KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1061966

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:

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 #:

04/27/2011	05/07/2011	05/12/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-165-21920-00-00
Spot Description:
SE - SW - NW - NE Sec. 26 Twp. 16 S. R. 16 [ ] East [x] West
1100 Feet from [x] North / [ ] South Line of Section
2020 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[x] NE [ ] NW [ ] SE [ ] SW
County: Rush
Lease Name: Clair Well #: 2-26
Field Name:
Producing Formation: LANSING
Elevation: Ground: 1974 Kelly Bushing: 1982
Total Depth: 3660 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1081 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: 38000 ppm Fluid volume: 560 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: TDI, INC
Lease Name: DREILING B License #: 4787
Quarter SW Sec. 22 Twp. 14 S. R. 16 [ ] East [x] West
County: ELLIS Permit #: D25112

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: 08/22/2011
- [x] **Confidential Release Date:** 08/21/2013
- [x] **Wireline Log Received**
- [ ] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [x] I [ ] II [ ] III **Approved by:** NAOMI JAMES **Date:** 08/23/2011

Side Two

1061966

Operator Name: Samuel Gary Jr. & Associates, Inc. Lease Name: Clair Well #: 2-26

Sec. 26 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	2978	-996
HEEBNER	3204	-1222
DOUGLAS	3237	-1255
LANASING	3263	-1281
ARBUCKLE	3547	-1565
TD	3660	

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	1081	CLASS A	370	2%GEL, 3%CC
PRODUCTION	7.875	5.5	15.5	3651	Q-PRO	180	4%GEL, 2%CC

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	3264'-69'	500 gal 28% MCA with 3% MAS	3264'-69'
4	3286'-90'	500 gal 28% MCA with 3% MAS	3286'-90'
4	3404'-08'	500 gal 28% MCA with 3% MAS	3404'-08'
4	3430'-32'	500 gal 28% MCA with 3% MAS	3430'-32'
4	3440'-46'	500 gal 28% MCA with 3% MAS	3440'-46'

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

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 05/18/2011

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	25		10		

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:
3264'-3446' OA

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	Clair 2-26
Doc ID	1061966

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/

August 22, 2011

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

Re: ACO1
API 15-165-21920-00-00
Clair 2-26
NE/4 Sec.26-16S-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

Date: 5/2/2011
Invoice # 4423

P.O.#:

Due Date: 6/1/2011
Division: *Russell*

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

Invoice

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

Reference:
CLAIR 2-26

Description of Work:
LONG SURFACE JOB

☑ DRLG ☐ COMP ☐ W/O ☐ LOE ☐ GG

Account	8200-138
Well/Prospect	CLAIR 2-26
Deck	
AFE	
Approval	
Description	

Services / Items Included:

	Quantity		Price	Taxable
Labor		$	937.80	No
Common-Class A	370	$	4,636.00	Yes
8 5/8" Basket	3	$	973.62	Yes
Bulk Truck Matl-Material Service Charge	390	$	801.08	No
Calcium Chloride	13	$	502.81	Yes
Pump Truck Mileage-Job to Nearest Camp	28	$	286.99	No
8 5/8" Centralizer	3	$	197.19	Yes
Bulk Truck Mileage-Job to Nearest Bulk Plant	28	$	167.94	No
Premium Gel (Bentonite)	7	$	117.04	Yes
8 5/8" Top Rubber Plug	1	$	108.86	Yes
Baffle Plate Aluminum, 8 5/8"	1	$	92.43	Yes

Item	Quantity	Price	Taxable

Invoice Terms:
Net 30

SubTotal:	$	*8,821.77*
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	$	(1,323.27)
SubTotal for Taxable Items:	$	5,633.77
SubTotal for Non-Taxable Items:	$	1,067.61
Total:	$	7,498.51
6.30% Rush County Sales Tax Tax:	$	354.93
Amount Due:	$	**7,853.43**
Applied Payments:		
Balance Due:	$	**7,853.43**

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. 4423

Date	Sec.	Twp.	Range	County	State	On Location	Finish
4-28-11	26	16	16	Rush	KS		8:15p.M

Lease Clair | Well No. 2-26 | Location Galatia 5¼ W S into

Contractor Val #6

Type Job Long Surface

Hole Size 12¼ | T.D. 1083'

Csg. 8 5/8 (23lb) | Depth 1081.35'

Tbg. Size | Depth

Tool | Depth

Cement Left in Csg. 41.84' | Shoe Joint 41.84'

Meas Line | Displace 66 bbls

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

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 ¼lb Flo/sk

EQUIPMENT

	No.		
Pumptrk 9	No.	Cementer / Helper	Brandon
Bulktrk 13	No.	Driver / Driver	Paul
Bulktrk Pu	No.	Driver / Driver	Dug

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Mix 370sx and Shut in

Cement did circ

Thank You

Common	370
Poz. Mix	
Gel.	7
Calcium	13
Hulls	
Salt	
Flowseal	90#
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	
Baffle plate -1	
1-8 5/8 head + manifold	
Pumptrk Charge	Long Surface
Mileage	28
Tax	
Discount	
Total Charge	

X Signature

Date: 5/12/2011
Invoice # 4271

P.O.#:

Due Date: 6/11/2011
Division: *Russell*

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

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	8300 - 238
Well/Prospect	CLAIR 2-26
Deck	
AFE	
Approval	CH
Description	

Reference:
CLAIR 2-26

Description of Work:
PROD LONG STRING

Services / Items Included:	Quantity	Price	Taxable
Labor		$ 901.26	No
Common-Class A	225	$ 2,709.35	Yes
Gilsonite	1057	$ 1,564.91	Yes
CFL 117	176	$ 1,070.08	Yes
5 1/2" Basket	3	$ 681.04	Yes
CD-110	170	$ 671.17	Yes
5 1/2" Turbolizer	8	$ 457.97	Yes
Bulk Truck Matl-Material Service Charge	225	$ 444.16	No
Mud Clear	500	$ 365.19	Yes
Defoamer A or CAF-38	50	$ 345.45	Yes
Auto Fill Float Shoe, 5 1/2"	1	$ 302.03	Yes

Item	Quantity	Price	Taxable
Salt (Fine)	19	$261.80	Yes
Pump Truck Mileage-Job to Nearest Camp	28	$275.81	No
Latch Down Plug & Baffle, 5 1/2"	1	$221.09	Yes
Bulk Truck Mileage-Job to Nearest Bulk Plant	28	$161.40	No
Flo Seal	56	$110.55	Yes
KCL	2	$58.94	Yes

Invoice Terms:
Net 30

SubTotal:	$	*10,602.20*
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	$	(1,590.33)
SubTotal for Taxable Items:	$	7,496.64
SubTotal for Non-Taxable Items:	$	749.16
Total:	$	9,011.87
6.30% Rush County Sales Tax Tax:	$	472.29
Amount Due:	**$**	**9,484.16**
Applied Payments:		
Balance Due:	**$**	**9,484.16**

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 Home Office P.O. Box 32 Russell, KS 67665 No. 4271

Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-6-11				Rush	Ks		~~9:45~~ PM

Lease Clair Well No. 2-26 Location Galatia 5½ W

Contractor Val Drlg Rig 2

Type Job Prod Long String

Hole Size 7⅞ T.D. 3660

Csg. 5½ Depth 3651

Tbg. Size Depth

Tool Depth

Cement Left in Csg. Shoe Joint 37

Meas Line Displace 86 BBL

EQUIPMENT

Pumptrk 9 No. Cementer Dave

Helper Paul

Bulktrk 3 No. Driver Driver Rocky

Bulktrk No. Driver Driver

JOB SERVICES & REMARKS

Remarks:

Rat Hole 30 sk

Mouse Hole 15 sk

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

Baskets 3, 9, 15

D/V or Port Collar

Ran pipe, got circ

& circ 1 Hr. pumped

flush & 186 sk

Shut down clear lines

Released plug pumped

86½ BBL displacement

1st 20 BBL KCL

Landed plug @ 1300 psi

Float Held

Thanks

X 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 225 Q pro-C 10% salt ¼ Flowseal 5% gilsonite .3% CD 110 .25% CAF-38

Common 225

Poz. Mix .8% CFL-117

Gel.

Calcium CD-110 170#

Hulls KCL - 2 gal

Salt 19

Flowseal 56#

Kol-Seal 1057

Mud CLR 48 500 gal

CFL-117 or ~~CD110 CAF-38~~ 50#

~~Sand~~ CFL-112 176#

Handling

Mileage 5½

FLOAT EQUIPMENT

Guide Shoe AFU Float shoe

Centralizer 8 turbo cents

Baskets 3

AFU Inserts 1 Latch Down plug

Float Shoe

Latch Down

Rotating Head

Pumptrk Charge Prod Long String

Mileage 28

Tax

Discount

Total Charge

DRILL STEM TEST REPORT

Prepared For: **SAM GARY JR & ASSOC**

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

26-16S-16W RUSH

CLAIR # 2-26

Start Date: 2011.05.04 @ 01:29:56
End Date: 2011.05.04 @ 09:37:56
Job Ticket #: 42478 DST #: 1

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

DRILL STEM TEST REPORT

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42478 **DST#: 1**

Test Start: 2011.05.04 @ 01:29:56

GENERAL INFORMATION:

Formation: **LANSING C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:48:56
Time Test Ended: 09:37:56

Test Type: Conventional Bottom Hole
Tester: RANDALL WILLIAMS
Unit No: 43

Interval: 3275.00 ft (KB) To 3299.00 ft (KB) (TVD)
Total Depth: 3299.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

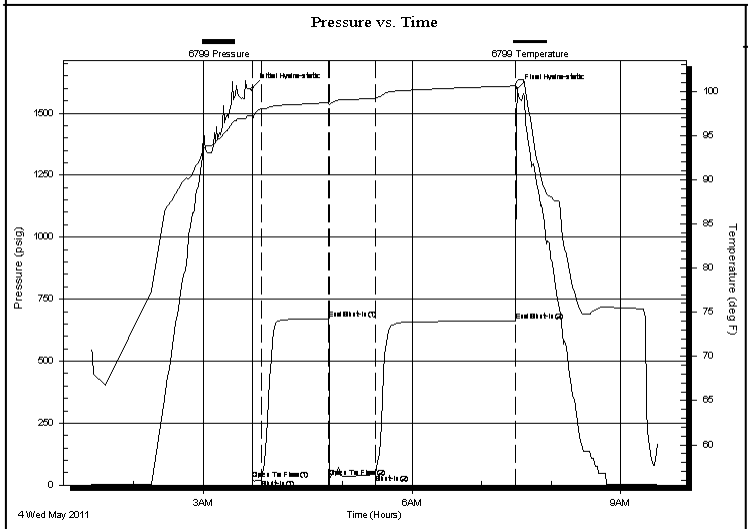
Reference Elevations: 1981.00 ft (KB)
1973.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6799 **Outside**

Press@RunDepth: 43.47 psig @ 3276.00 ft (KB)
Start Date: 2011.05.04 End Date: 2011.05.04
Start Time: 01:24:01 End Time: 09:31:55

Capacity: 8000.00 psig
Last Calib.: 2011.05.04
Time On Btm: 2011.05.04 @ 03:42:41
Time Off Btm: 2011.05.04 @ 07:30:26

TEST COMMENT: IF-SBB, BOTTOM BUCKET 3 MIN'S
ISI-WSBB
FF-SBB, BOTTOM BUCKET 1 MIN
FSI-WSBB



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1602.82	97.29	Initial Hydro-static
1	21.82	96.74	Open To Flow (1)
8	22.76	98.01	Shut-In(1)
66	668.75	98.72	End Shut-In(1)
67	31.29	98.47	Open To Flow (2)
106	43.47	99.21	Shut-In(2)
227	661.17	100.61	End Shut-In(2)
228	1599.46	101.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	GOCM, 20% GAS, 50% OIL, 30% MUD	0.31
25.00	GMCO, 5% GAS, 45% OIL, 50% MUD	0.12
0.00	1462- GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42478 **DST#: 1**

Test Start: 2011.05.04 @ 01:29:56

GENERAL INFORMATION:

Formation: **LANSING C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:48:56
Time Test Ended: 09:37:56

Test Type: Conventional Bottom Hole
Tester: RANDALL WILLIAMS
Unit No: 43

Interval: 3275.00 ft (KB) To 3299.00 ft (KB) (TVD)
Total Depth: 3299.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

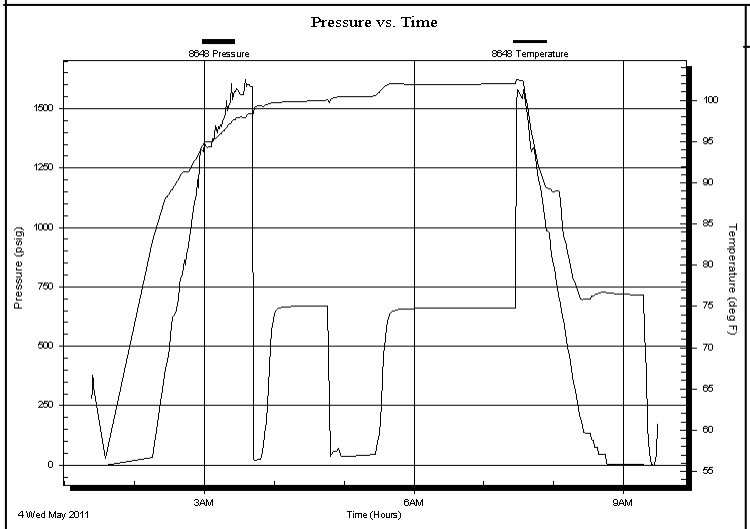
Reference Elevations: 1981.00 ft (KB)
1973.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8648 **Inside**

Press@RunDepth: psig @ 3276.00 ft (KB)
Start Date: 2011.05.04 End Date: 2011.05.04
Start Time: 01:23:24 End Time: 09:29:18

Capacity: 8000.00 psig
Last Calib.: 2011.05.04
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-SBB, BOTTOM BUCKET 3 MIN'S
ISI-WSBB
FF-SBB, BOTTOM BUCKET 1 MIN
FSI-WSBB



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
63.00	GOCM, 20% GAS, 50% OIL, 30% MUD	0.31
25.00	GMCO, 5% GAS, 45% OIL, 50% MUD	0.12
0.00	1462- GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42478 **DST#: 1**

Test Start: 2011.05.04 @ 01:29:56

GENERAL INFORMATION:

Formation: **LANSING C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:48:56
Time Test Ended: 09:37:56

Test Type: Conventional Bottom Hole
Tester: RANDALL WILLIAMS
Unit No: 43

Interval: 3275.00 ft (KB) To 3299.00 ft (KB) (TVD)
Total Depth: 3299.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

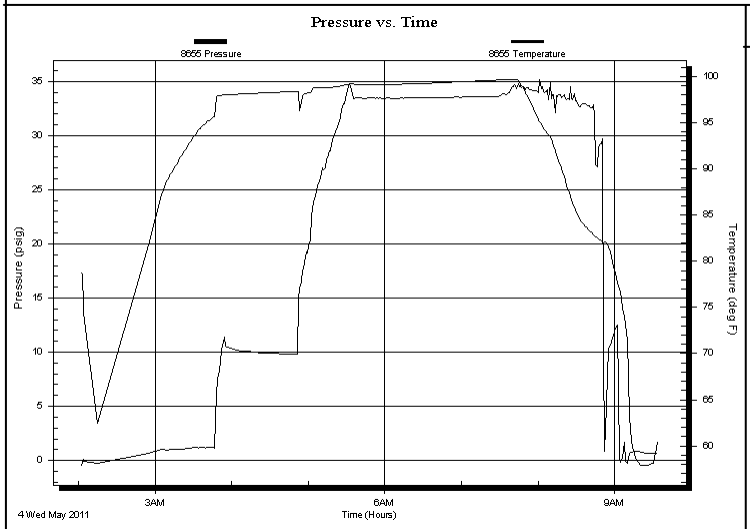
Reference Elevations: 1981.00 ft (KB)
1973.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8655 **Fluid**

Press@RunDepth: psig @ 3247.00 ft (KB)
Start Date: 2011.05.04 End Date: 2011.05.04
Start Time: 02:02:40 End Time: 09:33:19

Capacity: 8000.00 psig
Last Calib.: 2011.05.04
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-SBB, BOTTOM BUCKET 3 MIN'S
ISI-WSBB
FF-SBB, BOTTOM BUCKET 1 MIN
FSI-WSBB



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
63.00	GOCM, 20% GAS, 50% OIL, 30% MUD	0.31
25.00	GMCO, 5% GAS, 45% OIL, 50% MUD	0.12
0.00	1462- GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42478 **DST#: 1**

Test Start: 2011.05.04 @ 01:29:56

Tool Information

Drill Pipe:	Length:	3258.00 ft	Diameter:	2.25 inches	Volume:	16.02 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	3.80 inches	Volume:	0.00 bbl	
					Total Volume:	16.02 bbl	

Drill Pipe Above KB:	11.00 ft
Depth to Top Packer:	3275.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	24.00 ft
Tool Length:	52.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	4000.00 lb
Weight set on Packer:	28000.00 lb
Weight to Pull Loose:	52000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	48000.00 lb
Final	50000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Recorder	0.00	8655	Fluid	3247.00		
Shut In Tool	5.00			3252.00		
Hydraulic tool	5.00			3257.00		
Jars	5.00			3262.00		
Safety Joint	3.00			3265.00		
Packer	5.00			3270.00	28.00	Bottom Of Top Packer
Packer	5.00			3275.00		
Stubb	1.00			3276.00		
Recorder	0.00	8648	Inside	3276.00		
Recorder	0.00	6799	Outside	3276.00		
Perforations	18.00			3294.00		
Bullnose	5.00			3299.00	24.00	Bottom Packers & Anchor
Total Tool Length:	**52.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42478 **DST#: 1**

Test Start: 2011.05.04 @ 01:29:56

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:	4300 ppm
Viscosity:	48.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4300.00 ppm				
Filter Cake:	0.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	GOCM, 20% GAS, 50% OIL, 30% MUD	0.310
25.00	GMCO, 5% GAS, 45% OIL, 50% MUD	0.123
0.00	1462- GIP	0.000

Total Length: 88.00 ft Total Volume: 0.433 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: SAMPLER= 20 PSI, 250 ML - OCM

