

Confidentiality Requested:

Yes No

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

**WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

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 EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

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

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

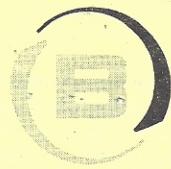
Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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TTM 11-20



BASICSM
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

15-255-13W

FIELD SERVICE TICKET

1718 17479 A

DATE _____ TICKET NO. _____

DATE OF JOB <u>11/13/2018</u> DISTRICT <u>Pratt, KS</u>		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:								
CUSTOMER <u>Thomas Gsrner, Inc.</u>		LEASE <u>Gsrner</u> WELL NO. <u>8</u>								
ADDRESS		COUNTY <u>St. George</u> STATE <u>KS</u>								
CITY STATE		SERVICE CREW <u>Darin, Ed, Darin</u>								
AUTHORIZED BY		JOB TYPE: <u>242/8 5/8 surface</u>								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
<u>20920</u>	<u>3/4</u>						<u>11/13</u>			<u>1:30</u>
<u>19860</u>	<u>1/2</u>					ARRIVED AT JOB	<u>11/13</u>			<u>3:30</u>
						START OPERATION	<u>11/13</u>			<u>6:00</u>
						FINISH OPERATION	<u>11/13</u>			<u>6:45</u>
						RELEASED	<u>11/13</u>			<u>7:00</u>
						MILES FROM STATION TO WELL				<u>18</u>

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: [Signature]
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
GP103	60/40 Poz	SIC	350		4,200 00
CC109	Calcium Chloride	Lb	903		948 15
CC102	Cellofloc	Lb	88		325 60
CF153	wooden cement plugs	ES	1		160 00
E100	unit mileage chaise - pickups, small vehicles	m.	20		90 00
E101	Desu, Equipment mileage	m.	40		300 00
E113	Proppant 92 Bulk Delivery Chaise, per ton	Ton	301		752 50
CF200	Depos chaise, G-500	Yr	1		1,000 00
CF240	Blending & mixing Service Chaise	SK	350		490 00
CE504	Plug Contactor Utilization Chaise	Job	1		250 00
SG03	Service Supervisor, first 8 hrs on call	ES	1		175 00

SUB TOTAL 8,691 25

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
Discarded		TOTAL <u>5,475 49</u>

SERVICE REPRESENTATIVE [Signature] THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: [Signature]
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO. _____



PAGE 1 of 1	CUST NO 1001584	YARD # 1718	INVOICE DATE 11/14/2018
INVOICE NUMBER 92847097			

Pratt (620) 672-1201
 B GARNER THOMAS E.
 I 305 E 7TH AVE
 L SAINT JOHN
 L KS US 67576
 T
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Garner 8
 O LOCATION
 B COUNTY Stafford
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 T JOB CONTACT
 E

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41144816	20920		Net - 30 days	12/14/2018

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<i>For Service Dates: 11/13/2018 to 11/13/2018</i>				
0041144816				
171817479A Cement-New Well Casing/Pi 11/13/2018				
8 5/8" Surface Casing				
60/40 POZ	350.00	EA	7.56	2,646.00 T
903 Lbs. - Calcium Chloride	1.00	EA	597.33	597.33 T
88 Lbs. - Celloflake	1.00	EA	205.13	205.13 T
Wooden Cement Plug, 8 5/8"	1.00	EA	100.80	100.80
20 Miles/Unit Mileage Chg	1.00	MI	56.70	56.70
40 Miles/Heavy Equipment Mileage	1.00	MI	189.00	189.00
301 Tn/Mi -Proppant & Bulk Del. Chgs.	1.00	EA	474.08	474.08
Depth Charge; 0-500'	1.00	EA	630.00	630.00
350 SK -Blending & Mixing Service Charge	1.00	BAG	308.70	308.70
Plug Container Util. Chg.	1.00	EA	157.50	157.50
"Service Supervisor, first 8 hrs on loc.	1.00	EA	110.25	110.25

*pd.
12-15-18*

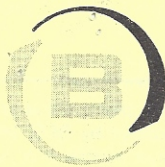
PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	5,475.49
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	258.63
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	5,734.12
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		

