KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1047365

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: CLAYTON CAMOZZI
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 #:

07/27/2010	08/05/2010	08/13/2010
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-165-21891-00-00
Spot Description:
SW NW SW NE Sec. 3 Twp. 17 S. R. 16 [ ] East [x] West
1830 Feet from [x] North / [ ] South Line of Section
2500 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:
[x] NE [ ] NW [ ] SE [ ] SW
County: Rush
Lease Name: YARMER ET AL Well #: 1-3
Field Name:
Producing Formation: LANSING
Elevation: Ground: 1974 Kelly Bushing: 1984
Total Depth: 3718 Plug Back Total Depth: 3577
Amount of Surface Pipe Set and Cemented at: 1086 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: 1000 bbls
Dewatering method used: Hauled to Disposal

Location of fluid disposal if hauled offsite:

Operator Name: SAM GARY JR & ASSOCIATES
Lease Name: MATTHAEI TRUST License #: 3882
Quarter SW Sec. 19 Twp. 18 S. R. 9 [ ] East [x] West
County: RICE Permit #: 15165218810000

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: 11/23/2010
- [x] Confidential Release Date: 11/22/2012
- [x] Wireline Log Received
- [ ] Geologist Report Received
- [ ] UIC Distribution

ALT [x] I [ ] II [ ] III Approved by: NAOMI JAMES Date: 11/30/2010

Side Two

1047365

Operator Name: Samuel Gary Jr. & Associates, Inc. Lease Name: YARMER ET AL Well #: 1-3

Sec. 3 Twp. 17 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	2971	-2971
HEEBNER	3203	-1219
DOUGLAS	3235	-1251
LANSING	3259	-1275
ARBUCKLE	3582	-1598
TD	3718	

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	1086	CLASS A	400	3% CC, 2% GEL
PRODUCTION	7.875	5.5	15.5	3719	ECON-O-BOND	150	4% GEL, 2% CC

ADDITIONAL CEMENTING / SQUEEZE RECORD

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

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	3404'-12'	2000 gallons of 20% NE and loaded hole w/ lease water	3404'-12'
4	3506'-11'	500 gal of 20% MCA w/ 3% MAS and loaded hole w/ produced water to surface	3506'-11'

TUBING RECORD: Size: 2.875 Set At: 3710' Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 08/26/2010

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:
3404'-3511' 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	YARMER ET AL 1-3
Doc ID	1047365

All Electric Logs Run

MICRO-RESISTIVITY LOG
COMPENSATED SONIC W/ INTEGRATED TRANSIT TIMES
ARRAY INDUCTION SHALLOW FOCUSSED ELECTRIC LOG
COMPACT PHOTO DENSITY COMPENSATED NEUTRON LOG

KANSAS
CORPORATION COMMISSION

November 23, 2010

CLAYTON CAMOZZI
Samuel Gary Jr. & Associates, Inc.
1515 WYNKOOP, STE 700
DENVER, CO 80202

Re: ACO1
API 15-165-21891-00-00
YARMER ET AL 1-3
NE/4 Sec.03-17S-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,
CLAYTON CAMOZZI

QUALITY OILWELL CEMENTING, INC.
240 W. 1st Ave. Russell KS 67665
Phone: 785 324 1041 fax: 785 483 1087
Email: cementing@ruraltel.net
Pratt location 620 388 5422

Date: 8/4/2010
Invoice # 4099

P.O.#:

Due Date: 9/3/2010
Division:

Invoice

Contact:
Samuel Gary Jr & Associates Inc
Address/Job Location:
Samuel Gary Jr & Associates Inc
P.O. BOX 448
RUSSELL KS 67665

☑ DRLG ☐ COMP ☐ W/O ☐ LOE
AFE #
ACCT. # 3200-138
APPROVED BY KJS

Reference:
YARMER ET AL 1-3

Description of Work:

Services / Items Included:	Quantity	Price
Surface Job	1	$0.00
ɜage-from Job location to Nearest Camp	32	$251.59
Premium Gel (Bentonite)	8	$112.62
Flo Seal	100	$172.95
Common-Class A	400	$4,046.96
Calcium Chloride	14	$0.00
⊦from Job location to Nearest Bulk Plant	32	$147.22
. Truck Material-Material Service Charge	422	$664.91
Baffle Plate Aluminum, 8 5/8"	1	$77.83
	Labor:	$548.34

Item	Quantity	Price
8 5/8" Top Rubber Plug	1	$91.66
8 5/8" Centralizer	3	$166.03
8 5/8" Basket	3	$819.77

Invoice Terms:
Net 30

Quoted by: Dave Funk

SubTotal:	$	8,228.85
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice:	$	(1,234.33)
Total:	$	6,994.53
Tax:	$	560.74
	$	**7,555.27**
Applied Payments:		
Balance Due:	**$**	**7,555.27**

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.

RECEIVED
AUG 23 2010
SAMUEL GARY JR.
& ASSOCIATES, INC.

QUALITY OILWELL CEMENTING, INC.

No. 4099

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

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

Date	Sec.	Twp.	Range	County	State	On Location	Finish
7-28-2010	3	17	16	Rush	Ks		10:15

Location Galatia, Ks 5W to C.R. 330, 2S

Lease Yaeger ET AL Well No. #1-3

Owner 1/3, 3/4 S, W/S

Contractor Val Energy Rig #6

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.

Type Job Surface

Hole Size 12¼" T.D. 1086'

Csg. 8 5/8" Depth 1086'

Charge To Sam Gary

Tbg. Size Depth

Street

Tool Depth

City State

Cement Left in Csg. 17.27' Shoe Joint 17.27'

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

Meas Line Displace 67 BBLS

Cement Amount Ordered 400 sx Common 3%CC 2% Gel ¼ Flowseal

EQUIPMENT

Pumptrk 9	No.	Cementer	
		Helper Wade	3
Bulktrk 12	No.	Driven	
		Driver Bowey	3
Bulktrk pick up	No.	Driver	
		Driver Rick	3

JOB SERVICES & REMARKS

Remarks: Cement Did Circulate

Rat Hole

Mouse Hole

Centralizers 3 - 8 5/8"

Baskets 3 - 8 5/8"

D/V or Port Collar

Cut displacement 1 BBLS low to Short Shoe Jt

Common	400
Poz. Mix	
Gel.	3
Calcium	4
Hulls	
Salt	
Flowseal	100#
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	422
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	3 - 5 5/8"
Baskets	3 - 5 5/8"
AFU Inserts	
Float Shoe	
Latch Down	
	1 - 8 5/8" Kettle plate
	1 - 8 5/8" Rubber plug
Pumptrk Charge	Long Surface
Mileage	32
	Tax
	Discount
	Total Charge

Signature

COPY

BASIC ENERGY SERVICES

PAGE	CUST NO	INVOICE DATE
1 of 1	1003682	08/09/2010

INVOICE NUMBER
1718 - 90379374

Pratt (620) 672-1201

BILL TO
SAMUEL GARY JR. & ASSOCIATES
PO Box: 448
RUSSELL
KS US 67665
ATTN:

JOB SITE
LEASE NAME: Yarmer 1-3
LOCATION:
COUNTY: Rush
STATE: KS
JOB DESCRIPTION: Cement-New Well Casing/Pi
JOB CONTACT:

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
40215671	19905		Net - 30 days	09/08/2010

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
For Service Dates: 08/05/2010 to 08/05/2010				
☐ DRLG ☐ COMP ☐ W/O ☐ LOE				
AFE #				
ACCT. # 8200-138				
APPROVED BY KJS				
0040215671				
171802226A Cement-New Well Casing/Pi 08/05/2010				
CNW-5 1/2" Longstring				
60/40 POZ	75.00	EA	7.56	566.98 T
50/50 POZ	150.00	EA	6.93	1,039.47 T
Cello-flake	37.00	EA	2.33	86.24 T
Calcium Chloride	252.00	EA	0.66	166.69 T
Cal-Set	750.00	EA	0.47	354.36 T
FLA-322	121.00	EA	4.72	571.71 T
Cement Gel	252.00	EA	0.16	39.69 T
Gilsonite	1,125.00	EA	0.42	474.85 T
CS-1L, KCl Substitute	4.00	EA	22.05	88.20 T
Super Flush II	500.00	EA	0.96	481.94 T
Latch Down Plug & Baffle	1.00	EA	251.99	251.99
Auto Fill Float Shoe	1.00	EA	226.79	226.79
Turbolizer	8.00	EA	69.30	554.38
Heavy Equipment Mileage	170.00	MI	4.41	749.68
Proppant & Bulk Delivery Charges	812.00	MI	1.01	818.47
Blending & Mixing Service Charge	225.00	MI	0.88	198.44
Unit Mileage Charge-Pickups, Vans & Cars	85.00	HR	2.68	227.58
Depth Charge; 3001'-4000'	1.00	HR	1,360.77	1,360.77
Casing Swivel Rental	1.00	EA	126.00	126.00
Plug Container Utilization Charge	1.00	EA	157.50	157.50
Service Supervisor	1.00	HR	110.25	110.25

RECEIVED
AUG 23 2010
SAMUEL GARY JR.
& ASSOCIATES, INC.

PLEASE REMIT TO:
BASIC ENERGY SERVICES, LP
PO BOX 841903
DALLAS, TX 75284-1903

SEND OTHER CORRESPONDENCE TO:
BASIC ENERGY SERVICES, LP
PO BOX 10460
MIDLAND, TX 79702

SUB TOTAL	8,651.98
TAX	243.82
INVOICE TOTAL	8,895.80

BASIC energy services, L.P.

TREATMENT REPORT

Customer: [illegible]	Lease No.: [illegible]	Date: [illegible]	
Lease: [illegible]	Well #: 1-3		
Field Order #: [illegible]	Station: Pratt, Kansas	Casing: [illegible]	Depth: [illegible]
County: [illegible]	State: [illegible]		
Type Job: [illegible]	Formation:	Legal Description: [illegible]	

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME			
Casing Size	Tubing Size	Shots/Ft		Acid			RATE	PRESS	ISIP
Depth	Depth	From	To	Pre Pad		Max			5 Min.
Volume	Volume	From	To	Pad		Min			10 Min.
Max Press	Max Press	From	To	Frac		Avg			15 Min.
Well Connection	Annulus Vol.	From	To			HHP Used			Annulus Pressure
Plug Depth	Packer Depth	From	To	Flush		Gas Volume			Total Load

Customer Representative: [illegible] | Station Manager: [illegible] | Treater: [illegible]

Service Units: [illegible]

Driver Names: [illegible]

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

ONSITE GEOLOGICAL LABORATORIES
EARTH - TECH

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

Well Name: YARMER ET Al 1-3
Location: SEC 3 17S 16W
License Number: API 15-165-21891-00-00
Region: WILDCAT
Spud Date: 07/28/2010
Drilling Completed: 08/04/2010
Surface Coordinates: 1830' FNL 2500' FEL

Bottom Hole Coordinates:

Ground Elevation (ft): 1974
K.B. Elevation (ft): 1984
Logged Interval (ft): 1700 To: 3720'
Total Depth (ft): 3720'
Formation: Lansing, Arbuckle
Type of Drilling Fluid:

OPERATOR

Company: Samuel Gary Jr, & Assoc.
Address: 1515 Wynkoop, Ste.# 700
Denver, Colo. 80202
Geo: Clayton Camozz

GEOLOGIST

Name: RODNEY NAPIER/ TYLER SARYERWINNIE
Company: Earth Tech OGL, Inc.
Address: PO Box 683
Hooker, Okla . 73945
Off. 888-543-8378 Cell: 620-655-2050

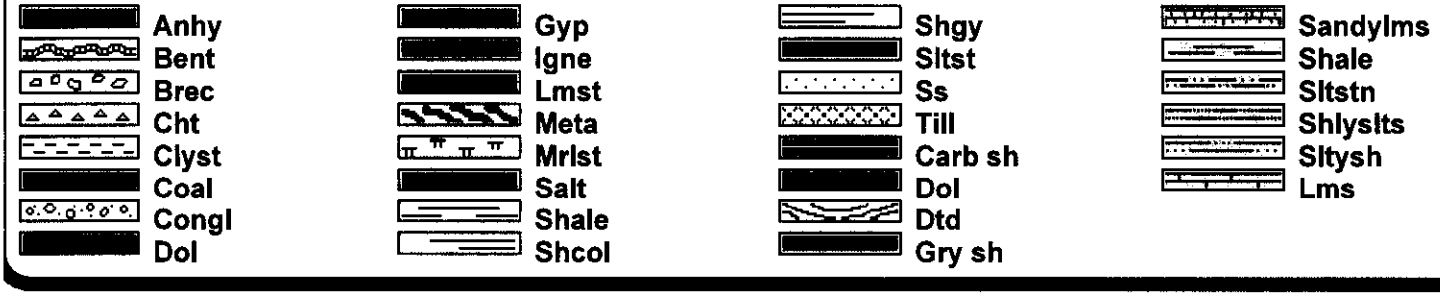
Circulation Report

START UN MANNED UNIT 07/30/2010
START MANNED UNIT 07/31/2010
CTCH 3265' 1.5 HRS
SHORT TRIP 3265'
CFS 3299' 20,40,60
CFS 3324' 20,40,60
CTCH 3324' DST#1
CTCH 1 HR AFTER DST#1
CFS 3349' 20,40,60
CFS 3380' 20,40,60 TOTAL 2 HRS
CTCH 1 HR
CFS 3434' 20,40,60
CTCH 45 MIN
CFS 3487' 20,40,60
CFS 3574' 20,40,60
CFS 3586' 20,40,60 TOTAL 1.5 HRS
CFS/CTCH 20,40,60 TOTAL 1.5 HRS
TD 3720'
TOH FOR LOGS

DST information

DST #1 3275'-3324', ANCHOR 49', IB WEAK BLOW BUILT 3 IN INTO WATER IN 15 MIN, FB WEAK BLOW BUILT 7 IN INTO WATER IN 45 MIN,FSI NO BLOW BACK, RECOVERY 25' SPOT OIL CUT MUDDY WATER, RECOVERY 60 FT SPOT OIL CUT MUDDY WATER, CHLORIDES 41000, IH 3184 OTF-1 757 SI-1 1472 ESI-1 1640, OTF-2 1498 SI-2 1641 ESI-2 1646 FH 3211,

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
- F Fenest
- F Fracture
- I Inter
- M Moldic
- O Organic
- P Pinpoint
- V Vuggy

SORTING
- W Well
- M Moderate
- P Poor

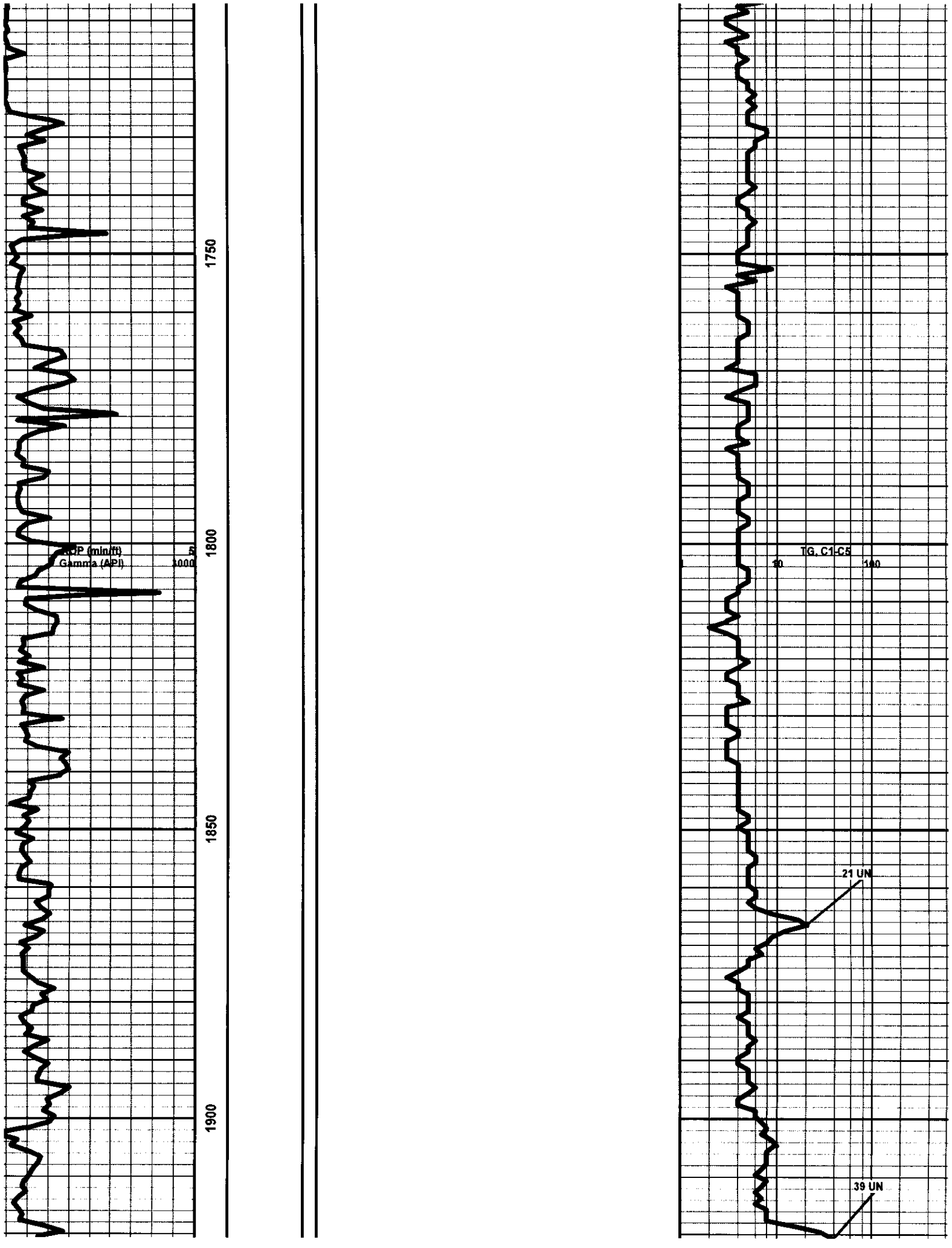
ROUNDING
- R Rounded
- S Subrnd
- A Subang
- A Angular