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42478 **DST#: 1**

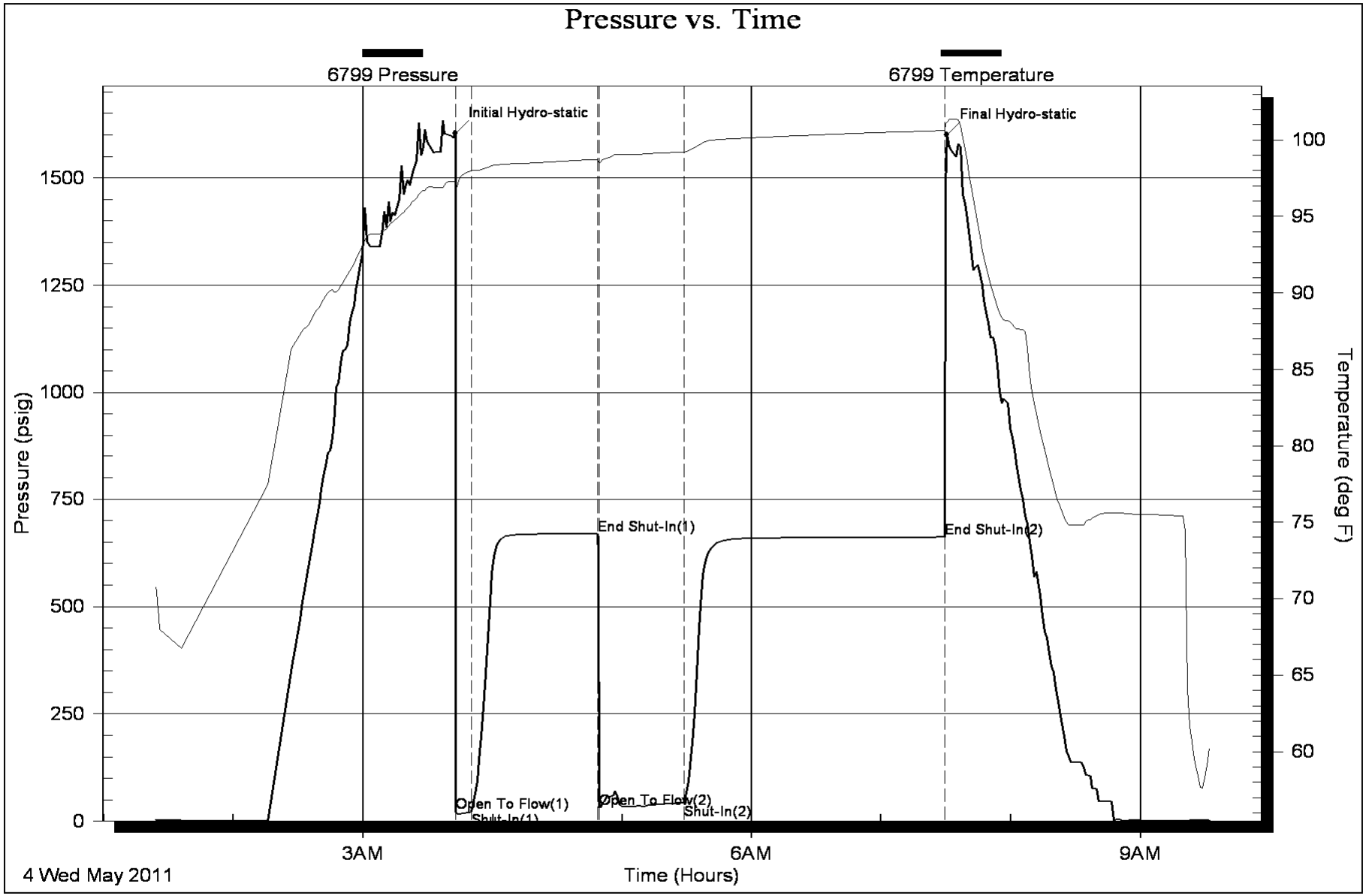
Test Start: 2011.05.04 @ 01:29:56

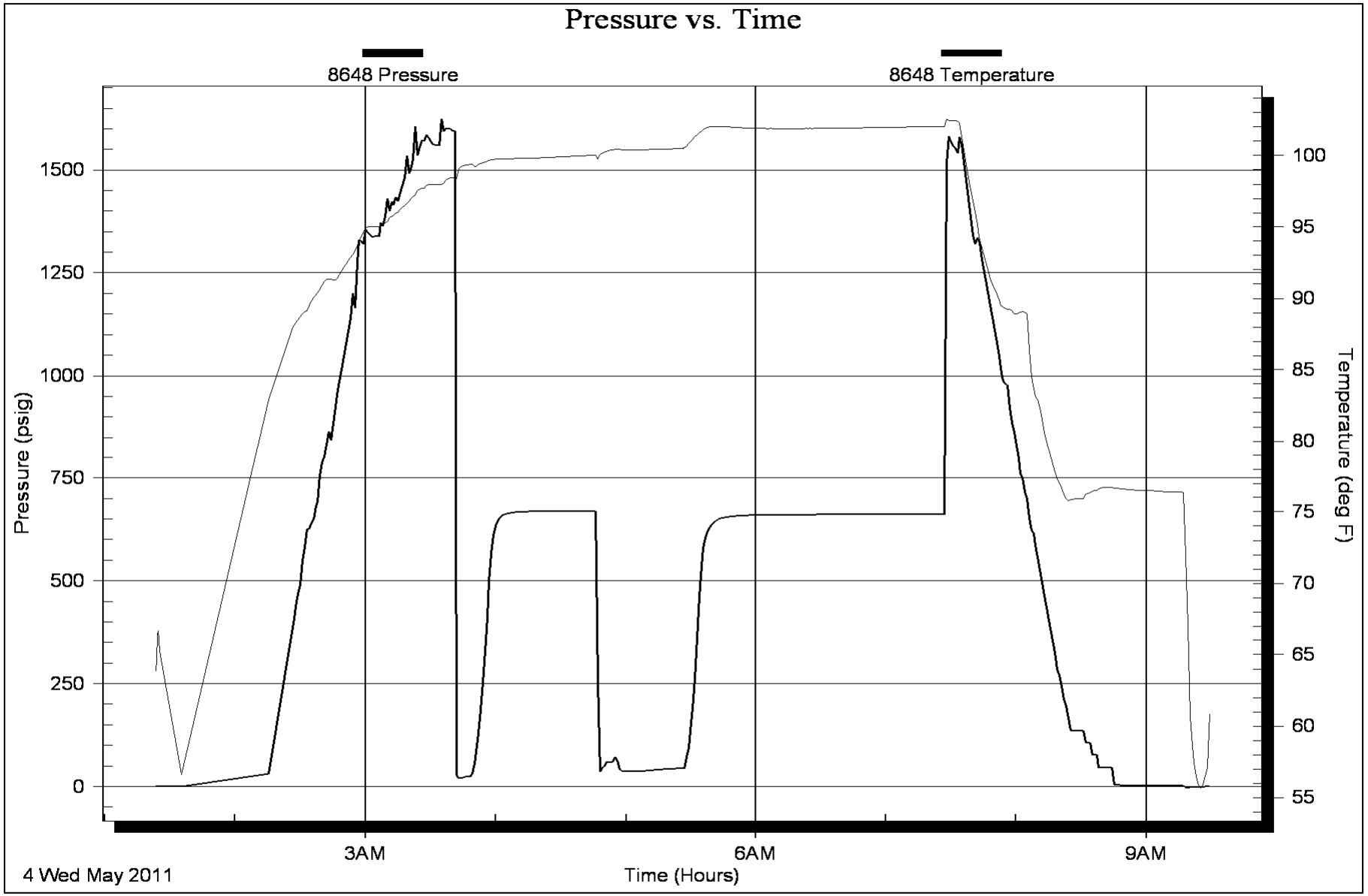
Gas Rates Information

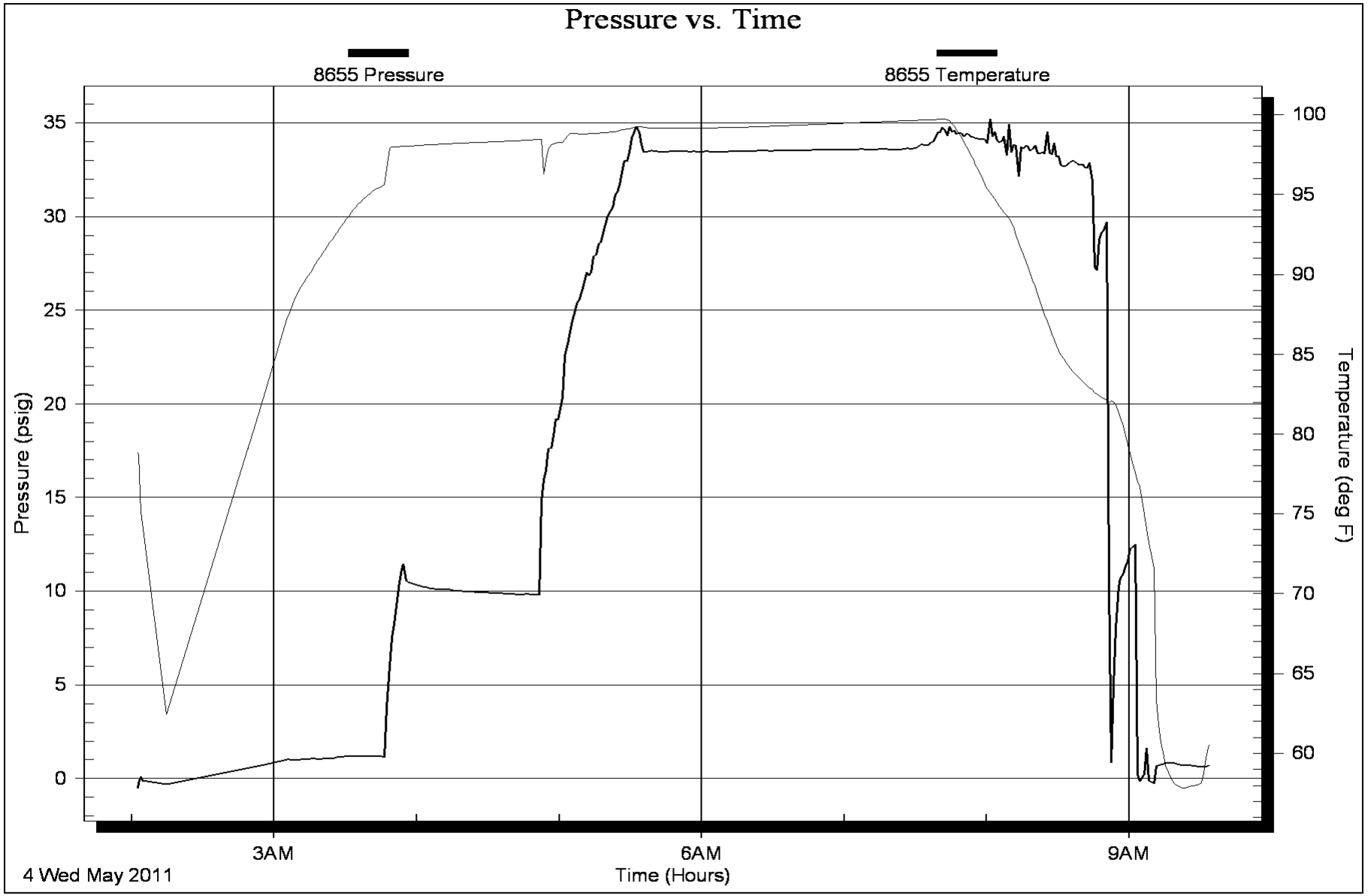
Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

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
6799 Pressure
6799 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
100
95
90
85
80
75
70
65
60
3AM
6AM
9AM
4 Wed May 2011
Time (Hours)


Pressure vs. Time
8648 Pressure
8648 Temperature
Pressure (psig)
1500
1250
1000
750
500
250
0
Temperature (deg F)
100
95
90
85
80
75
70
65
60
55
3AM
6AM
9AM
4 Wed May 2011
Time (Hours)


Pressure vs. Time
8655 Pressure
8655 Temperature
Pressure (psig)
Temperature (deg F)
35
30
25
20
15
10
5
0
100
95
90
85
80
75
70
65
60
3AM
6AM
9AM
4 Wed May 2011
Time (Hours)

DRILL STEM TESTING - DATA LISTING

TRILOBITE TESTING, INC.

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42478 **DST#: 1**

Test Start: 2011.05.04 @ 01:29:56

Serial # 6799	**Outside**			**Serial # 6799**	**Outside**		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	0.0	3.60	70.7		104.2	1364.08	93.9
	0.5	2.14	70.2		105.7	1421.57	94.1
	1.0	1.96	69.3		107.2	1410.62	94.3
	1.5	1.90	68.4		108.7	1398.70	94.5
	11.9	1.89	66.8		110.2	1416.67	94.7
	62.2	348.29	86.2		111.7	1431.02	94.9
	63.7	379.46	86.6		113.2	1446.34	95.1
	65.2	434.14	86.9		114.7	1461.56	95.3
	66.7	469.24	87.2		116.2	1475.01	95.5
	68.2	539.74	87.5		117.7	1481.96	95.7
	69.7	560.67	87.8		119.2	1531.54	96.0
	71.2	572.03	88.0		120.7	1540.25	96.2
	72.7	651.80	88.5		122.2	1556.68	96.5
	74.2	682.04	88.9		123.7	1570.90	96.7
	75.7	742.98	89.1		125.2	1586.53	96.8
	77.2	773.37	89.5		126.7	1574.84	96.9
	78.7	828.16	89.8		128.2	1562.04	96.9
	80.2	865.49	90.1		129.7	1560.87	96.9
	81.7	897.20	90.2		131.2	1559.96	96.9
	83.2	926.60	90.0		132.7	1632.43	96.9
	84.7	1022.45	90.2		134.2	1602.38	97.2
	86.2	1018.53	90.5		135.7	1600.43	97.3
	87.7	1098.66	90.9		137.2	1595.26	97.3
	89.2	1111.32	91.3		138.2	1593.32	97.3
	90.7	1186.49	91.7		138.4	1594.06	97.3
	92.2	1201.22	92.1	Initial Hydro-static	138.7	1602.82	97.3
	93.7	1265.61	92.5	Open To Flow (1)	138.9	21.82	96.7
	95.2	1293.72	93.0		139.2	21.96	96.8
	96.7	1430.66	93.5		139.4	24.42	96.9
	98.2	1350.21	93.8		140.9	17.35	97.5
	99.7	1339.80	93.8		142.4	18.84	97.8
	101.2	1340.60	93.8		143.9	19.83	97.9
	102.7	1339.06	93.8		145.4	20.93	98.0

Printing every 6 samples

Serial # 6799 Outside				Serial # 6799 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	145.7	21.03	98.0		200.9	668.66	98.7
	145.9	21.01	98.0		202.4	668.68	98.7
Shut-In(1)	146.2	22.76	98.0		203.9	668.70	98.7
	146.4	30.13	98.0		204.2	668.73	98.7
	146.7	37.04	98.0	End Shut-In(1)	204.4	668.75	98.7
	146.9	44.31	98.1		204.7	620.55	98.7
	148.4	86.02	98.0		204.9	45.01	98.5
	149.9	155.05	98.1	Open To Flow (2)	205.2	31.29	98.5
	151.4	248.04	98.1		205.4	31.91	98.5
	152.9	364.43	98.2		205.7	33.07	98.6
	154.4	492.44	98.3		205.9	37.10	98.6
	155.9	589.73	98.3		207.4	45.92	98.7
	157.4	634.83	98.4		208.9	55.90	98.8
	158.9	652.59	98.4		210.4	63.25	98.9
	160.4	659.86	98.4		211.9	64.12	99.0
	161.9	663.29	98.4		213.4	65.70	99.1
	163.4	664.95	98.4		214.9	37.76	99.1
	164.9	665.99	98.4		216.4	34.33	99.1
	166.4	666.66	98.4		217.9	33.66	99.0
	167.9	667.42	98.5		219.4	33.65	99.0
	169.4	667.65	98.5		220.9	34.03	99.1
	170.9	667.82	98.5		222.4	34.30	99.1
	172.4	667.96	98.5		223.9	35.41	99.1
	173.9	668.06	98.5		225.4	34.55	99.1
	175.4	668.14	98.5		226.9	35.59	99.1
	176.9	668.19	98.5		228.4	36.61	99.1
	178.4	668.27	98.5		229.9	37.69	99.1
	179.9	668.33	98.5		231.4	38.19	99.1
	181.4	668.40	98.6		232.9	39.20	99.1
	182.9	668.44	98.6		234.4	39.51	99.1
	184.4	668.47	98.6		235.9	40.58	99.2
	185.9	668.49	98.6		237.4	40.87	99.2
	187.4	668.53	98.6		238.9	41.47	99.2
	188.9	668.56	98.6		240.4	41.83	99.2
	190.4	668.59	98.6		241.9	42.55	99.2
	191.9	668.60	98.6		243.4	43.35	99.2
	193.4	668.61	98.6		244.2	43.55	99.2
	194.9	668.63	98.7		244.4	43.62	99.2
	196.4	668.63	98.7	Shut-In(2)	244.7	43.47	99.2
	197.9	668.64	98.7		244.9	46.22	99.2
	199.4	668.65	98.7		245.2	54.18	99.2

Printing every 6 samples

Serial # 6799 Outside				Serial # 6799 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	245.4	61.36	99.2		306.9	660.13	100.3
	246.9	98.90	99.3		308.4	660.17	100.3
	248.4	168.15	99.4		309.9	660.20	100.3
	249.9	272.07	99.5		311.4	660.28	100.4
	251.4	424.96	99.7		312.9	660.33	100.4
	252.9	542.64	99.8		314.4	660.36	100.4
	254.4	596.39	99.9		315.9	660.40	100.4
	255.9	622.93	99.9		317.4	660.43	100.4
	257.4	636.40	100.0		318.9	660.47	100.4
	258.9	644.47	100.0		320.4	660.51	100.4
	260.4	649.36	100.0		321.9	660.54	100.4
	261.9	651.89	100.0		323.4	660.55	100.4
	263.4	653.74	100.1		324.9	660.56	100.4
	264.9	654.96	100.1		326.4	660.61	100.4
	266.4	655.92	100.1		327.9	660.64	100.4
	267.9	656.58	100.1		329.4	660.68	100.4
	269.4	656.95	100.1		330.9	660.69	100.5
	270.9	657.76	100.1		332.4	660.71	100.5
	272.4	658.04	100.1		333.9	660.73	100.5
	273.9	658.28	100.1		335.4	660.74	100.5
	275.4	658.48	100.1		336.9	660.76	100.5
	276.9	658.62	100.1		338.4	660.80	100.5
	278.4	658.73	100.2		339.9	660.82	100.5
	279.9	658.83	100.2		341.4	660.85	100.5
	281.4	658.93	100.2		342.9	660.86	100.5
	282.9	659.03	100.2		344.4	660.86	100.5
	284.4	659.17	100.2		345.9	660.89	100.5
	285.9	659.27	100.2		347.4	660.93	100.5
	287.4	659.36	100.2		348.9	660.95	100.5
	288.9	659.44	100.2		350.4	660.96	100.5
	290.4	659.51	100.2		351.9	660.97	100.6
	291.9	659.58	100.2		353.4	660.98	100.6
	293.4	659.64	100.2		354.9	660.99	100.6
	294.9	659.69	100.3		356.4	661.01	100.6
	296.4	659.74	100.3		357.9	661.05	100.6
	297.9	659.80	100.3		359.4	661.09	100.6
	299.4	659.85	100.3		360.9	661.11	100.6
	300.9	659.90	100.3		362.4	661.14	100.6
	302.4	659.96	100.3		363.9	661.16	100.6
	303.9	660.02	100.3		364.9	661.17	100.6
	305.4	660.08	100.3		365.2	661.16	100.6

Printing every 6 samples

Serial # 6799 Outside				Serial # 6799 Outside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
End Shut-In(2)	365.4	661.17	100.6		418.2	287.55	76.3
	365.7	1481.03	101.1		419.7	226.87	75.7
	365.9	1509.25	101.0		421.2	197.66	75.1
	366.2	1517.69	101.0		422.7	151.51	74.8
Final Hydro-static	366.4	1599.46	101.2		424.2	137.18	74.8
	366.7	1593.43	101.2		425.7	136.55	74.8
	366.9	1587.73	101.3		427.2	136.48	74.8
	367.2	1581.63	101.3		428.7	136.44	74.8
	368.7	1562.52	101.3		430.2	107.56	74.9
	370.2	1551.86	101.3		431.7	106.69	75.1
	371.7	1579.29	101.3		433.2	77.11	75.2
	373.2	1563.90	100.4		434.7	76.72	75.3
	374.7	1440.38	99.4		436.2	50.04	75.4
	376.2	1431.90	98.2		437.7	46.34	75.5
	377.7	1332.41	97.0		439.2	46.16	75.6
	379.2	1321.07	95.7		440.7	46.07	75.6
	380.7	1297.79	94.5		442.2	46.05	75.6
	382.2	1295.94	93.3		443.7	2.90	75.6
	383.7	1214.24	92.3		445.2	3.95	75.6
	385.2	1203.69	91.4		446.7	4.01	75.6
	386.7	1127.38	90.5		448.2	1.51	75.6
	388.2	1112.54	89.8		449.7	1.60	75.5
	389.7	1063.18	89.1		451.2	1.69	75.5
	391.2	1020.10	88.6		452.7	1.77	75.5
	392.7	986.23	88.3		454.2	1.80	75.5
	394.2	978.17	88.2		455.7	1.73	75.5
	395.7	918.02	88.1		457.2	1.67	75.5
	397.2	894.95	87.8		458.7	1.63	75.5
	398.7	834.78	87.7		460.2	1.58	75.5
	400.2	772.53	87.6		461.7	1.59	75.5
	401.7	748.72	87.6		463.2	1.59	75.5
	403.2	710.85	86.9		464.7	1.56	75.4
	404.7	651.22	84.6		466.2	1.52	75.4
	406.2	619.46	83.1		467.7	1.47	75.4
	407.7	581.42	82.1		469.2	1.43	75.4
	409.2	528.31	81.3		470.7	1.43	75.4
	410.7	478.00	80.4		472.2	1.42	75.4
	412.2	437.85	79.4		473.7	1.45	75.4
	413.7	390.71	78.5		475.2	1.42	75.4
	415.2	347.74	77.6		476.7	1.51	74.4
	416.7	317.65	76.9		478.2	1.72	62.3

Printing every 6 samples

Serial # 6799 Outside				Serial # 8648 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	479.7	1.93	60.6				
	481.2	2.05	59.4				
	482.7	2.09	58.4				
	484.2	2.08	57.5				
	485.7	2.05	58.3				
	487.2	2.11	59.5				
	487.9	2.41	65.1				

Printing every 5 samples

DRILL STEM TESTING - DATA LISTING

TRILOBITE TESTING, INC.

