	-1.35	88.7				
	466.7	-1.36	88.7				
	468.0	-1.36	88.6				
	469.2	-1.37	88.6				
	470.5	-1.37	88.5				
	471.7	-1.36	88.5				
	473.0	-1.36	88.4				
	474.2	-1.36	88.4				
	475.5	-1.39	88.2				
	476.7	-1.40	87.8				
	478.0	-1.36	86.6				
	479.2	-1.27	84.3				
	480.5	-1.17	84.4				
	481.7	-1.10	84.8				
	483.0	-1.11	85.2				
	484.2	-1.20	85.4				

Printing every 5 samples

DRILL STEM TESTING - DATA LISTING

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43534 **DST#: 2**

Test Start: 2011.07.04 @ 05:16:11

Serial # 6755	**Fluid**			**Serial # 6755**	**Fluid**		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	0.0	-1.03	76.1		85.5	-0.02	98.8
	0.2	-1.10	76.7		86.7	0.01	99.2
	0.3	-1.04	76.8		88.0	0.05	99.5
	0.5	-1.00	76.8		89.2	0.08	99.9
	0.7	-1.04	77.6		90.5	0.10	100.3
	0.8	-1.07	78.0		91.7	0.12	100.6
	1.0	-1.10	77.9		93.0	0.14	101.0
	1.2	-1.11	77.8		94.2	0.17	101.5
	1.3	-1.12	77.7		95.5	0.19	101.9
	1.5	-1.12	77.5		96.7	0.21	102.3
	1.7	-1.07	77.3		98.0	0.23	102.6
	1.8	-1.03	77.1		99.2	0.25	102.9
	7.0	-0.79	76.8		100.5	0.26	103.2
	32.0	-1.18	74.3		101.7	0.26	103.4
	57.0	-0.29	89.5		103.0	5.50	103.8
	63.0	-0.26	93.7		104.2	45.84	107.5
	64.2	-0.25	94.0		105.5	62.67	108.0
	65.5	-0.24	94.4		106.7	73.30	108.0
	66.7	-0.24	94.7		108.0	80.17	107.8
	68.0	-0.25	95.0		109.2	85.60	107.7
	69.2	-0.24	95.3		110.5	90.64	107.7
	70.5	-0.23	95.6		111.7	95.24	107.7
	71.7	-0.22	96.0		113.0	99.81	107.7
	73.0	-0.21	96.2		114.2	103.82	107.8
	74.2	-0.20	96.5		115.5	106.05	107.9
	75.5	-0.18	96.8		116.7	105.94	107.9
	76.7	-0.16	97.0		118.0	106.02	108.0
	78.0	-0.14	97.2		119.2	106.11	108.0
	79.2	-0.13	97.4		120.5	106.19	107.9
	80.5	-0.12	97.6		121.7	106.26	107.9
	81.7	-0.11	97.9		123.0	106.29	107.9
	83.0	-0.08	98.2		124.2	106.33	107.9
	84.2	-0.06	98.5		125.5	106.34	107.9

Printing every 5 samples

Serial # 6755	Fluid			Serial # 6755	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	126.7	106.33	107.9		178.0	122.84	107.9
	128.0	106.30	107.9		179.2	126.00	108.0
	129.2	106.30	107.8		180.5	128.19	108.1
	130.5	106.28	107.8		181.7	130.31	108.2
	131.7	106.27	107.8		183.0	132.32	108.3
	133.0	106.27	107.8		184.2	134.12	108.3
	134.2	106.30	107.8		185.5	135.79	108.4
	135.5	106.25	107.8		186.7	137.21	108.4
	136.7	106.20	107.7		188.0	138.69	108.5
	138.0	106.11	107.7		189.2	139.87	108.5
	139.2	105.92	107.7		190.5	140.96	108.5
	140.5	106.10	107.7		191.7	142.20	108.6
	141.7	105.52	107.7		193.0	143.19	108.6
	143.0	105.56	107.7		194.2	144.28	108.6
	144.2	105.58	107.7		195.5	145.35	108.6
	145.5	105.56	107.7		196.7	146.20	108.6
	146.7	105.49	107.7		198.0	147.07	108.6
	148.0	105.48	107.6		199.2	147.94	108.6
	149.2	105.47	107.6		200.5	148.79	108.6
	150.5	105.43	107.6		201.7	149.61	108.6
	151.7	105.38	107.6		203.0	150.33	108.6
	153.0	105.32	107.6		204.2	150.90	108.6
	154.2	105.26	107.6		205.5	151.62	108.6
	155.5	105.20	107.6		206.7	152.36	108.6
	156.7	105.16	107.6		208.0	152.95	108.6
	158.0	105.14	107.6		209.2	153.42	108.6
	159.2	105.14	107.6		210.5	153.90	108.6
	160.5	105.14	107.6		211.7	154.54	108.6
	161.7	105.13	107.6		213.0	155.02	108.6
	163.0	105.12	107.6		214.2	155.45	108.6
	164.2	105.13	107.6		215.5	155.57	108.6
	165.5	105.10	107.5		216.7	155.29	108.6
	166.7	105.09	107.5		218.0	155.03	108.6
	168.0	105.07	107.5		219.2	154.83	108.6
	169.2	105.09	107.5		220.5	154.35	108.6
	170.5	105.11	107.5		221.7	153.95	108.5
	171.7	105.12	107.5		223.0	153.89	108.5
	173.0	105.13	107.5		224.2	153.83	108.5
	174.2	106.00	107.5		225.5	153.77	108.5
	175.5	116.14	107.6		226.7	153.72	108.5
	176.7	119.56	107.7		228.0	153.71	108.5

Printing every 5 samples

Serial # 6755	Fluid			Serial # 6755	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	229.2	153.70	108.5		280.5	153.56	108.3
	230.5	153.70	108.5		281.7	153.56	108.3
	231.7	153.68	108.5		283.0	153.55	108.3
	233.0	153.64	108.5		284.2	153.54	108.3
	234.2	153.62	108.5		285.5	153.51	108.3
	235.5	153.63	108.5		286.7	153.49	108.3
	236.7	153.65	108.4		288.0	153.47	108.3
	238.0	153.68	108.4		289.2	153.46	108.3
	239.2	153.70	108.4		290.5	153.47	108.3
	240.5	153.68	108.4		291.7	153.52	108.3
	241.7	153.63	108.4		293.0	153.75	108.3
	243.0	153.57	108.4		294.2	153.47	108.3
	244.2	153.52	108.4		295.5	154.09	108.3
	245.5	153.48	108.4		296.7	154.09	108.3
	246.7	153.57	108.4		298.0	154.13	108.3
	248.0	153.68	108.4		299.2	154.16	108.3
	249.2	153.78	108.4		300.5	154.18	108.3
	250.5	153.76	108.4		301.7	154.14	108.3
	251.7	153.74	108.4		303.0	154.12	108.3
	253.0	153.72	108.4		304.2	154.12	108.2
	254.2	153.69	108.4		305.5	154.11	108.3
	255.5	153.65	108.3		306.7	154.12	108.3
	256.7	153.61	108.3		308.0	154.14	108.3
	258.0	153.57	108.3		309.2	154.15	108.3
	259.2	153.55	108.3		310.5	154.13	108.3
	260.5	153.63	108.3		311.7	154.12	108.3
	261.7	153.77	108.3		313.0	154.11	108.3
	263.0	153.89	108.3		314.2	154.10	108.3
	264.2	153.88	108.3		315.5	154.12	108.3
	265.5	153.84	108.3		316.7	154.13	108.3
	266.7	153.83	108.3		318.0	154.13	108.3
	268.0	153.80	108.3		319.2	154.10	108.3
	269.2	153.77	108.3		320.5	154.08	108.3
	270.5	153.73	108.3		321.7	154.08	108.3
	271.7	153.70	108.3		323.0	154.09	108.3
	273.0	153.66	108.3		324.2	154.12	108.3
	274.2	153.64	108.3		325.5	154.14	108.3
	275.5	153.63	108.3		326.7	154.13	108.3
	276.7	153.61	108.3		328.0	154.12	108.3
	278.0	153.59	108.3		329.2	154.10	108.3
	279.2	153.58	108.3		330.5	154.09	108.3

Printing every 5 samples

Serial # 6755	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	331.7	154.11	108.3
	333.0	154.13	108.3
	334.2	154.12	108.3
	335.5	154.08	108.3
	336.7	155.33	108.3
	338.0	156.15	108.3
	339.2	154.99	108.3
	340.5	154.90	108.3
	341.7	154.87	108.3
	343.0	154.88	108.3
	344.2	157.07	108.3
	345.5	156.58	108.3
	346.7	156.15	108.2
	348.0	155.35	108.2
	349.2	155.26	108.2
	350.5	156.19	108.2
	351.7	156.25	108.1
	353.0	156.31	108.0
	354.2	156.00	107.9
	355.5	159.24	107.7
	356.7	153.46	107.4
	358.0	156.69	107.1
	359.2	156.58	106.9
	360.5	156.06	106.5
	361.7	155.85	106.1
	363.0	156.73	105.6
	364.2	156.38	105.2
	365.5	156.67	104.7
	366.7	156.48	104.2
	368.0	156.46	103.7
	369.2	155.87	103.2
	370.5	155.84	102.8
	371.7	159.75	102.4
	373.0	156.77	102.0
	374.2	155.38	101.6
	375.5	154.89	101.4
	376.7	154.39	101.1
	378.0	154.40	100.9
	379.2	154.39	100.7
	380.5	154.76	100.5
	381.7	155.80	100.3

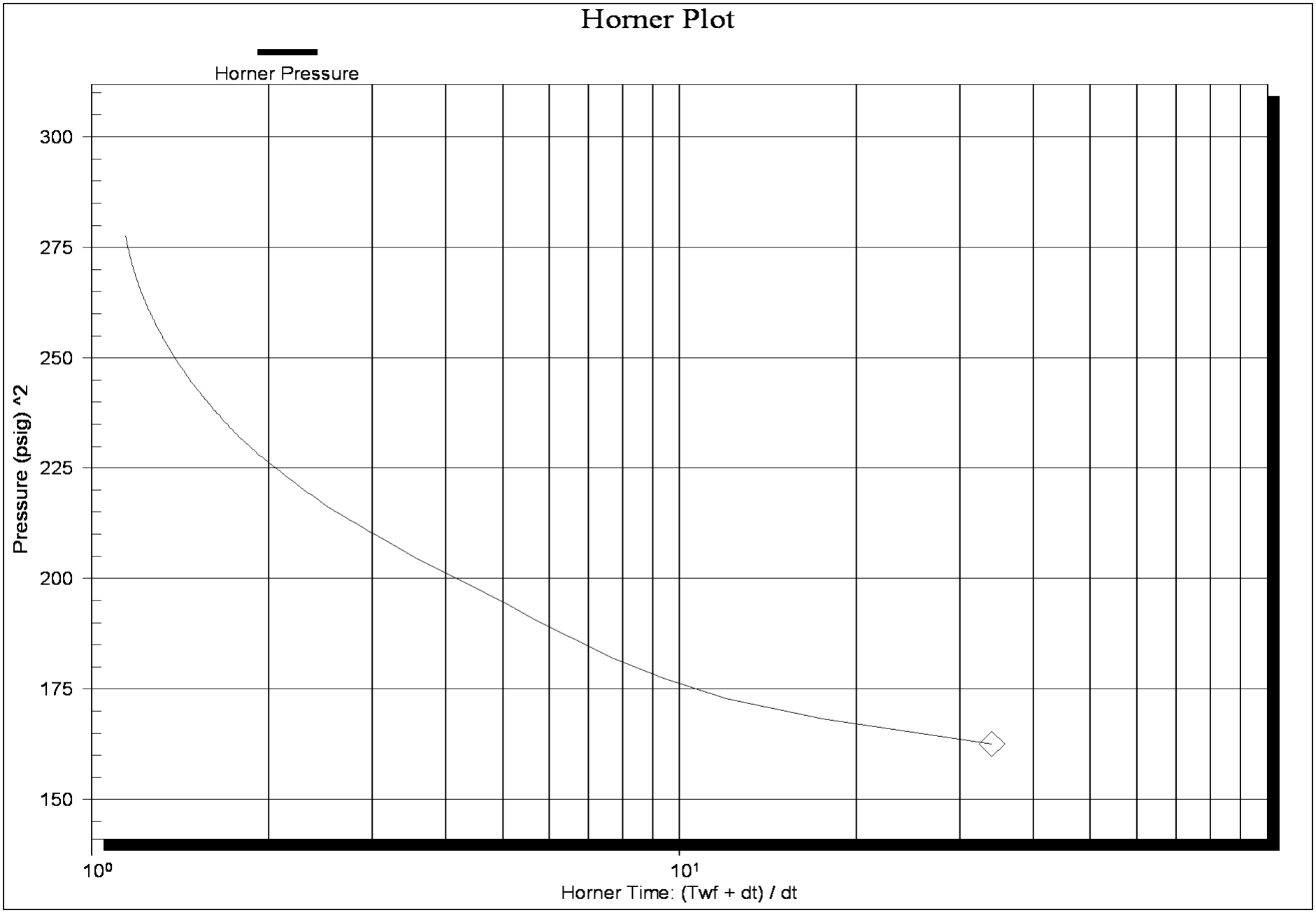
Serial # 6755	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	383.0	155.79	100.1
	384.2	153.67	99.8
	385.5	151.53	99.6
	386.7	156.34	99.4
	388.0	156.09	99.1
	389.2	156.03	98.9
	390.5	159.65	98.7
	391.7	155.37	98.5
	393.0	156.45	98.3
	394.2	156.21	98.1
	395.5	155.94	97.8
	396.7	155.63	97.3
	398.0	159.87	96.8
	399.2	151.99	96.4
	400.5	155.81	95.8
	401.7	155.58	95.2
	403.0	155.33	94.5
	404.2	158.93	93.8
	405.5	155.99	93.0
	406.7	156.06	92.4
	408.0	155.73	91.9
	409.2	155.86	91.5
	410.5	162.58	91.2
	411.7	154.82	91.0
	413.0	150.23	90.8
	414.2	152.65	90.7
	415.5	153.98	90.6
	416.7	126.36	90.5
	418.0	128.77	90.4
	419.2	119.18	90.3
	420.5	95.68	90.3
	421.7	103.59	90.3
	423.0	75.72	90.2
	424.2	60.95	90.1
	425.5	65.75	90.0
	426.7	54.69	90.0
	428.0	42.60	89.9
	429.2	41.12	89.9
	430.5	42.81	90.0
	431.7	24.78	90.0
	433.0	19.96	90.0