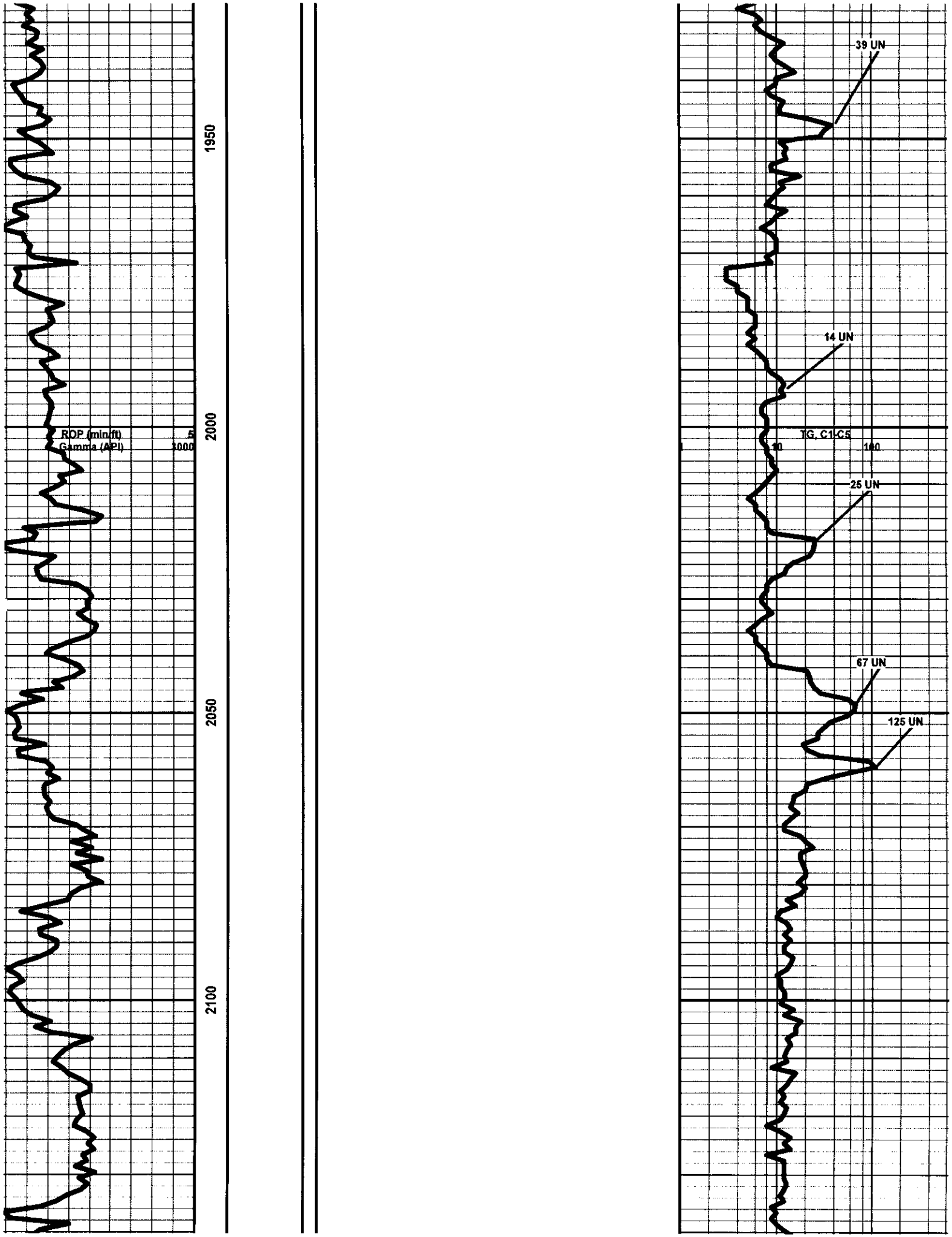
OIL SHOWS
- Even
- Spotted
- Ques
- D Dead
- Gas show

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) C3 (units) C4 (units) C5 (units)
ROP (min/ft) 5 Gamma (API) 1000 DRILLING CON TRACTOR VAL-6	16			START UNMANNED LOGGING UNIT ON 07/30/2010	TG, C1-C5 1 10 100 DRILLING CON TRACTOR VAL-6
	700				


1750
1800
1850
1900
ROP (min/ft)
Gamma (API)
5
1000
TG, C1-C5
10
100
21 UN
39 UN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2000
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ROP (min/ft)
5
Gamma (API)
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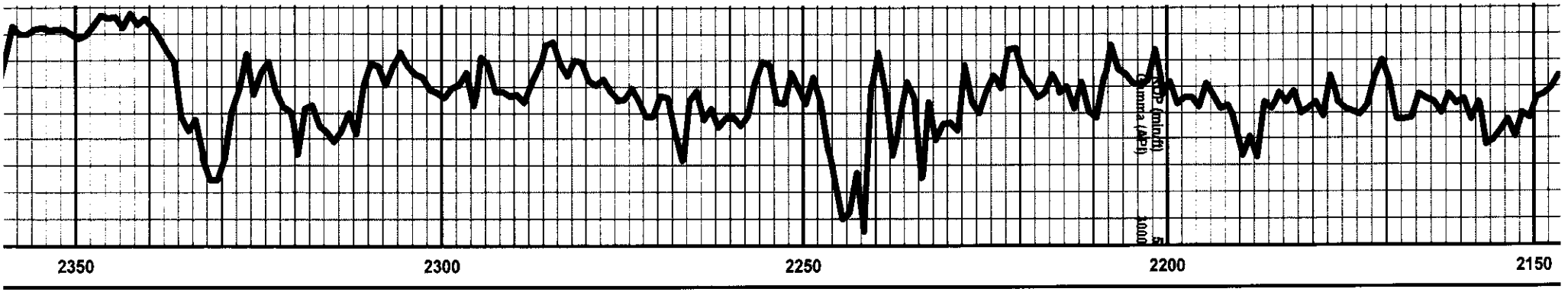
14 UN
TG, C1-C5
1
10
100
25 UN
67 UN
125 UN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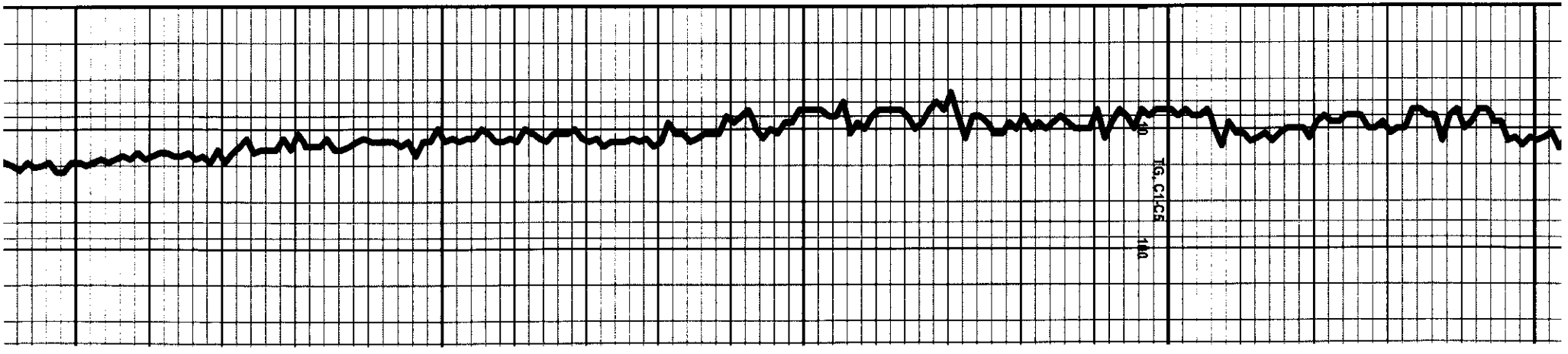