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42478 **DST#: 1**

Test Start: 2011.05.04 @ 01:29:56

Serial # 8648 Inside

Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	0.0	-1.06	63.9
	0.4	-0.84	65.0
	0.8	-0.72	66.7
	1.3	-0.76	66.2
	1.7	-0.83	65.2
	21.9	-0.24	82.2
	62.2	347.26	87.7
	63.4	425.40	88.1
	64.7	437.51	88.3
	65.9	467.70	88.6
	67.2	498.02	88.8
	68.4	521.20	89.1
	69.7	624.01	89.1
	70.9	621.39	89.5
	72.2	650.68	89.9
	73.4	680.73	90.2
	74.7	692.70	90.4
	75.9	762.53	90.6
	77.2	803.00	91.0
	78.4	833.57	91.3
	79.7	863.11	91.3
	80.9	941.28	91.4
	82.2	926.78	91.2
	83.4	956.26	91.4
	84.7	985.91	91.6
	85.9	1080.98	92.0
	87.2	1076.81	92.2
	88.4	1110.22	92.6
	89.7	1139.50	92.9
	90.9	1219.85	93.1
	92.2	1233.48	93.5
	93.4	1263.08	93.9
	94.7	1327.13	94.3

Serial # 8648 Inside

Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	95.9	1410.92	94.7
	97.2	1352.08	95.0
	98.4	1343.32	95.0
	99.7	1336.35	95.0
	100.9	1339.50	95.0
	102.2	1338.13	95.0
	103.4	1390.23	95.0
	104.7	1364.14	95.1
	105.9	1383.95	95.3
	107.2	1403.87	95.6
	108.4	1436.47	95.7
	109.7	1414.89	95.8
	110.9	1431.24	96.0
	112.2	1448.47	96.2
	113.4	1464.50	96.3
	114.7	1480.13	96.5
	115.9	1503.44	96.7
	117.2	1513.58	96.8
	118.4	1509.51	97.1
	119.7	1605.02	97.3
	120.9	1603.26	97.6
	122.2	1507.84	97.6
	123.4	1567.28	97.7
	124.7	1585.46	97.9
	125.9	1575.46	97.9
	127.2	1564.95	98.0
	128.4	1559.40	98.0
	129.7	1560.33	98.0
	130.9	1559.83	97.9
	132.2	1614.32	97.9
	133.4	1603.01	98.2
	134.7	1600.64	98.4
	135.9	1598.09	98.4

Printing every 5 samples

Serial # 8648 Inside				Serial # 8648 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	137.2	1594.86	98.4		188.4	668.42	99.9
	138.4	26.00	98.2		189.7	668.43	99.9
	139.7	19.93	99.1		190.9	668.50	99.9
	140.9	20.63	99.2		192.2	668.53	99.9
	142.2	22.22	99.3		193.4	668.58	100.0
	143.4	22.94	99.3		194.7	668.59	100.0
	144.7	24.19	99.4		195.9	668.61	100.0
	145.9	36.59	99.4		197.2	668.60	100.0
	147.2	71.22	99.2		198.4	668.60	100.0
	148.4	117.67	99.3		199.7	668.61	100.0
	149.7	185.32	99.4		200.9	668.61	100.0
	150.9	269.50	99.5		202.2	668.63	100.0
	152.2	369.20	99.6		203.4	668.64	100.0
	153.4	477.05	99.6		204.7	36.47	100.1
	154.7	566.50	99.7		205.9	47.05	100.2
	155.9	617.22	99.7		207.2	51.52	100.3
	157.2	641.21	99.8		208.4	54.36	100.3
	158.4	652.67	99.8		209.7	59.07	100.4
	159.7	658.30	99.8		210.9	65.83	100.4
	160.9	661.45	99.8		212.2	72.81	100.5
	162.2	663.36	99.8		213.4	44.70	100.4
	163.4	664.45	99.8		214.7	38.16	100.4
	164.7	665.10	99.8		215.9	36.71	100.4
	165.9	665.79	99.8		217.2	36.38	100.4
	167.2	666.30	99.8		218.4	36.37	100.4
	168.4	666.56	99.8		219.7	36.85	100.4
	169.7	666.71	99.8		220.9	36.77	100.4
	170.9	667.33	99.8		222.2	36.88	100.4
	172.2	667.47	99.8		223.4	37.70	100.4
	173.4	667.58	99.8		224.7	36.82	100.4
	174.7	667.69	99.8		225.9	38.26	100.4
	175.9	667.79	99.8		227.2	38.32	100.4
	177.2	667.90	99.8		228.4	38.88	100.4
	178.4	667.98	99.8		229.7	39.75	100.4
	179.7	668.05	99.9		230.9	40.16	100.4
	180.9	668.13	99.9		232.2	40.74	100.5
	182.2	668.20	99.9		233.4	40.88	100.5
	183.4	668.26	99.9		234.7	41.60	100.5
	184.7	668.31	99.9		235.9	41.96	100.5
	185.9	668.35	99.9		237.2	42.41	100.5
	187.2	668.40	99.9		238.4	42.92	100.5

Printing every 5 samples

Serial # 8648 Inside				Serial # 8648 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	239.7	43.41	100.5		290.9	659.78	101.9
	240.9	44.04	100.5		292.2	659.85	101.9
	242.2	44.86	100.5		293.4	659.91	101.9
	243.4	44.91	100.5		294.7	659.97	101.9
	244.7	70.46	100.6		295.9	660.03	101.9
	245.9	102.82	100.9		297.2	660.11	101.9
	247.2	160.62	101.1		298.4	660.17	101.9
	248.4	240.87	101.3		299.7	660.24	101.9
	249.7	359.35	101.5		300.9	660.29	101.9
	250.9	484.75	101.6		302.2	660.32	101.9
	252.2	559.68	101.8		303.4	660.36	101.9
	253.4	598.63	101.9		304.7	660.43	101.9
	254.7	620.27	102.0		305.9	660.49	101.9
	255.9	632.60	102.0		307.2	660.53	101.9
	257.2	640.93	102.0		308.4	660.56	101.9
	258.4	645.99	102.0		309.7	660.61	101.9
	259.7	649.16	102.0		310.9	660.65	101.9
	260.9	651.35	102.0		312.2	660.69	101.9
	262.2	653.13	102.0		313.4	660.73	101.9
	263.4	654.21	102.0		314.7	660.76	101.9
	264.7	655.05	102.0		315.9	660.80	101.9
	265.9	655.88	102.0		317.2	660.81	101.9
	267.2	656.32	102.0		318.4	660.84	101.9
	268.4	656.70	102.0		319.7	660.88	101.9
	269.7	657.19	102.0		320.9	660.92	101.9
	270.9	657.38	101.9		322.2	660.93	101.9
	272.2	657.71	101.9		323.4	660.96	101.9
	273.4	658.23	101.9		324.7	661.00	101.9
	274.7	658.39	101.9		325.9	661.03	101.9
	275.9	658.53	101.9		327.2	661.07	101.9
	277.2	658.68	101.9		328.4	661.10	101.9
	278.4	658.81	101.9		329.7	661.11	102.0
	279.7	658.95	101.9		330.9	661.10	102.0
	280.9	659.07	101.9		332.2	661.10	102.0
	282.2	659.17	101.9		333.4	661.11	102.0
	283.4	659.29	101.9		334.7	661.14	102.0
	284.7	659.39	101.9		335.9	661.18	102.0
	285.9	659.49	101.9		337.2	661.22	102.0
	287.2	659.57	101.9		338.4	661.26	102.0
	288.4	659.64	101.9		339.7	661.30	102.0
	289.7	659.71	101.9		340.9	661.30	102.0

Printing every 5 samples

Serial # 8648 Inside				Serial # 8648 Inside			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	342.2	661.30	102.0		393.4	956.10	89.3
	343.4	661.31	102.0		394.7	885.75	89.1
	344.7	661.34	102.0		395.9	875.08	89.0
	345.9	661.37	102.0		397.2	833.66	89.0
	347.2	661.38	102.0		398.4	802.13	89.0
	348.4	661.40	102.0		399.7	751.17	89.1
	349.7	661.43	102.0		400.9	695.36	89.0
	350.9	661.44	102.0		402.2	678.14	87.7
	352.2	661.47	102.0		403.4	646.85	84.7
	353.4	661.48	102.0		404.7	616.17	83.7
	354.7	661.50	102.0		405.9	580.46	83.1
	355.9	661.49	102.0		407.2	536.68	82.6
	357.2	661.51	102.0		408.4	494.60	81.9
	358.4	661.51	102.0		409.7	463.95	80.6
	359.7	661.58	102.0		410.9	434.08	79.8
	360.9	661.61	102.0		412.2	372.92	79.1
	362.2	661.64	102.0		413.4	344.98	78.3
	363.4	661.61	102.0		414.7	314.66	77.8
	364.7	1517.96	102.5		415.9	284.36	77.2
	365.9	1576.21	102.4		417.2	255.15	76.8
	367.2	1562.51	102.4		418.4	225.19	76.3
	368.4	1553.80	102.4		419.7	195.43	75.9
	369.7	1541.04	102.4		420.9	153.40	75.7
	370.9	1496.39	102.1		422.2	136.49	75.9
	372.2	1464.94	101.0		423.4	135.36	75.9
	373.4	1475.44	99.6		424.7	135.20	75.9
	374.7	1430.64	98.5		425.9	135.14	75.9
	375.9	1384.13	97.5		427.2	135.08	75.9
	377.2	1282.80	96.6		428.4	106.94	76.2
	378.4	1332.08	95.6		429.7	105.79	76.3
	379.7	1324.11	94.3		430.9	105.69	76.3
	380.9	1291.85	93.6		432.2	76.43	76.5
	382.2	1221.98	93.0		433.4	75.87	76.5
	383.4	1202.84	92.2		434.7	46.44	76.6
	384.7	1170.56	91.4		435.9	45.82	76.7
	385.9	1139.13	90.9		437.2	45.73	76.7
	387.2	1059.53	90.4		438.4	45.22	76.7
	388.4	1047.66	90.1		439.7	45.19	76.7
	389.7	1017.93	89.5		440.9	45.26	76.7
	390.9	985.80	89.3		442.2	3.15	76.7
	392.2	978.91	89.3		443.4	3.59	76.6

Printing every 5 samples

Serial # 8648 Inside				Serial # 8655 Fluid			
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)	Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	444.7	3.61	76.6				
	445.9	1.85	76.6				
	447.2	1.73	76.6				
	448.4	1.63	76.6				
	449.7	1.57	76.5				
	450.9	1.55	76.5				
	452.2	1.57	76.5				
	453.4	1.57	76.5				
	454.7	1.55	76.5				
	455.9	1.57	76.5				
	457.2	1.62	76.5				
	458.4	1.70	76.5				
	459.7	1.77	76.5				
	460.9	1.84	76.5				
	462.2	1.86	76.4				
	463.4	1.84	76.4				
	464.7	1.84	76.4				
	465.9	1.82	76.4				
	467.2	1.80	76.4				
	468.4	1.78	76.4				
	469.7	1.79	76.4				
	470.9	1.79	76.4				
	472.2	1.78	76.4				
	473.4	1.88	76.4				
	474.7	-1.84	71.9				
	475.9	-2.05	64.3				
	477.2	-2.03	59.5				
	478.4	-2.04	57.7				
	479.7	-1.82	56.4				
	480.9	-2.00	55.8				
	482.2	-1.76	55.6				
	483.4	-0.59	56.3				
	484.7	-0.40	57.1				
	485.9	-0.75	64.0				

Printing every 5 samples

DRILL STEM TESTING - DATA LISTING

TRILOBITE TESTING, INC.

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42478 **DST#: 1**

Test Start: 2011.05.04 @ 01:29:56

Serial # 8655	**Fluid**		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	0.0	-0.50	78.8
	0.4	-0.23	78.5
	0.8	-0.09	76.8
	1.3	0.01	75.3
	1.7	-0.10	74.4
	21.9	-0.16	62.1
	62.2	1.03	87.0
	63.4	1.00	87.5
	64.7	0.99	88.0
	65.9	0.98	88.4
	67.2	0.97	88.8
	68.4	1.00	89.2
	69.7	1.01	89.5
	70.9	1.04	89.8
	72.2	1.04	90.0
	73.4	1.04	90.3
	74.7	1.04	90.6
	75.9	1.03	90.9
	77.2	1.04	91.2
	78.4	1.05	91.5
	79.7	1.04	91.8
	80.9	1.06	92.0
	82.2	1.09	92.3
	83.4	1.14	92.6
	84.7	1.15	92.8
	85.9	1.16	93.1
	87.2	1.17	93.4
	88.4	1.19	93.6
	89.7	1.18	93.9
	90.9	1.17	94.1
	92.2	1.16	94.3
	93.4	1.17	94.5
	94.7	1.18	94.7

Serial # 8655	**Fluid**		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	95.9	1.18	94.9
	97.2	1.16	95.0
	98.4	1.16	95.1
	99.7	1.18	95.3
	100.9	1.17	95.4
	102.2	1.16	95.5
	103.4	1.13	95.6
	104.7	3.83	96.6
	105.9	6.06	97.9
	107.2	7.50	98.0
	108.4	8.88	98.0
	109.7	10.20	98.0
	110.9	10.91	98.0
	112.2	11.09	98.0
	113.4	10.50	98.0
	114.7	10.43	98.0
	115.9	10.37	98.0
	117.2	10.32	98.1
	118.4	10.28	98.1
	119.7	10.24	98.1
	120.9	10.21	98.1
	122.2	10.17	98.1
	123.4	10.12	98.1
	124.7	10.10	98.1
	125.9	10.08	98.1
	127.2	10.06	98.1
	128.4	10.07	98.2
	129.7	10.08	98.2
	130.9	10.09	98.2
	132.2	10.04	98.2
	133.4	10.02	98.2
	134.7	10.00	98.2
	135.9	10.00	98.2

Printing every 5 samples

Serial # 8655	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	137.2	9.98	98.2
	138.4	9.96	98.2
	139.7	9.94	98.2
	140.9	9.93	98.2
	142.2	9.93	98.2
	143.4	9.92	98.2
	144.7	9.93	98.3
	145.9	9.93	98.3
	147.2	9.91	98.3
	148.4	9.88	98.3
	149.7	9.88	98.3
	150.9	9.87	98.3
	152.2	9.88	98.3
	153.4	9.87	98.3
	154.7	9.85	98.3
	155.9	9.84	98.3
	157.2	9.84	98.3
	158.4	9.83	98.4
	159.7	9.80	98.4
	160.9	9.79	98.4
	162.2	9.81	98.4
	163.4	9.83	98.4
	164.7	9.82	98.4
	165.9	9.80	98.4
	167.2	9.79	98.4
	168.4	9.79	98.4
	169.7	14.81	98.4
	170.9	16.19	96.4
	172.2	17.15	97.6
	173.4	17.92	98.1
	174.7	18.32	98.2
	175.9	19.28	98.2
	177.2	19.73	98.2
	178.4	20.32	98.2
	179.7	22.59	98.4
	180.9	23.33	98.7
	182.2	24.44	98.8
	183.4	24.40	98.8
	184.7	25.37	98.8
	185.9	25.61	98.8
	187.2	26.14	98.8

Serial # 8655	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	188.4	26.37	98.8
	189.7	26.87	98.8
	190.9	27.43	98.8
	192.2	27.96	98.8
	193.4	27.93	98.8
	194.7	28.61	98.8
	195.9	29.14	98.9
	197.2	29.78	98.9
	198.4	30.10	98.9
	199.7	30.51	98.9
	200.9	31.18	98.9
	202.2	31.56	99.0
	203.4	32.20	99.0
	204.7	32.96	99.1
	205.9	33.12	99.1
	207.2	33.59	99.1
	208.4	34.38	99.2
	209.7	34.77	99.2
	210.9	34.42	99.2
	212.2	33.46	99.2
	213.4	33.44	99.2
	214.7	33.48	99.2
	215.9	33.50	99.1
	217.2	33.50	99.1
	218.4	33.46	99.1
	219.7	33.44	99.1
	220.9	33.44	99.1
	222.2	33.45	99.1
	223.4	33.46	99.1
	224.7	33.46	99.1
	225.9	33.46	99.1
	227.2	33.46	99.1
	228.4	33.47	99.1
	229.7	33.45	99.1
	230.9	33.46	99.1
	232.2	33.45	99.1
	233.4	33.46	99.1
	234.7	33.45	99.1
	235.9	33.45	99.1
	237.2	33.45	99.1
	238.4	33.46	99.1