Printing every 5 samples

Serial # 6755	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	434.2	21.92	90.0
	435.5	0.06	90.0
	436.7	-0.51	90.0
	438.0	-1.37	86.5
	439.2	-0.92	84.2
	440.5	-0.94	84.7
	441.7	-0.93	84.8
	443.0	-0.91	84.9
	444.2	-1.28	84.3
	445.5	-1.29	85.0
	446.7	-1.31	85.7
	448.0	-1.32	86.4
	449.2	-1.32	87.2
	450.5	-1.32	87.9
	451.7	-1.32	88.6
	453.0	-1.34	89.3
	454.2	-1.35	90.0
	455.5	-1.35	90.7
	456.7	-1.34	91.3
	458.0	-1.33	91.9
	459.2	-1.34	92.5
	460.5	-1.32	93.0
	461.7	-1.33	93.4
	463.0	-1.34	93.6
	464.2	-1.36	93.7
	465.5	-1.35	93.8
	466.7	-1.34	93.8
	468.0	-1.33	93.9
	469.2	-1.32	93.8
	470.5	-1.30	93.8
	471.7	-1.28	93.7
	473.0	-1.27	93.6
	474.2	-1.25	93.5
	475.5	-1.24	93.4
	476.7	-1.21	93.3
	478.0	-1.20	93.2
	479.2	-1.19	93.1
	480.5	-1.22	92.9
	481.7	-1.26	92.8
	483.0	-1.31	92.8
	484.2	-1.34	92.7

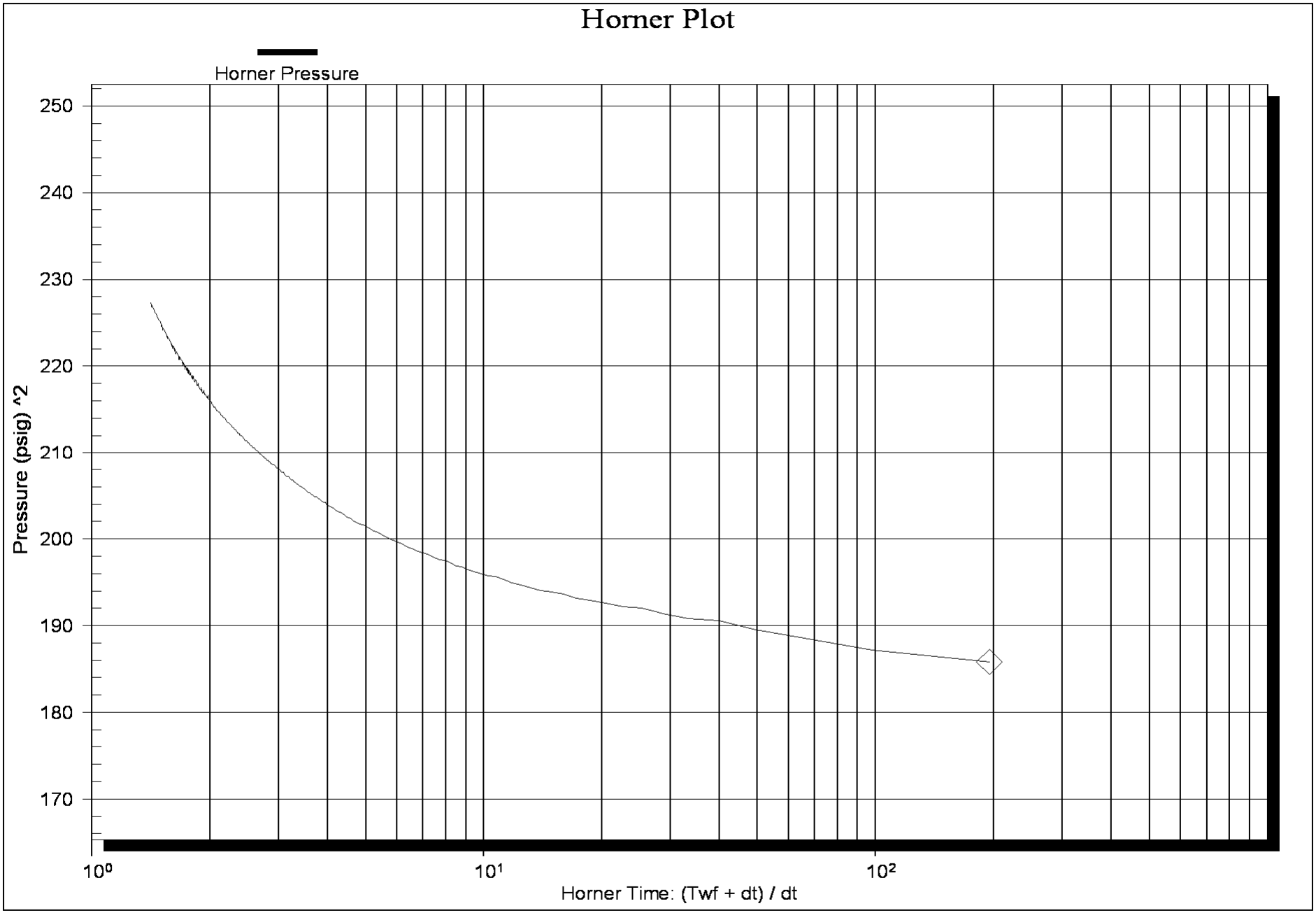
Serial # 6755	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	485.5	-1.40	92.6
	486.7	-1.43	93.1
	488.0	-1.43	95.9
	489.2	-1.43	98.5
	490.5	-1.43	101.0
	491.7	-1.52	103.2
	493.0	-1.36	105.1
	494.2	-1.39	106.8
	494.5	-1.44	107.2

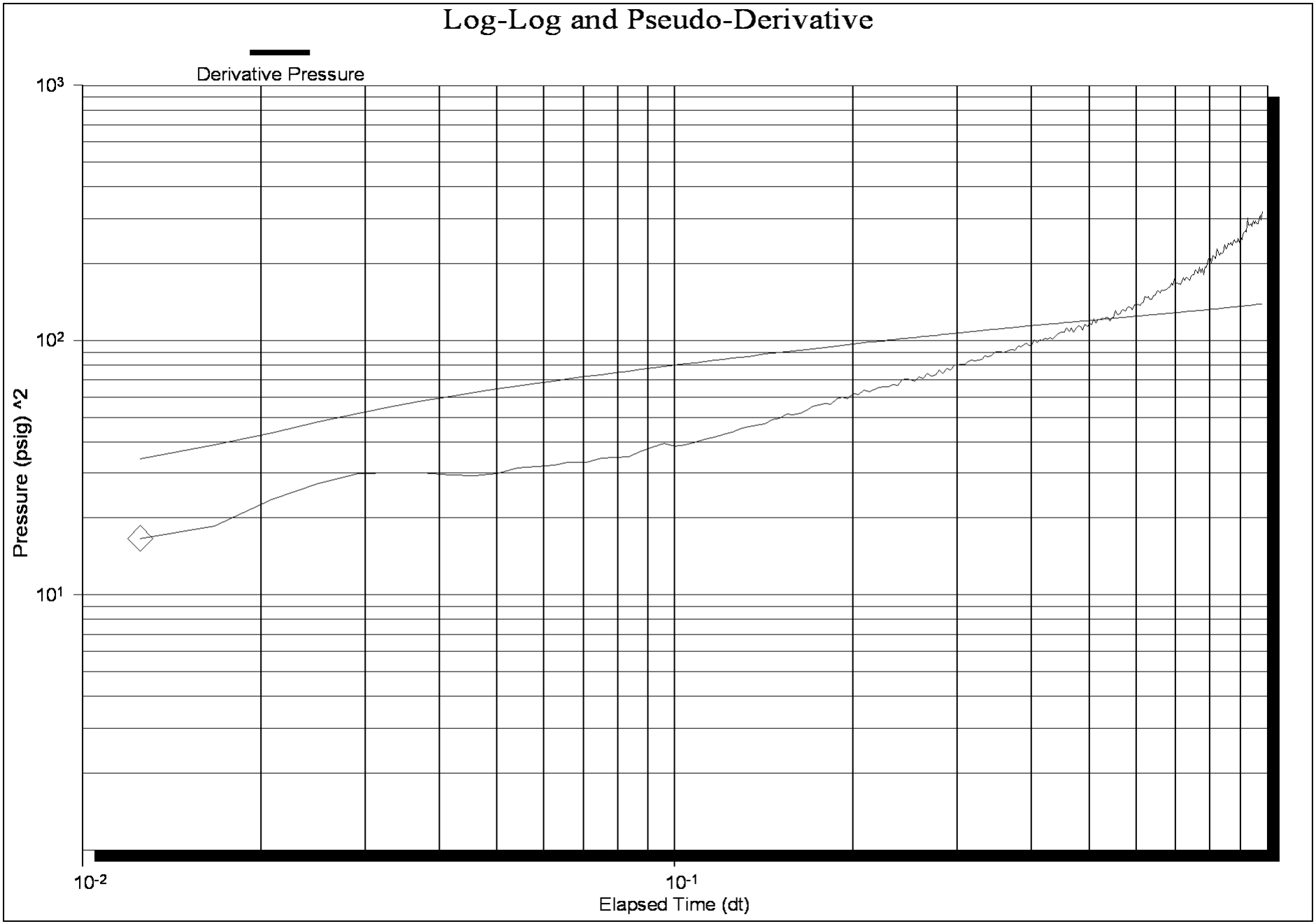
Printing every 5 samples

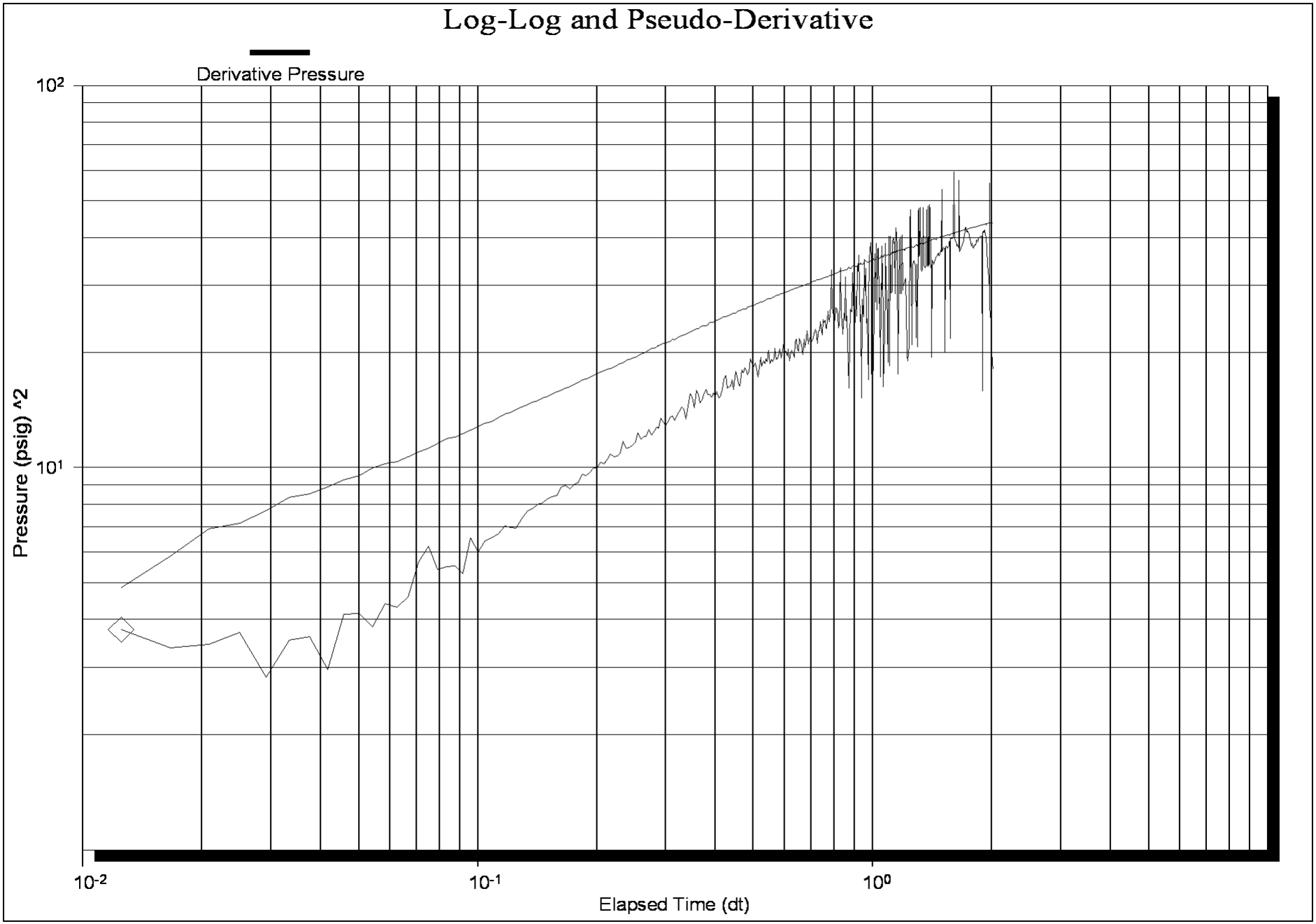


Serial Number: 8673 (Inside) P* : Slope (m) : kpa/log cycle Flow Cycle: 1

Horner Plot


Horner Pressure
250
240
230
220
210
200
190
180
170
Pressure (psig) ^2
10⁰
10¹
10²
Horner Time: (Twf + dt) / dt


Log-Log and Pseudo-Derivative
Derivative Pressure
10^3
10^2
10^1
Pressure (psig) ^2
10^-2
10^-1
Elapsed Time (dt)


Log-Log and Pseudo-Derivative
Derivative Pressure
10^2
10^1
Pressure (psig) ^2
10^{-2}
10^{-1}
10^0
Elapsed Time (dt)

DRILL STEM TEST REPORT

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43535 **DST#: 3**

Test Start: 2011.07.05 @ 20:44:53

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:23:23
Time Test Ended: 01:58:23

Test Type: Conventional Straddle (Reset)
Tester: Jason McLemore
Unit No: 54

Interval: 3459.00 ft (KB) To 3499.00 ft (KB) (TVD)
Total Depth: 3644.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

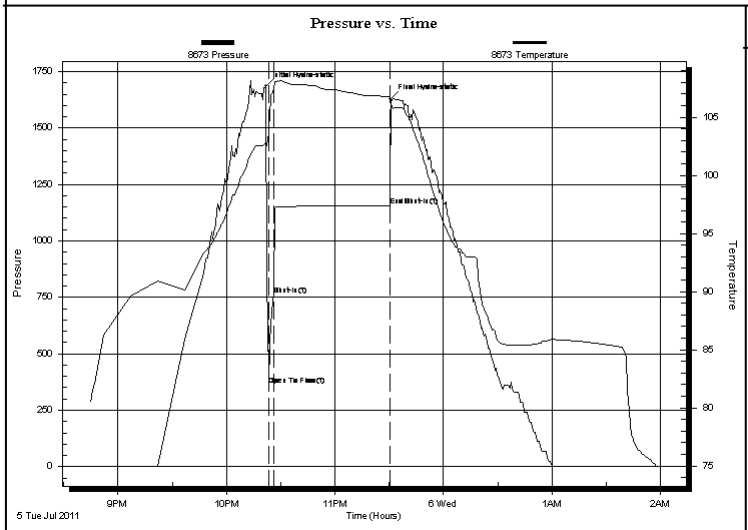
Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8673 **Inside**