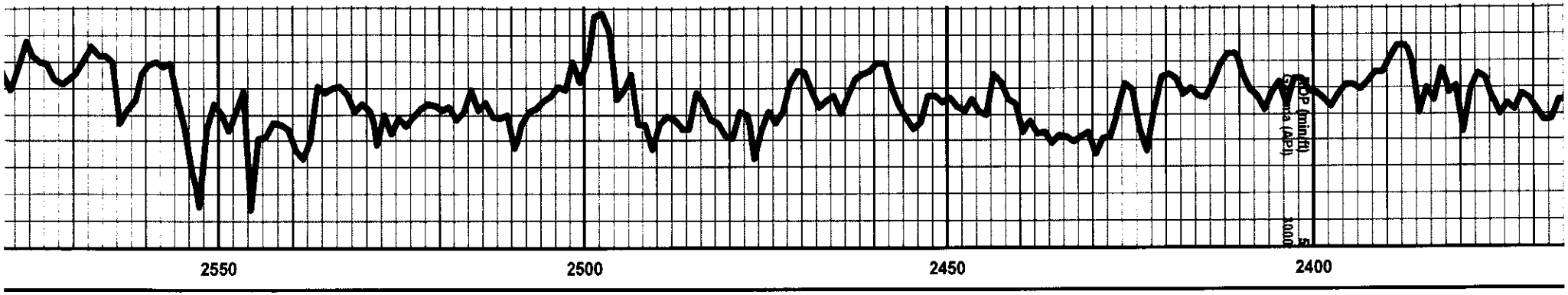
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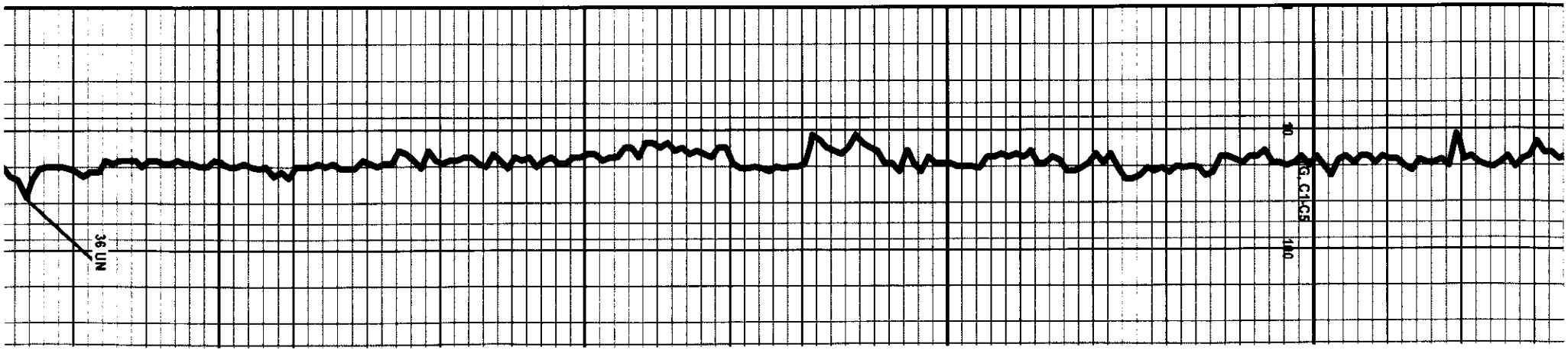
2500
2450
2400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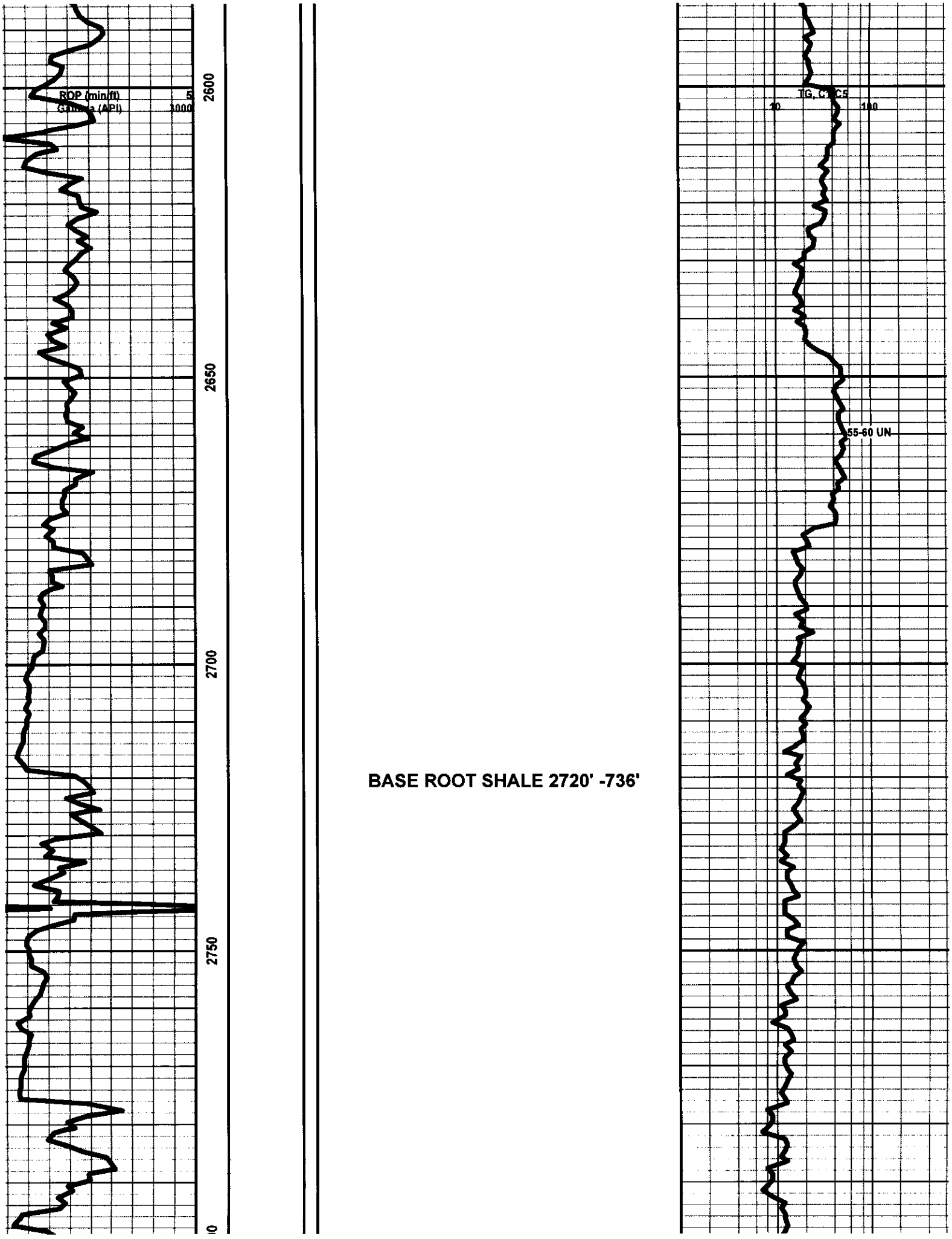
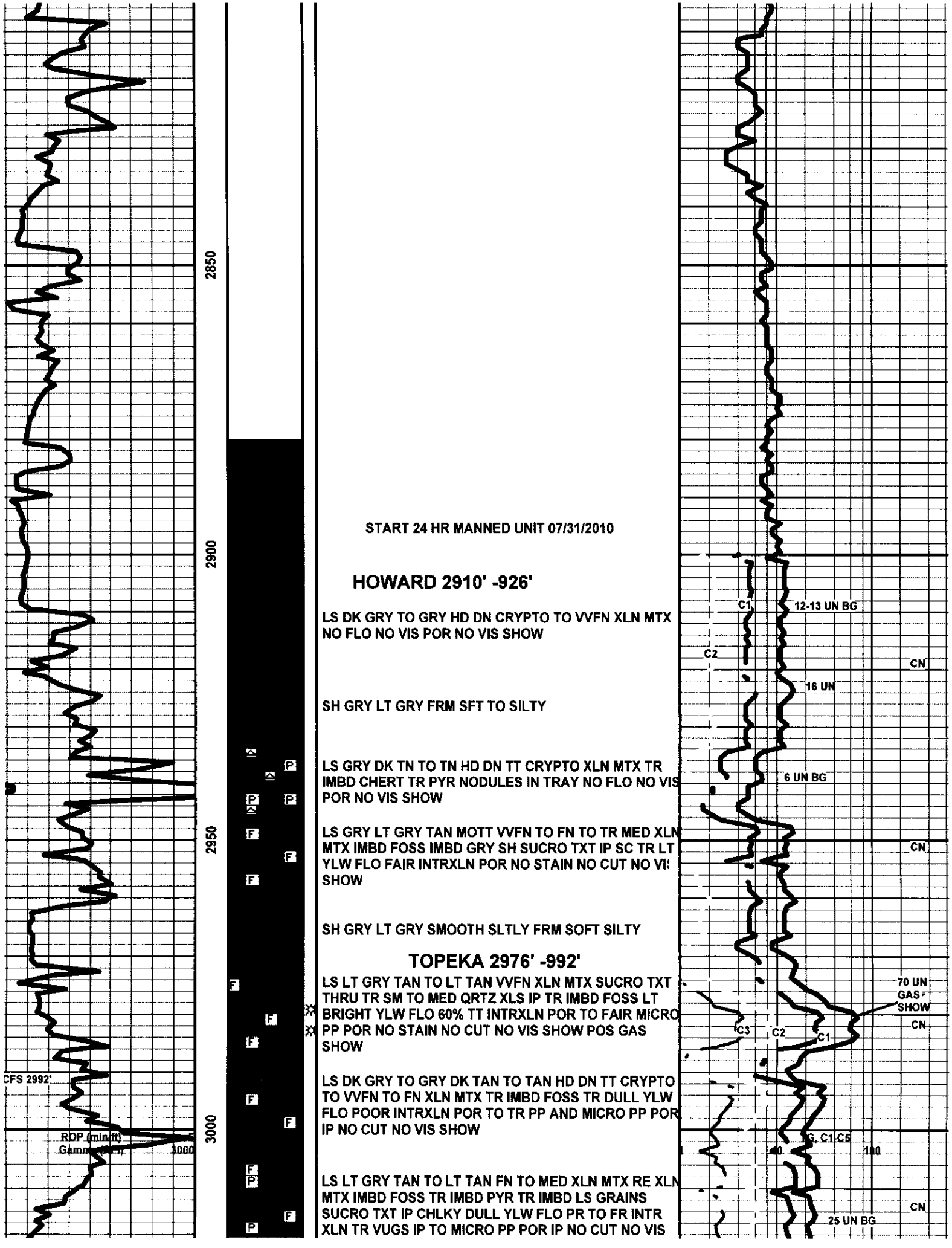
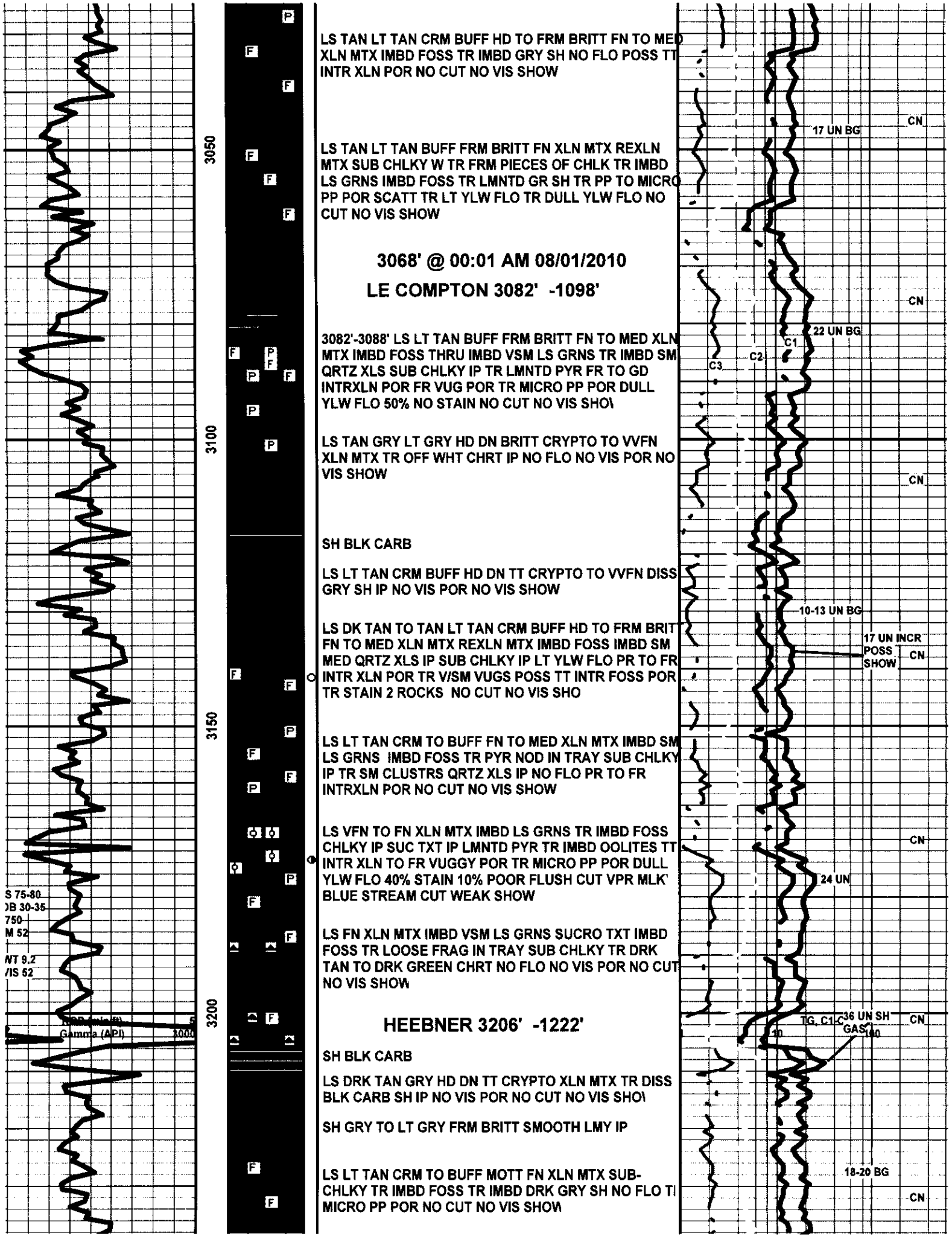
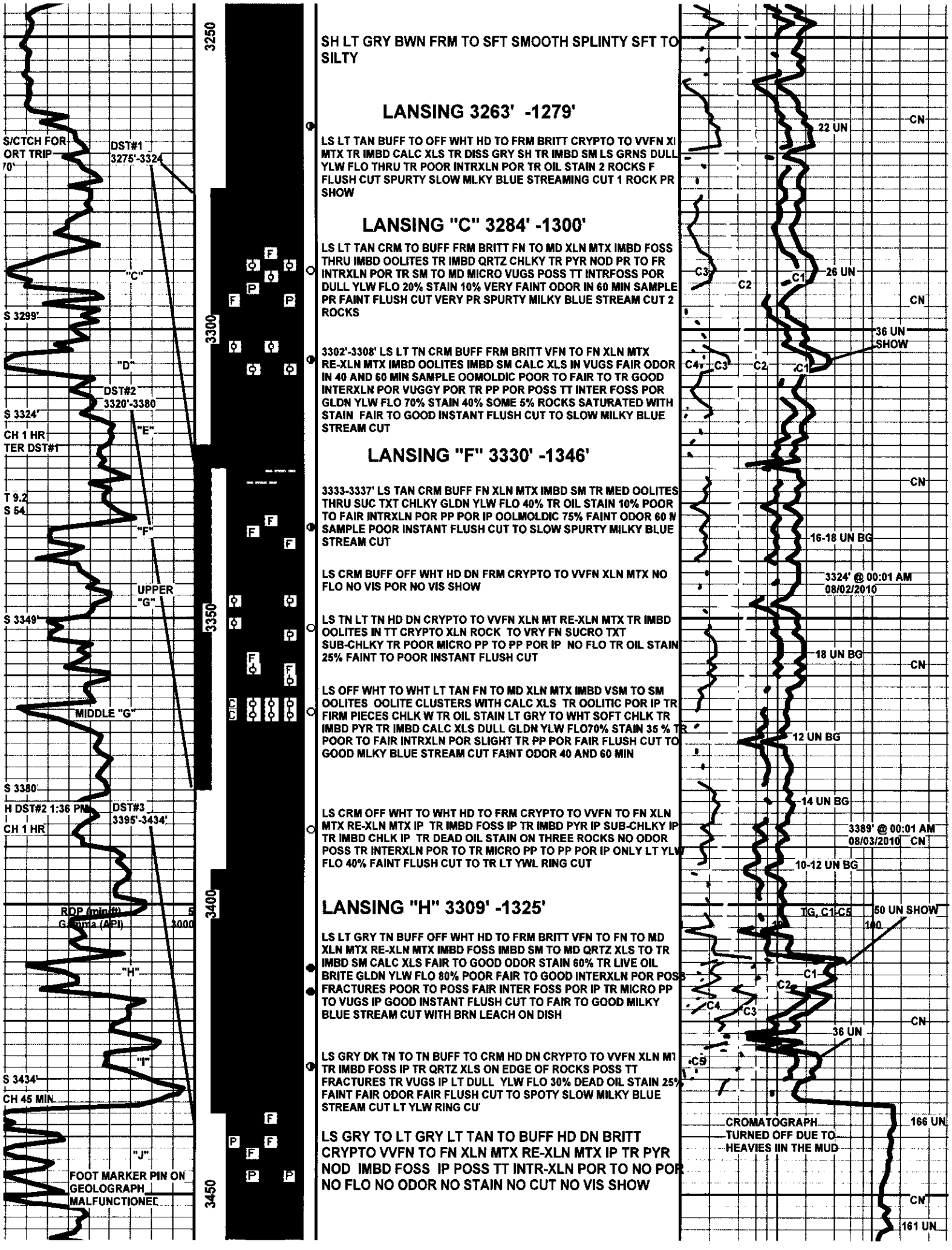
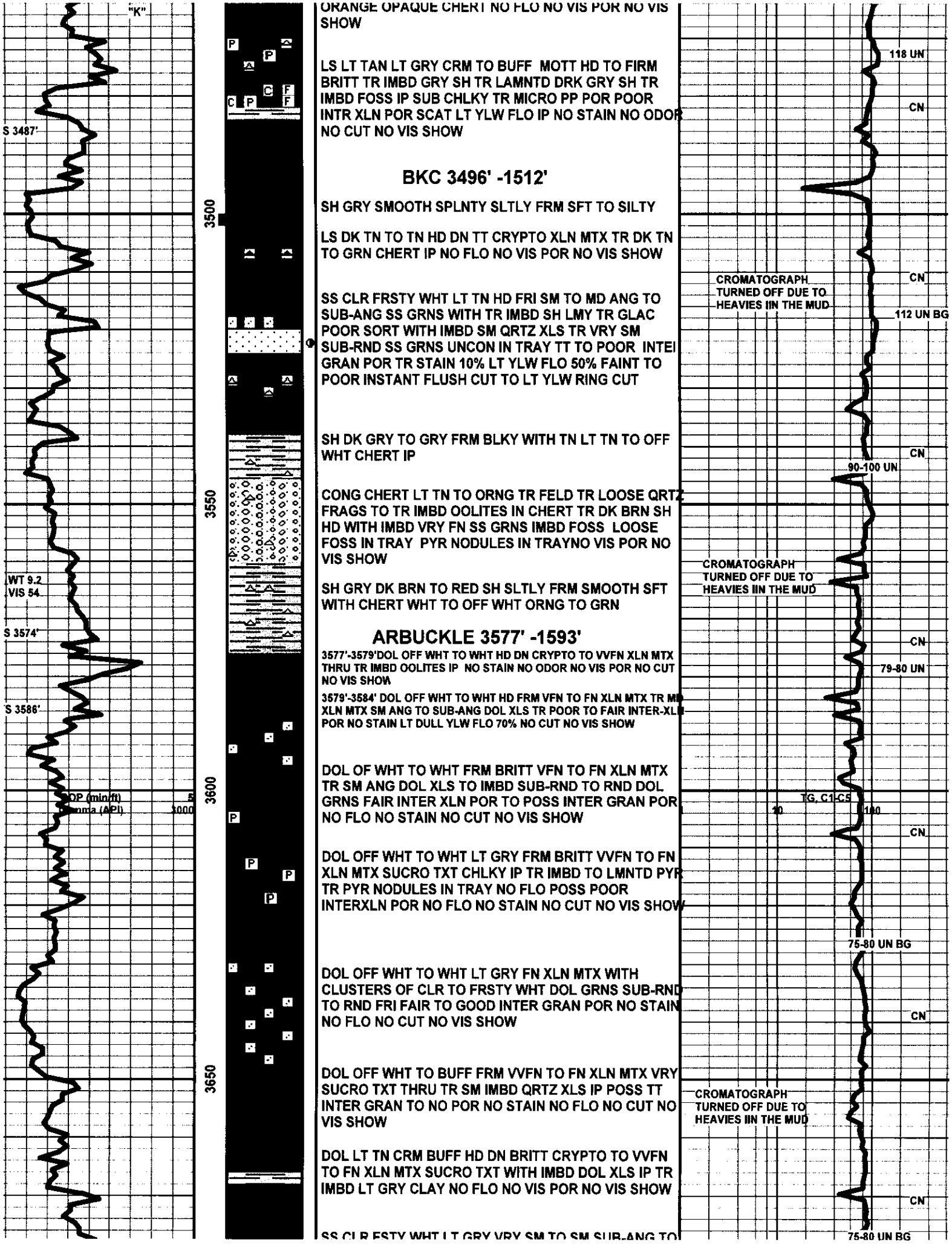
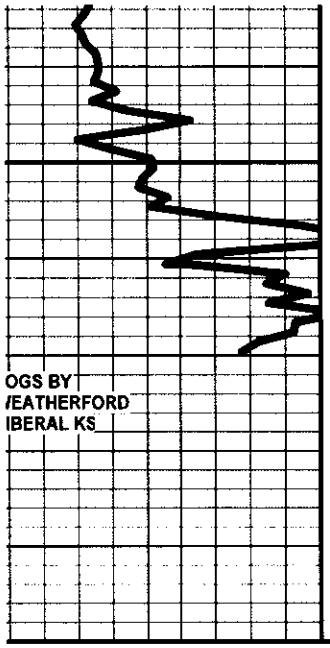

ROP (min/ft)
5
Gamma (API)
1000
2600
2650
2700
2750
TG, C1-C5
10
100
55-60 UN
BASE ROOT SHALE 2720' -736'