Printing every 5 samples

Serial # 8655	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	239.7	33.49	99.2
	240.9	33.46	99.2
	242.2	33.44	99.2
	243.4	33.42	99.2
	244.7	33.44	99.2
	245.9	33.43	99.2
	247.2	33.44	99.2
	248.4	33.45	99.2
	249.7	33.46	99.2
	250.9	33.46	99.2
	252.2	33.46	99.2
	253.4	33.46	99.2
	254.7	33.47	99.2
	255.9	33.47	99.2
	257.2	33.46	99.2
	258.4	33.48	99.2
	259.7	33.48	99.2
	260.9	33.49	99.2
	262.2	33.51	99.2
	263.4	33.52	99.2
	264.7	33.51	99.2
	265.9	33.49	99.3
	267.2	33.50	99.3
	268.4	33.49	99.3
	269.7	33.51	99.3
	270.9	33.51	99.3
	272.2	33.51	99.3
	273.4	33.52	99.3
	274.7	33.51	99.3
	275.9	33.53	99.3
	277.2	33.52	99.3
	278.4	33.52	99.3
	279.7	33.52	99.3
	280.9	33.51	99.3
	282.2	33.52	99.4
	283.4	33.52	99.4
	284.7	33.53	99.4
	285.9	33.53	99.4
	287.2	33.53	99.4
	288.4	33.54	99.4
	289.7	33.54	99.4

Serial # 8655	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	290.9	33.55	99.4
	292.2	33.55	99.4
	293.4	33.57	99.4
	294.7	33.55	99.4
	295.9	33.55	99.4
	297.2	33.55	99.4
	298.4	33.55	99.5
	299.7	33.56	99.5
	300.9	33.57	99.5
	302.2	33.57	99.5
	303.4	33.58	99.5
	304.7	33.58	99.5
	305.9	33.57	99.5
	307.2	33.55	99.5
	308.4	33.56	99.5
	309.7	33.57	99.5
	310.9	33.57	99.5
	312.2	33.58	99.5
	313.4	33.58	99.6
	314.7	33.59	99.6
	315.9	33.58	99.6
	317.2	33.57	99.6
	318.4	33.57	99.6
	319.7	33.57	99.6
	320.9	33.58	99.6
	322.2	33.60	99.6
	323.4	33.60	99.6
	324.7	33.61	99.6
	325.9	33.60	99.6
	327.2	33.64	99.6
	328.4	33.75	99.6
	329.7	33.83	99.7
	330.9	33.85	99.7
	332.2	33.77	99.7
	333.4	33.90	99.7
	334.7	33.99	99.7
	335.9	34.23	99.7
	337.2	34.39	99.7
	338.4	34.67	99.7
	339.7	34.59	99.7
	340.9	34.29	99.6

Printing every 5 samples

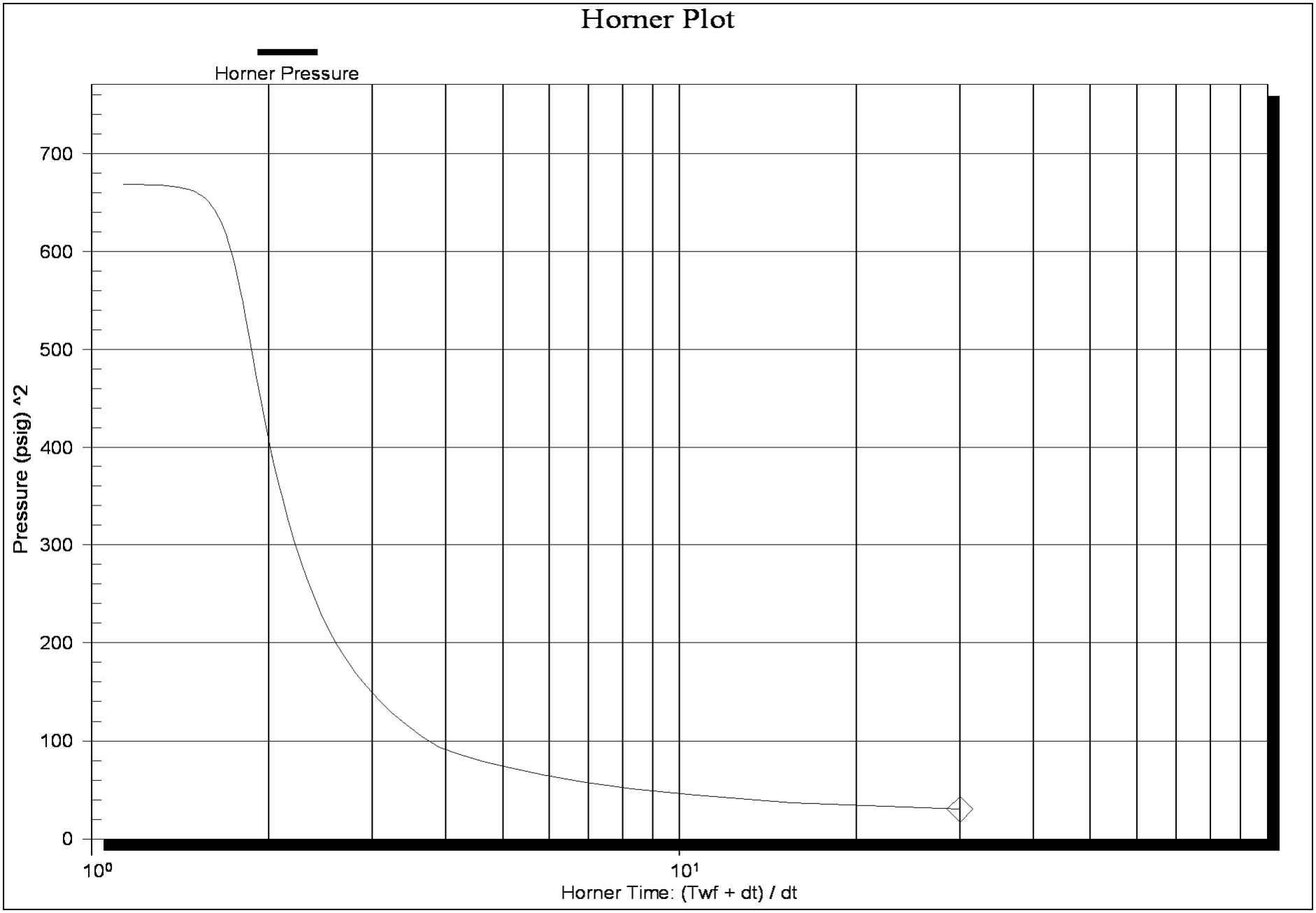
Serial # 8655	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	342.2	34.98	99.5
	343.4	34.58	99.3
	344.7	34.39	99.1
	345.9	34.46	98.8
	347.2	34.34	98.4
	348.4	34.31	98.1
	349.7	34.39	97.8
	350.9	34.17	97.4
	352.2	34.29	97.0
	353.4	33.29	96.6
	354.7	34.13	96.3
	355.9	34.07	95.9
	357.2	33.97	95.5
	358.4	33.91	95.2
	359.7	34.30	94.9
	360.9	33.36	94.6
	362.2	33.96	94.3
	363.4	37.57	94.1
	364.7	34.27	93.9
	365.9	32.33	93.6
	367.2	33.81	93.4
	368.4	33.80	93.1
	369.7	33.81	92.5
	370.9	33.85	91.9
	372.2	34.19	91.4
	373.4	33.68	90.9
	374.7	33.75	90.5
	375.9	38.23	90.0
	377.2	33.55	89.4
	378.4	33.50	88.9
	379.7	33.35	88.3
	380.9	33.42	87.8
	382.2	33.27	87.3
	383.4	33.45	86.8
	384.7	33.30	86.3
	385.9	32.65	85.8
	387.2	33.07	85.4
	388.4	32.76	85.0
	389.7	32.69	84.7
	390.9	32.75	84.4
	392.2	32.88	84.2

Serial # 8655	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	393.4	32.51	84.0
	394.7	32.90	83.8
	395.9	32.78	83.5
	397.2	32.81	83.4
	398.4	32.67	83.2
	399.7	32.59	83.0
	400.9	32.64	82.9
	402.2	29.65	82.7
	403.4	26.24	82.5
	404.7	28.79	82.4
	405.9	29.18	82.3
	407.2	29.44	82.2
	408.4	20.76	82.0
	409.7	0.86	82.1
	410.9	5.20	82.0
	412.2	9.42	81.7
	413.4	10.83	81.2
	414.7	10.93	80.5
	415.9	11.44	79.8
	417.2	11.84	79.1
	418.4	12.30	78.3
	419.7	12.47	77.6
	420.9	-0.57	77.0
	422.2	-0.13	76.3
	423.4	0.16	75.2
	424.7	1.63	74.0
	425.9	-0.16	72.9
	427.2	-0.18	71.9
	428.4	0.71	64.9
	429.7	0.72	61.8
	430.9	0.77	60.5
	432.2	0.80	59.5
	433.4	0.81	58.9
	434.7	0.82	58.5
	435.9	0.80	58.2
	437.2	0.80	58.0
	438.4	0.75	57.9
	439.7	0.72	57.8
	440.9	0.70	57.9
	442.2	0.68	57.9
	443.4	0.69	57.9

Printing every 5 samples

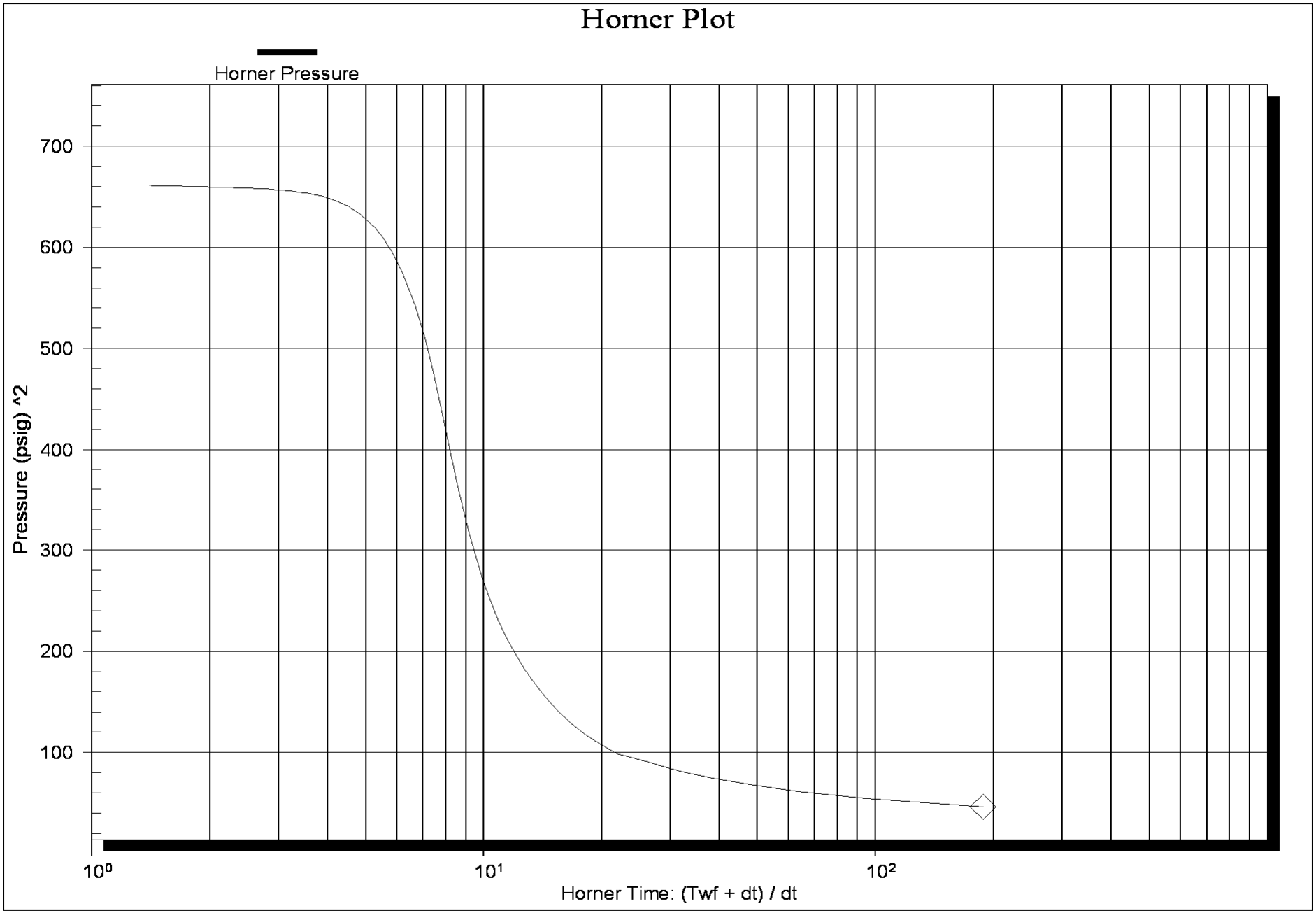
Serial # 8655	Fluid		
Comments	Time (Min.)	Pressure (psig)	Temp. (deg F)
	444.7	0.67	58.0
	445.9	0.64	58.0
	447.2	0.63	58.1
	448.4	0.55	58.6
	449.7	0.62	59.7
	450.7	0.69	60.6

Printing every 5 samples

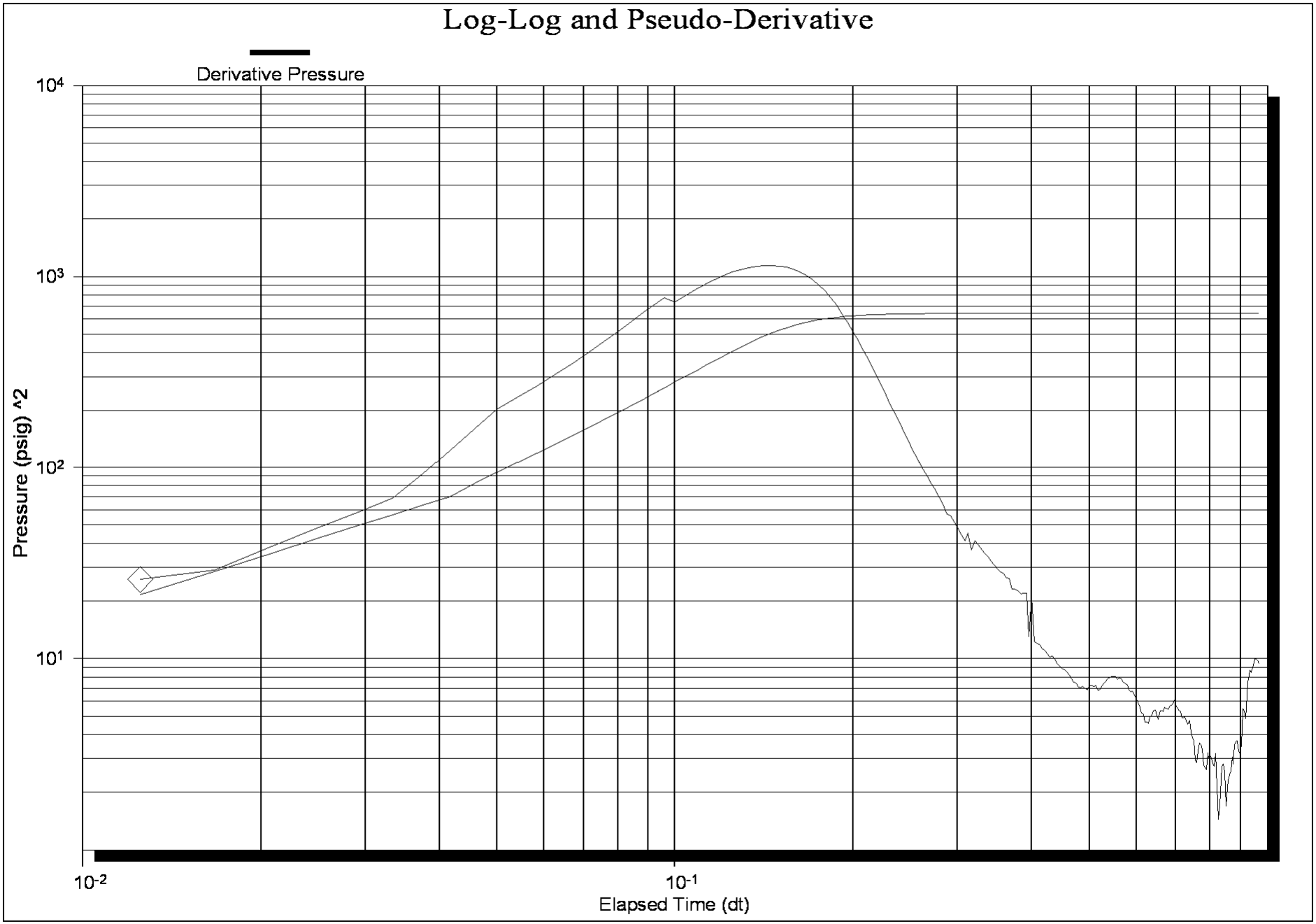


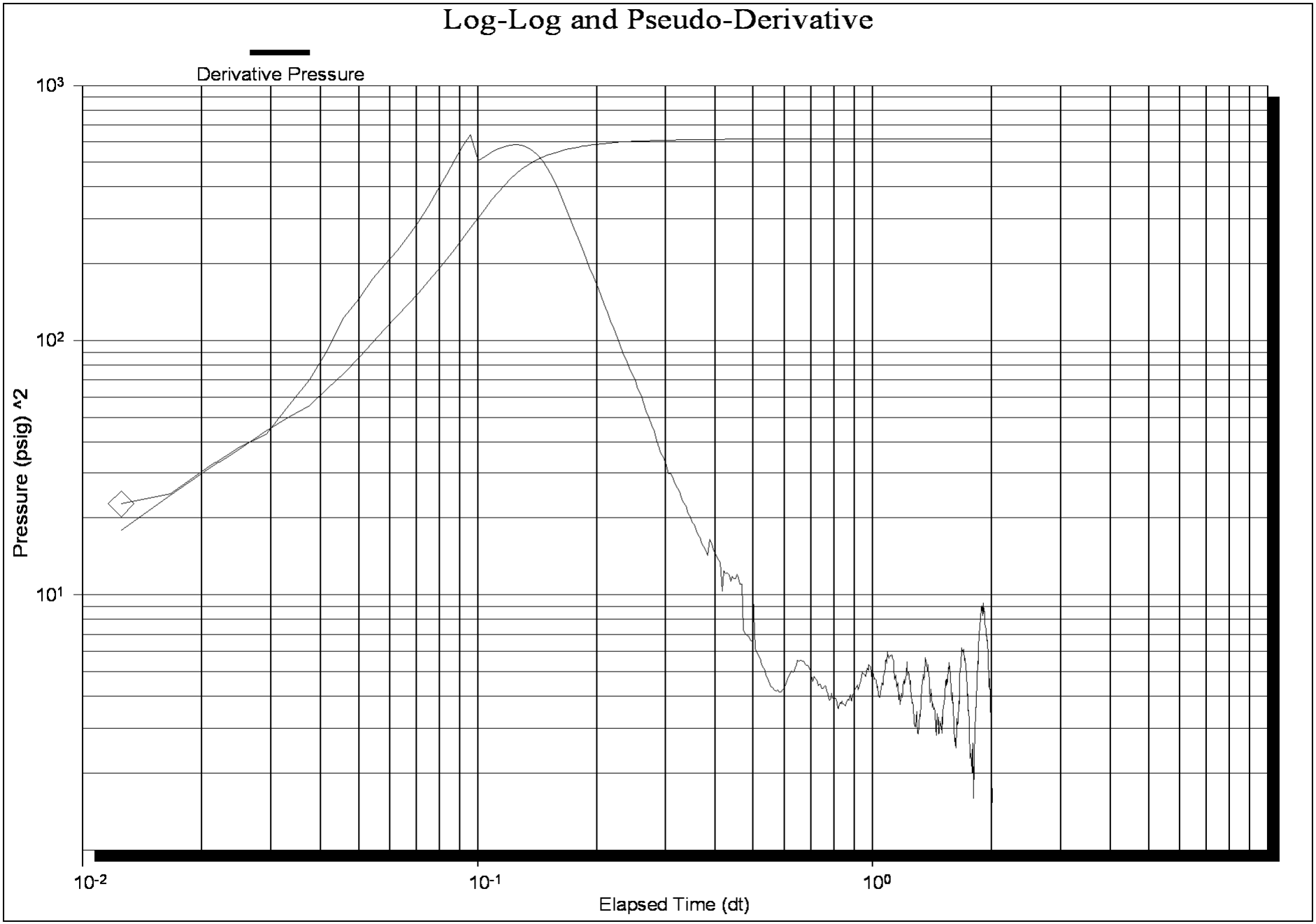
Serial Number: 6799 (Outside) P* : Slope (m) : kpa/log cycle Flow Cycle: 1