Press@RunDepth: 762.67 psig @ 3464.00 ft (KB)
Start Date: 2011.07.05 End Date: 2011.07.06
Start Time: 20:44:55 End Time: 01:58:23

Capacity: 8000.00 psig
Last Calib.: 2011.07.06
Time On Btm: 2011.07.05 @ 22:21:53
Time Off Btm: 2011.07.05 @ 23:30:53

TEST COMMENT: IFP-Strong, BOB in 15 Seconds
ISI-Dead, Pull Tool at End of Period



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1684.74	102.72	Initial Hydro-static
2	361.41	104.24	Open To Flow (1)
5	762.67	107.48	Shut-In(1)
69	1153.90	106.81	End Shut-In(1)
69	1629.14	106.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
690.00	Muddy Water-90%W-10%M	9.68

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43535 **DST#: 3**

Test Start: 2011.07.05 @ 20:44:53

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:23:23
Time Test Ended: 01:58:23

Test Type: Conventional Straddle (Reset)
Tester: Jason McLemore
Unit No: 54

Interval: 3459.00 ft (KB) To 3499.00 ft (KB) (TVD)
Total Depth: 3644.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

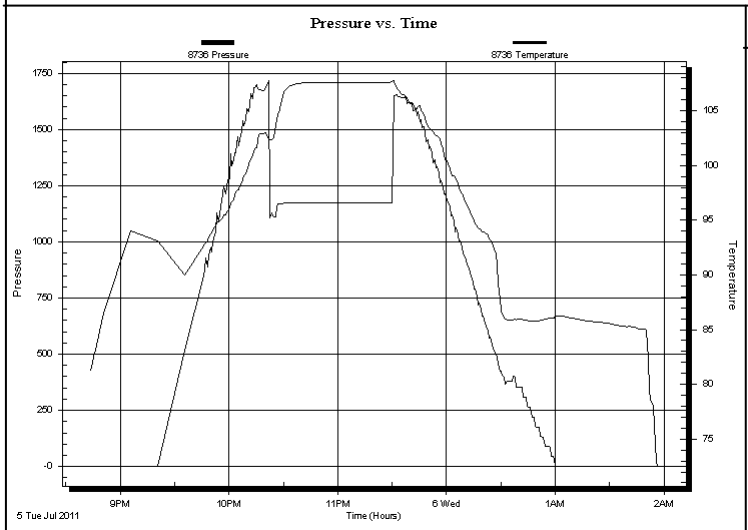
Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8736 **Below (Straddle)**

Press@RunDepth: psig @ 3500.00 ft (KB)
Start Date: 2011.07.05 End Date: 2011.07.06
Start Time: 20:43:40 End Time: 01:56:53

Capacity: 8000.00 psig
Last Calib.: 2011.07.06
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Strong, BOB in 15 Seconds
ISI-Dead, Pull Tool at End of Period



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
690.00	Muddy Water-90%W-10%M	9.68

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43535 **DST#: 3**

Test Start: 2011.07.05 @ 20:44:53

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:23:23
Time Test Ended: 01:58:23

Test Type: Conventional Straddle (Reset)
Tester: Jason McLemore
Unit No: 54

Interval: 3459.00 ft (KB) To 3499.00 ft (KB) (TVD)
Total Depth: 3644.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

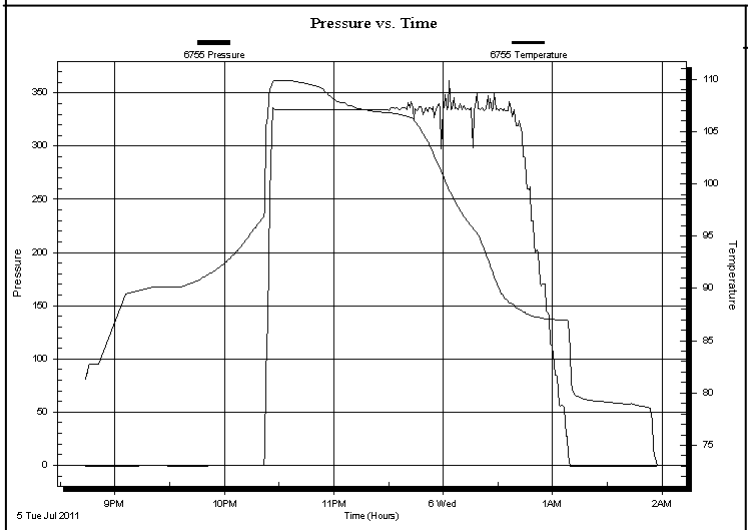
Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6755 **Fluid**

Press@RunDepth: psig @ 3425.00 ft (KB)
Start Date: 2011.07.05 End Date: 2011.07.06
Start Time: 20:44:01 End Time: 01:57:44

Capacity: 8000.00 psig
Last Calib.: 2011.07.06
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Strong, BOB in 15 Seconds
ISI-Dead, Pull Tool at End of Period



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
690.00	Muddy Water-90%W-10%M	9.68

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43535 **DST#: 3**

Test Start: 2011.07.05 @ 20:44:53

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	18500 ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.18 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5000.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
690.00	Muddy Water-90%W-10%M	9.679

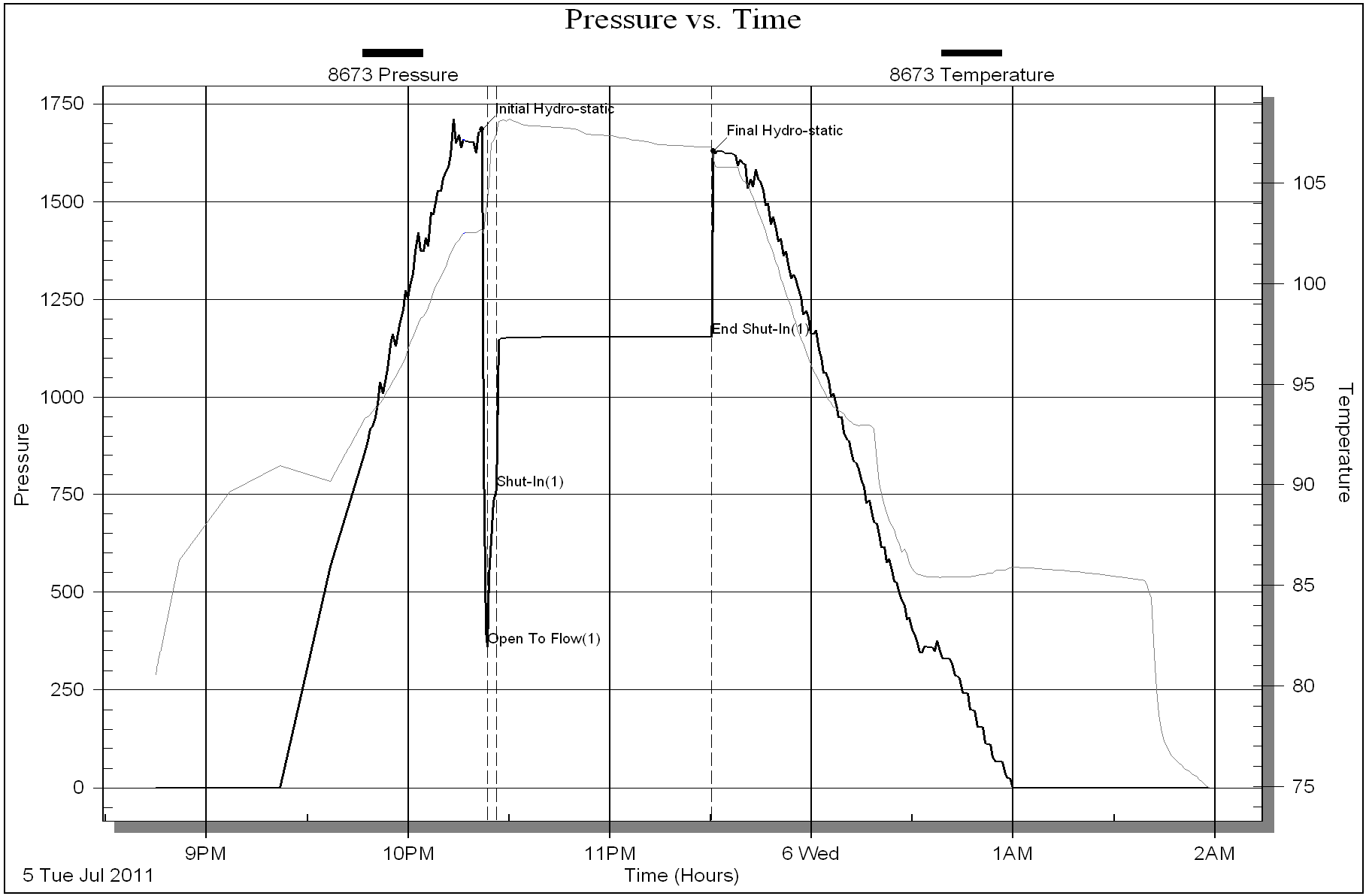
Total Length: 690.00 ft Total Volume: 9.679 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

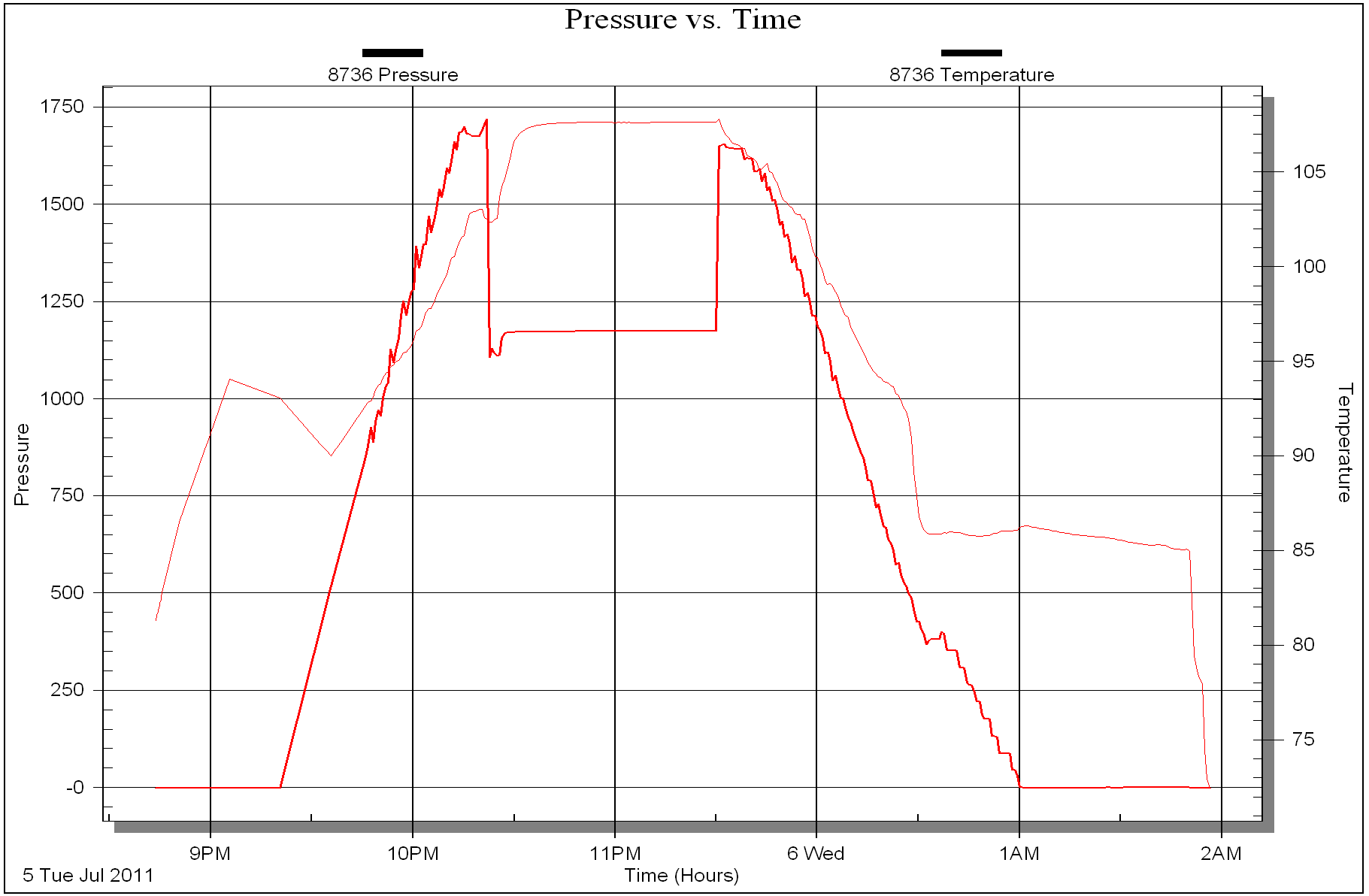
Laboratory Name: Laboratory Location:

Recovery Comments: Sampler 40#, 3000ml watery mud 99%W-1%M

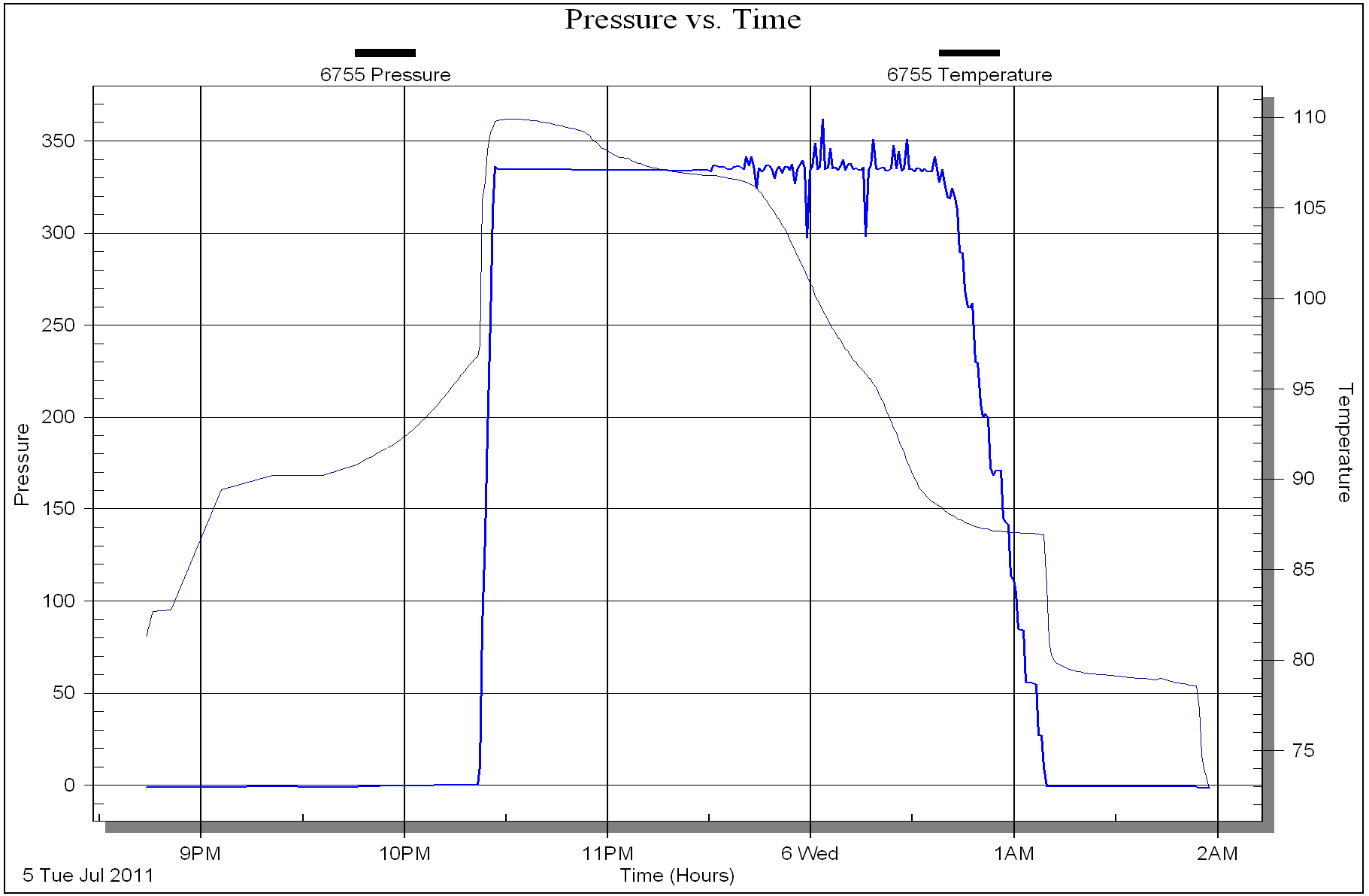
Serial #: 8673 **Inside** Sam Gary Jr and Associates 10-16s-16w-Rush DST Test Number: 3



Trilobite Testing, Inc Ref. No: 43535 Printed: 2011.07.06 @ 09:25:33


Pressure vs. Time
8736 Pressure
8736 Temperature
1750
1500
1250
1000
750
500
250
-0
Pressure
105
100
95
90
85
80
75
Temperature
9PM
10PM
11PM
6 Wed
1AM
2AM
5 Tue Jul 2011
Time (Hours)

Serial #: 6755 **Fluid** Sam Gary Jr and Associates 10-16s-16w-Rush DST Test Number: 3



Trilobite Testing, Inc Ref. No: 43535 Printed: 2011.07.06 @ 09:25:33

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43536 **DST#: 4**

Test Start: 2011.07.06 @ 02:48:30

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:38:45
Time Test Ended: 08:41:15

Test Type: Conventional Straddle (Reset)
Tester: Jason McLemore
Unit No: 54

Interval: 3459.00 ft (KB) To 3493.00 ft (KB) (TVD)
Total Depth: 3644.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

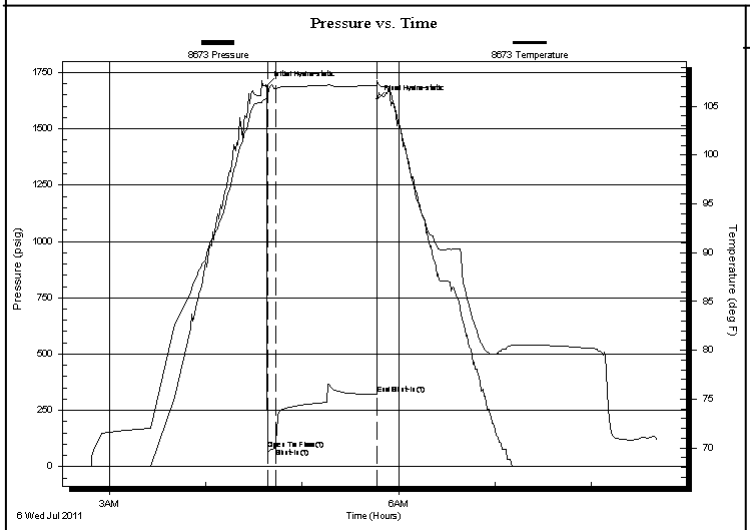
Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8673 **Inside**

Press@RunDepth: 81.65 psig @ 3464.00 ft (KB)
Start Date: 2011.07.06 End Date: 2011.07.06
Start Time: 02:48:32 End Time: 08:41:15

Capacity: 8000.00 psig
Last Calib.: 2011.07.06
Time On Btm: 2011.07.06 @ 04:37:45
Time Off Btm: 2011.07.06 @ 05:46:45

TEST COMMENT: IFP-Strong,BOB in 30 Seconds
ISI-Dead,Pull Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1689.57	105.76	Initial Hydro-static
1	75.39	106.11	Open To Flow (1)
6	81.65	106.82	Shut-In(1)
69	323.74	107.11	End Shut-In(1)
69	1629.95	107.65	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	Mud W/Oil Specks	1.75

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43536 **DST#: 4**

Test Start: 2011.07.06 @ 02:48:30

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:38:45
Time Test Ended: 08:41:15

Test Type: Conventional Straddle (Reset)
Tester: Jason McLemore
Unit No: 54

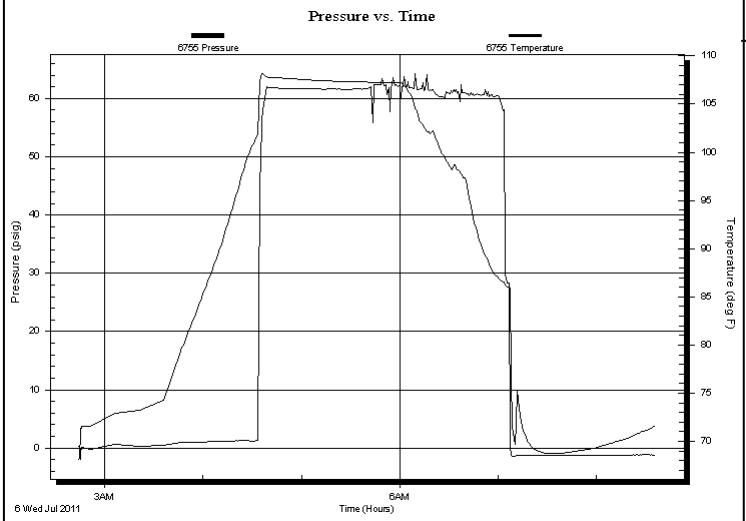
Interval: 3459.00 ft (KB) To 3493.00 ft (KB) (TVD)
Total Depth: 3644.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6755 **Fluid**
Press@RunDepth: psig @ 3425.00 ft (KB)
Start Date: 2011.07.06 End Date: 2011.07.06
Start Time: 02:44:06 End Time: 08:36:19

Capacity: 8000.00 psig
Last Calib.: 2011.07.06
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Strong,BOB in 30 Seconds
ISI-Dead,Pull Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
125.00	Mud W/Oil Specks	1.75

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43536 **DST#: 4**

Test Start: 2011.07.06 @ 02:48:30

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:38:45
Time Test Ended: 08:41:15

Test Type: Conventional Straddle (Reset)
Tester: Jason McLemore
Unit No: 54

Interval: 3459.00 ft (KB) To 3493.00 ft (KB) (TVD)
Total Depth: 3644.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

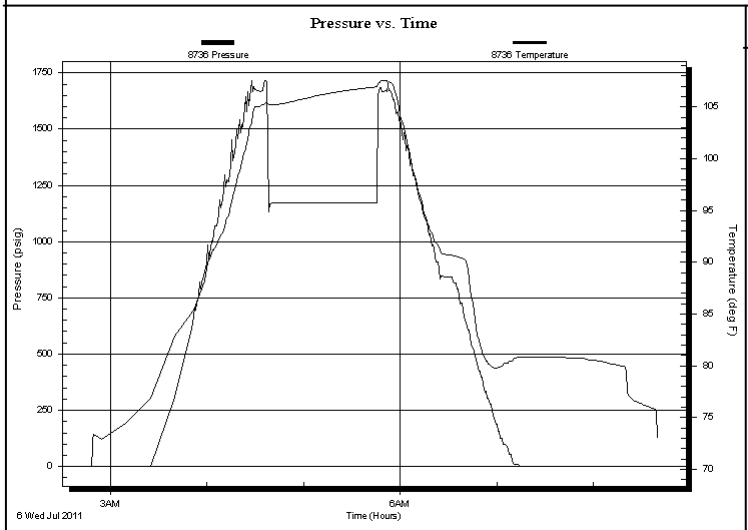
Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8736 **Below (Straddle)**

Press@RunDepth: psig @ 3514.00 ft (KB)
Start Date: 2011.07.06 End Date: 2011.07.06
Start Time: 02:47:56 End Time: 08:39:54

Capacity: 8000.00 psig
Last Calib.: 2011.07.06
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Strong,BOB in 30 Seconds
ISI-Dead,Pull Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
125.00	Mud W/Oil Specks	1.75

* Recovery from multiple tests

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43536 **DST#: 4**

Test Start: 2011.07.06 @ 02:48:30

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.97 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	Mud W/Oil Specks	1.753

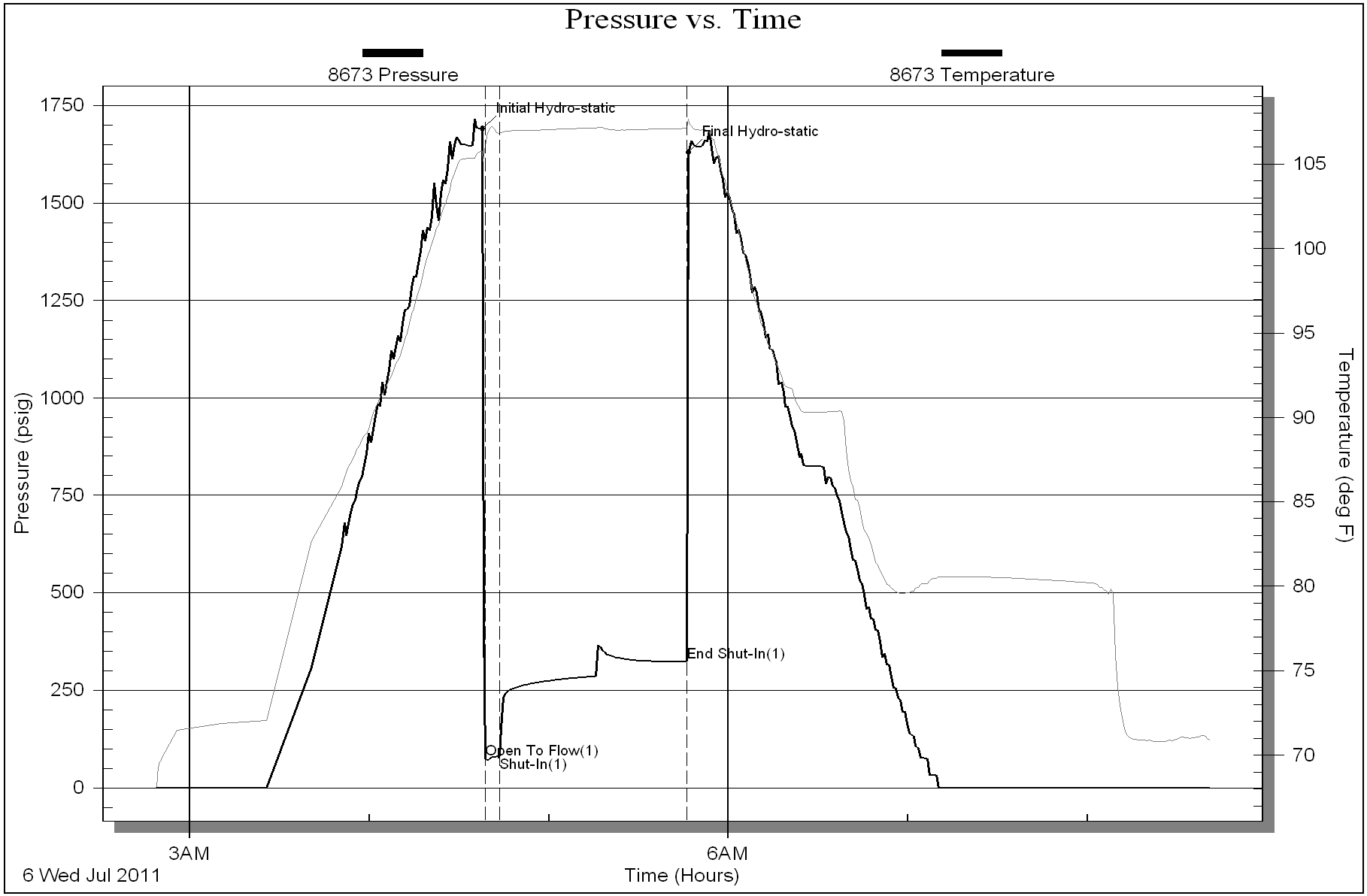
Total Length: 125.00 ft Total Volume: 1.753 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