2850
2900
2950
3000
CFS 2992'
ROP (min/ft)
Gamma
1000
START 24 HR MANNED UNIT 07/31/2010
HOWARD 2910' -926'
LS DK GRY TO GRY HD DN CRYPTO TO VVFN XLN MTX NO FLO NO VIS POR NO VIS SHOW
SH GRY LT GRY FRM SFT TO SILTY
LS GRY DK TN TO TN HD DN TT CRYPTO XLN MTX TR IMBD CHERT TR PYR NODULES IN TRAY NO FLO NO VIS POR NO VIS SHOW
LS GRY LT GRY TAN MOTT VVFN TO FN TO TR MED XLN MTX IMBD FOSS IMBD GRY SH SUCRO TXT IP SC TR LT YLW FLO FAIR INTRXLN POR NO STAIN NO CUT NO VIS SHOW
SH GRY LT GRY SMOOTH SLTLY FRM SOFT SILTY
TOPEKA 2976' -992'
LS LT GRY TAN TO LT TAN VVFN XLN MTX SUCRO TXT THRU TR SM TO MED QRTZ XLS IP TR IMBD FOSS LT BRIGHT YLW FLO 60% TT INTRXLN POR TO FAIR MICRO PP POR NO STAIN NO CUT NO VIS SHOW POS GAS SHOW
LS DK GRY TO GRY DK TAN TO TAN HD DN TT CRYPTO TO VVFN TO FN XLN MTX TR IMBD FOSS TR DULL YLW FLO POOR INTRXLN POR TO TR PP AND MICRO PP POR IP NO CUT NO VIS SHOW
LS LT GRY TAN TO LT TAN FN TO MED XLN MTX RE XLN MTX IMBD FOSS TR IMBD PYR TR IMBD LS GRAINS SUCRO TXT IP CHLKY DULL YLW FLO PR TO FR INTR XLN TR VUGS IP TO MICRO PP POR IP NO CUT NO VIS
C1
12-13 UN BG
C2
CN
16 UN
6 UN BG
CN
70 UN GAS SHOW
CN
C3
C2
C1
G C1 C5
0
100
CN
25 UN BG

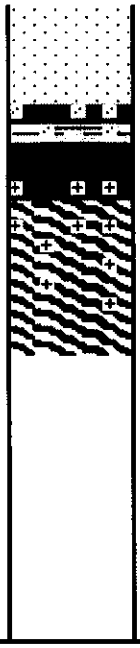

3050
3100
3150
3200
S 75-80
)B 30-35
750
M 52
NT 9.2
/IS 52
Gamma (API)
3000
LS TAN LT TAN CRM BUFF HD TO FRM BRITT FN TO MED
XLN MTX IMBD FOSS TR IMBD GRY SH NO FLO POSS TT
INTR XLN POR NO CUT NO VIS SHOW
LS TAN LT TAN BUFF FRM BRITT FN XLN MTX REXLN
MTX SUB CHLKY W TR FRM PIECES OF CHLK TR IMBD
LS GRNS IMBD FOSS TR LMNTD GR SH TR PP TO MICRO
PP POR SCATT TR LT YLW FLO TR DULL YLW FLO NO
CUT NO VIS SHOW
3068' @ 00:01 AM 08/01/2010
LE COMPTON 3082' -1098'
3082'-3088' LS LT TAN BUFF FRM BRITT FN TO MED XLN
MTX IMBD FOSS THRU IMBD VSM LS GRNS TR IMBD SM
QRTZ XLS SUB CHLKY IP TR LMNTD PYR FR TO GD
INTRXLN POR FR VUG POR TR MICRO PP POR DULL
YLW FLO 50% NO STAIN NO CUT NO VIS SHO\
LS TAN GRY LT GRY HD DN BRITT CRYPTO TO VVFN
XLN MTX TR OFF WHT CHRT IP NO FLO NO VIS POR NO
VIS SHOW
SH BLK CARB
LS LT TAN CRM BUFF HD DN TT CRYPTO TO VVFN DISS
GRY SH IP NO VIS POR NO VIS SHOW
LS DK TAN TO TAN LT TAN CRM BUFF HD TO FRM BRIT
FN TO MED XLN MTX REXLN MTX IMBD FOSS IMBD SM
MED QRTZ XLS IP SUB CHLKY IP LT YLW FLO PR TO FR
INTR XLN POR TR V/SM VUGS POSS TT INTR FOSS POR
TR STAIN 2 ROCKS NO CUT NO VIS SHO
LS LT TAN CRM TO BUFF FN TO MED XLN MTX IMBD SM
LS GRNS IMBD FOSS TR PYR NOD IN TRAY SUB CHLKY
IP TR SM CLUSTRS QRTZ XLS IP NO FLO PR TO FR
INTRXLN POR NO CUT NO VIS SHOW
LS VFN TO FN XLN MTX IMBD LS GRNS TR IMBD FOSS
CHLKY IP SUC TXT IP LMNTD PYR TR IMBD OOLITES TT
INTR XLN TO FR VUGGY POR TR MICRO PP POR DULL
YLW FLO 40% STAIN 10% POOR FLUSH CUT VPR MLK'
BLUE STREAM CUT WEAK SHOW
LS FN XLN MTX IMBD VSM LS GRNS SUCRO TXT IMBD
FOSS TR LOOSE FRAG IN TRAY SUB CHLKY TR DRK
TAN TO DRK GREEN CHRT NO FLO NO VIS POR NO CUT
NO VIS SHOW
HEEBNER 3206' -1222'
SH BLK CARB
LS DRK TAN GRY HD DN TT CRYPTO XLN MTX TR DISS
BLK CARB SH IP NO VIS POR NO CUT NO VIS SHO\
SH GRY TO LT GRY FRM BRITT SMOOTH LMY IP
LS LT TAN CRM TO BUFF MOTT FN XLN MTX SUB-
CHLKY TR IMBD FOSS TR IMBD DRK GRY SH NO FLO TI
MICRO PP POR NO CUT NO VIS SHOW
17 UN BG
CN
22 UN BG
C1
C2
C3
10-13 UN BG
17 UN INCR
POSS
SHOW
24 UN
TG, C1-C3
36 UN SH
GAS
10
160
18-20 BG


S/CTCH FOR
ORT TRIP
70'
DST#1
3275'-3324'
"C"
S 3299'
"D"
DST#2
3320'-3380'
S 3324'
"E"
CH 1 HR
TER DST#1
T 9.2
S 54
"F"
UPPER
"G"
S 3349'
MIDDLE "G"
S 3380'
H DST#2 1:36 PM
DST#3
3395'-3434'
CH 1 HR
ROP (min/ft)
Gamma (API)
"H"
"I"
S 3434'
CH 45 MIN
"J"
FOOT MARKER PIN ON
GEOLOGRAPH
MALFUNCTIONED
3250
3300
3350
3400
3450
SH LT GRY BWN FRM TO SFT SMOOTH SPLINTY SFT TO SILTY
LANSING 3263' -1279'
LS LT TAN BUFF TO OFF WHT HD TO FRM BRITT CRYPTO TO VVFN XL MTX TR IMBD CALC XLS TR DISS GRY SH TR IMBD SM LS GRNS DULL YLW FLO THRU TR POOR INTRXLN POR TR OIL STAIN 2 ROCKS F FLUSH CUT SPURTY SLOW MLKY BLUE STREAMING CUT 1 ROCK PR SHOW
LANSING "C" 3284' -1300'
LS LT TAN CRM TO BUFF FRM BRITT FN TO MD XLN MTX IMBD FOSS THRU IMBD OOLITES TR IMBD QRTZ CHLKY TR PYR NOD PR TO FR INTRXLN POR TR SM TO MD MICRO VUGS POSS TT INTRFOSS POR DULL YLW FLO 20% STAIN 10% VERY FAINT ODOR IN 60 MIN SAMPLE PR FAINT FLUSH CUT VERY PR SPURTY MILKY BLUE STREAM CUT 2 ROCKS
3302'-3308' LS LT TN CRM BUFF FRM BRITT VFN TO FN XLN MTX RE-XLN MTX IMBD OOLITES IMBD SM CALC XLS IN VUGS FAIR ODOR IN 40 AND 60 MIN SAMPLE OOMOLDIC POOR TO FAIR TO TR GOOD INTERXLN POR VUGGY POR TR PP POR POSS TT INTER FOSS POR GLDN YLW FLO 70% STAIN 40% SOME 5% ROCKS SATURATED WITH STAIN FAIR TO GOOD INSTANT FLUSH CUT TO SLOW MILKY BLUE STREAM CUT
LANSING "F" 3330' -1346'
3333-3337' LS TAN CRM BUFF FN XLN MTX IMBD SM TR MED OOLITES THRU SUC TXT CHLKY GLDN YLW FLO 40% TR OIL STAIN 10% POOR TO FAIR INTRXLN POR PP POR IP OOLMOLDIC 75% FAINT ODOR 60 M SAMPLE POOR INSTANT FLUSH CUT TO SLOW SPURTY MILKY BLUE STREAM CUT
LS CRM BUFF OFF WHT HD DN FRM CRYPTO TO VVFN XLN MTX NO FLO NO VIS POR NO VIS SHOW
LS TN LT TN HD DN CRYPTO TO VVFN XLN MT RE-XLN MTX TR IMBD OOLITES IN TT CRYPTO XLN ROCK TO VRY FN SUCRO TXT SUB-CHLKY TR POOR MICRO PP TO PP POR IP NO FLO TR OIL STAIN 25% FAINT TO POOR INSTANT FLUSH CUT
LS OFF WHT TO WHT LT TAN FN TO MD XLN MTX IMBD VSM TO SM OOLITES OOLITE CLUSTERS WITH CALC XLS TR OOLITIC POR IP TR FIRM PIECES CHLK W TR OIL STAIN LT GRY TO WHT SOFT CHLK TR IMBD PYR TR IMBD CALC XLS DULL GLDN YLW FLO70% STAIN 35 % TR POOR TO FAIR INTRXLN POR SLIGHT TR PP POR FAIR FLUSH CUT TO GOOD MLKY BLUE STREAM CUT FAINT ODOR 40 AND 60 MIN
LS CRM OFF WHT TO WHT HD TO FRM CRYPTO TO VVFN TO FN XLN MTX RE-XLN MTX IP TR IMBD FOSS IP TR IMBD PYR IP SUB-CHLKY IP TR IMBD CHLK IP TR DEAD OIL STAIN ON THREE ROCKS NO ODOR POSS TR INTERXLN POR TO TR MICRO PP TO PP POR IP ONLY LT YLW FLO 40% FAINT FLUSH CUT TO TR LT YWL RING CUT
LANSING "H" 3309' -1325'
LS LT GRY TN BUFF OFF WHT HD TO FRM BRITT VFN TO FN TO MD XLN MTX RE-XLN MTX IMBD FOSS IMBD SM TO MD QRTZ XLS TO TR IMBD SM CALC XLS FAIR TO GOOD ODOR STAIN 60% TR LIVE OIL BRITE GLDN YLW FLO 80% POOR FAIR TO GOOD INTERXLN POR POSS FRACTURES POOR TO POSS FAIR INTER FOSS POR IP TR MICRO PP TO VUGS IP GOOD INSTANT FLUSH CUT TO FAIR TO GOOD MILKY BLUE STREAM CUT WITH BRN LEACH ON DISH
LS GRY DK TN TO TN BUFF TO CRM HD DN CRYPTO TO VVFN XLN MT TR IMBD FOSS IP TR QRTZ XLS ON EDGE OF ROCKS POSS TT FRACTURES TR VUGS IP LT DULL YLW FLO 30% DEAD OIL STAIN 25% FAINT FAIR ODOR FAIR FLUSH CUT TO SPOTY SLOW MILKY BLUE STREAM CUT LT YLW RING CU
LS GRY TO LT GRY LT TAN TO BUFF HD DN BRITT CRYPTO VVFN TO FN XLN MTX RE-XLN MTX IP TR PYR NOD IMBD FOSS IP POSS TT INTR-XLN POR TO NO POR NO FLO NO ODOR NO STAIN NO CUT NO VIS SHOW
22 UN
CN
C3
C2
C1
26 UN
CN
36 UN
SHOW
C4
C3
C2
C1
CN
16-18 UN BG
3324' @ 00:01 AM
08/02/2010
18 UN BG
CN
12 UN BG
14 UN BG
3389' @ 00:01 AM
08/03/2010
CN
10-12 UN BG
TG, C1-C5
50 UN SHOW
100
C1
C2
C4
C3
CN
36 UN
C5
CROMATOGRAPH
TURNED OFF DUE TO
HEAVIES IIN THE MUD
166 UN
CN
161 UN


"K"
S 3487'
S 3574'
S 3586'
WT 9.2
VIS 54
3500
3550
3600
3650
ROP (min/ft)
Gamma (API)
5
1000
ORANGE OPAQUE CHERT NO FLO NO VIS POR NO VIS SHOW
LS LT TAN LT GRY CRM TO BUFF MOTT HD TO FIRM BRITT TR IMBD GRY SH TR LAMNTD DRK GRY SH TR IMBD FOSS IP SUB CHLKY TR MICRO PP POR POOR INTR XLN POR SCAT LT YLW FLO IP NO STAIN NO ODOR NO CUT NO VIS SHOW
BKC 3496' -1512'
SH GRY SMOOTH SPLNTY SLTLY FRM SFT TO SILTY
LS DK TN TO TN HD DN TT CRYPTO XLN MTX TR DK TN TO GRN CHERT IP NO FLO NO VIS POR NO VIS SHOW
SS CLR FRSTY WHT LT TN HD FRI SM TO MD ANG TO SUB-ANG SS GRNS WITH TR IMBD SH LMY TR GLAC POOR SORT WITH IMBD SM QRTZ XLS TR VRY SM SUB-RND SS GRNS UNCON IN TRAY TT TO POOR INTEI GRAN POR TR STAIN 10% LT YLW FLO 50% FAINT TO POOR INSTANT FLUSH CUT TO LT YLW RING CUT
SH DK GRY TO GRY FRM BLKY WITH TN LT TN TO OFF WHT CHERT IP
CONG CHERT LT TN TO ORNG TR FELD TR LOOSE QRTZ FRAGS TO TR IMBD OOLITES IN CHERT TR DK BRN SH HD WITH IMBD VRY FN SS GRNS IMBD FOSS LOOSE FOSS IN TRAY PYR NODULES IN TRAYNO VIS POR NO VIS SHOW
SH GRY DK BRN TO RED SH SLTLY FRM SMOOTH SFT WITH CHERT WHT TO OFF WHT ORNG TO GRN
ARBUCKLE 3577' -1593'
3577'-3579'DOL OFF WHT TO WHT HD DN CRYPTO TO VVFN XLN MTX THRU TR IMBD OOLITES IP NO STAIN NO ODOR NO VIS POR NO CUT NO VIS SHOW
3579'-3584' DOL OFF WHT TO WHT HD FRM VFN TO FN XLN MTX TR MD XLN MTX SM ANG TO SUB-ANG DOL XLS TR POOR TO FAIR INTER-XLN POR NO STAIN LT DULL YLW FLO 70% NO CUT NO VIS SHOW
DOL OF WHT TO WHT FRM BRITT VFN TO FN XLN MTX TR SM ANG DOL XLS TO IMBD SUB-RND TO RND DOL GRNS FAIR INTER XLN POR TO POSS INTER GRAN POR NO FLO NO STAIN NO CUT NO VIS SHOW
DOL OFF WHT TO WHT LT GRY FRM BRITT VVFN TO FN XLN MTX SUCRO TXT CHLKY IP TR IMBD TO LMNTD PYR TR PYR NODULES IN TRAY NO FLO POSS POOR INTERXLN POR NO FLO NO STAIN NO CUT NO VIS SHOW
DOL OFF WHT TO WHT LT GRY FN XLN MTX WITH CLUSTERS OF CLR TO FRSTY WHT DOL GRNS SUB-RND TO RND FRI FAIR TO GOOD INTER GRAN POR NO STAIN NO FLO NO CUT NO VIS SHOW
DOL OFF WHT TO BUFF FRM VVFN TO FN XLN MTX VRY SUCRO TXT THRU TR SM IMBD QRTZ XLS IP POSS TT INTER GRAN TO NO POR NO STAIN NO FLO NO CUT NO VIS SHOW
DOL LT TN CRM BUFF HD DN BRITT CRYPTO TO VVFN TO FN XLN MTX SUCRO TXT WITH IMBD DOL XLS IP TR IMBD LT GRY CLAY NO FLO NO VIS POR NO VIS SHOW
SS CLR FSTY WHT LT GRY VRY SM TO SM SUB-ANG TO
118 UN
CN
CROMATOGRAPH TURNED OFF DUE TO HEAVIES IIN THE MUD
112 UN BG
90-100 UN
CROMATOGRAPH TURNED OFF DUE TO HEAVIES IIN THE MUD
79-80 UN
TG, C1-C5
10
100
75-80 UN BG
CROMATOGRAPH TURNED OFF DUE TO HEAVIES IIN THE MUD
75-80 UN BG