Horner Plot



Serial Number: 6799 (Outside) P* : Slope (m) : kpa/log cycle Flow Cycle: 2


Log-Log and Pseudo-Derivative
Derivative Pressure
10^4
10^3
10^2
10^1
Pressure (psig) ^2
10^{-2}
10^{-1}
Elapsed Time (dt)


Log-Log and Pseudo-Derivative
Derivative Pressure
10³
10²
10¹
Pressure (psig) ^2
10⁻²
10⁻¹
10⁰
Elapsed Time (dt)

DRILL STEM TEST REPORT

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42479 **DST#: 2**

Test Start: 2011.05.05 @ 04:58:20

GENERAL INFORMATION:

Formation: **LANSING I&J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:03:20
Time Test Ended: 13:23:35

Test Type: Conventional Bottom Hole
Tester: RANDALL WILLIAMS
Unit No: 43

Interval: 3427.00 ft (KB) To 3453.00 ft (KB) (TVD)
Total Depth: 3453.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

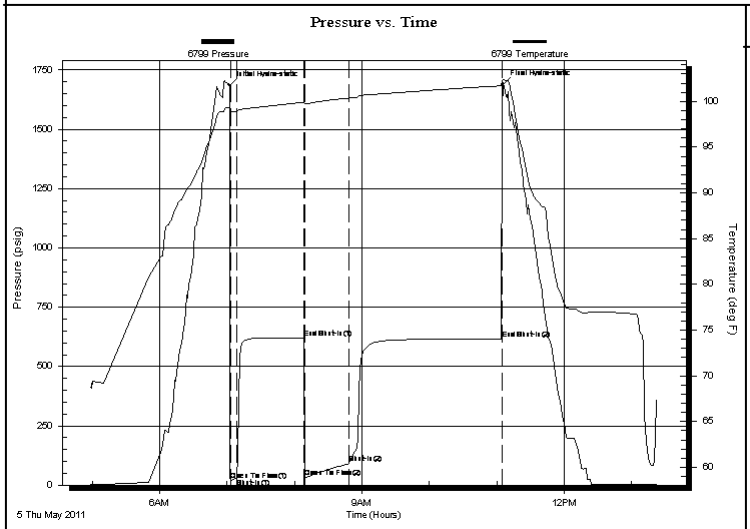
Reference Elevations: 1981.00 ft (KB)
1973.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6799 **Outside**

Press@RunDepth: 91.05 psig @ 3428.00 ft (KB)
Start Date: 2011.05.05 End Date: 2011.05.05
Start Time: 04:58:25 End Time: 13:23:34

Capacity: 8000.00 psig
Last Calib.: 2011.05.05
Time On Btm: 2011.05.05 @ 07:01:50
Time Off Btm: 2011.05.05 @ 11:05:35

TEST COMMENT: IF=5-SBB, BUILT TO BOTTOM BUCKET 1 MIN
ISI=60-WSBB, DIED 20 MINS INTO SHUT IN
FF=40-SBB, BOTTOM BUCKET 30 SEC'S
FSI=135-FBBB, BOTTOM BUCKRT 6 MIN'S



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1684.92	99.34	Initial Hydro-static
2	21.10	98.88	Open To Flow (1)
7	28.90	98.93	Shut-In(1)
67	621.23	99.91	End Shut-In(1)
68	31.37	99.71	Open To Flow (2)
107	91.05	100.37	Shut-In(2)
243	616.22	101.72	End Shut-In(2)
244	1690.68	102.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
242.00	CGO, 30% GAS, 70% OIL	1.19
0.00	2845 - GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42479 **DST#: 2**

Test Start: 2011.05.05 @ 04:58:20

GENERAL INFORMATION:

Formation: **LANSING I&J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:03:20
Time Test Ended: 13:23:35

Test Type: Conventional Bottom Hole
Tester: RANDALL WILLIAMS
Unit No: 43

Interval: 3427.00 ft (KB) To 3453.00 ft (KB) (TVD)
Total Depth: 3453.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

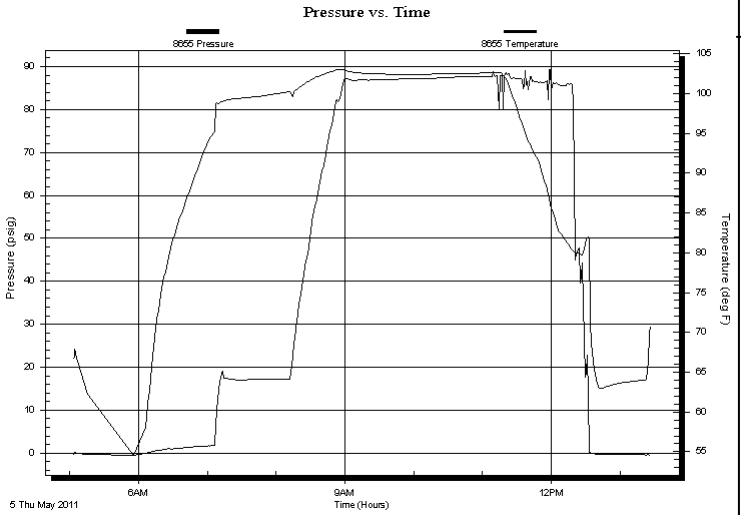
Reference Elevations: 1981.00 ft (KB)
1973.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8655 **Fluid**

Press@RunDepth: psig @ 3399.00 ft (KB)
Start Date: 2011.05.05 End Date: 2011.05.05
Start Time: 05:03:37 End Time: 13:26:46

Capacity: 8000.00 psig
Last Calib.: 2011.05.05
Time On Btm:
Time Off Btm:

TEST COMMENT: IF=5-SBB, BUILT TO BOTTOM BUCKET 1 MIN
ISI=60-WSBB, DIED 20 MINS INTO SHUT IN
FF=40-SBB, BOTTOM BUCKET 30 SEC'S
FSI=135-FBBB, BOTTOM BUCKRT 6 MIN'S



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
242.00	CGO, 30% GAS, 70% OIL	1.19
0.00	2845 - GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

SAM GARY JR & ASSOC

1515 WYNKOOP, STE 700
DENVER, CO, 80202

ATTN: NEIAL SHARP

CLAIR # 2-26

26-16S-16W RUSH

Job Ticket: 42479 **DST#: 2**

Test Start: 2011.05.05 @ 04:58:20

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:	7800 ppm
Viscosity:	69.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.18 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	7800.00 ppm				
Filter Cake:	0.00 inches				

Recovery Information

Recovery Table

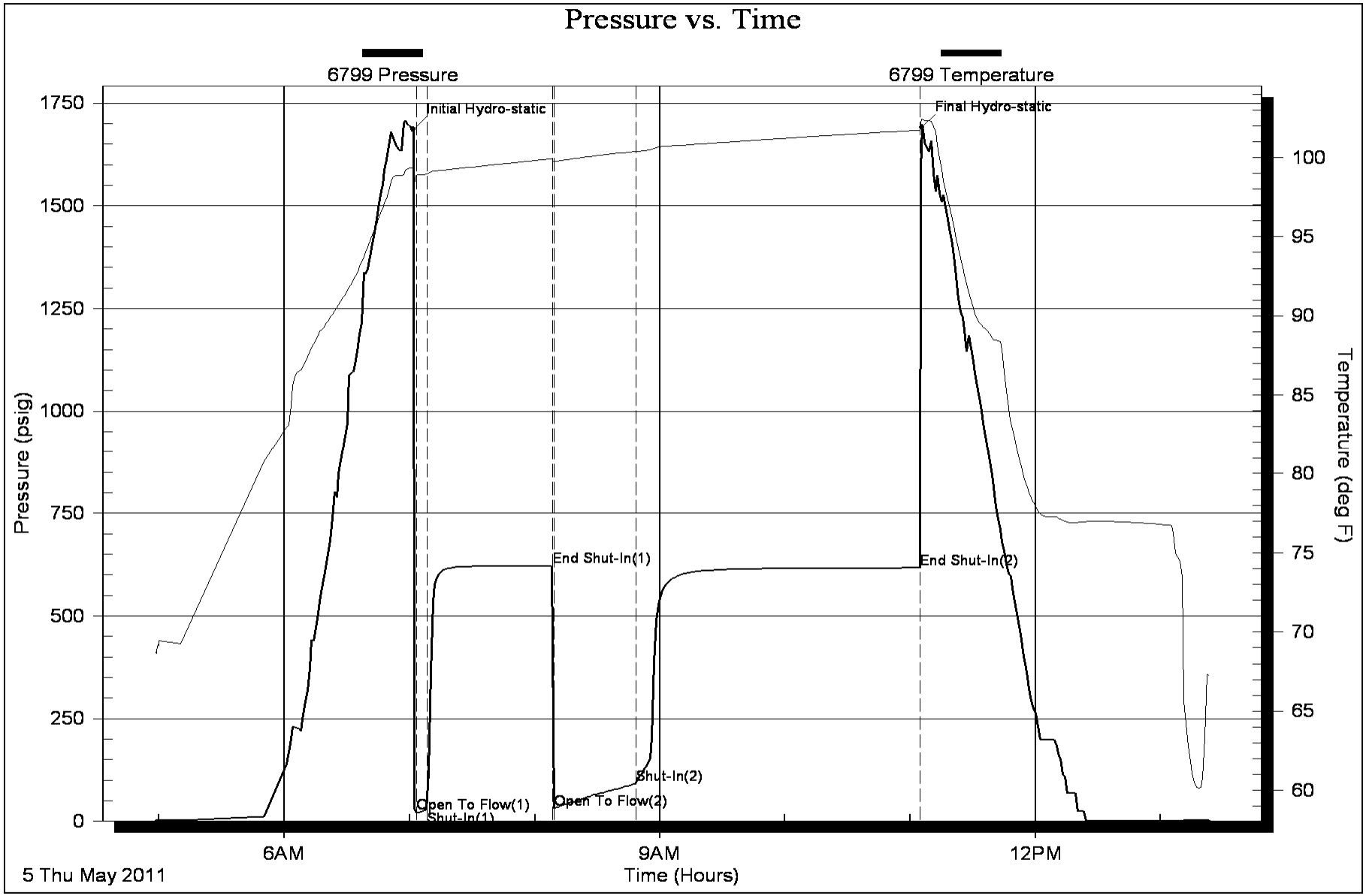
Length ft	Description	Volume bbl
242.00	CGO, 30% GAS, 70% OIL	1.190
0.00	2845 - GIP	0.000

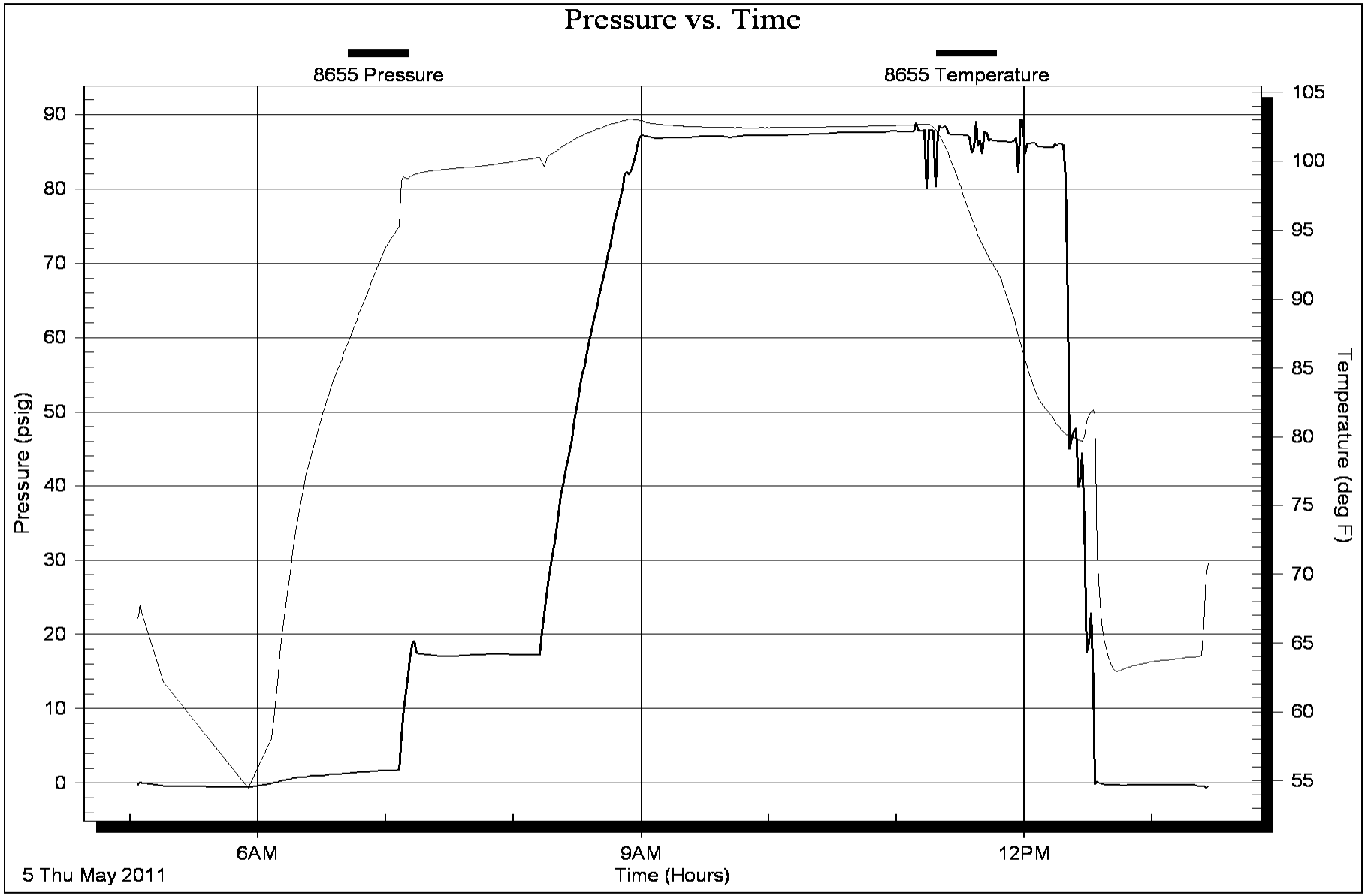
Total Length: 242.00 ft Total Volume: 1.190 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: SAMPLER= 2000ML, 400 PSI
API= 47 @ 60 DEG


Pressure vs. Time
6799 Pressure
6799 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
100
95
90
85
80
75
70
65
60
6AM
9AM
12PM
5 Thu May 2011
Time (Hours)


Pressure vs. Time
8655 Pressure
8655 Temperature
Pressure (psig)
Temperature (deg F)
90
80
70
60
50
40
30
20
10
0
105
100
95
90
85
80
75
70
65
60
55
6AM
9AM
12PM
5 Thu May 2011
Time (Hours)

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

Well Name:	Clair 2-26		
Location:	SEC 26, 16S, 16W, Rush Co. , Kansas		
License Number:	15-165-21920-000	Region:	Wildcat
Spud Date:	04/28/11	Drilling Completed:	05/06/2011
Surface Coordinates:	1100' FNL & 220'' FEL		
Bottom Hole Coordinates:			
Ground Elevation (ft):	1972'	K.B. Elevation (ft):	1982'
Logged Interval (ft):	1750' To: 3660'	Total Depth (ft):	3660'
Formation:	Lansing, Arbuckle		
Type of Drilling Fluid:			

OPERATOR

Company: Samuel Gary Jr, & Assoc.
Address: 1515 Wykoop, Ste. # 700
Denver, Colo. 80202
Geo: Neal Sharp

GEOLOGIST

Name: Rodney Napier
Company: Earth Tech OGL, Inc.
Address: PO Box 683
Hooker, Okla . 73945
Off. 888-543-8378 Cell: 620-282-8377

Circulating Report

START UNMANNED UNIT 05/01/2011
START ONE MANNED UNIT 05/02/2011
CFS 3248'
CFS 3276'
CTCH 1.5 HRS
SHORT TRIP 3276'
CFS 3299'
DST#1 3275'-3299'
CTCH 3299'
CFS 3344'
CFS 3416'
CFS 3437'
CFS 3453
DST#2 3427'-3453'
CTCH 1 HR AFTER DST#2
CFS 3543'
CFS 3565'
CFS 3568'
TD 3660' @ 3:15 AM 05/06/11
CFS/CTCH TOTAL 1.5 HRS
TOH FOR LOGS

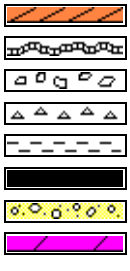
DST's Report

DST#1 3275'-3299' 24' ANCHOR
IF: BOB 3 MIN,ISI: BOB 1 MIN,FSI:WSBB
RECOVERY:63' GOCM,25' GMCO,1462' GIP
IH:1603,FIF:22,FFF:23,ISI:669,SIF:31,SFF:43,FSI:661, FH:1599
TIMES 5,60,40,120
.