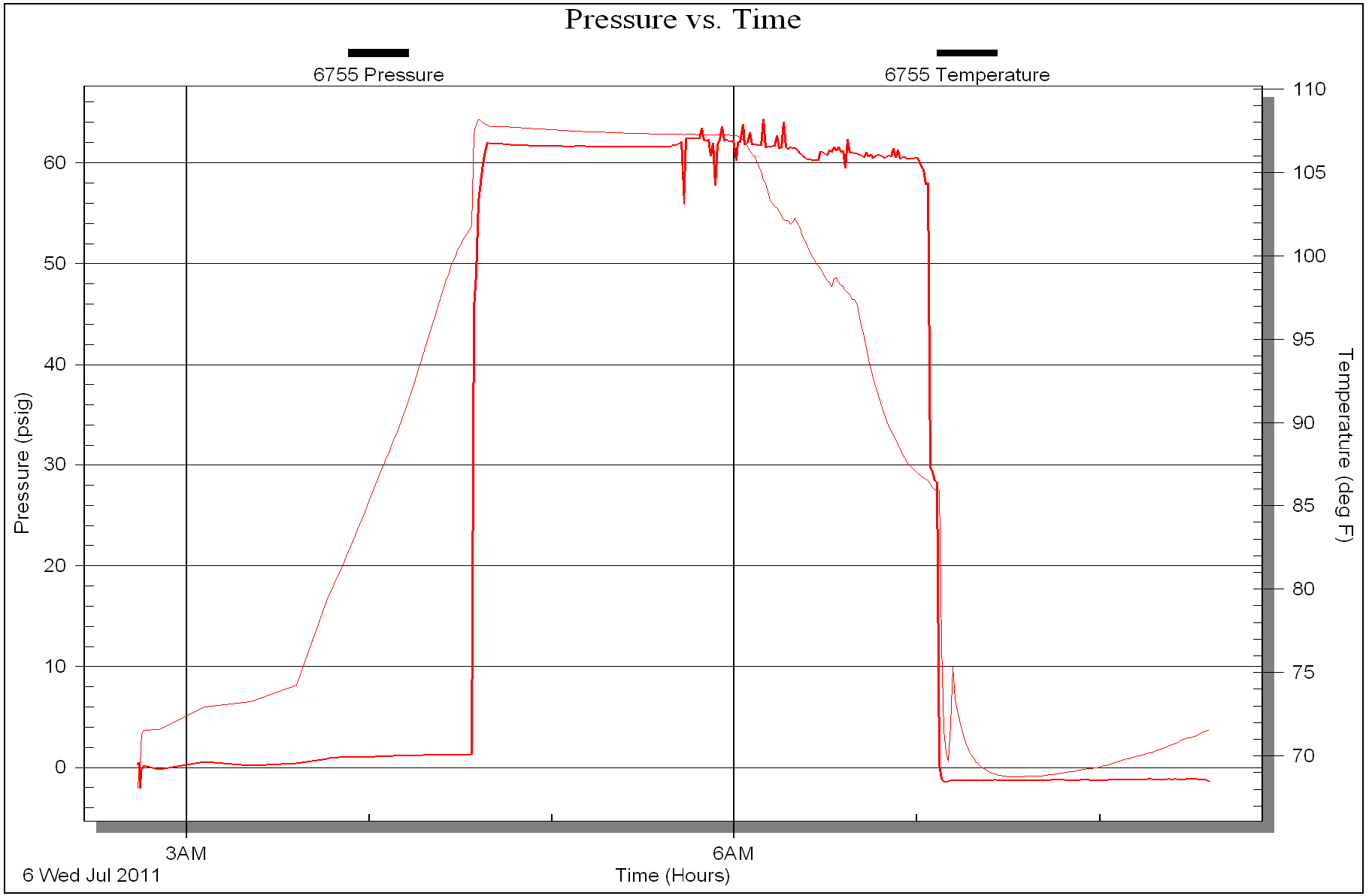
Recovery Comments: Sampler: 30#, 3000ml OCWM-20%O-5%W-75%M

Serial #: 8673 **Inside** Sam Gary Jr and Associates 10-16s-16w-Rush DST Test Number: 4



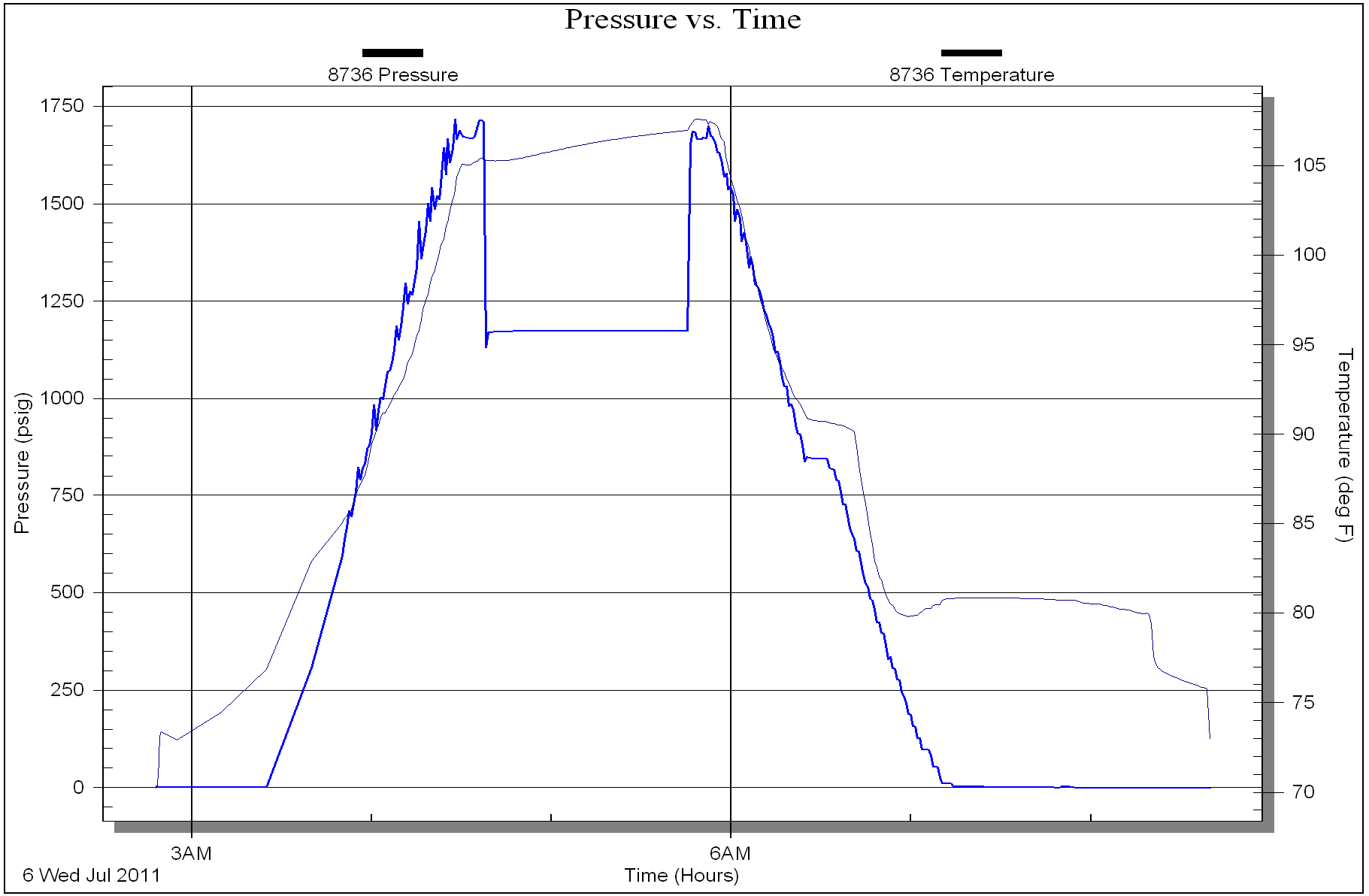
Trilobite Testing, Inc Ref. No: 43536 Printed: 2011.07.06 @ 09:22:37

Serial #: 6755 **Fluid** Sam Gary Jr and Associates 10-16s-16w-Rush DST Test Number: 4



Trilobite Testing, Inc Ref. No: 43536 Printed: 2011.07.06 @ 09:22:37

Serial #: 8736 **Below (Straddle)** Gary Jr and Associates 10-16s-16w-Rush DST Test Number: 4



Trilobite Testing, Inc Ref. No: 43536 Printed: 2011.07.06 @ 09:22:38

DRILL STEM TEST REPORT

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43537 **DST#: 5**

Test Start: 2011.07.06 @ 15:39:09

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:16:39
Time Test Ended: 20:45:54

Test Type: Conventional Straddle
Tester: Jason McLemore
Unit No: 54

Interval: 3445.00 ft (KB) To 3539.00 ft (KB) (TVD)
Total Depth: 3644.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

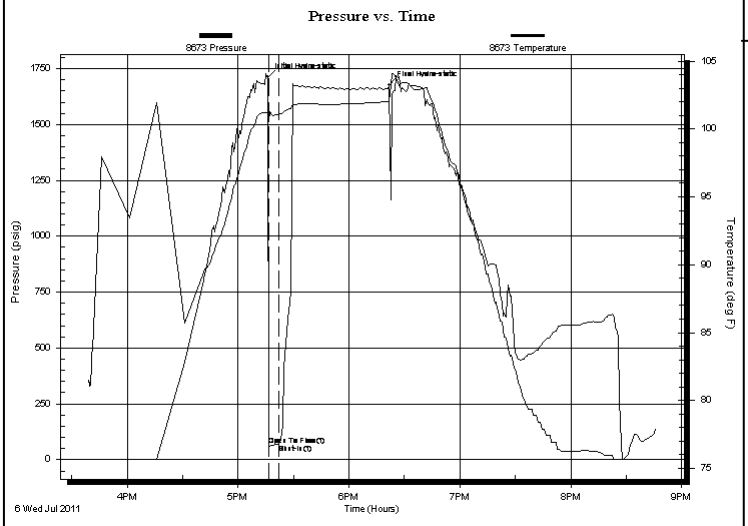
Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8673 **Inside**

Press@RunDepth: psig @ 3515.00 ft (KB)
Start Date: 2011.07.06 End Date: 2011.07.06
Start Time: 15:39:11 End Time: 20:45:54

Capacity: 8000.00 psig
Last Calib.: 2011.07.06
Time On Btm: 2011.07.06 @ 17:16:09
Time Off Btm: 2011.07.06 @ 18:21:54

TEST COMMENT: IFP-Weak Blow ,Built to 4"
ISI-Dead
FFP-Packer Failure, Pull Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1710.46	101.24	Initial Hydro-static
1	62.90	100.53	Open To Flow (1)
6	68.86	101.08	Shut-In(1)
66	1676.13	102.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
375.00	Mud W/Oil Scum	5.26

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43537 **DST#: 5**

Test Start: 2011.07.06 @ 15:39:09

GENERAL INFORMATION:

Formation: **Marmaton**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:16:39
Time Test Ended: 20:45:54

Test Type: Conventional Straddle
Tester: Jason McLemore
Unit No: 54

Interval: 3445.00 ft (KB) To 3539.00 ft (KB) (TVD)
Total Depth: 3644.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Good

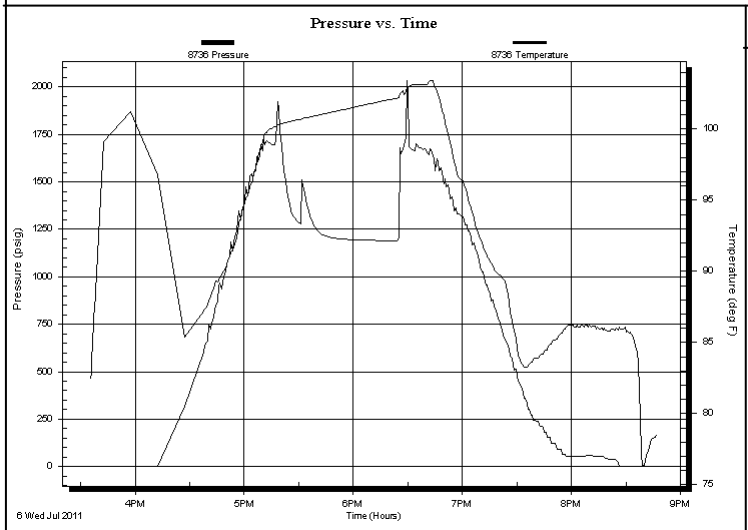
Reference Elevations: 1953.00 ft (KB)
1943.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8736 **Below (Straddle)**

Press@RunDepth: psig @ 3546.00 ft (KB)
Start Date: 2011.07.06 End Date: 2011.07.06
Start Time: 15:35:30 End Time: 20:47:28

Capacity: 8000.00 psig
Last Calib.: 2011.07.06
Time On Btm:
Time Off Btm:

TEST COMMENT: IFP-Weak Blow ,Built to 4"
ISI-Dead
FFP-Packer Failure, Pull Tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
375.00	Mud W/Oil Scum	5.26

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

FLUID SUMMARY

Sam Gary Jr and Associates

1515 Wynkoop Street
Suite 700
Denver, CO. 80202
ATTN: Neil Sharp

Legleiter et al 1-10

10-16s-16w-Rush

Job Ticket: 43537 **DST#: 5**

Test Start: 2011.07.06 @ 15:39:09

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.97 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