OGS BY
/EATHERFORD
IBERAL KS



MD SUB-RND TO RND SS GRNS LOOSE IN TRAY POOR TO POSS FAIR INTER GRAN POR NO STAN NO FLO NO CUT NO VIS SHOW

DOL LT TN BUFF HD DN VVFN TO FN XLN MTX IMBD FRSTY WHT QRTZ XLS TR IMBD GRY TO LT GRY CLY TR IMBD VRY SM SS GRNS IP TR FELD SPAR IP NO FLO NO VIS POR NO VIS SHOW

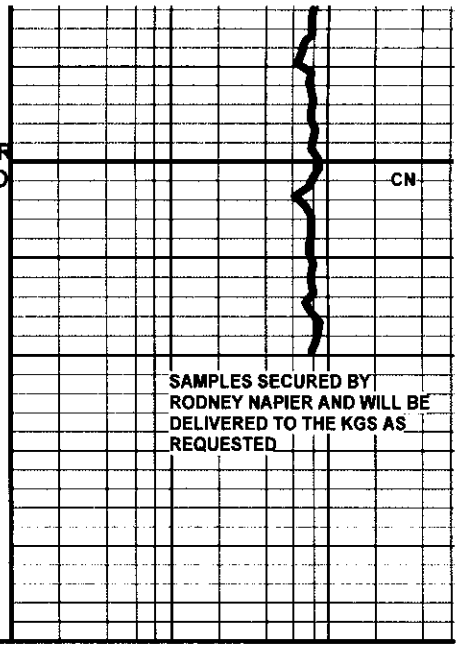
META QRTZITE CLR FRSTY LT GRN TO GRN WITH FELDSPAR LT ORNG WITH IMBD MICA AND MAGNITITE THRU NO FLO NO VIS POR NO CUT NO VIS SHOW

TD 3720' 08/04/2010 7:12 AM

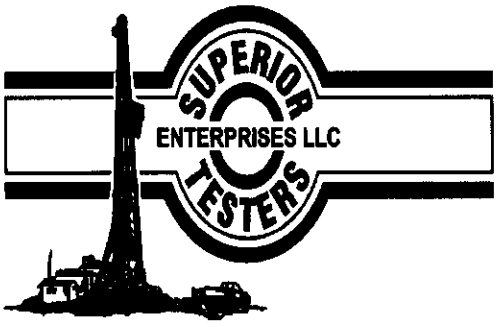
CTCH 1.5 HRS

TOH FOR LOGS

THANK YOU FOR CHOOSING EARTHTECH OGL INC.



SAMPLES SECURED BY
RODNEY NAPIER AND WILL BE
DELIVERED TO THE KGS AS
REQUESTED



DRILL STEM TEST REPORT

Prepared For: **SAMUEL GARY JR & ASS0CIATES INC**

SAMUEL GARY JR & ASSOCIATES INC
1515 WYNKOOP ST SUITE 700
DENVER CO 80202

ATTN: CLAYTON CAMOZZI

3-17S-16W RUSH

YARMER ET AL 1-3

Start Date: 2010.08.01 @ 20:56:00
End Date: 2010.08.02 @ 04:20:30
Job Ticket #: 16338 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2010.08.04 @ 08:11:15

DRILL STEM TEST REPORT

SAMUEL GARY JR & ASSOCIATES INC

SAMUEL GARY JR & ASSOCIATES INC 1515 WYNKOOP ST SUITE 700
DENVER CO 80202
ATTN: CLAYTON CAMOZZI

YARMER ET AL 1-3

3-17S-16W RUSH

Job Ticket: 16338 **DST#: 1**

Test Start: 2010.08.01 @ 20:56:00

GENERAL INFORMATION:

Formation: **LANSING C-D**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:32:30
Time Test Ended: 04:20:30

Test Type: Conventional Bottom Hole (Initial)
Tester: JARED SCHECK
Unit No: 3320-GB-56

Interval: 3275.00 ft (KB) To 3324.00 ft (KB) (TVD)
Total Depth: 3324.00 ft (KB) (TVD)
Hole Diameter: 6.88 inches Hole Condition: Fair

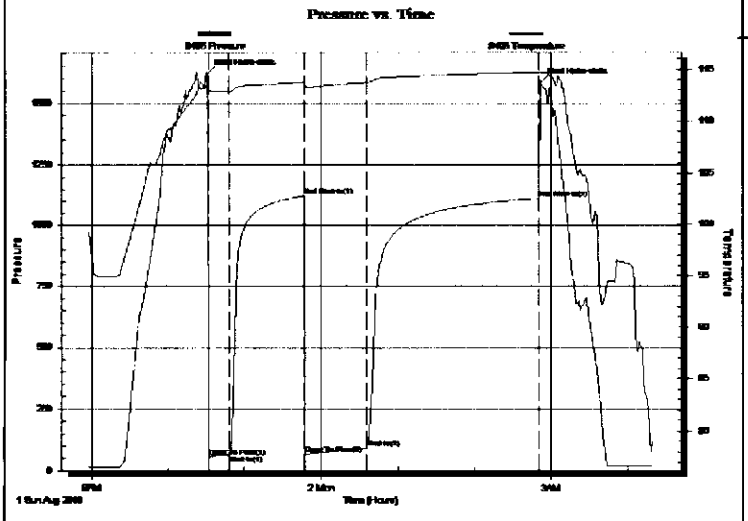
Reference Elevations: 1984.00 ft (KB)
1974.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8405 **Inside**

Press@RunDepth: 91.08 psia @ 3320.00 ft (KB)
Start Date: 2010.08.01 End Date: 2010.08.02
Start Time: 20:58:00 End Time: 04:20:30

Capacity: 5000.00 psia
Last Calib.: 2010.08.02
Time On Btm: 2010.08.01 @ 22:31:30
Time Off Btm: 2010.08.02 @ 02:52:00

TEST COMMENT: 15/INITIAL OPEN:WEAK BLOW BUILT 3 INCHES INTO WATER IN 15 MINUTES
60/INITIAL SHUT IN:NO BLOW BACK
45/FINAL OPEN:WEAK BLOW BUILT 7 INCHES INTO WATER IN 45 MINUTES
135/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1619.07	113.47	Initial Hydro-static
1	56.38	112.98	Open To Flow (1)
17	63.42	112.85	Shut-In(1)
75	1123.72	113.74	End Shut-In(1)
76	68.77	113.34	Open To Flow (2)
124	91.08	113.68	Shut-In(2)
259	1114.26	114.69	End Shut-In(2)
261	1586.16	114.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	SLIGHTLY OIL CUT MUDDY WATER	0.35
	5%OIL 30%MUD 65%WATER	0.00
60.00	Very slightly oil cut muddy w ater	0.84
	1%OIL 40%MUD 59%WATER	0.00
	CHLORIDES 41,000	0.00
	Resistivity .11 @ 71 Degrees	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

SAMUEL GARY JR & ASSOCIATES INC

SAMUEL GARY JR & ASSOCIATES INC 1515 WYNKOOP ST SUITE 700
DENVER CO 80202
ATTN: CLAYTON CAMOZZI

YARMER ET AL 1-3

3-17S-16W RUSH

Job Ticket: 16338 **DST#: 1**

Test Start: 2010.08.01 @ 20:56:00

Tool Information

Drill Pipe:	Length:	3252.00 ft	Diameter:	3.80 inches	Volume:	45.62 bbl	Tool Weight:		1000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		59000.00 lb
					Total Volume:	45.62 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		6.00 ft					String Weight:	Initial	54.00 lb
Depth to Top Packer:		3275.00 ft						Final	54000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		49.00 ft							
Tool Length:		78.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3247.00		
Shut-In Tool	5.00			3252.00		
Hydrolic Tool	5.00			3257.00		
Jars	6.00			3263.00		
Safety Joint	2.00			3265.00		
Packer	5.00			3270.00	29.00	Bottom Of Top Packer
Packer	5.00			3275.00		
Change Over Sub	0.75			3275.75		
Drill Pipe	31.50			3307.25		
Change Over Sub	0.75			3308.00		
Perforations	11.00			3319.00		
Recorder	1.00	8405	Inside	3320.00		
Recorder	1.00	8524	Outside	3321.00		
Bullnose	3.00			3324.00	49.00	Bottom Packers & Anchor
Total Tool Length:	**78.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

SAMUEL GARY JR & ASSOCIATES INC

SAMUEL GARY JR & ASSOCIATES INC 1515 WYNKOOP ST SUITE 700
DENVER CO 80202
ATTN: CLAYTON CAMOZZI

YARMER ET AL 1-3

3-17S-16W RUSH

Job Ticket: 16338 **DST#: 1**

Test Start: 2010.08.01 @ 20:56:00

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:	41000 ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	8.76 in³	Gas Cushion Type:			
Resistivity:	0.11 ohm.m	Gas Cushion Pressure:	psia		
Salinity:	3900.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	SLIGHTLY OIL CUT MUDDY WATER	0.351
	5%OIL 30%MUD 65%WATER	0.000
60.00	Very slightly oil cut muddy w ater	0.842
	1%OIL 40%MUD 59%WATER	0.000
	CHLORIDES 41,000	0.000
	Resistivity .11 @ 71 Degrees	0.000

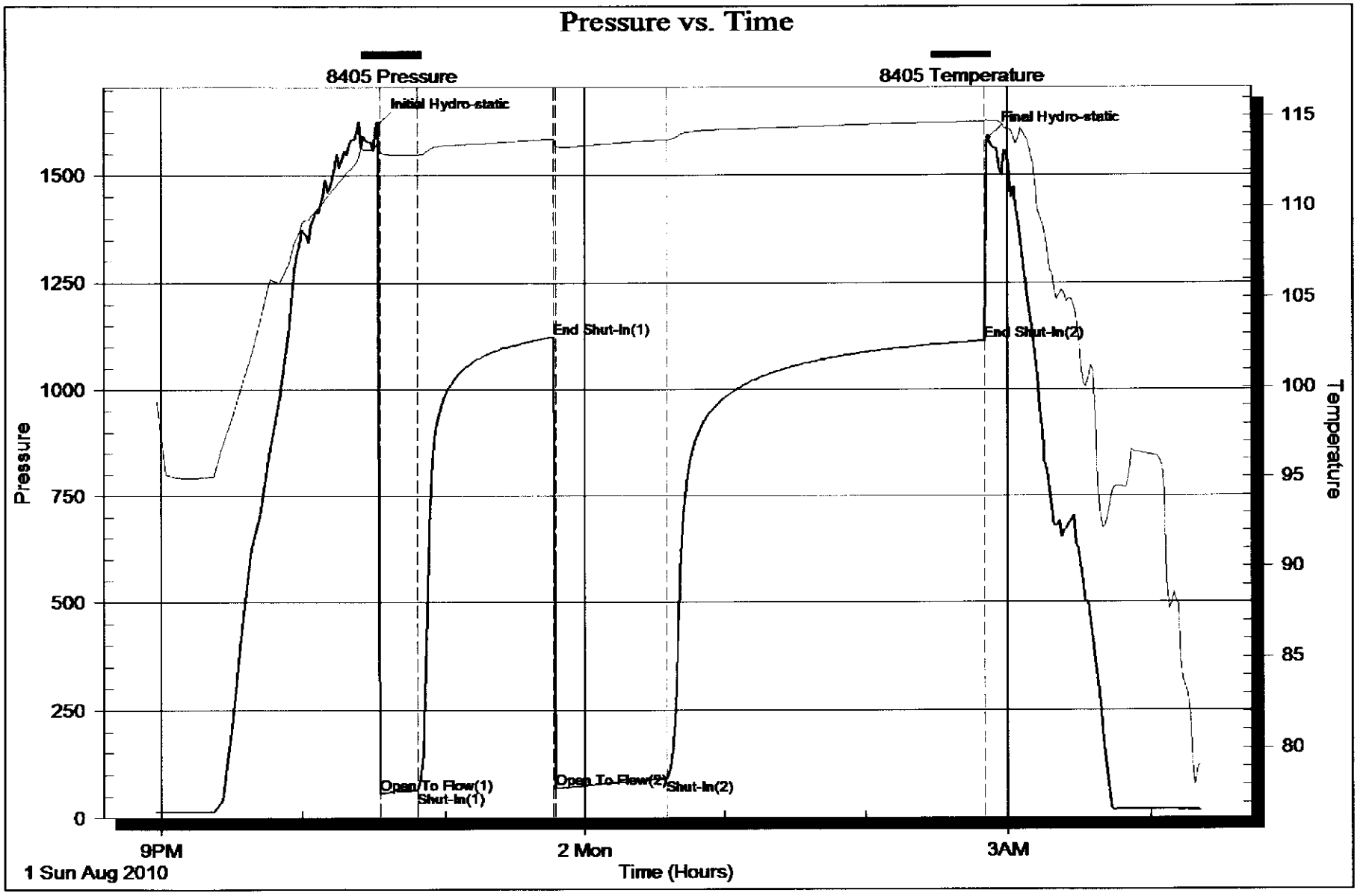
Total Length: 85.00 ft Total Volume: 1.193 bbl

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

Laboratory Name: Laboratory Location:

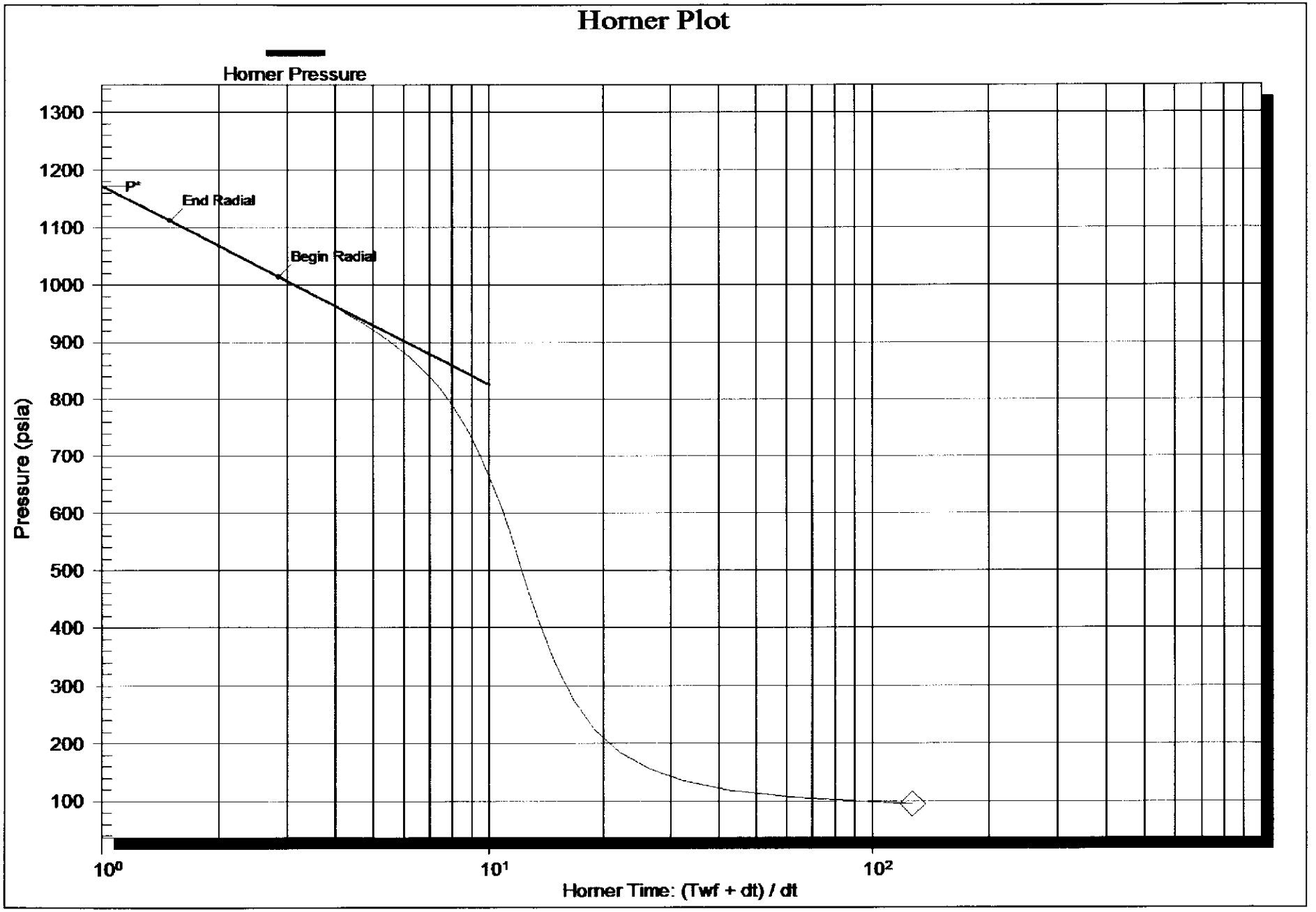
Recovery Comments: Chlorides 41,000 Resistivity .11 @ 71 Degrees