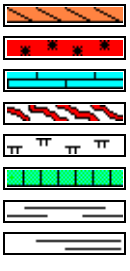
DST's Report

DST#2 3427'-3453' ANCHOR 26'
IF:SBB, BOB 1 MIN,ISI WSBB DIED 20 MINS FF:SBB BOB 30 SEC,FSI: FBBB BOB 6 MINS RECOVERY 2845' GIP,242' CGO
BHT 102 DEG
IH:1685
FIF:21
FFF:29
ISI:621
SIF:31
SFF:91
FSI:616
FH:1691
TIMES: 5,60,40,120

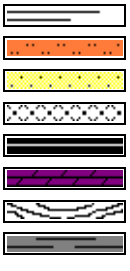
ROCK TYPES



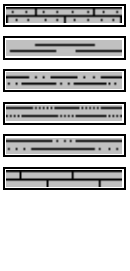
Anhy
Bent
Brec
Cht
Clyst
Coal
Congl
Dol



Gyp
Igne
Lmst
Meta
Mrlst
Salt
Shale
Shcol



Shgy
Sltst
Ss
Till
Carb sh
Dol
Dtd
Gry sh



Sandylms
Shale
Sltstn
Shlyslts
Sltysh
Lms

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

Boundst
Chalky
Cryxln
Earthy
Finexln
Grainst
Lithogr
Microxln
Mudst
Packst
Wackest