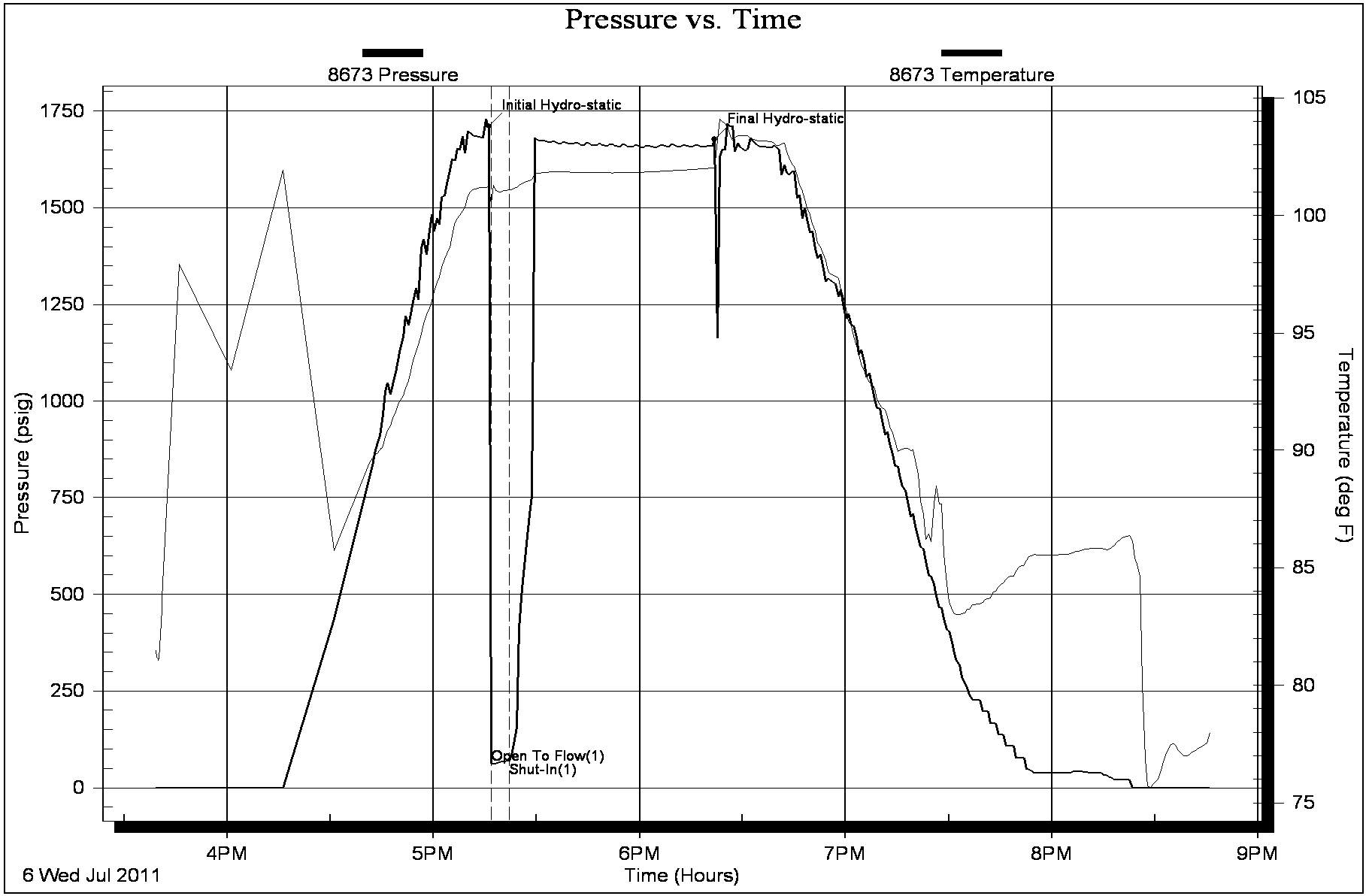
Recovery Information

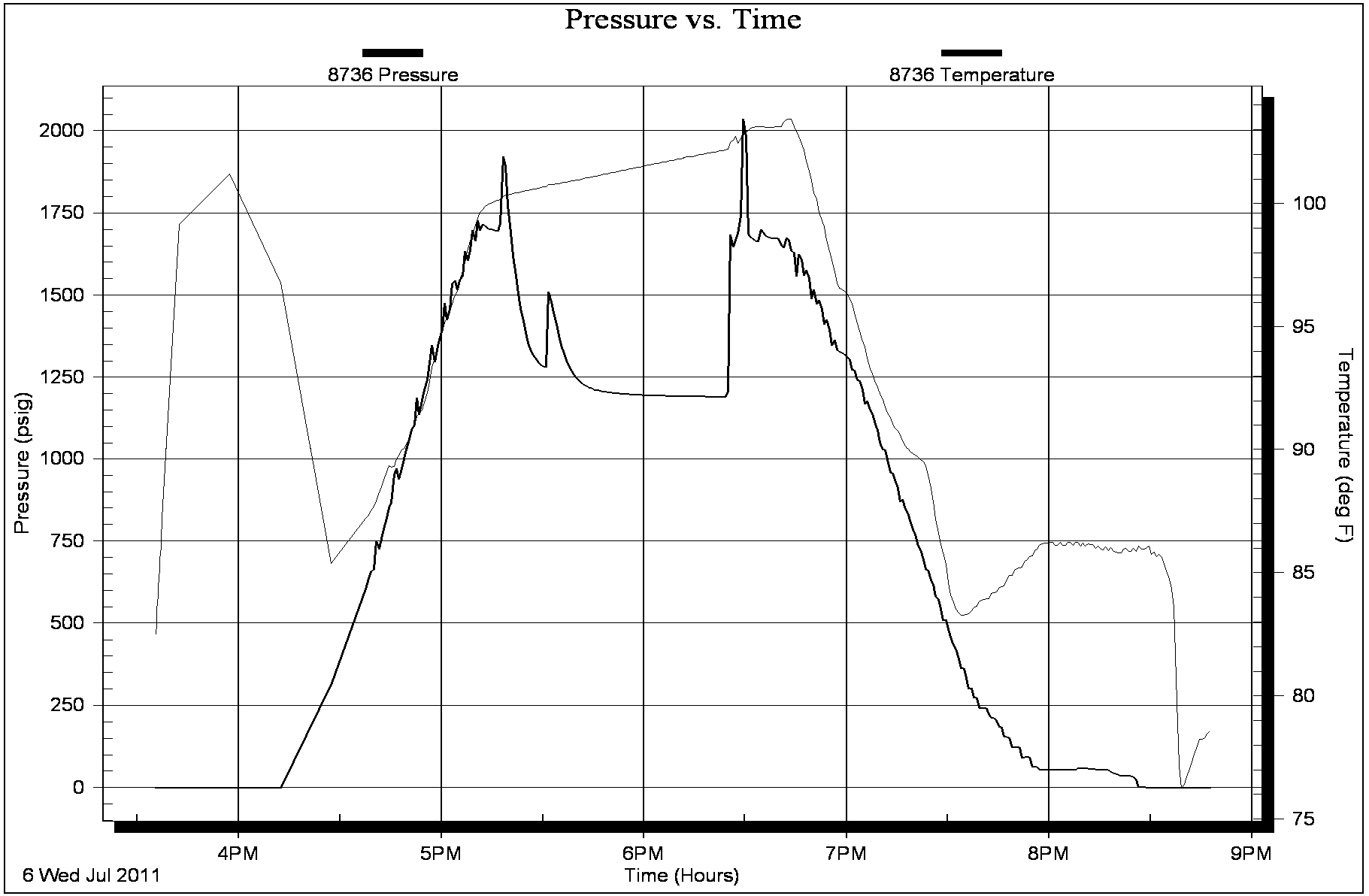
Recovery Table

Length ft	Description	Volume bbl
375.00	Mud W/Oil Scum	5.260

Total Length: 375.00 ft Total Volume: 5.260 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: Sampler: 10#, 3000ml Mud


Pressure vs. Time
8673 Pressure
8673 Temperature
Initial Hydro-static
Final Hydro-static
Open To Flow(1)
Shut-In(1)
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
105
100
95
90
85
80
75
4PM
5PM
6PM
7PM
8PM
9PM
6 Wed Jul 2011
Time (Hours)


Pressure vs. Time
8736 Pressure
8736 Temperature
Pressure (psig)
2000
1750
1500
1250
1000
750
500
250
0
Temperature (deg F)
100
95
90
85
80
75
4PM
5PM
6PM
7PM
8PM
9PM
Time (Hours)
6 Wed Jul 2011

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

Well Name:	Legleiter et al #1-10		
Location:	Sec. 10 16S 16W Rush County Kansas		
License Number:	15-165-21926-0000	Region:	Wildcat
Spud Date:	6/29/11	Drilling Completed:	7/04/2011
Surface Coordinates:	260' from South line/2300' from West line		
Bottom Hole Coordinates:			
Ground Elevation (ft):	1943'	K.B. Elevation (ft):	1953'
Logged Interval (ft):	1700' To: 3650'	Total Depth (ft):	3650'
Formation:	Lansing, Arbuckle		
Type of Drilling Fluid:			

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Samuel Gary, Jr & Assoc.
Address: 1515Wynkoop,Suite 700
Denver, Co 80202
Company Geo. Neil Sharp

GEOLOGIST

Name: Tim Hedrick
Company: Earth Tech, OGL, Inc
Address: P.O. Box 683
Hooker, Okla. 73945
Off: 888-543-8378 Cell: 620-482-0035

DST'S

DST#1 3285 TO 3330' 10 60 30 90
IF- WK SRFC BLOW/ ISI- NB/ FF- WK SRFC BLO DIED IN 1 MIN./ FSI- NB
IH- 1608, FH- 1618/ IF-16 TO 21, FF- 21 TO 24/ ISI-1033, FSI-1000.
RECOV.- 11' MUD W/ SCUM OIL, BHT 106 DEG., CHL 4,000
SAMPLER- 45#, 2000 ML M. W/ SCUM OIL

DST#2 3445 TO 3496' 10 60 40 120
IF- BOB I MIN./ ISI-BLT TO 4"/FF- BOB IN 8 MIN./FSI-BLT TO 3/4", DIED IN 45MIN.
IF- 1762, FH- 1650/ IF- 127 TO 139, FF-157 TO 184/ ISI-278, FSI- 227/
RECOV.- 375' TF, 315' FREE OIL 10% G, 90% O./ 60' OCM, 75% 0., 25% M.,BHT 108 DEG @ 32GR./ CHL 4,000
SAMPLER 100#, 3000 ML GASSY OIL 15% G., 85% O.

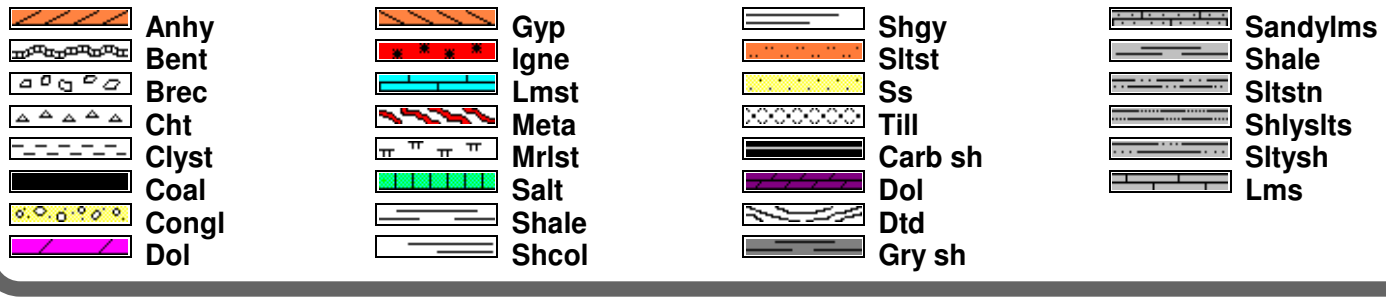
DST's Report

DST#3 STRADDLE- 3459-3499 5 60 PULL TOOL
IF- BOB 15 SEC/ ISI NB/ FF- PULL TOOL
IH- 1684, FH- 1629/ IF-361 TO 763/ ISI- 1154
RECOV- 690' MUDDY WATER,
SAMPLER-40#, 3000 ML MSW
BHT 107 DEG./ CHL 18,500, PIT CHL. 5,000

DST#4 STRADDLE 3459- 3493'- 5 60 PULL TOOL
IF- BOB IN 30 SEC/ ISI- NB / PULL TOOL
IH- 1689, FH- 1630/ IF- 75 TO 82/ ISI 324
RECOV.- 125' TF 100% M W/ OIL SPCKS
SAMPLER- 30#, 3000 ML OCMW, 20% O., 5% W.,75% M.
BHT 107 DEG,/ NO CHLORIDES NOTED

DST#5 STRADDLE 3445'-3539' 0,1,60,66
IF- WEAK BLOW, BUILT TO 4", FF- DEAD
FF- PACKER FAILURE, PULL TOOL
IH- 1710.46, OPEN TO FLOW- 62.90, SHUT-IN- 68.86, FH- 1676.13

ROCK TYPES



ACCESSORIES

MINERAL
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Slty

FOSSIL
- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

STRINGER
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh
- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE
- BS Boundst
- C Chalky
- CX Cryxln
- E Earthy
- FX Finexln
- GS Grainst
- L Lithogr
- MX Microxln
- MS Mudst
- PS Packst
- WS Wackest

OTHER SYMBOLS

POROSITY TYPE
- E Earthy
- Fenest
- F Fracture
- Inter
- Moldic
- Organic
- P Pinpoint
- V Vuggy

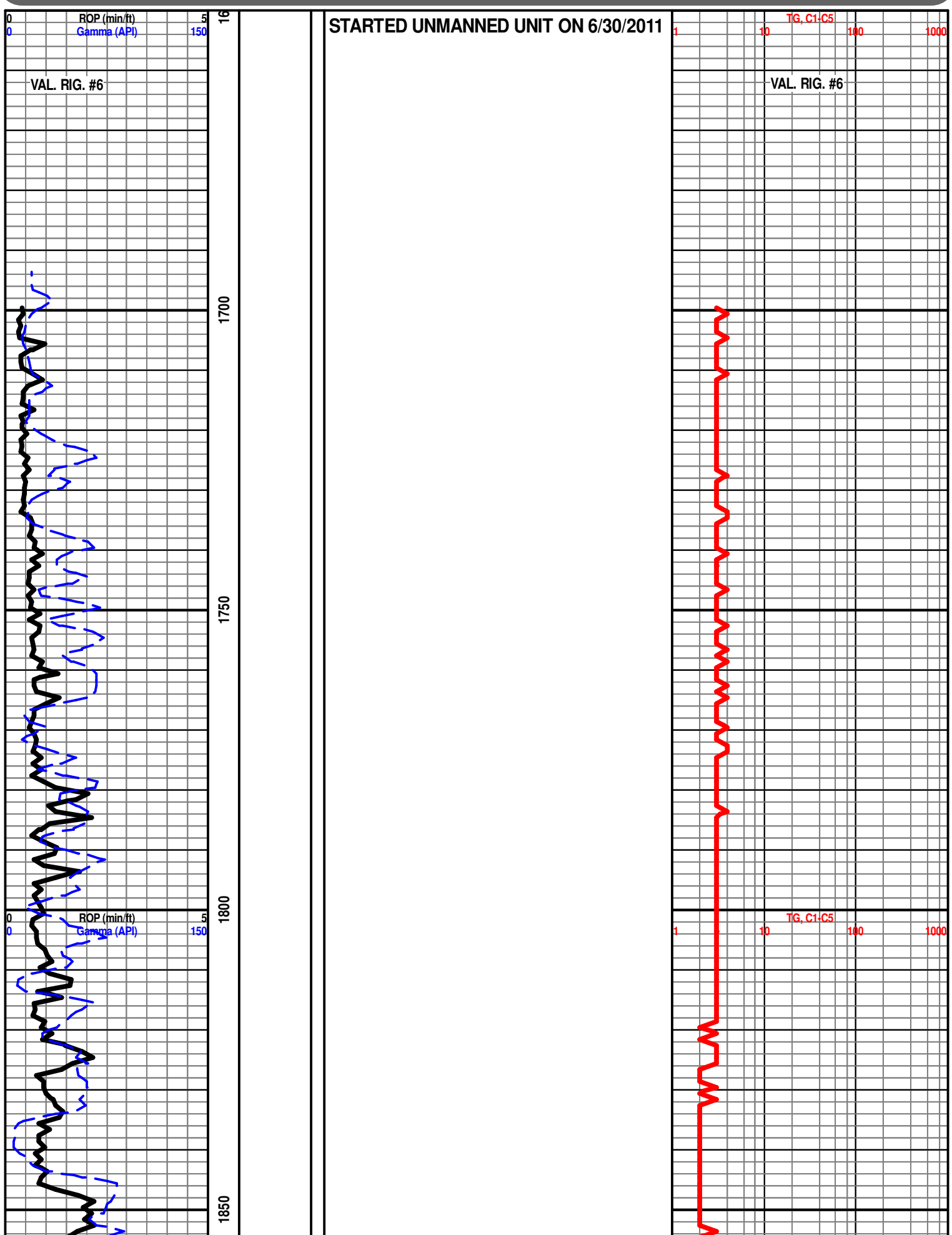
SORTING
- W Well
- M Moderate
- P Poor

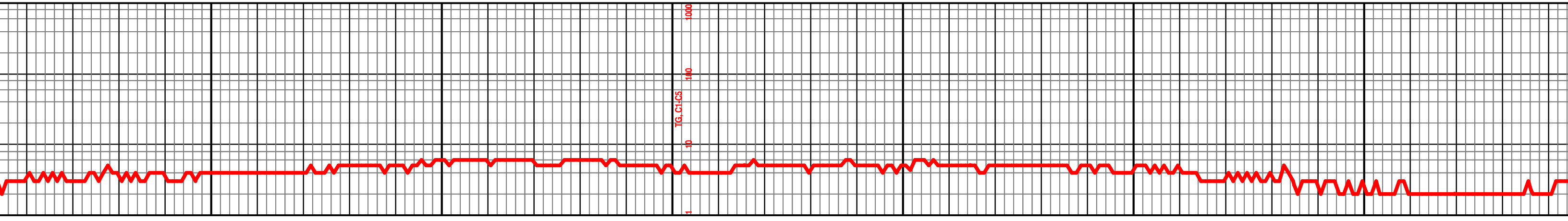
ROUNDING
- R Rounded
- r Subrnd
- a Subang
- A Angular