Serial #: 8405 Inside SAMUEL GARY JR & ASSOCIATES INC 3-17S-16W RUSH DST Test Number: 1

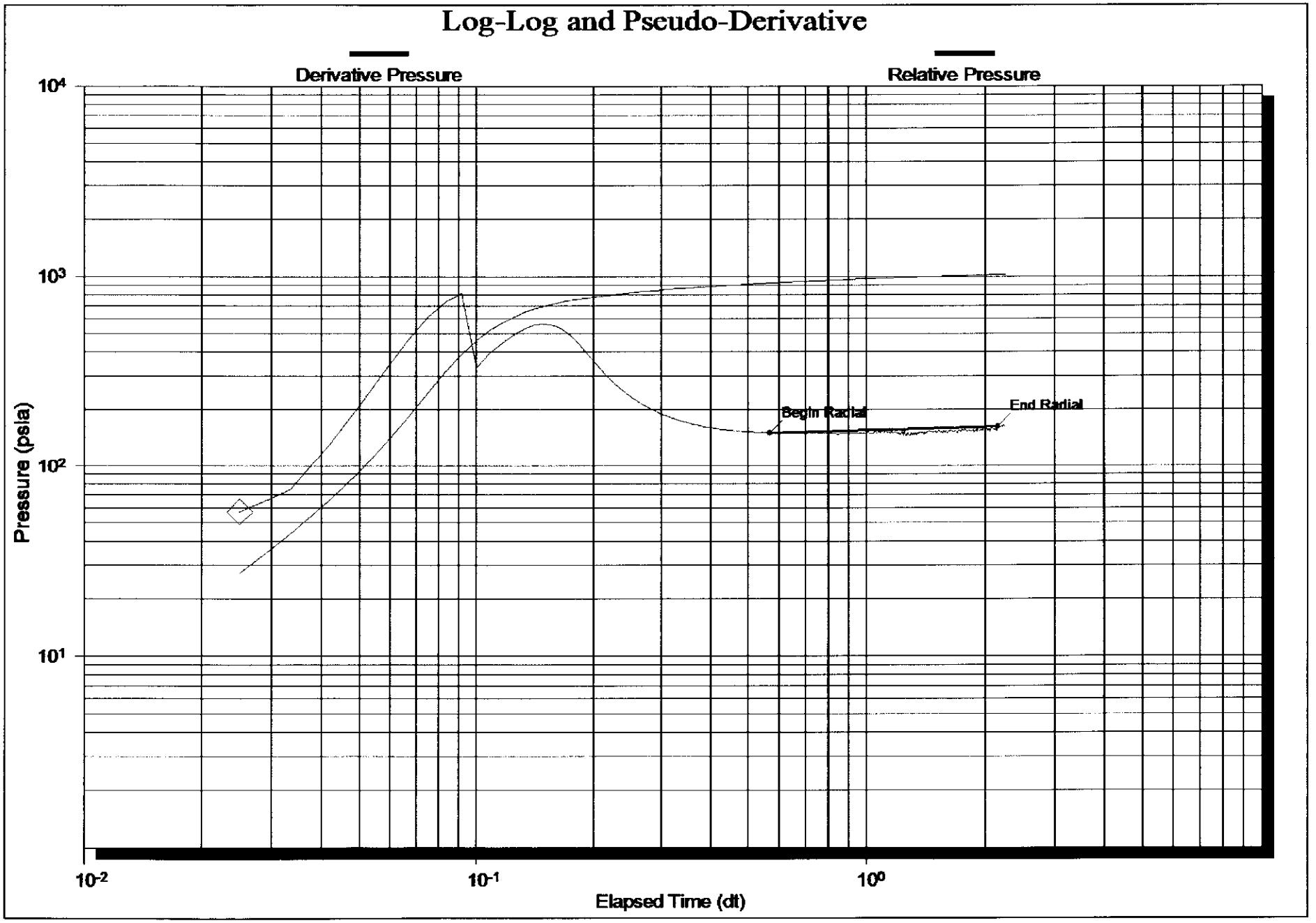


Superior Testers Enterprises LLC Ref. No: 16338 Printed: 2010.08.04 @ 08:11:16

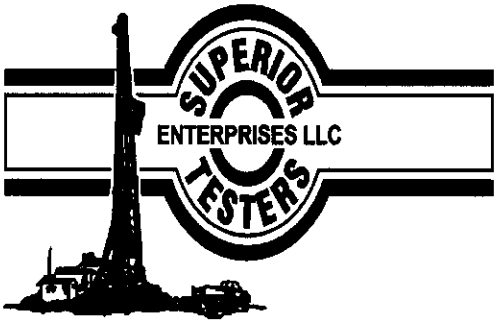
Horner Plot



Serial Number: 8405 (Inside) P* : 1171.51 Slope (m) : 345.98 kpa/log cycle Flow Cycle: 2



Serial Number: 8405 (Inside) Flow Cycle: 2



DRILL STEM TEST REPORT

Prepared For: **SAMUEL GARY JR & ASS0CIATES INC**

SAMUEL GARY JR & ASSOCIATES INC
1515 WYNKOOP ST SUITE 700
DENVER CO 80202

ATTN: CLAYTON CAMOZZI

3-17S-16W RUSH

YARMER ET AL 1-3

Start Date: 2010.08.02 @ 15:17:00
End Date: 2010.08.02 @ 22:30:30
Job Ticket #: 16339 DST #: 2

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2010.08.04 @ 08:19:51

DRILL STEM TEST REPORT

SAMUEL GARY JR & ASSOCIATES INC

SAMUEL GARY JR & ASSOCIATES INC 1515 WYNKOOP ST SUITE 700
DENVER CO 80202
ATTN: CLAYTON CAMOZZI

YARMER ET AL 1-3

3-17S-16W RUSH

Job Ticket: 16339 **DST#: 2**

Test Start: 2010.08.02 @ 15:17:00

GENERAL INFORMATION:

Formation: **Lansing "F & G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:36:30
Time Test Ended: 22:30:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 3320-gb-56

Interval: 3320.00 ft (KB) To 3380.00 ft (KB) (TVD)
Total Depth: 3380.00 ft (KB) (TVD)
Hole Diameter: 6.88 inches Hole Condition: Fair

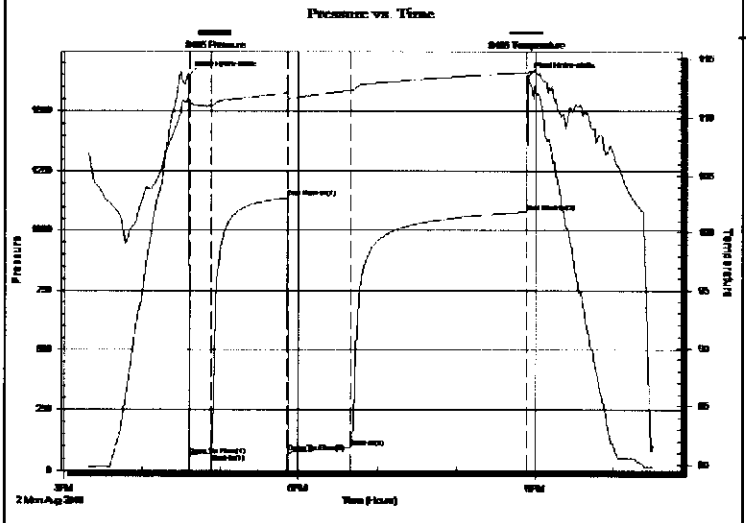
Reference Elevations: 1984.00 ft (KB)
1974.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8405 **Inside**

Press@RunDepth: 93.95 psia @ 3375.98 ft (KB)
Start Date: 2010.08.02 End Date: 2010.08.02
Start Time: 15:19:00 End Time: 22:30:30

Capacity: 5000.00 psia
Last Calib.: 2010.08.03
Time On Btm: 2010.08.02 @ 16:36:00
Time Off Btm: 2010.08.02 @ 20:54:30

TEST COMMENT: 15/Initial Opening Weak building blow built to 2 3/4 inches into the w ater
60/Initial Shut-In-No blow back
45/Final Open-Weak building blow built to 3 3/4 inches into the w ater
135/Final Shut-In-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1647.04	111.72	Initial Hydro-static
1	61.99	111.10	Open To Flow (1)
18	70.19	110.99	Shut-In(1)
76	1137.78	112.13	End Shut-In(1)
76	73.68	111.47	Open To Flow (2)
124	93.95	112.33	Shut-In(2)
258	1078.13	113.85	End Shut-In(2)
259	1641.01	113.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	Muddy Water 30% Mud 70% Water	0.91
	Chlorides 43,000	0.00
	Resistivity .14 @ .82 Degrees	

Gas Rates

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

DRILL STEM TEST REPORT

SAMUEL GARY JR & ASSOCIATES INC

SAMUEL GARY JR & ASSOCIATES INC 1515 WYNKOOP ST SUITE 700
DENVER CO 80202
ATTN: CLAYTON CAMOZZI

YARMER ET AL 1-3

3-17S-16W RUSH

Job Ticket: 16339 **DST#: 2**

Test Start: 2010.08.02 @ 15:17:00

GENERAL INFORMATION:

Formation: **Lansing "F & G"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:36:30
Time Test Ended: 22:30:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Jared Scheck
Unit No: 3320-gb-56

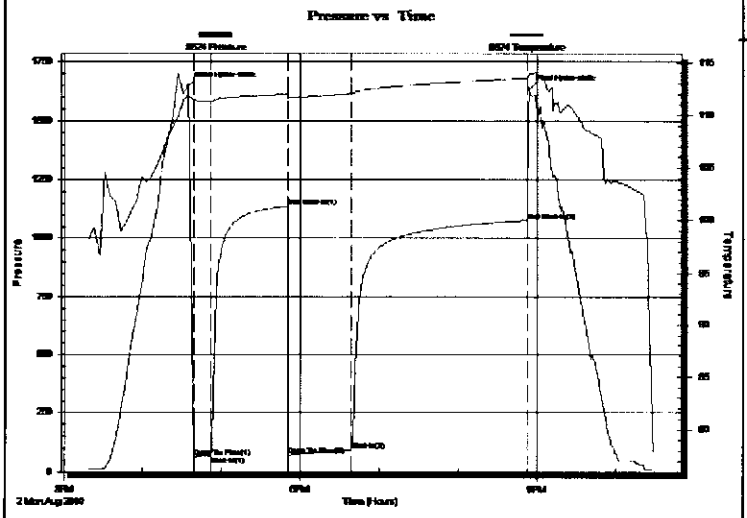
Interval: 3320.00 ft (KB) To 3380.00 ft (KB) (TVD)
Total Depth: 3380.00 ft (KB) (TVD)
Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 1984.00 ft (KB)
1974.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8524 **Outside**
Press@RunDepth: 1074.67 psia @ 3376.98 ft (KB)
Start Date: 2010.08.02 End Date: 2010.08.02
Start Time: 15:19:00 End Time: 22:29:30

Capacity: 5000.00 psia
Last Calib.: 2010.08.03
Time On Btm: 2010.08.02 @ 16:35:00
Time Off Btm: 2010.08.02 @ 20:53:30

TEST COMMENT: 15/Initial Opening Weak building blow built to 2 3/4 inches into the water
60/Initial Shut-In-No blow back
45/Final Open-Weak building blow built to 3 3/4 inches into the water
135/Final Shut-In-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1647.07	111.88	Initial Hydro-static
4	62.54	111.38	Open To Flow (1)
18	67.56	111.27	Shut-In(1)
76	1137.28	112.00	End Shut-In(1)
76	70.79	111.56	Open To Flow (2)
124	93.74	112.03	Shut-In(2)
258	1074.67	113.50	End Shut-In(2)
259	1635.71	113.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	Muddy Water 30% Mud 70% Water	0.91
	Chlorides 43,000	0.00
	Resistivity .14 @ .82 Degrees	

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

SAMUEL GARY JR & ASSOCIATES INC

SAMUEL GARY JR & ASSOCIATES INC 1515 WYNKOOP ST SUITE 700
DENVER CO 80202
ATTN: CLAYTON CAMOZZI

YARMER ET AL 1-3

3-17S-16W RUSH

Job Ticket: 16339 **DST#: 2**

Test Start: 2010.08.02 @ 15:17:00

Tool Information

Drill Pipe:	Length:	3314.00 ft	Diameter:	3.80 inches	Volume:	46.49 bbl	Tool Weight:		1000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.76 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:		59000.00 lb
					Total Volume:	46.49 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		23.00 ft					String Weight:	Initial	54000.00 lb
Depth to Top Packer:		3320.00 ft						Final	54000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		59.98 ft							
Tool Length:		88.98 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3292.00		
Shut-In Tool	5.00			3297.00		
Hydrolic Tool	5.00			3302.00		
Jars	6.00			3308.00		
Safety Joint	2.00			3310.00		
Packer	5.00			3315.00	29.00	Bottom Of Top Packer
Packer	5.00			3320.00		
Perforations	5.00			3325.00		
Change Over Sub	0.75			3325.75		
Drill Pipe	31.48			3357.23		
Change Over Sub	0.75			3357.98		
Perforations	17.00			3374.98		
Recorder	1.00	8405	Inside	3375.98		
Recorder	1.00	8524	Outside	3376.98		
Bullnose	3.00			3379.98	59.98	Bottom Packers & Anchor
Total Tool Length:	**88.98**					

DRILL STEM TEST REPORT

FLUID SUMMARY

SAMUEL GARY JR & ASSOCIATES INC

SAMUEL GARY JR & ASSOCIATES INC 1515 WYNKOOP ST SUITE 700
DENVER CO 80202
ATTN: CLAYTON CAMOZZI

YARMER ET AL 1-3

3-17S-16W RUSH

Job Ticket: 16339 **DST#: 2**

Test Start: 2010.08.02 @ 15:17:00

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:	43000 ppm
Viscosity:	49.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	10.17 in³	Gas Cushion Type:			
Resistivity:	0.14 ohm.m	Gas Cushion Pressure:	psia		
Salinity:	5800.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	Muddy Water 30% Mud 70% Water	0.912
	Chlorides 43,000	0.000
	Resistivity .14 @ .82 Degrees	