Customer Thomas Garner, Inc	Lease No.	Date 11/21/2018
Lease Garner	Well # 8	
Field Order # 17484	Station Prgt+1ks	Casing 5 1/2
		Depth 4317
Type Job 2421 5 1/2 Long Spring	Formation TD-4320	County Stgflora
		State KS
		Legal Description 15-255-13w

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 5 1/2	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
Depth 4317	Depth	From	To	Pre Pad	Max			5 Min.
Volume 100	Volume	From	To	Pad	Min			10 Min.
Max Press 1500	Max Press	From	To	Frac	Avg			15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth 4301	Packer Depth	From	To	Flush Water	Gas Volume			Total Load

Customer Representative Lenny S91099	Station Manager Justin Westerman	Treater Darin Franklin
Service Units 92911 84980 20920 70890 19918		
Driver Names Darin Ed Ed Disz Disz		

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
11/20 8:00 pm					On Location / SSPEX meeting
					1755K DAZ Cement, 10% gypsum
					10% SSIT, 0.5% Fluid loss, 3% msg Chem
					5ppp Gilsonite, .5% Gilsonite,
					.5% defoamer, .5% Friction reducer
					.25ppp Gilsonite, 150ppp, 1.5over, 6.00 water
11/21 1:30 pm	200		3	5	Pump 3 bbls water
	200		24	5	Pump 24 bbls Flush
	200		3	5	Pump 3 bbls water
	200		47	5	mix 1755K DAZ Cement
					Shut down
					Wash pump & lines & Release Plug
	200		0	6	Start displacement
	600		75	6	Libt Pressure
	700		90	3	Slow Rate
2:15 pm	1,500		99	3	Bump Plug
					Float - Held
	0		7	3	Plug Rgt hole - 30 SK
	0		5	3	Plug mouse hole - 20 SK
2:30 pm					Job complete / Darin & crew
					Thank you!!!



BASICSM
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

15-255-13w

FIELD SERVICE TICKET

1718 17484 A

DATE _____ TICKET NO. _____

DATE OF JOB: 11/21/2018		DISTRICT: Pratts, KS		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/>		PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/>		CUSTOMER ORDER NO.:	
CUSTOMER: Thomas Garner, Inc.				LEASE: Garner				WELL NO. 8	
ADDRESS:				COUNTY: Stafford		STATE: KS			
CITY:				SERVICE CREW: Dering, Ed, P, 192		JOB TYPE: 242/5 1/2 Longstring			
AUTHORIZED BY:									
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM/PM	TIME
20920	1						11/20	AM	4:00
19918	1/2						11/20	PM	8:00
							11/21	AM	1:30
							11/21	PM	2:30
							11/21	AM	3:00
						MILES FROM STATION TO WELL: 18			

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: Young
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP105	ADA2 Cement	SK	175		2975 00
CP103	60/40 Poz	SK	50		600 00
CC102	Cellofloc	Lb	44		162 80
CC105	C-41P	Lb	83		332 00
CC111	SS1+	Lb	878		439 00
CC112	Cement Friction Reducer	Lb	83		498 00
CC113	Gypsum	Lb	825		618 75
CC189	Mag Chem 10CR	Lb	495		1,336 50
CC201	Gilsonite	Lb	878		588 24
CF1251	Auto Fill Flost Shoe 5 1/2" (Blue)	ES	1		360 00
CF607	Latch Down Plug & Baffle 5 1/2" (Blue)	ES	1		400 00
CF1901	5 1/2" Basket (Blue)	ES	2		580 00
CF1651	Turbolizer 5 1/2" (Blue)	ES	8		880 00
CC151	Mud Flush	Gal	1,000		1,500 00
E100	Unit + mileage Charge - Pickups, Small Usage	m	20		90 00
E101	Heavy Equipment + mileage	m	40		300 00
E113	Proppant + Gnc Bulk Delivery Charge, per ton mile	Ton/m	208		520 00

SUB TOTAL

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$
MATERIALS	%TAX ON \$

TOTAL

JWH

SERVICE REPRESENTATIVE: Donna Frank

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: Young

FIELD SERVICE ORDER NO.