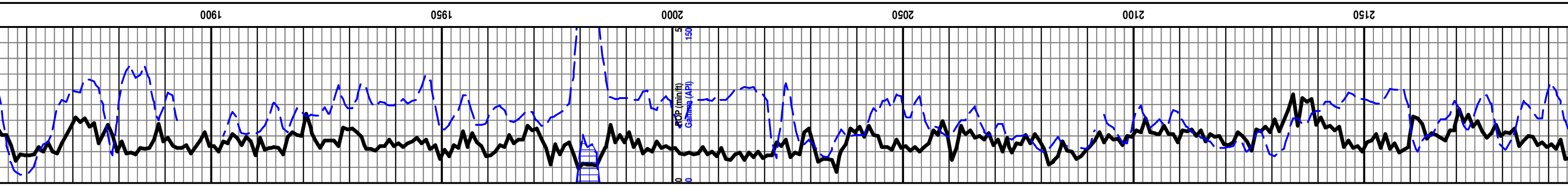
OIL SHOWS
- Even
- Spotted
- Ques
- D Dead
- Gas show

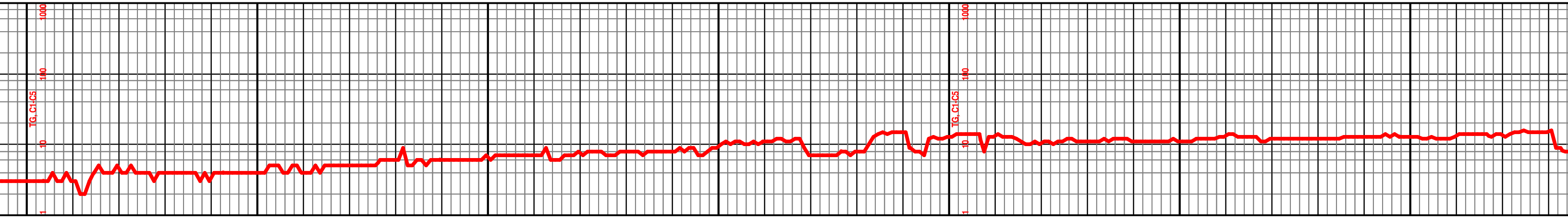
INTERVALS
- Core
- Dst
- Dst

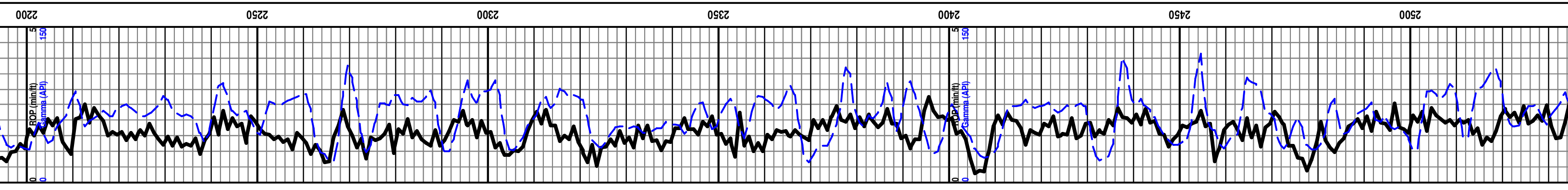
EVENTS
- Rft
- Sidewall

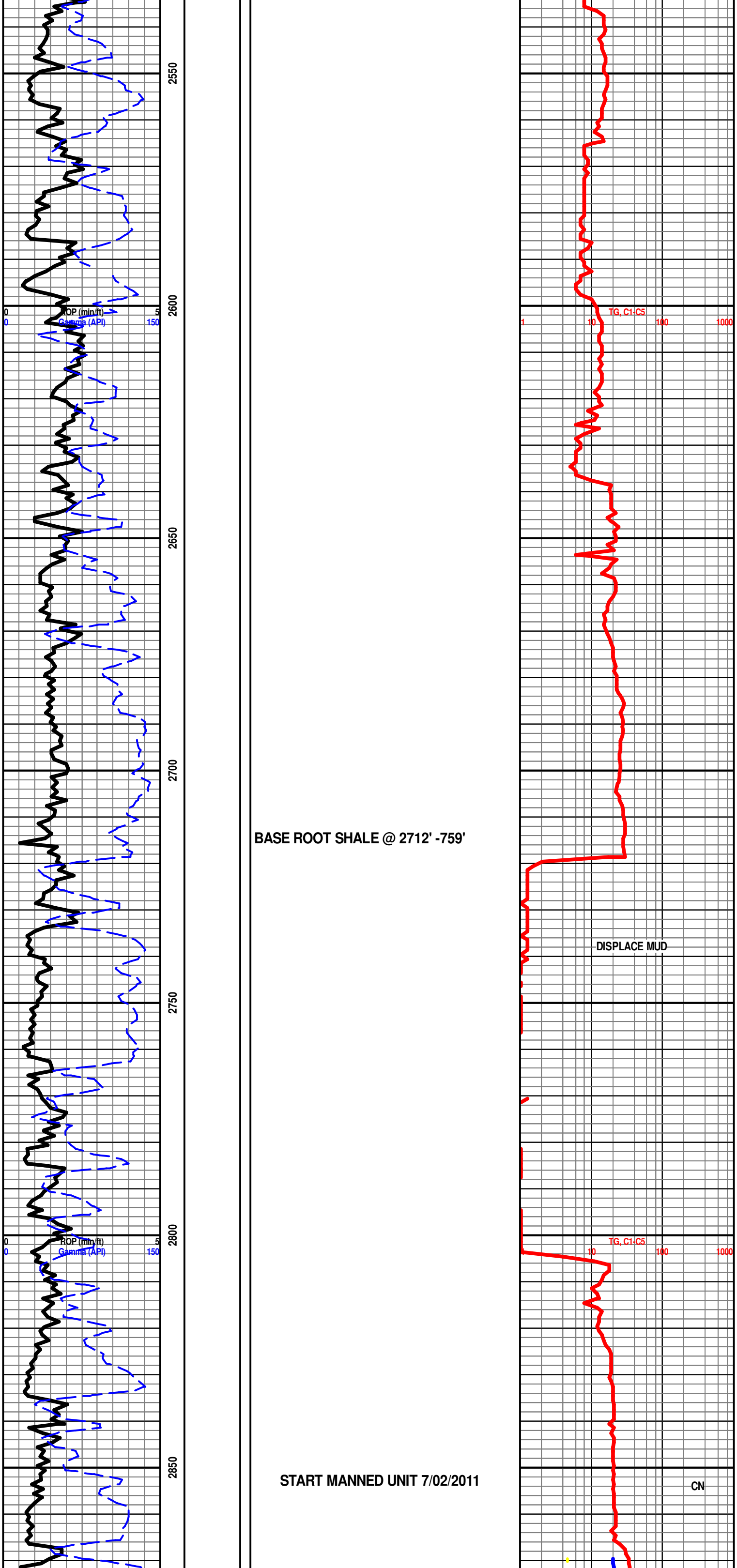



TG, C1-C5
1000
100
10
1


1900
1950
2000
2050
2100
2150
ROP (min/ft)
Gamma (API)
5
0
150
0


TG, C1-C5
1000
100
10
1
TG, C1-C5
1000
100
10
1


2200
2250
2300
2350
2400
2450
2500
ROP (min/ft)
Gamma (API)
5
150
0
0
ROP (min/ft)
Gamma (API)
5
150
0
0


2550
2600
2650
2700
2750
2800
2850
0
ROP (min/ft)
5
0
Gamma (API)
150
TG, C1-C5
1
10
100
1000
BASE ROOT SHALE @ 2712' -759'
DISPLACE MUD
START MANNED UNIT 7/02/2011
CN

WOB- 38
RPM- 80
PP- 725
SPM- 52
WT- 8.9
VIS- 41

SH- GRY TO DK GRY, FRM, SMTH BLKY

HOWARD 2896' -943'

LS- CRM BUFF LT TN TO TN, HD DNS BRITT, FN TO MD XLN, REXLN MTRX SCAT THRU, SLI TR SUCRO TXT SCAT IP, V/SLI TR SFT WHT CHLK IP, SLI TR IMBD FOSS FRAGS IP, IMBD CALC XLS SCAT THRU, TR IMBD GRY SH IP, DLL YEL MIN FLO IN 20%, NO VIS POR, NO VIS SHOW

SH- GRY TO DK GRY, FRM, SMTH BLKY

LS- CRM LT TN TO TN, HD DNS TO BRITT, MD XLN TO REXLN MTRX IP, IMBD CALC XLS IP, IMBD GRY SH SCAT IP, NO VIS FLO, NO VIS POR, NO VIS SHOW

SEVERY 2946' -993'

SH- GRY TO DK GRY, FRM TO TR SFT, BLKY

TOPEKA 2959' -1006'

LS- CRM LT TN TO TN, STAIN IN 45%, HD DNS TO BRITT, FN TO MD XLN, REXLN MTRX, SUCRO TXT SCAT IP, IMBD CALC XLS THRU, IMBD FOSS FRAGS IP, DLL TO BRITT YEL FLO IN 25%, FR MICRO PP TO TR FR INTR-XLN POR, GD FLUSH CUT THRU TO GD STRONG MLKY BLUE STREAM IN 15%, FR TO PR OIL ODOR

LS- CRM LT TN LT GY- SLI MOTT, HD DNS TO TR BRITT, MD-XLN TO V/ TT S-SUCRO MTRX IP. TR IMBD SH IP, NO FLO, NO VIS POR, NO VIS SHOW

0 ROP (min/ft) 5
0 Gamma (API) 150

LS- OFF WHT CRM BFF- HD DNS TO BRITT, MD-XLN RE-XLN MTRX FOSS FRGS IP, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

LS- LT TN LT GY GY- HD DNS TO BRITT, MOTT, V/ CRS SUCRO MTRX, TR FOSS FRGS IP, NO FLO TO TR BRIT YEL GLD FLO IP, PR VIS MICRO PP TO TR MICROVUG POR IP, WK FLSH CUT TO WK SLO STRM CUT IN ONE ROCK

WOB- 38
RPM- 80
PP- 725
SPM- 52
WT- 8.9
VIS- 46

LS- CRM LT TN LT GY - HD DNS F-XLN TO V/F-XLN , W/ HVY TR ABDT SMLL CALC XLS ON ONE FACES OF ROCK, HVY TR IMBD SH IP, NO FLO, NO VIS POR, NO VIS SHOW

LeCOMPTON 3063' - 1110'

LS- CRM LT TN TN- HD DNS TO BRITT, MD-F-XLN RE-XLN MTRX, FOSS FRGS THRU, NO FLO, NO VIS POR, NO VIS SHOW

LS- CRM LT TN TN LT GY- HD DNS TO BRITT, MD-F-XLN RE-XLN MTRX, V/ FOSS , V/ ARG TO SHLY IP, NO FLO, NO VIS POR, NO VIS SHOW

SH- LT GY TO LT BRN- FRM BLKY IP TO BRN SFT CARB

LS- CRM LT TN LT GU IP, HD BRITT, MD-XLN RE-XLN MTRX, FOSS FRGS IP, SMLL CALC XLS IMBD IP, LT YEL MIN FLO IP TO NO FLO , NO VIS POR, NO VIS SHOW

LS- OFF WHT CRM, MD HD TO SFT, V/ SUCRO S-CHLKY MTRX, TO V/ CHLKY IP, TR FOSS FRGS IP, NO FLO, NO VIS POR, NO VIS SHOW

LS- CRM LT TN TN- HD DNS BRITT, MD-F-XLN RE-XLN MTRX, V/ FOSS IP, SMLL CALC XLS IMBD THRU, NO FLO TO TR LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

NOTE: @3150- SAMPLES 30% UPHOLE CAVINGS

NOTE: @3150- SAMPLES 30% UPHOLE CAVINGS

LS- OFF WHT CRM- HD DNS TO BRITT IP, F-XLN IP TO SLI SUCRO IP

SAMPLES @3190 50% UPHOLE CAVINGS

WT 9.0
VIS 60

HEEBNER 3183' - 1230'

SAMPLES @3190 50% UPHOLE CAVINGS

SH- LT GRY TO LT GRN- FRM BLKY SMTH TXT, ABDT UPHOLE RED SH

CTCH@3198'

0 ROP (min/ft) 5
0 Gamma (API) 150

LS- OFF WHT WHT- HD BRITT, V/ SUCRO MTRX TO MD-XLN IP, ABDT IMBD SMLL QURTZ GRNS , TR FOSS FRGS , HVY TR IMBD SFT WHT CHLK, TR TN CHRT, LT BRIT YEL MIN FLO IP, NO VIS POR, NO VIS CUT OR

2900
2950
3000
3050
3100
3150
3200

C1 C2 CN 30 UN BG
C2 CN 40 UN
CN BASE LINE CHECKED
30 UN BG CN
C2 C3 C1 99 UN C4 CN
TG, C1-C5 1 10 100 1000
CN 70 U. BG
CN C1 C3 C2 80 U. BG
CN 64 U. BG
C1 C2 C3 CN 80 U. BG
CN 85 U. SH GAS
C1 C2 C3 CN 95 U. BG
CN 156 U SH GAS
C1 C3 C2 TT CON @ 3198' CN
TG, C1-C5 1 10 100 1000