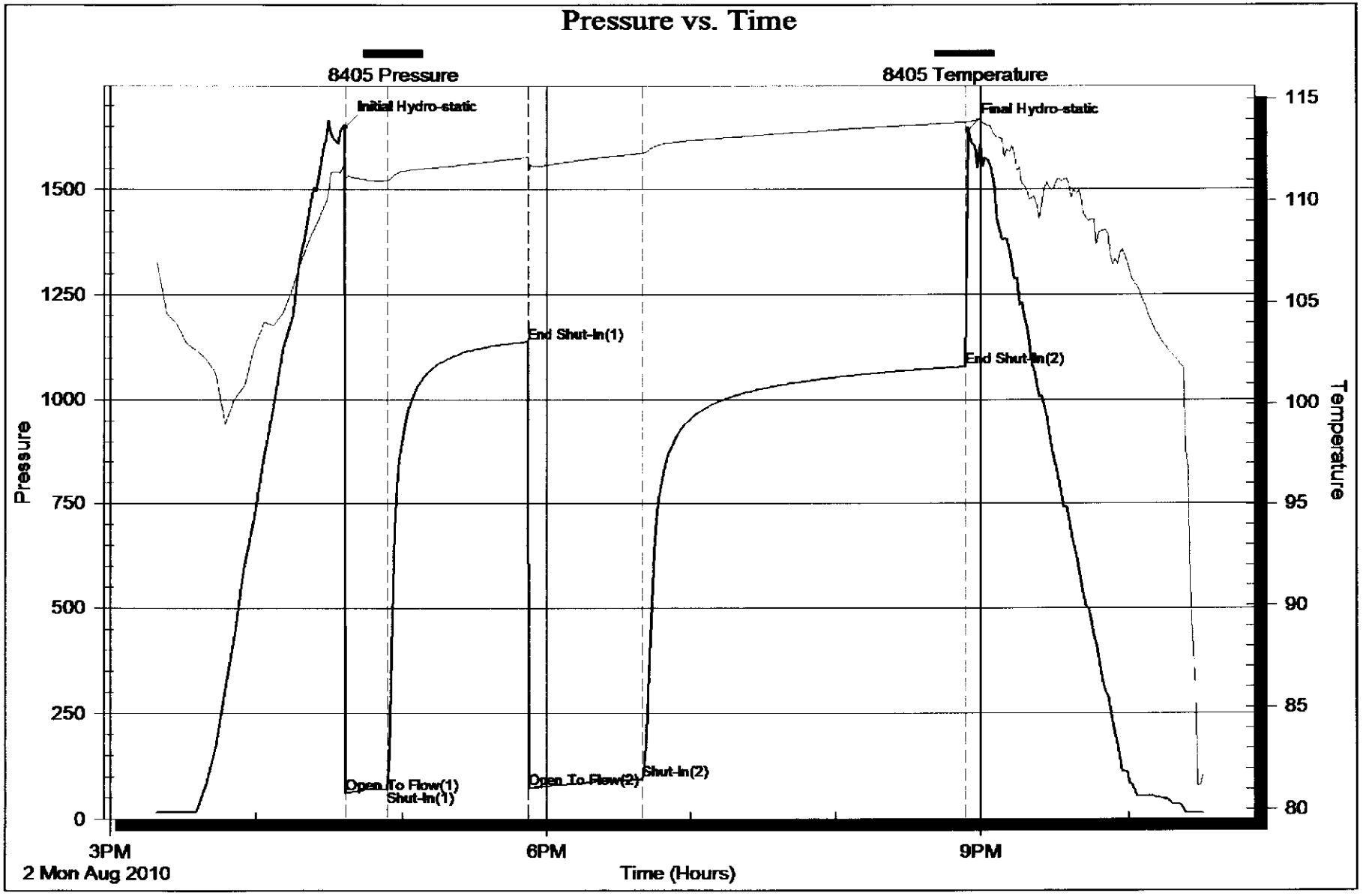
Total Length: 65.00 ft Total Volume: 0.912 bbl

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

Laboratory Name: Laboratory Location:

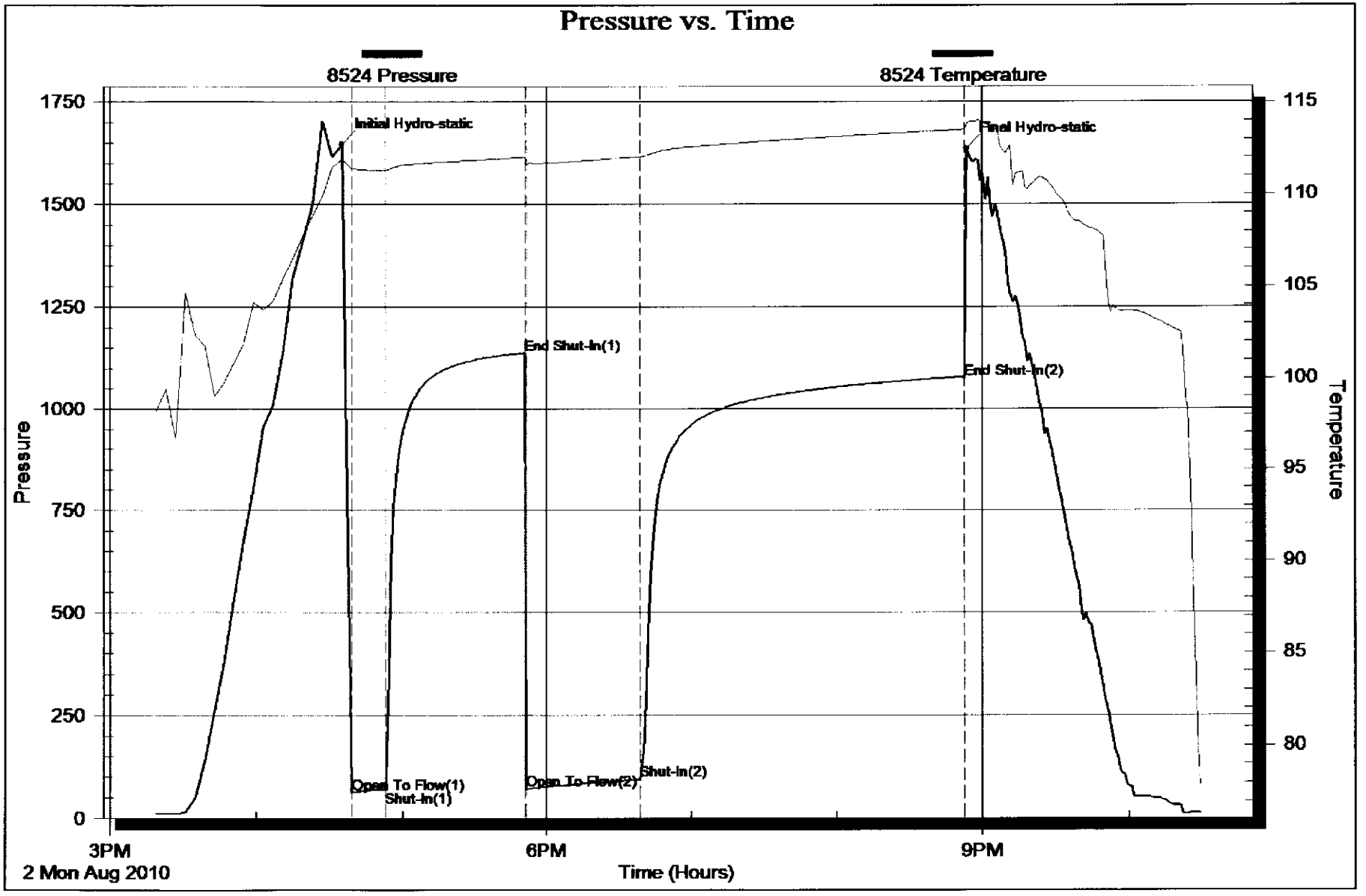
Recovery Comments: Chlorides 43,000 Resistivity .14 @ 82 Degrees

Serial #: 8405 Inside SAMUEL GARY JR & ASSOCIATES INC 3-17S-16W RUSH DST Test Number: 2

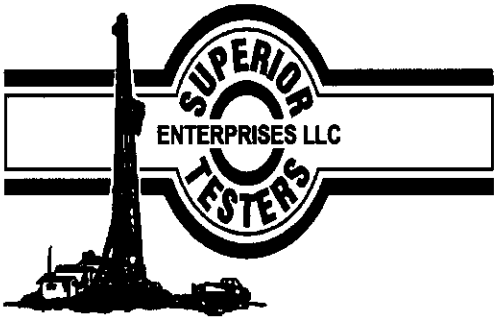


Superior Testers Enterprises LLC Ref. No: 16339 Printed: 2010.08.04 @ 08:19:52

Serial #: 8524 Outside SAMUEL GARY JR & ASSOCIATES INC 3-17S-16W RUSH DST Test Number: 2



Superior Testers Enterprises LLC Ref. No: 16339 Printed: 2010.08.04 @ 08:19:52



DRILL STEM TEST REPORT

Prepared For: **SAMUEL GARY JR & ASS0CIATES INC**

SAMUEL GARY JR & ASSOCIATES INC
1515 WYNKOOP ST SUITE 700
DENVER CO 80202

ATTN: CLAYTON CAMOZZI

3-17S-16W RUSH

YARMER ET AL 1-3

Start Date: 2010.08.03 @ 07:45:00

End Date: 2010.08.03 @ 14:40:00

Job Ticket #: 16340 DST #: 3

Superior Testers Enterprises LLC

PO Box 138 Great Bend KS 67530

1-800-792-6902

Printed: 2010.08.04 @ 08:32:34

DRILL STEM TEST REPORT

SAMUEL GARY JR & ASSOCIATES INC

SAMUEL GARY JR & ASSOCIATES INC 1515 WYNKOOP ST SUITE 700
DENVER CO 80202
ATTN: CLAYTON CAMOZZI

YARMER ET AL 1-3

3-17S-16W RUSH

Job Ticket: 16340 **DST#: 3**

Test Start: 2010.08.03 @ 07:45:00

GENERAL INFORMATION:

Formation: **Lansing H - I**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:12:30
Time Test Ended: 14:40:00

Test Type: Conventional Bottom Hole (Initial)
Tester: JARED SCHECK
Unit No: 3320-GB-56

Interval: 3395.00 ft (KB) To 3434.00 ft (KB) (TVD)
Total Depth: 3434.00 ft (KB) (TVD)
Hole Diameter: 6.88 inches Hole Condition: Fair

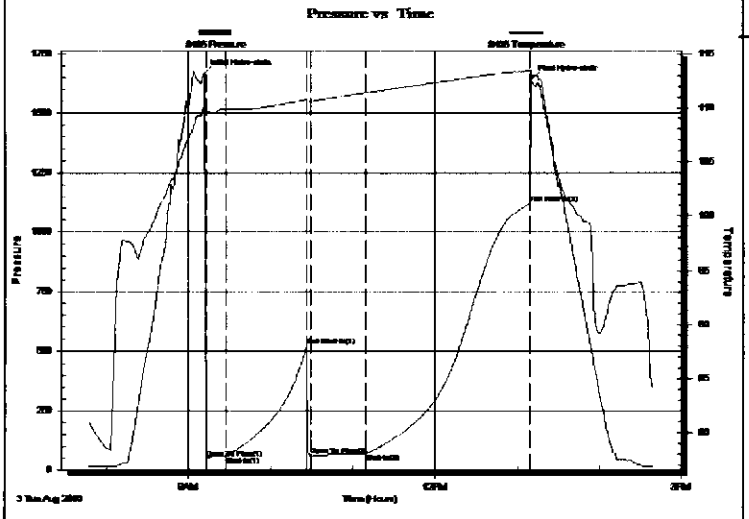
Reference Elevations: 1984.00 ft (KB)
1974.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8405 **Inside**

Press@RunDepth: 67.99 psia @ 3430.00 ft (KB)
Start Date: 2010.08.03 End Date: 2010.08.03
Start Time: 07:47:00 End Time: 14:40:00

Capacity: 5000.00 psia
Last Calib.: 2010.08.03
Time On Btm: 2010.08.03 @ 09:11:30
Time Off Btm: 2010.08.03 @ 13:10:00

TEST COMMENT: 15/INITIAL OPEN:WEAK BLOW BUILT 5 1/2 INCHES INTO WATER IN 15 MINUTES
60/INITIAL SHUT IN:NO BLOW BACK
40/FINAL OPEN:STRONG BLOW BUILT BOTTOM OF BUCKET IN 1 MINUTE
120/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1663.94	110.13	Initial Hydro-static
1	49.46	109.66	Open To Flow (1)
16	57.56	109.87	Shut-In(1)
75	521.76	110.80	End Shut-In(1)
78	59.55	110.61	Open To Flow (2)
118	67.99	111.40	Shut-In(2)
238	1119.74	113.42	End Shut-In(2)
239	1642.22	113.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	GASSY Oil Cut Mud	0.88
	5%Gas 20% Oil 75%Mud	0.00
	300 Feet of Gas in the pipe	

Gas Rates

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

DRILL STEM TEST REPORT

SAMUEL GARY JR & ASSOCIATES INC

SAMUEL GARY JR & ASSOCIATES INC 1515 WYNKOOP ST SUITE 700
DENVER CO 80202
ATTN: CLAYTON CAMOZZI

YARMER ET AL 1-3

3-17S-16W RUSH

Job Ticket: 16340 **DST#: 3**

Test Start: 2010.08.03 @ 07:45:00

GENERAL INFORMATION:

Formation: **Lansing H - I**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:12:30
Time Test Ended: 14:40:00

Test Type: Conventional Bottom Hole (Initial)
Tester: JARED SCHECK
Unit No: 3320-GB-56

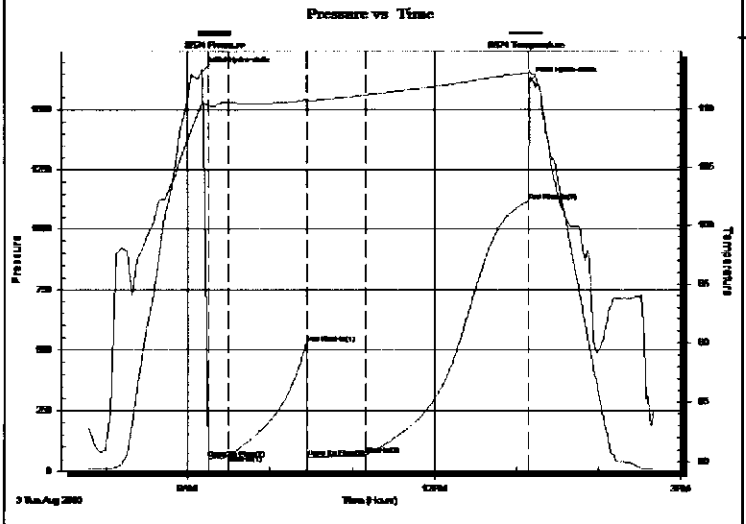
Interval: 3395.00 ft (KB) To 3434.00 ft (KB) (TVD)
Total Depth: 3434.00 ft (KB) (TVD)
Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 1984.00 ft (KB)
1974.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8524 **Outside**
Press@RunDepth: 1119.80 psia @ 3431.00 ft (KB)
Start Date: 2010.08.03 End Date: 2010.08.03
Start Time: 07:47:00 End Time: 14:40:00

Capacity: 5000.00 psia
Last Calib.: 2010.08.03
Time On Btm: 2010.08.03 @ 09:11:00
Time Off Btm: 2010.08.03 @ 13:09:30

TEST COMMENT: 15/INITIAL OPEN:WEAK BLOW BUILT 5 1/2 INCHES INTO WATER IN 15 MINUTES
60/INITIAL SHUT IN:NO BLOW BACK
40/FINAL OPEN:STRONG BLOW BUILT BOTTOM OF BUCKET IN 1 MINUTE
120/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1664.35	110.53	Initial Hydro-static
4	52.22	110.23	Open To Flow (1)
19	67.92	110.48	Shut-In(1)
76	525.57	110.74	End Shut-In(1)
77	56.55	110.69	Open To Flow (2)
119	67.67	111.19	Shut-In(2)
238	1119.80	113.05	End Shut-In(2)
239	1622.27	113.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	GASSY Oil Cut Mud	0.88
	5%Gas 20% Oil 75%Mud	0.00
	300 Feet of Gas in the pipe	

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

SAMUEL GARY JR & ASSOCIATES INC

SAMUEL GARY JR & ASSOCIATES INC 1515
WYNKOOP ST SUITE 700
DENVER CO 80202
ATTN: CLAYTON CAMOZZI

YARMER ET AL 1-3

3-17S-16W RUSH

Job Ticket: 16340 **DST#: 3**

Test Start: 2010.08.03 @ 07:45:00

Tool Information

Drill Pipe:	Length:	3376.00 ft	Diameter:	3.80 inches	Volume:	47.36 bbl	Tool Weight:		1000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		20000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:		70000.00 lb
					Total Volume:	47.36 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		10.00 ft					String Weight:	Initial	55000.00 lb
Depth to Top Packer:		3395.00 ft						Final	55000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		39.00 ft							
Tool Length:		68.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3367.00		
Shut-In Tool	5.00			3372.00		
Hydrolic Tool	5.00			3377.00		
Jars	6.00			3383.00		
Safety Joint	2.00			3385.00		
Packer	5.00			3390.00	29.00	Bottom Of Top Packer
Packer	5.00			3395.00		
Perforations	34.00			3429.00		
Recorder	1.00	8405	Inside	3430.00		
Recorder	1.00	8524	Outside	3431.00		
Bullnose	3.00			3434.00	39.00	Bottom Packers & Anchor
Total Tool Length:	**68.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

SAMUEL GARY JR & ASSOCIATES INC

SAMUEL GARY JR & ASSOCIATES INC 1515 WYNKOOP ST SUITE 700
DENVER CO 80202
ATTN: CLAYTON CAMOZZI

YARMER ET AL 1-3

3-17S-16W RUSH

Job Ticket: 16340 **DST#: 3**

Test Start: 2010.08.03 @ 07:45:00

Mud and Cushion Information

Mud Type:	Polymer	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	53.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.17 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psia		
Salinity:	4600.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	GASSY Oil Cut Mud	0.884
	5%Gas 20% Oil 75%Mud	0.000
	300 Feet of Gas in the pipe	