OTHER SYMBOLS

POROSITY TYPE

Earthy
Fenest
Fracture
Inter
Moldic
Organic
Pinpoint
Vuggy

SORTING

Well
Moderate
Poor

ROUNDING

Rounded
Subrnd
Subang
Angular

OIL SHOWS

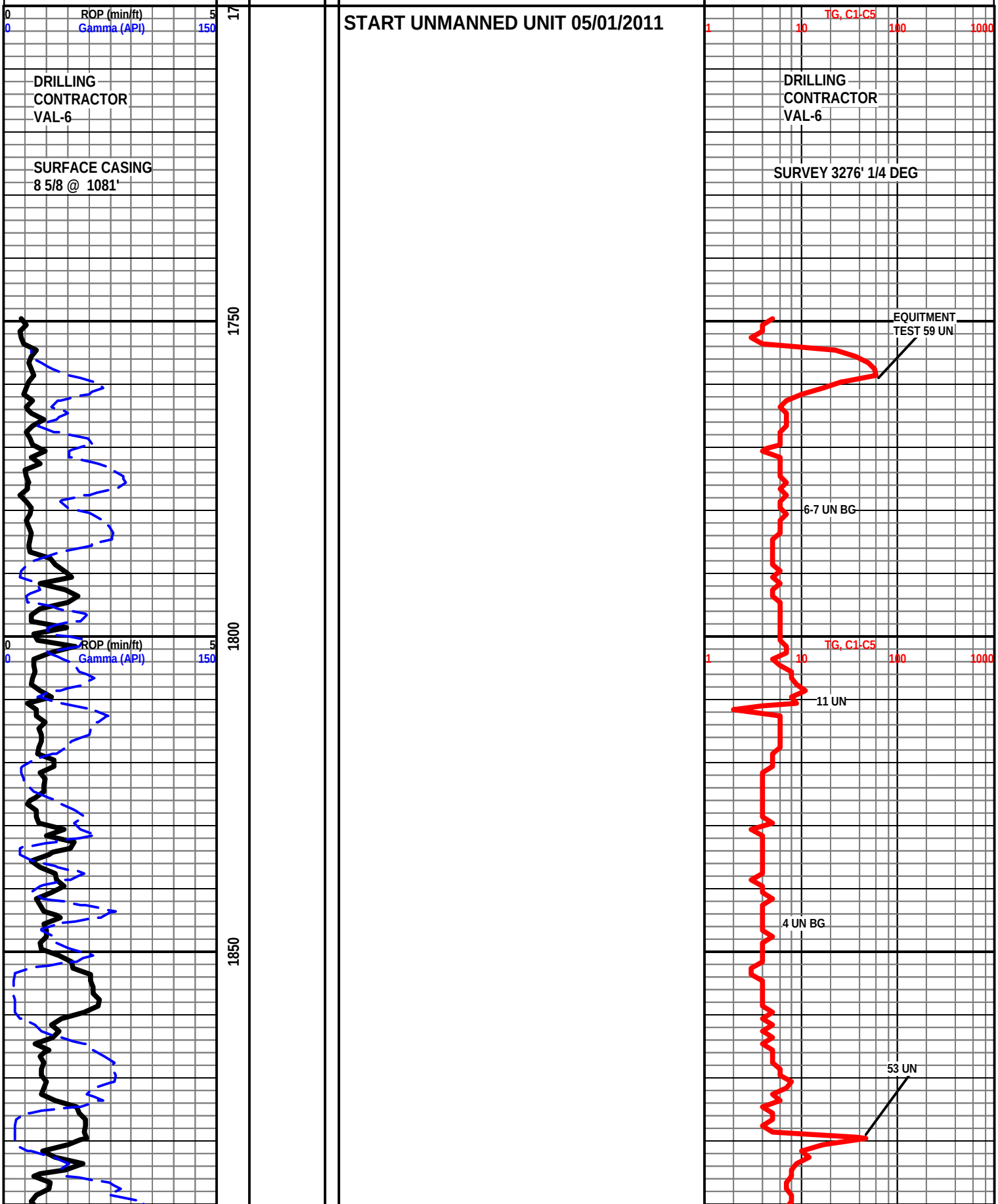
Even
Spotted
Ques
Dead
Gas show

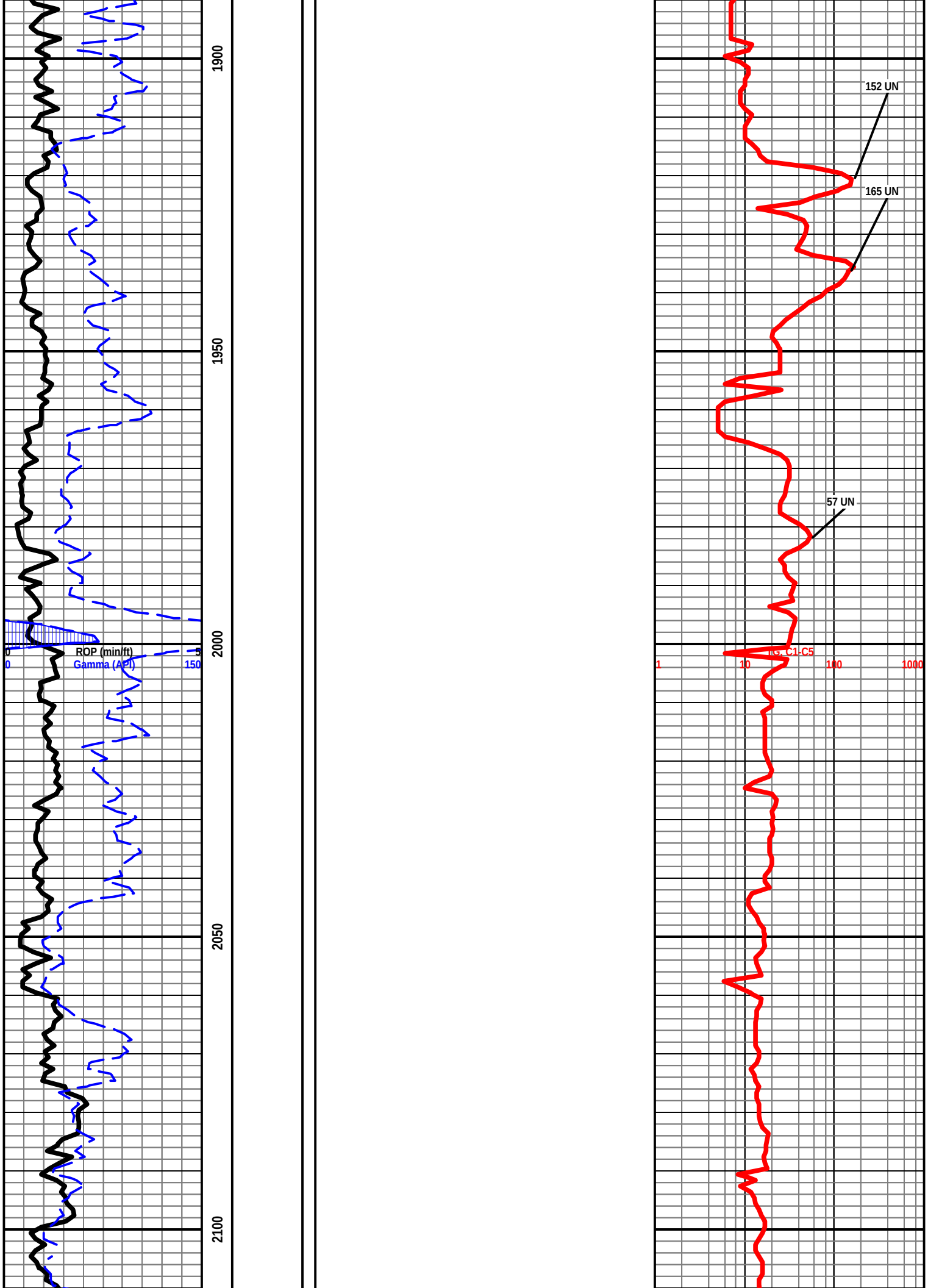
INTERVALS

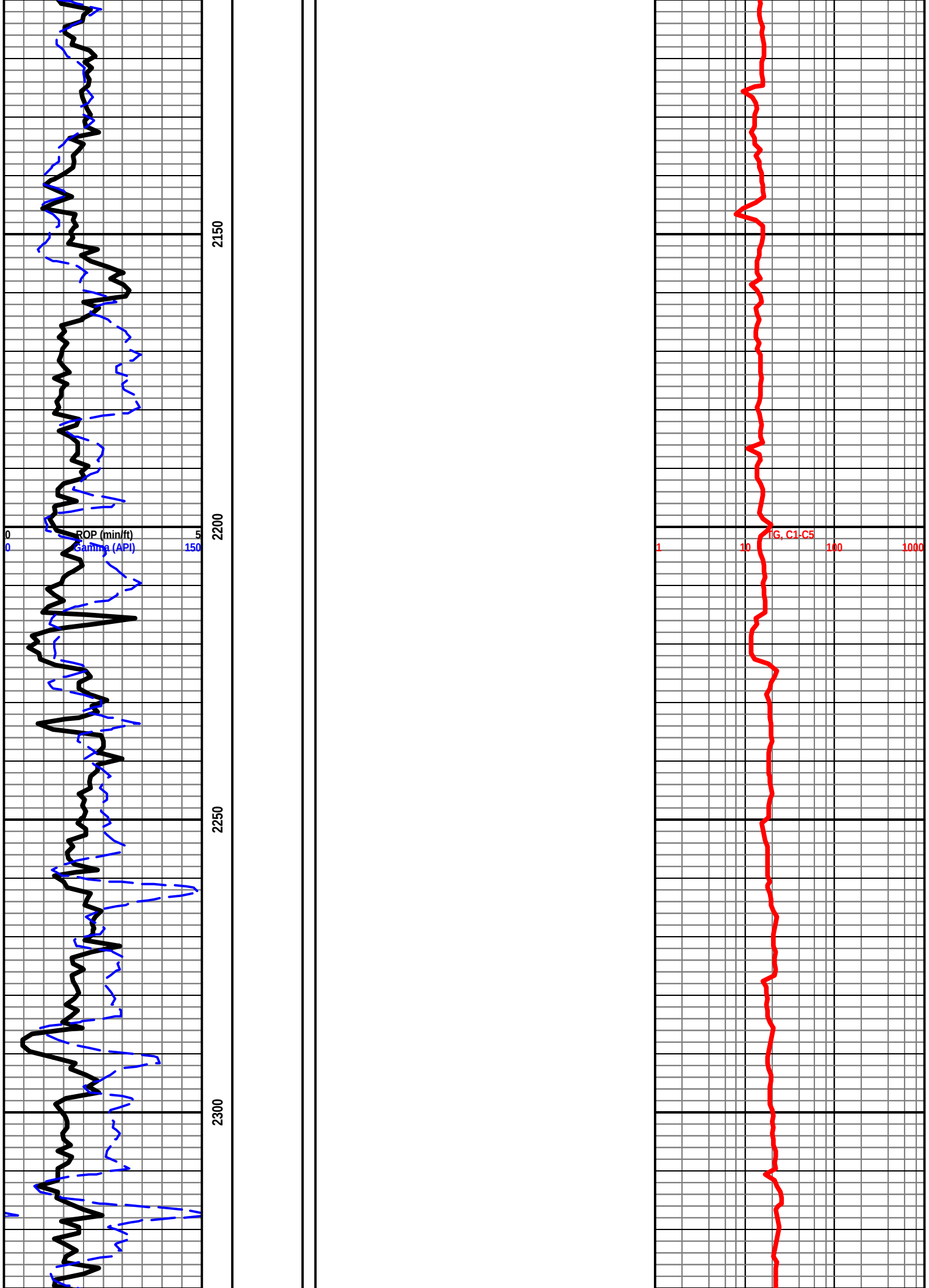
Core
Dst
Dst

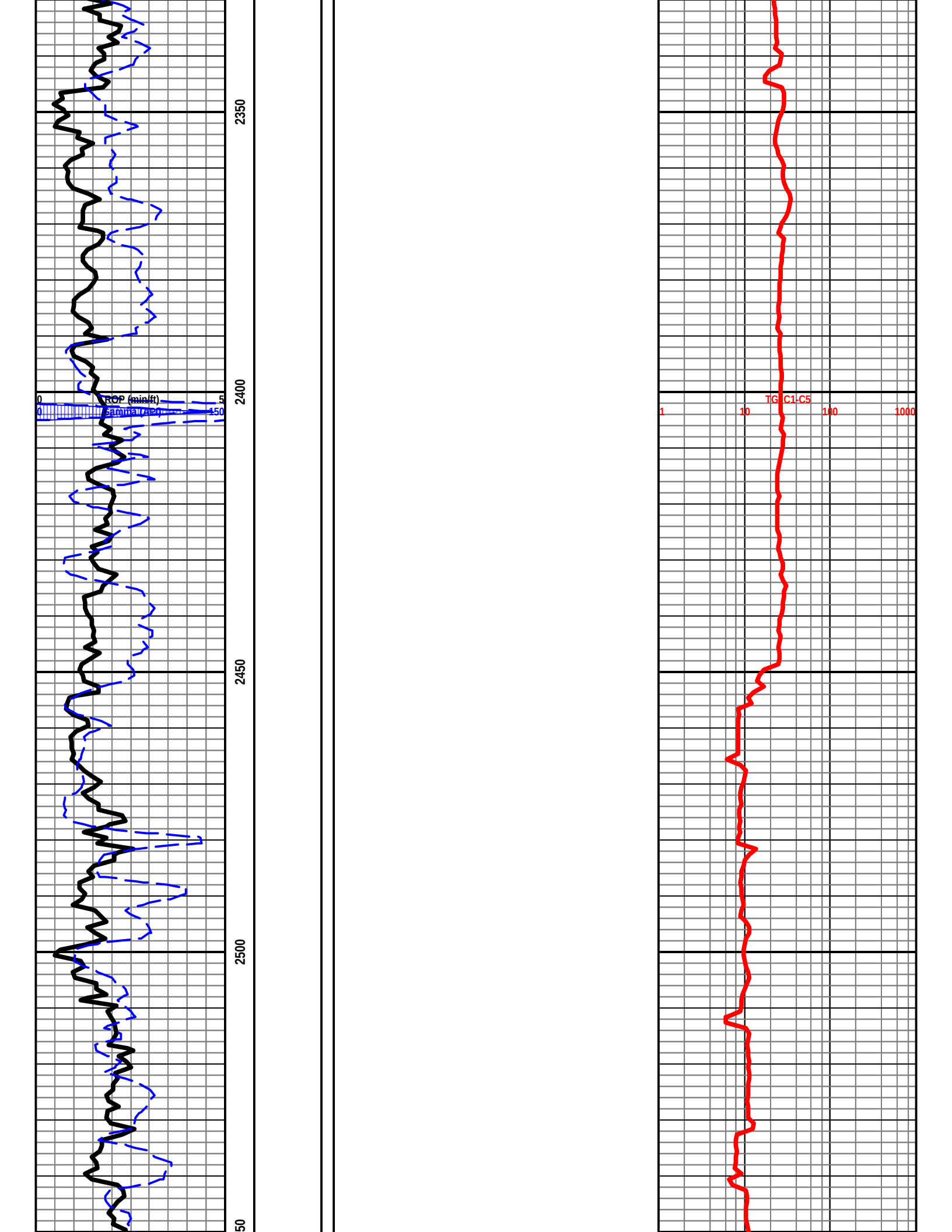
EVENTS

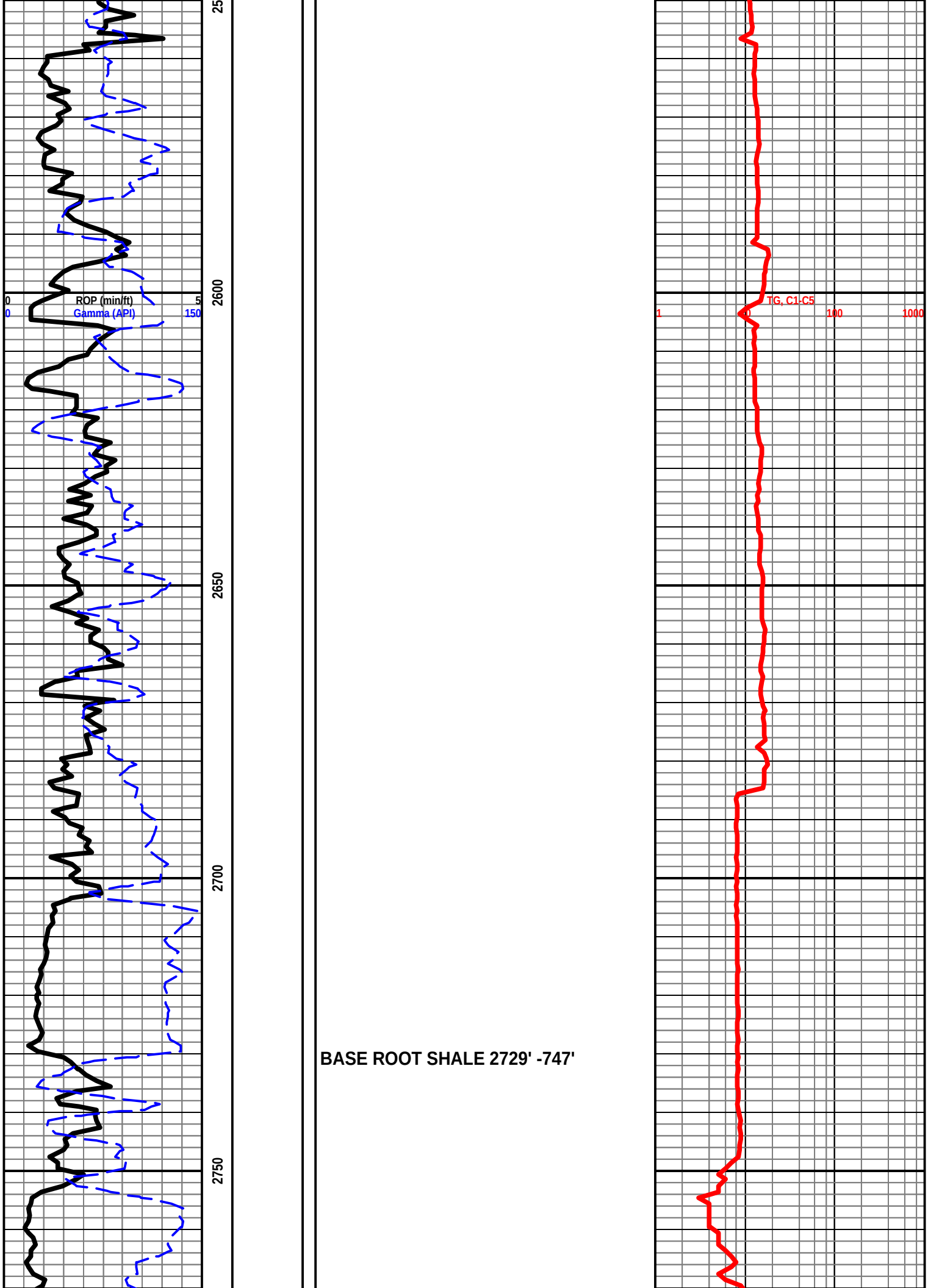
Rft
Sidewall

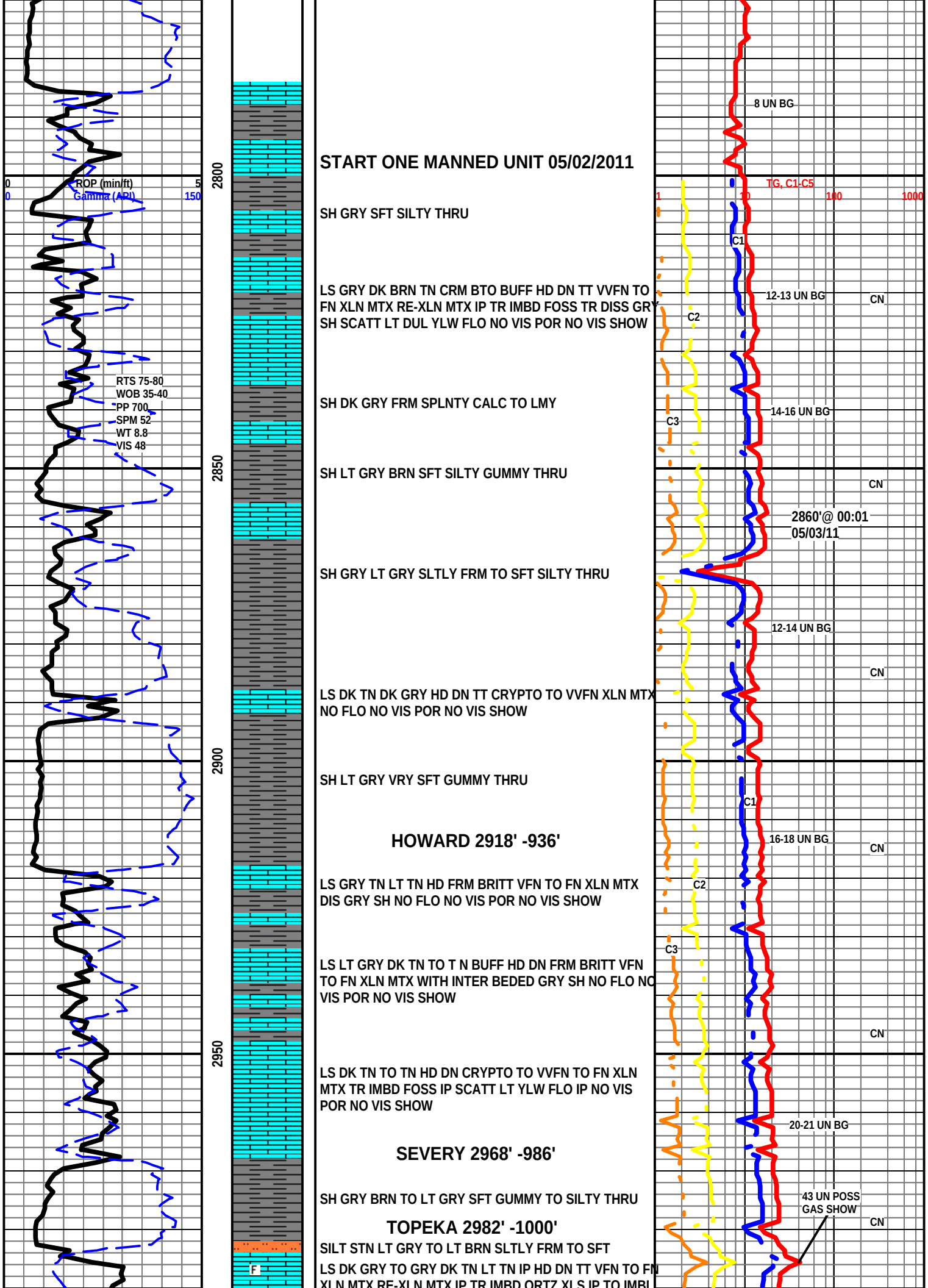

Curve Track 1
ROP (min/ft)
Gamma (API)
Depth
Lithology
Oil Shows
Geological Descriptions
TG, C1-C5
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)
START UNMANNED UNIT 05/01/2011
DRILLING CONTRACTOR VAL-6
SURFACE CASING 8 5/8 @ 1081'
SURVEY 3276' 1/4 DEG
EQUITMENT TEST 59 UN
6-7 UN BG
11 UN
4 UN BG
53 UN
1750
1800
1850

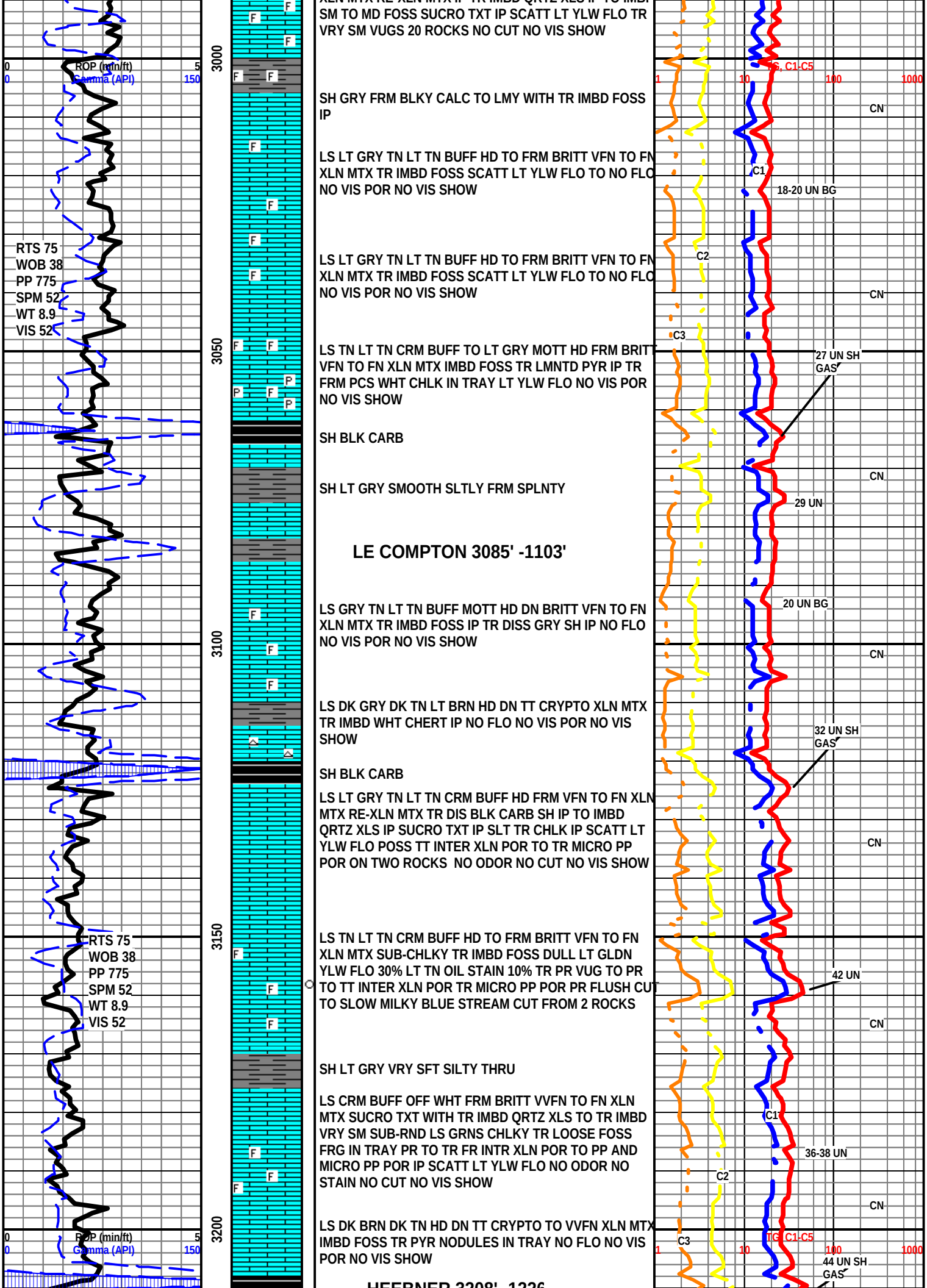

1900
1950
2000
2050
2100
0
ROP (min/ft)
5
0
Gamma (API)
150
152 UN
165 UN
57 UN
1
10
100
1000
TG, C1-C5

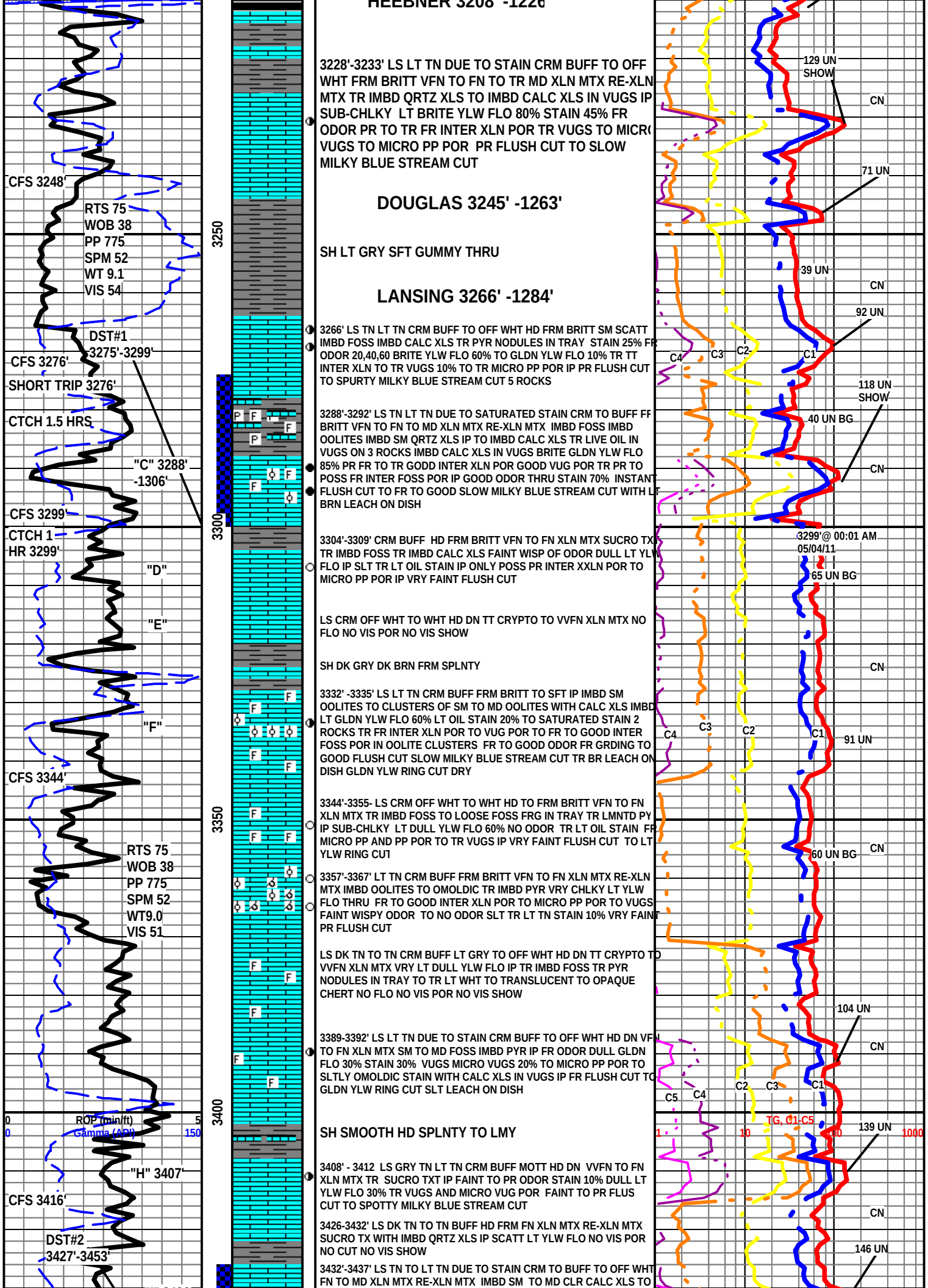

0
ROP (min/ft)
5
0
Gamma (API)
150
2150
2200
2250
2300
TG, C1-C5
1
10
100
1000

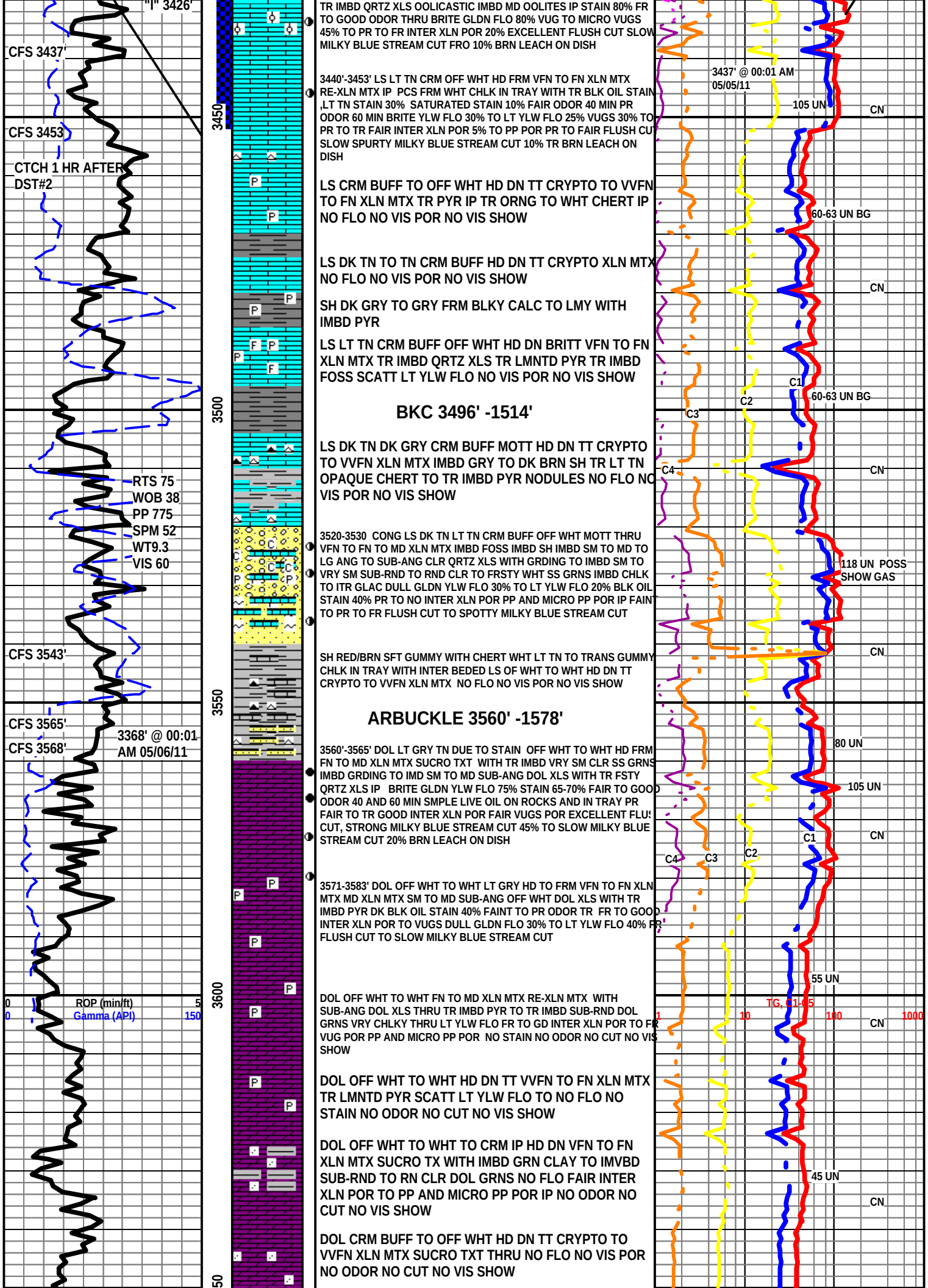

0
ROP (min/ft)
5
0
Gamma (API)
150
2350
2400
2450
2500
TG:C1-C5
1
10
100
1000

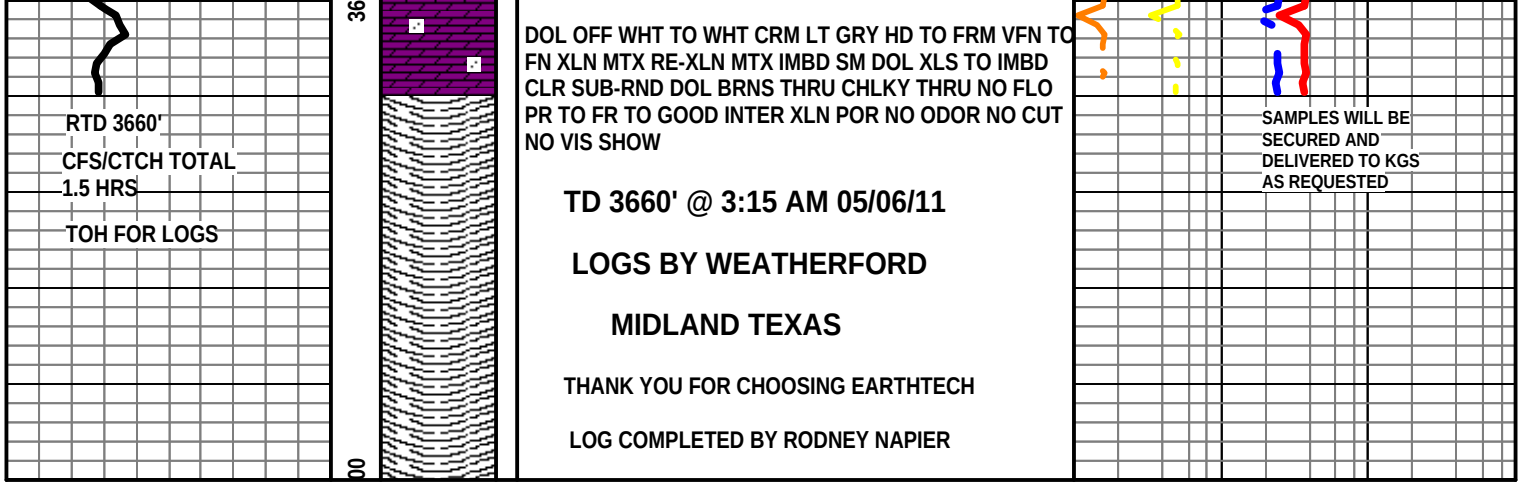

0
ROP (min/ft)
5
0
Gamma (API)
150
2600
2650
2700
2750
TG, C1-C5
1
10
100
1000
BASE ROOT SHALE 2729' -747'


0
ROP (min/ft)
5
0
Gamma (API)
150
RTS 75-80
WOB 35-40
PP 700
SPM 52
WT 8.8
VIS 48
2800
2850
2900
2950
START ONE MANNED UNIT 05/02/2011
SH GRY SFT SILTY THRU
LS GRY DK BRN TN CRM BTO BUFF HD DN TT VVFN TO FN XLN MTX RE-XLN MTX IP TR IMBD FOSS TR DISS GRY SH SCATT LT DUL YLW FLO NO VIS POR NO VIS SHOW
SH DK GRY FRM SPLNTY CALC TO LMY
SH LT GRY BRN SFT SILTY GUMMY THRU
SH GRY LT GRY SLTLY FRM TO SFT SILTY THRU
LS DK TN DK GRY HD DN TT CRYPTO TO VVFN XLN MTX NO FLO NO VIS POR NO VIS SHOW
SH LT GRY VRY SFT GUMMY THRU
HOWARD 2918' -936'
LS GRY TN LT TN HD FRM BRITT VFN TO FN XLN MTX DIS GRY SH NO FLO NO VIS POR NO VIS SHOW
LS LT GRY DK TN TO T N BUFF HD DN FRM BRITT VFN TO FN XLN MTX WITH INTER BEDED GRY SH NO FLO NO VIS POR NO VIS SHOW
LS DK TN TO TN HD DN CRYPTO TO VVFN TO FN XLN MTX TR IMBD FOSS IP SCATT LT YLW FLO IP NO VIS POR NO VIS SHOW
SEVERY 2968' -986'
SH GRY BRN TO LT GRY SFT GUMMY TO SILTY THRU
TOPEKA 2982' -1000'
SILT STN LT GRY TO LT BRN SLTLY FRM TO SFT
LS DK GRY TO GRY DK TN LT TN IP HD DN TT VFN TO FN XLN MTX RE-XLN MTX IP TR IMBD ORTZ XLS IP TO IMBL
F
TG, C1-C5
1
10
100
1000
8 UN BG
C1
12-13 UN BG
CN
C2
C3
14-16 UN BG
CN
2860'@ 00:01
05/03/11
12-14 UN BG
CN
C1
16-18 UN BG
CN
C2
C3
CN
20-21 UN BG
43 UN POSS
GAS SHOW
CN