SHOW

DOUGLAS 3219' - 1266'

SH- LT GRY TO GRN- FRM BLKY IP TO V/ SFT SLI SLTY IP

LANSING 3239' - 1286'

LS- OFF WHT TO CRM BFF- HD TO MD HD, V/ TT SUCRO MTRX TO F-XLN IP, SLI TR CALC XLS IP, SLI TR WHT CHLK, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

LS- CRM LT TN TN-(TN STN IN POR 60%) HD V/ BRITT, MD-F-XLN RE-XLN MTRX, SMLL OOL SCAT THRU, IMBD FOSS FRGS THRU, HVY TR SFT WHT CHLK IP, BRIT YEL GLD FLO, FR TO GD VIS INTER-FOSS AND INTER-XLN POR IN 60%, V/ GD FLSH CUT TO V/ GD SLO STRM MLKY BLU CUT, GD OIL ODOR

3290-3292- LS- LT TN TN (TN STN IN POR) HD DNS TO BRITT, MD-F-XLN RE-XLN MTRX, FOSS FRGS SCAT THRU,SMLL CALC XLS IMBD IP, LT BRIT YEL GLD FLO THRU, V/ PR VIS MICROVUG POR IP, FR VIS FLSH TO FR SLO STRM CUT, FR OIL ODOR

SH- LT GRN , V/ SFT SLTY

LS- LT TN TN-HD DNS (LT TN STN IP) F-V/F-XLN RE-XLN, V/FOSS , V/ SMLL IMBD OOL, BRIT YEL GLD SPTTD FLO IP, WK FLSH CUT , PR SLO STRM CUT, GD OIL ODOR, NO LCH ON DISH

3221- 3224' LS- LT TN TN (OIL STN IN 70%) HD DNS TO V/ BRITT, MD-F-XLN F-XLN IP V/ RE-XLN MTRX, TR IMBD FOSS FRGS , TR IMBD SCAT MICRO OOL, BRIT YEL GLD FLO IN 70% DLL YEL GLD IN 10%, FR TO GD VIS SCAT MICRO VUG POR , FR TO GD SCAT INTER-XLN POR , SMALL CALC XLS IN POR. EXCEL FLSH TO V/ GD STRNG SLO STRM CUT, STRNG OIL ODOR , TN LCH ON DISH

LS- CRM BFF- HD DNS F-V/F-XLN RE-XLN IP, FOSS FRGS IMBD THRU, TR TN BRN CHRT, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

3353 -3355 LS- LT TN TN(ONE ROCK 100% STN) HD V/ BRITT, V/ SUCRO MTRX, ABDT IMBD SMLL CALC XLS THRU, TR PHNTM FOSS FRGS IP, BRIT YEL GLD FLO THRU, PR TO FR VIS INTER-XLN PP POR,SCAT PR TO FR MICROVUG POR, NO FLSH TO FR SLO STRM CUT, FR OIL ODOR

SH- LT GY TO V/ LT GRN, FRM IP TO V/ SFT GMMY TXT IP

LANSING "H" 3374' - 1421'

LS- OFF WHT WHT- MD HD TO SFT, V/ SUCRO S-CHLKY MTRX TR FOSS FRGS IMBD THRU , HVY TR ABDT SFT WHT CHLK, NO FLO, NO VIS POR, NO VIS SHOW

SH- BLK SFT CARB

3396 LS- OFF WHT CRM LT TN (LT TN STN IP SCAT) HD DNS MD-F-XLN RE-XLN MTRX, V / FOSS IP, TR SMLL CALC XLS IMBD IP, LT BRIT YEL GLD FLO IN 20%, BRIT YEL MIN FLO IN 50%, NO VIS POR TO TR SCAT V/ PR INTER-XLN POR IP, FR FLSH CUT TO FR SLO STRM CUT IN 20%, NO ODOR , NO LCH

LS- OFF WHT CRM BFF- MD HS , V/ SUCRO S-CHLKY MTRX, TR FOSS IP GRNG TO ABDT SFT WHT CHLK, LT BRIT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW

LS- OFF WHT CRM BFF- HD DNS TO BRITT, MD-XLN TO F-XLN, SLI RE-XLN IP, HVY TR SFT WHT CHLKIP, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

LS- CRM LT TN TN- HD DNS TO BRITT, F-XLN RE-XLN MTRX, TR FOSS FRGS IP , TR IMBD CALC XLS IP, HVY TR ABDT SFT WHT CHK IP, NO FLO, NO VIS POR, NO VIS SHOW

LS- OFF WHT CRM- MD HD TO SFT IP, V/ SUCRO S-CHLKY TO CHLKY MTRX, NO FLO, NO VIS POR, NO VIS SHOW

SH- DK GY DK GRN- FRM BLKY SMTH TXT TO GRNYIP

BKC 3457' - 1504'

SH- RED DK GY- FRM BLKYIP TO V/ SFT GMMY TXT

3475-3480 LS- CRM LT TN TN- HD DNS MD-F-XLN SLI RE-XLN IP, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

3479- 3484' LS- TN BRN DK BRN (BRN OIL STN IN 80%) HS V/ BRITT, F-XLN MD-XLN RE-XLN MTRX, ABDT IMBD SMLL CALC XLS CLSTRS IP TO TR MD CALC XLS IMBD, TR FOSS IP, TR DOS ON SME CALC XLS, BRIT YEL GLD FLO IN 80%, GD TO V/ GD SCT VIS MICRO VUG TO VUG POR THRU, GD VIS INTER-XLN POR IP , EXCEL INST FLSH CUT TO EXCEL SLO STRM MLKY BLUE CUT, DK TN LCH ON DISH, V/ LT OIL ODOR

SH- RED DK RD - V/ SFT GMMY TXT

NOTE : LOTS OF OIL IN MUD AFTER DST#2

3505 - 3514' LS- TN LT TN CRM - HD DNS F-XLN TO CRYTPO-XLN , HVY TR BRN CHRT IMBD IP,GRDNG TO SUCRO S-CHLKY IP, NO FLO, NO VIS POR, NO VIS SHOW

SH- RD DK RD, V/ SFT GMMY W/ ABDT IMBD WHT TO TN CHRT THRU

ARBUCKLE 3550' - 1597'

DOLO- WHT OFF WHT- HD DNS IPTO V/ BRITT, V/ CRS SUCRO MTRX, ABDT IMBD SMLL TO MD ANG WHT DOLO GRNS THRU, HVY TR SCAT

WOB- 38
RPM- 80
PP- 725
SPM- 52

CFS & ST @ 3245'

"C"

CFS @ 3269'

DST#1 3285-3330'

"F"

CFS@ 3316'

U. "G"

CFS@3329

WT 9.0
VIS 52

L. 'G"

CFS@3368'

"H"

CFS @ 3386'

WT 9.2
VIS 52

"I"

CFS @ 3404'

(10 MIN.

ROP (min/ft) 5
Gamma (API) 150

WOB- 38
RPM- 80
PP- 725
SPM- 52

CFS @ 3422'

DST#2 3445- 3496'

DST#3 3459- 3499
STRADDLE

DST#4 3459-3493
STRADDLE

WT 9.2
VIS 53

CFS @ 3496'

DST%5 3445'-3539'
STRADDLE

CFS @ 3511'

CFS @ 3528'

CFS@3542'

WOB- 38
RPM- 80
PP- 725
SPM- 52

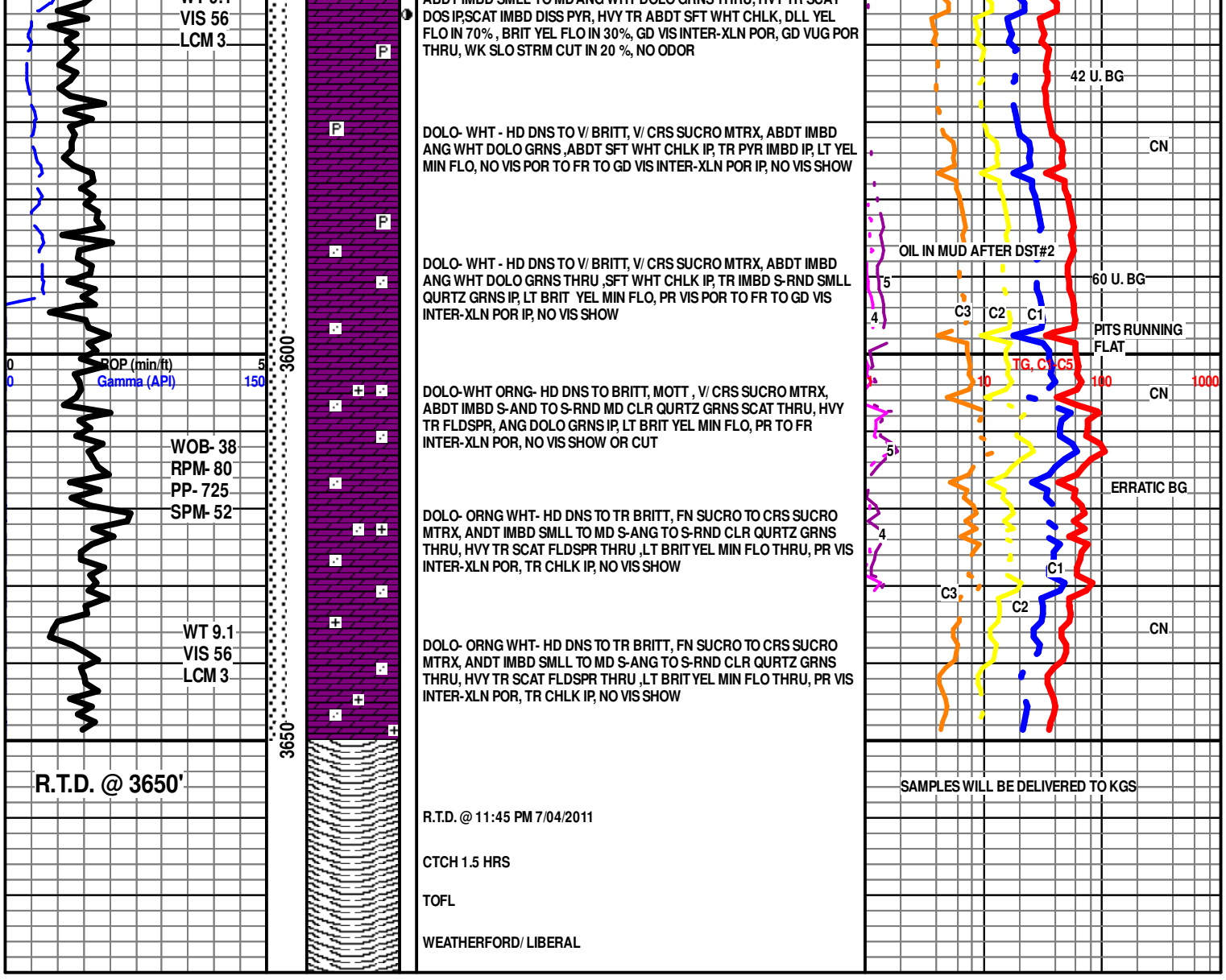
WT 9.1

3250 3300 3350 3400 3450 3500 3550

CN
CN/SERVICE RIG
58 U. BG
68 U. TOTAL
78 U. TOTAL
55 U. BG
67 U. TOTAL
33 U. BG
49 U. SHOW
37 U. BG
44 U. SH GAS
37 U. BG
84 U. TOTAL
TRIP GAS
OIL IN MUD AFTER DST#2
72 U. BG

C1 C2 C3 C4 C5

TG, C1-C5
1 10 100 1000


VIS 56
LCM 3
ROP (min/ft) 0 5
Gamma (API) 0 150
3600
WOB- 38
RPM- 80
PP- 725
SPM- 52
WT 9.1
VIS 56
LCM 3
3650
R.T.D. @ 3650'
P
P
P
ABDT IMBD SMLL TO MD ANG WHT CHLK, DLL YEL FLO IN 70% , BRIT YEL FLO IN 30%, GD VIS INTER-XLN POR, GD VUG POR THRU, WK SLO STRM CUT IN 20 %, NO ODOR
DOLO- WHT - HD DNS TO V/ BRITT, V/ CRS SUCRO MTRX, ABDT IMBD ANG WHT DOLO GRNS ,ABDT SFT WHT CHLK IP, TR PYR IMBD IP, LT YEL MIN FLO, NO VIS POR TO FR TO GD VIS INTER-XLN POR IP, NO VIS SHOW
DOLO- WHT - HD DNS TO V/ BRITT, V/ CRS SUCRO MTRX, ABDT IMBD ANG WHT DOLO GRNS THRU ,SFT WHT CHLK IP, TR IMBD S-RND SMLL QURTZ GRNS IP, LT BRIT YEL MIN FLO, PR VIS POR TO FR TO GD VIS INTER-XLN POR IP, NO VIS SHOW
DOLO-WHT ORNG- HD DNS TO BRITT, MOTT , V/ CRS SUCRO MTRX, ABDT IMBD S-AND TO S-RND MD CLR QURTZ GRNS SCAT THRU, HVY TR FLDSPR, ANG DOLO GRNS IP, LT BRIT YEL MIN FLO, PR TO FR INTER-XLN POR, NO VIS SHOW OR CUT
DOLO- ORNG WHT- HD DNS TO TR BRITT, FN SUCRO TO CRS SUCRO MTRX, ANDT IMBD SMLL TO MD S-ANG TO S-RND CLR QURTZ GRNS THRU, HVY TR SCAT FLDSPR THRU ,LT BRIT YEL MIN FLO THRU, PR VIS INTER-XLN POR, TR CHLK IP, NO VIS SHOW
DOLO- ORNG WHT- HD DNS TO TR BRITT, FN SUCRO TO CRS SUCRO MTRX, ANDT IMBD SMLL TO MD S-ANG TO S-RND CLR QURTZ GRNS THRU, HVY TR SCAT FLDSPR THRU ,LT BRIT YEL MIN FLO THRU, PR VIS INTER-XLN POR, TR CHLK IP, NO VIS SHOW
R.T.D. @ 11:45 PM 7/04/2011
CTCH 1.5 HRS
TOFL
WEATHERFORD/ LIBERAL
42 U. BG
CN
OIL IN MUD AFTER DST#2
5
4
C3
C2
C1
60 U. BG
PITS RUNNING FLAT
TG, C1-C5
10
100
1000
CN
5
ERRATIC BG
4
C1
C3
C2
CN
SAMPLES WILL BE DELIVERED TO KGS