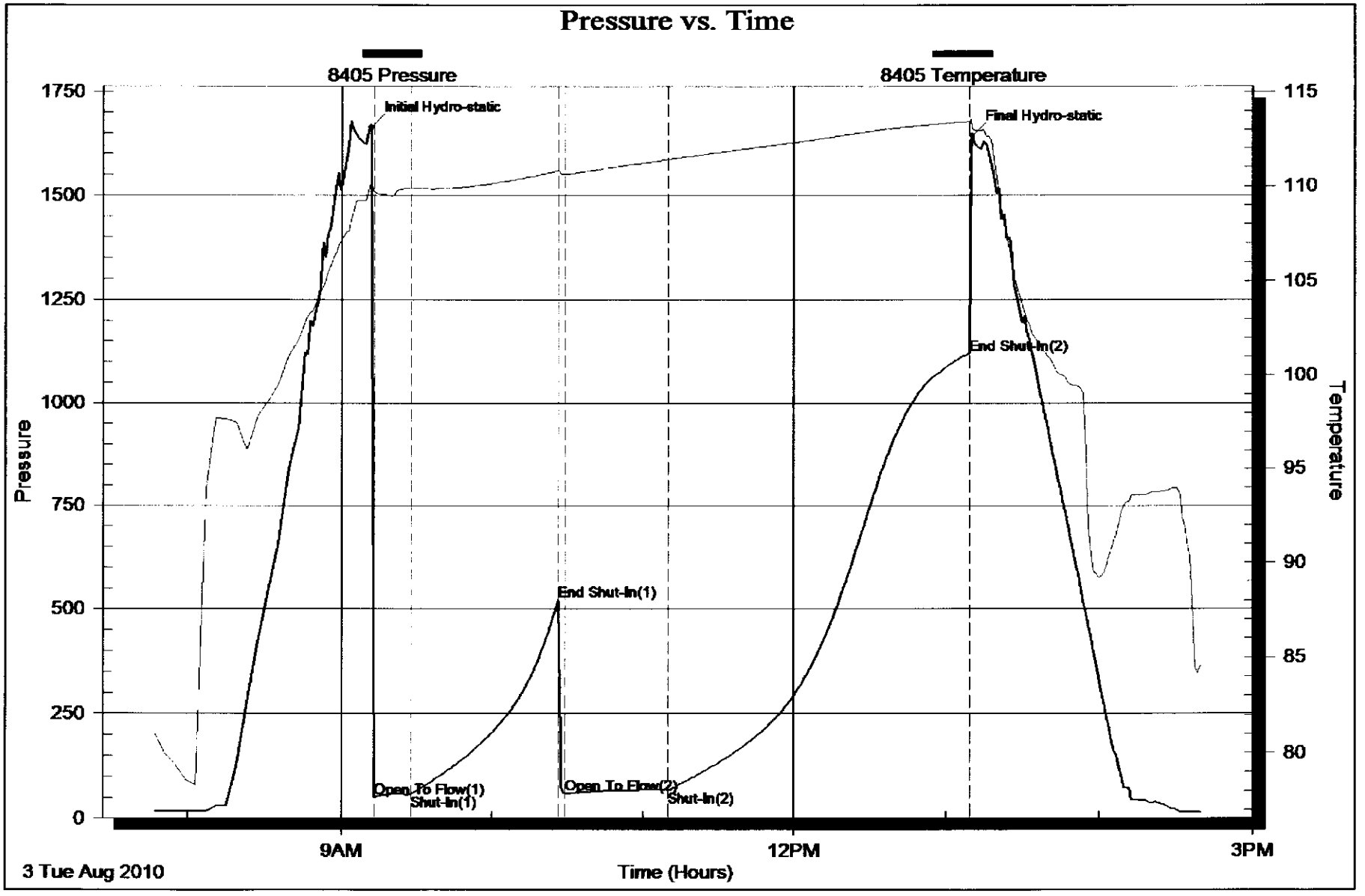
Total Length: 63.00 ft Total Volume: 0.884 bbl

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

Laboratory Name: Laboratory Location:

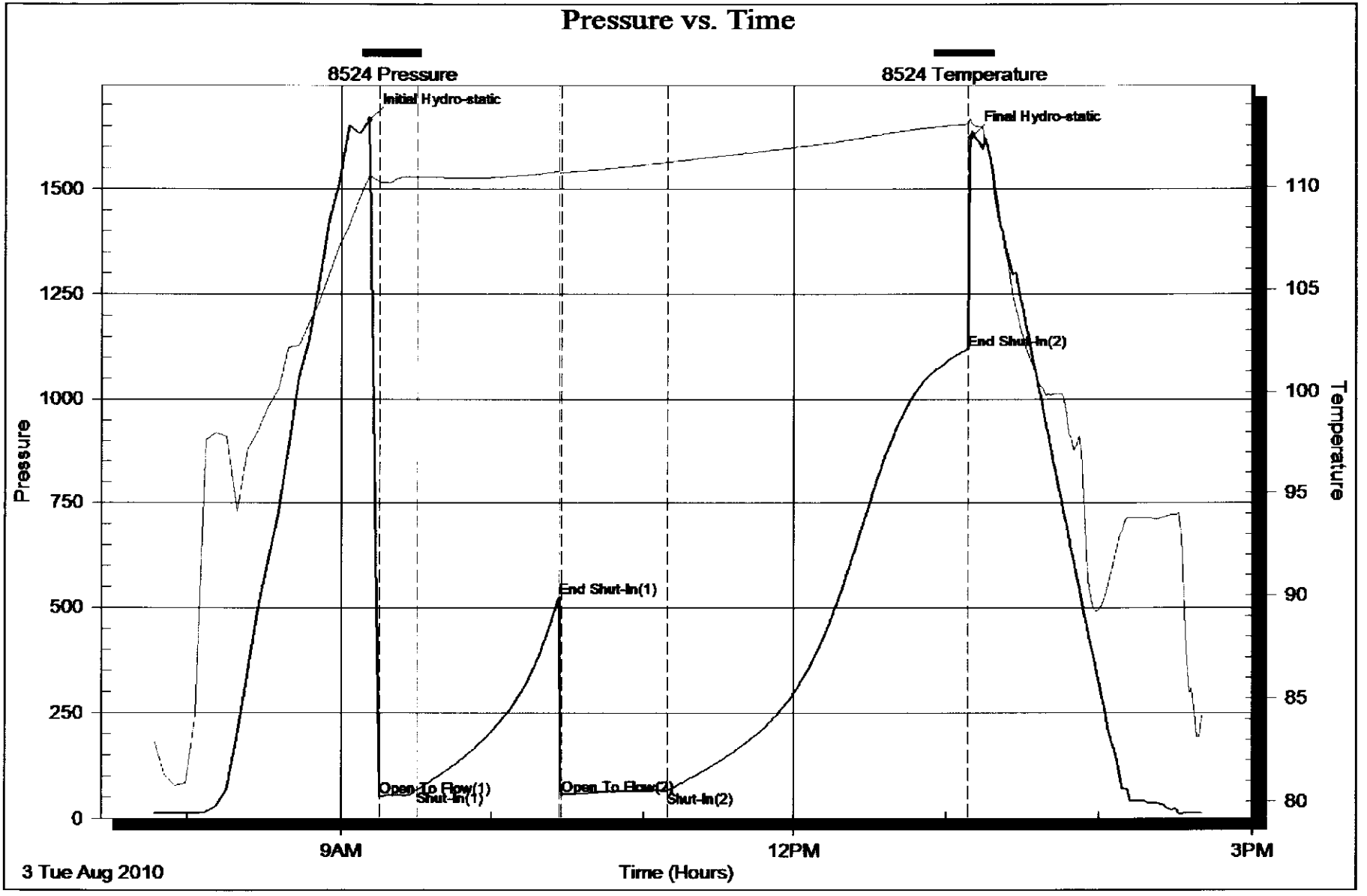
Recovery Comments: There w as not enought break over on the final shut-in to get an accurate extrapolation 65% break over is needed

Serial #: 8405 Inside SAMUEL GARY JR & ASSOCIATES INC 3-17S-16W RUSH DST Test Number: 3



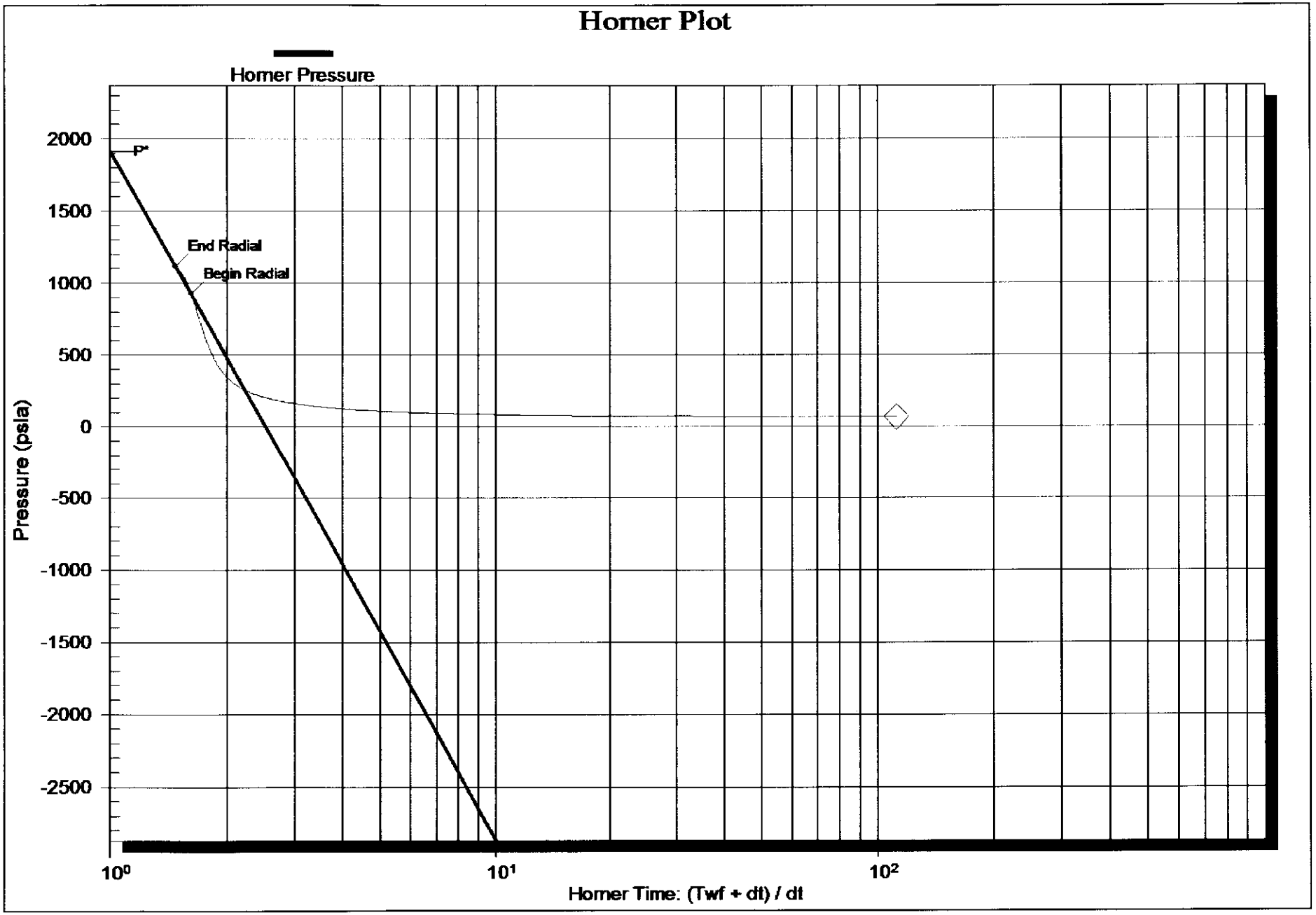
Superior Testers Enterprises LLC Ref. No: 16340 Printed: 2010.08.04 @ 08:32:34

Serial #: 8524 **Outside** SAMUEL GARY JR & ASSOCIATES INC 3-17S-16W RUSH DST Test Number: 3

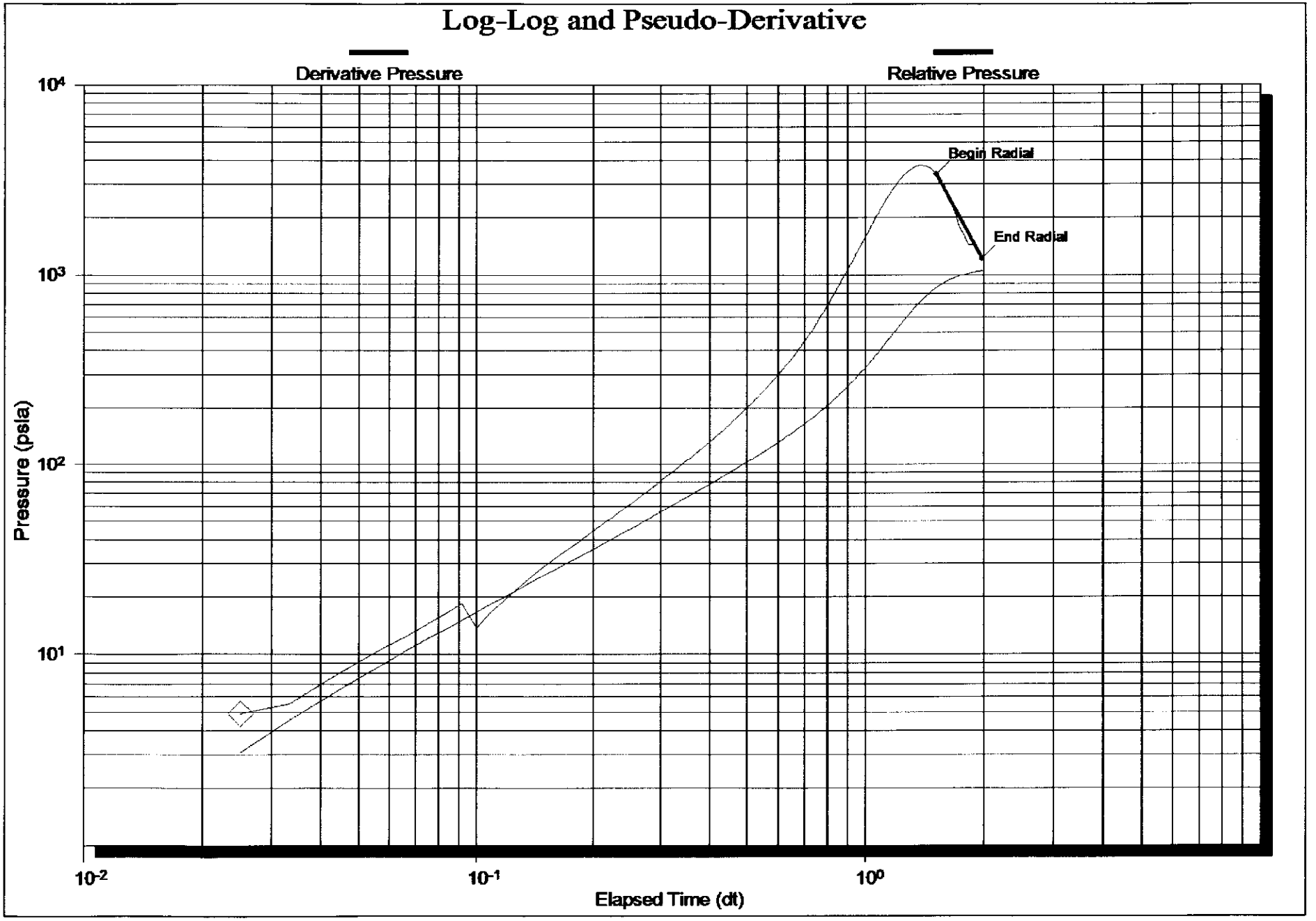


Superior Testers Enterprises LLC Ref. No: 16340 Printed: 2010.08.04 @ 08:32:35

Horner Plot



Serial Number: 8405 (Inside) P* : 1914.92 Slope (m) : 4783.65 kpa/log cycle Flow Cycle: 2


Log-Log and Pseudo-Derivative
Derivative Pressure
Relative Pressure
Begin Radial
End Radial
Pressure (psia)
10⁴
10³
10²
10¹
10⁻²
10⁻¹
10⁰
Elapsed Time (dt)