0
ROP (min/ft)
5
0
Gamma (API)
150
RTS 75
WOB 38
PP 775
SPM 52
WT 8.9
VIS 52
3000
3050
3100
3150
3200
SM TO MD FOSS SUCRO TXT IP SCATT LT YLW FLO TR VRY SM VUGS 20 ROCKS NO CUT NO VIS SHOW
SH GRY FRM BLKY CALC TO LMY WITH TR IMBD FOSS IP
LS LT GRY TN LT TN BUFF HD TO FRM BRITT VFN TO FN XLN MTX TR IMBD FOSS SCATT LT YLW FLO TO NO FLO NO VIS POR NO VIS SHOW
LS LT GRY TN LT TN BUFF HD TO FRM BRITT VFN TO FN XLN MTX TR IMBD FOSS SCATT LT YLW FLO TO NO FLO NO VIS POR NO VIS SHOW
LS TN LT TN CRM BUFF TO LT GRY MOTT HD FRM BRITT VFN TO FN XLN MTX IMBD FOSS TR LMNTD PYR IP TR FRM PCS WHT CHLK IN TRAY LT YLW FLO NO VIS POR NO VIS SHOW
SH BLK CARB
SH LT GRY SMOOTH SLTLY FRM SPLNTY
LE COMPTON 3085' -1103'
LS GRY TN LT TN BUFF MOTT HD DN BRITT VFN TO FN XLN MTX TR IMBD FOSS IP TR DISS GRY SH IP NO FLO NO VIS POR NO VIS SHOW
LS DK GRY DK TN LT BRN HD DN TT CRYPTO XLN MTX TR IMBD WHT CHERT IP NO FLO NO VIS POR NO VIS SHOW
SH BLK CARB
LS LT GRY TN LT TN CRM BUFF HD FRM VFN TO FN XLN MTX RE-XLN MTX TR DIS BLK CARB SH IP TO IMBD QRTZ XLS IP SUCRO TXT IP SLT TR CHLK IP SCATT LT YLW FLO POSS TT INTER XLN POR TO TR MICRO PP POR ON TWO ROCKS NO ODOR NO CUT NO VIS SHOW
LS TN LT TN CRM BUFF HD TO FRM BRITT VFN TO FN XLN MTX SUB-CHLKY TR IMBD FOSS DULL LT GLDN YLW FLO 30% LT TN OIL STAIN 10% TR PR VUG TO PR TO TT INTER XLN POR TR MICRO PP POR PR FLUSH CUT TO SLOW MILKY BLUE STREAM CUT FROM 2 ROCKS
SH LT GRY VRY SFT SILTY THRU
LS CRM BUFF OFF WHT FRM BRITT VVFN TO FN XLN MTX SUCRO TXT WITH TR IMBD QRTZ XLS TO TR IMBD VRY SM SUB-RND LS GRNS CHLKY TR LOOSE FOSS FRG IN TRAY PR TO TR FR INTR XLN POR TO PP AND MICRO PP POR IP SCATT LT YLW FLO NO ODOR NO STAIN NO CUT NO VIS SHOW
LS DK BRN DK TN HD DN TT CRYPTO TO VVFN XLN MTX IMBD FOSS TR PYR NODULES IN TRAY NO FLO NO VIS POR NO VIS SHOW
HEEBNER 3208' -1226
TG, C1-C5
1
10
100
1000
CN
C1
18-20 UN BG
C2
C3
27 UN SH GAS
29 UN
20 UN BG
32 UN SH GAS
42 UN
36-38 UN
44 UN SH GAS


HEEBNER 3208' -1226'
3228'-3233' LS LT TN DUE TO STAIN CRM BUFF TO OFF WHT FRM BRITT VFN TO FN TO TR MD XLN MTX RE-XLN MTX TR IMBD QRTZ XLS TO IMBD CALC XLS IN VUGS IP SUB-CHLKY LT BRITE YLW FLO 80% STAIN 45% FR ODOR PR TO TR FR INTER XLN POR TR VUGS TO MICR(VUGS TO MICRO PP POR PR FLUSH CUT TO SLOW MILKY BLUE STREAM CUT
129 UN SHOW
CN
71 UN
CFS 3248'
RTS 75
WOB 38
PP 775
SPM 52
WT 9.1
VIS 54
DOUGLAS 3245' -1263'
SH LT GRY SFT GUMMY THRU
39 UN
CN
LANSING 3266' -1284'
92 UN
3266' LS TN LT TN CRM BUFF TO OFF WHT HD FRM BRITT SM SCATT IMBD FOSS IMBD CALC XLS TR PYR NODULES IN TRAY STAIN 25% FR ODOR 20,40,60 BRITE YLW FLO 60% TO GLDN YLW FLO 10% TR TT INTER XLN TO TR VUGS 10% TO TR MICRO PP POR IP PR FLUSH CUT TO SPURTY MILKY BLUE STREAM CUT 5 ROCKS
C4
C3
C2
C1
DST#1
3275'-3299'
CFS 3276'
SHORT TRIP 3276'
CTCH 1.5 HRS
118 UN SHOW
3288'-3292' LS TN LT TN DUE TO SATURATED STAIN CRM TO BUFF FF BRITT VFN TO FN TO MD XLN MTX RE-XLN MTX IMBD FOSS IMBD OOLITES IMBD SM QRTZ XLS IP TO IMBD CALC XLS TR LIVE OIL IN VUGS ON 3 ROCKS IMBD CALC XLS IN VUGS BRITE GLDN YLW FLO 85% PR FR TO TR GODD INTER XLN POR GOOD VUG POR TR PR TO POSS FR INTER FOSS POR IP GOOD ODOR THRU STAIN 70% INSTANT FLUSH CUT TO FR TO GOOD SLOW MILKY BLUE STREAM CUT WITH LT BRN LEACH ON DISH
40 UN BG
CN
"C" 3288'
-1306'
CFS 3299'
CTCH 1 HR 3299'
3304'-3309' CRM BUFF HD FRM BRITT VFN TO FN XLN MTX SUCRO TX TR IMBD FOSS TR IMBD CALC XLS FAINT WISP OF ODOR DULL LT YLW FLO IP SLT TR LT OIL STAIN IP ONLY POSS PR INTER XXLN POR TO MICRO PP POR IP VRY FAINT FLUSH CUT
3299'@ 00:01 AM 05/04/11
65 UN BG
"D"
LS CRM OFF WHT TO WHT HD DN TT CRYPTO TO VVFN XLN MTX NO FLO NO VIS POR NO VIS SHOW
"E"
SH DK GRY DK BRN FRM SPLNTY
CN
3332' -3335' LS LT TN CRM BUFF FRM BRITT TO SFT IP IMBD SM OOLITES TO CLUSTERS OF SM TO MD OOLITES WITH CALC XLS IMBD LT GLDN YLW FLO 60% LT OIL STAIN 20% TO SATURATED STAIN 2 ROCKS TR FR INTER XLN POR TO VUG POR TO FR TO GOOD INTER FOSS POR IN OOLITE CLUSTERS FR TO GOOD ODOR FR GRDING TO GOOD FLUSH CUT SLOW MILKY BLUE STREAM CUT TR BR LEACH ON DISH GLDN YLW RING CUT DRY
C4
C3
C2
C1
91 UN
"F"
CFS 3344'
3344'-3355- LS CRM OFF WHT TO WHT HD TO FRM BRITT VFN TO FN XLN MTX TR IMBD FOSS TO LOOSE FOSS FRG IN TRAY TR LMNTD PY IP SUB-CHLKY LT DULL YLW FLO 60% NO ODOR TR LT OIL STAIN FR MICRO PP AND PP POR TO TR VUGS IP VRY FAINT FLUSH CUT TO LT YLW RING CUT
60 UN BG
CN
RTS 75
WOB 38
PP 775
SPM 52
WT9.0
VIS 51
3357'-3367' LT TN CRM BUFF FRM BRITT VFN TO FN XLN MTX RE-XLN MTX IMBD OOLITES TO OMOLDIC TR IMBD PYR VRY CHLKY LT YLW FLO THRU FR TO GOOD INTER XLN POR TO MICRO PP POR TO VUGS FAINT WISPY ODOR TO NO ODOR SLT TR LT TN STAIN 10% VRY FAINT PR FLUSH CUT
LS DK TN TO TN CRM BUFF LT GRY TO OFF WHT HD DN TT CRYPTO TO VVFN XLN MTX VRY LT DULL YLW FLO IP TR IMBD FOSS TR PYR NODULES IN TRAY TO TR LT WHT TO TRANSLUCENT TO OPAQUE CHERT NO FLO NO VIS POR NO VIS SHOW
104 UN
CN
3389-3392' LS LT TN DUE TO STAIN CRM BUFF TO OFF WHT HD DN VFN TO FN XLN MTX SM TO MD FOSS IMBD PYR IP FR ODOR DULL GLDN FLO 30% STAIN 30% VUGS MICRO VUGS 20% TO MICRO PP POR TO SLTLY OMOLDIC STAIN WITH CALC XLS IN VUGS IP FR FLUSH CUT TO GLDN YLW RING CUT SLT LEACH ON DISH
C5
C4
C2
C3
C1
0
ROP (min/ft)
5
0
Gamma (API)
150
SH SMOOTH HD SPLNTY TO LMY
TG, C1-C5
1
10
100
1000
139 UN
"H" 3407'
CFS 3416'
3408' - 3412 LS GRY TN LT TN CRM BUFF MOTT HD DN VVFN TO FN XLN MTX TR SUCRO TXT IP FAINT TO PR ODOR STAIN 10% DULL LT YLW FLO 30% TR VUGS AND MICRO VUG POR FAINT TO PR FLUS CUT TO SPOTTY MILKY BLUE STREAM CUT
CN
3426-3432' LS DK TN TO TN BUFF HD FRM FN XLN MTX RE-XLN MTX SUCRO TX WITH IMBD QRTZ XLS IP SCATT LT YLW FLO NO VIS POR NO CUT NO VIS SHOW
DST#2
3427'-3453'
146 UN
3432'-3437' LS TN TO LT TN DUE TO STAIN CRM TO BUFF TO OFF WHT FN TO MD XLN MTX RE-XLN MTX IMBD SM TO MD CLR CALC XLS TO
3250
3300
3350
3400


"I" 3426'
CFS 3437'
CFS 3453
CTCH 1 HR AFTER DST#2
RTS 75
WOB 38
PP 775
SPM 52
WT9.3
VIS 60
CFS 3543'
CFS 3565'
CFS 3568'
3368' @ 00:01 AM 05/06/11
0
ROP (min/ft)
5
0
Gamma (API)
150
3450
3500
3550
3600
TR IMBD QRTZ XLS OOLICASTIC IMBD MD OOLITES IP STAIN 80% FR TO GOOD ODOR THRU BRITE GLDN FLO 80% VUG TO MICRO VUGS 45% TO PR TO FR INTER XLN POR 20% EXCELLENT FLUSH CUT SLOW MILKY BLUE STREAM CUT FRO 10% BRN LEACH ON DISH
3440'-3453' LS LT TN CRM OFF WHT HD FRM VFN TO FN XLN MTX RE-XLN MTX IP PCS FRM WHT CHLK IN TRAY WITH TR BLK OIL STAIN ,LT TN STAIN 30% SATURATED STAIN 10% FAIR ODOR 40 MIN PR ODOR 60 MIN BRITE YLW FLO 30% TO LT YLW FLO 25% VUGS 30% TO PR TO TR FAIR INTER XLN POR 5% TO PP POR PR TO FAIR FLUSH CUT SLOW SPURTY MILKY BLUE STREAM CUT 10% TR BRN LEACH ON DISH
LS CRM BUFF TO OFF WHT HD DN TT CRYPTO TO VVFN TO FN XLN MTX TR PYR IP TR ORNG TO WHT CHERT IP NO FLO NO VIS POR NO VIS SHOW
LS DK TN TO TN CRM BUFF HD DN TT CRYPTO XLN MTX NO FLO NO VIS POR NO VIS SHOW
SH DK GRY TO GRY FRM BLKY CALC TO LMY WITH IMBD PYR
LS LT TN CRM BUFF OFF WHT HD DN BRITT VFN TO FN XLN MTX TR IMBD QRTZ XLS TR LMNTD PYR TR IMBD FOSS SCATT LT YLW FLO NO VIS POR NO VIS SHOW
BKC 3496' -1514'
LS DK TN DK GRY CRM BUFF MOTT HD DN TT CRYPTO TO VVFN XLN MTX IMBD GRY TO DK BRN SH TR LT TN OPAQUE CHERT TO TR IMBD PYR NODULES NO FLO NO VIS POR NO VIS SHOW
3520-3530 CONG LS DK TN LT TN CRM BUFF OFF WHT MOTT THRU VFN TO FN TO MD XLN MTX IMBD FOSS IMBD SH IMBD SM TO MD TO LG ANG TO SUB-ANG CLR QRTZ XLS WITH GRDING TO IMBD SM TO VRY SM SUB-RND TO RND CLR TO FRSTY WHT SS GRNS IMBD CHLK TO ITR GLAC DULL GLDN YLW FLO 30% TO LT YLW FLO 20% BLK OIL STAIN 40% PR TO NO INTER XLN POR PP AND MICRO PP POR IP FAINT TO PR TO FR FLUSH CUT TO SPOTTY MILKY BLUE STREAM CUT
SH RED/BRN SFT GUMMY WITH CHERT WHT LT TN TO TRANS GUMMY CHLK IN TRAY WITH INTER BEDED LS OF WHT TO WHT HD DN TT CRYPTO TO VVFN XLN MTX NO FLO NO VIS POR NO VIS SHOW
ARBUCKLE 3560' -1578'
3560'-3565' DOL LT GRY TN DUE TO STAIN OFF WHT TO WHT HD FRM FN TO MD XLN MTX SUCRO TXT WITH TR IMBD VRY SM CLR SS GRNS IMBD GRDING TO IMD SM TO MD SUB-ANG DOL XLS WITH TR FSTY QRTZ XLS IP BRITE GLDN YLW FLO 75% STAIN 65-70% FAIR TO GOOD ODOR 40 AND 60 MIN SMPLE LIVE OIL ON ROCKS AND IN TRAY PR FAIR TO TR GOOD INTER XLN POR FAIR VUGS POR EXCELLENT FLUS CUT, STRONG MILKY BLUE STREAM CUT 45% TO SLOW MILKY BLUE STREAM CUT 20% BRN LEACH ON DISH
3571-3583' DOL OFF WHT TO WHT LT GRY HD TO FRM VFN TO FN XLN MTX MD XLN MTX SM TO MD SUB-ANG OFF WHT DOL XLS WITH TR IMBD PYR DK BLK OIL STAIN 40% FAINT TO PR ODOR TR FR TO GOOD INTER XLN POR TO VUGS DULL GLDN FLO 30% TO LT YLW FLO 40% FR FLUSH CUT TO SLOW MILKY BLUE STREAM CUT
DOL OFF WHT TO WHT FN TO MD XLN MTX RE-XLN MTX WITH SUB-ANG DOL XLS THRU TR IMBD PYR TO TR IMBD SUB-RND DOL GRNS VRY CHLKY THRU LT YLW FLO FR TO GD INTER XLN POR TO FR VUG POR PP AND MICRO PP POR NO STAIN NO ODOR NO CUT NO VIS SHOW
DOL OFF WHT TO WHT HD DN TT VVFN TO FN XLN MTX TR LMNTD PYR SCATT LT YLW FLO TO NO FLO NO STAIN NO ODOR NO CUT NO VIS SHOW
DOL OFF WHT TO WHT TO CRM IP HD DN VFN TO FN XLN MTX SUCRO TX WITH IMBD GRN CLAY TO IMVBD SUB-RND TO RN CLR DOL GRNS NO FLO FAIR INTER XLN POR TO PP AND MICRO PP POR IP NO ODOR NO CUT NO VIS SHOW
DOL CRM BUFF TO OFF WHT HD DN TT CRYPTO TO VVFN XLN MTX SUCRO TXT THRU NO FLO NO VIS POR NO ODOR NO CUT NO VIS SHOW
3437' @ 00:01 AM 05/05/11
105 UN
CN
60-63 UN BG
C1
C2
C3
C4
118 UN POSS SHOW GAS
80 UN
55 UN
45 UN
TG, C1-C5
1
10
100
1000


RTD 3660'
CFS/CTCH TOTAL
1.5 HRS
TOH FOR LOGS
DOL OFF WHT TO WHT CRM LT GRY HD TO FRM VFN TO
FN XLN MTX RE-XLN MTX IMBD SM DOL XLS TO IMBD
CLR SUB-RND DOL BRNS THRU CHLKY THRU NO FLO
PR TO FR TO GOOD INTER XLN POR NO ODOR NO CUT
NO VIS SHOW
TD 3660' @ 3:15 AM 05/06/11
LOGS BY WEATHERFORD
MIDLAND TEXAS
THANK YOU FOR CHOOSING EARTHTECH
LOG COMPLETED BY RODNEY NAPIER
SAMPLES WILL BE
SECURED AND
DELIVERED TO KGS
AS REQUESTED