(WELL OWNER OPERATOR CONTRACTOR OR AGENT)



PAGE 1 of 1	CUST NO 1001584	YARD # 1718	INVOICE DATE 11/28/2018
INVOICE NUMBER 92856030			

Pratt (620) 672-1201
 B GARNER THOMAS E.
 I 305 E 7TH AVE
 L SAINT JOHN
 L KS US 67576
 T
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Garner 8
 O LOCATION
 B COUNTY Stafford
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 T JOB CONTACT
 E

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41146957	20920		Net - 30 days	12/28/2018

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<i>For Service Dates: 11/21/2018 to 11/21/2018</i>				
0041146957				
171817484A Cement-New Well Casing/Pi 11/21/2018				
5 1/2" Production Casing				
AA2 Cement	175.00	EA	10.71	1,874.25 T
60/40 POZ	50.00	EA	7.56	378.00 T
44 Lbs - Celloflake	1.00	LB	102.56	102.56 T
C-41P	83.00	LB	2.52	209.16 T
878 Lbs - Salt	1.00	LB	276.57	276.57 T
Cement Friction Reducer	83.00	LB	3.78	313.74 T
825 Lbs - Gypsum	1.00	LB	389.81	389.81 T
495 Lbs. -BES: C-MagChem 10 CR	1.00	LB	842.00	842.00 T
C-17	83.00	LB	12.60	1,045.80 T
878 Lbs - Gilsonite	1.00	LB	370.60	370.60 T
Auto Fill Float Shoe 5 1/2" (Blue)	1.00	EA	226.80	226.80 T
Latch Down Plug & Baffle, 5 1/2" (Blue)	1.00	EA	252.00	252.00 T
5 1/2" Basket (Blue)	2.00	EA	182.70	365.40 T
Turbolizer, 5 1/2" (Blue)	8.00	EA	69.30	554.40 T
1000 Gals. - Mud Flush	1.00	GAL	945.00	945.00 T
20 Miles/ Unit Mileage Chg	1.00	MI	56.70	56.70 T
40 Miles/ Heavy Equipment Mileage	1.00	MI	189.00	189.00 T
208 Tn/M - Proppant & Bulk Del. Chgs.	1.00	EA	327.61	327.61 T
Depth Charge; 4001'-5000'	1.00	EA	1,587.60	1,587.60 T
225 Sks Blending & Mixing Service Charge	1.00	BAG	198.45	198.45 T
Plug Container Util. Chg.	1.00	EA	157.50	157.50 T
"Service Supervisor, first 8 hrs on loc.	1.00	EA	110.25	110.25 T

*M
12/28/18*

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	10,773.20
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	442.91
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	11,216.11
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		



Joshua R. Austin
Petroleum Geologist
report for
Thomas Garner, Inc.



COMPANY: Thomas Garner, Inc.

LEASE: Garner #8

FIELD: Leiss Northwest

LOCATION: NE-SW-NE (1716' FNL & 1737' FEL)

SEC: 15 **TWSP:** 25s **RGE:** 13w

COUNTY: Stafford **STATE:** Kansas

KB: 1937' **GL:** 1926'

API # 15-185-24037-0000

CONTRACTOR: Sterling Drilling Company (Rig #4)

Spud: 11/13/2018 **Comp:** 11/20/2018

RTD: 4320' **LTD:** 4318'

Mud Up: 3078' **Type Mud:** Chemical was displaced

Samples Saved From: 3400' to RTD

Drilling Time Kept From: 3400' to RTD

Samples Examined From: 3400' to RTD

Geological Supervision From: 3400' to RTD

Geologist on Well: Josh Austin

Surface Casing: 8 5/8" @307'

Production Casing: 5 1/2" @ 4318'

Electronic Surveys: Pioneer Energy Services

NOTES

On the basis of the positive structural position, drill stem test results and after reviewing the electric logs, it was recommended by all parties involved in the Garner #8 to run 5 1/2 production casing to further test the following zones.

Arbuckle 4269-71
Simpson Sand 4210-18
Viola 4088-4118
Lansing "H" 3788-94

Thomas Garner, Inc

well comparison sheet

DRILLING WELL					COMPARISON WELL				COMPARISON WELL				COMPARISON WELL				
Garner #8					Garner #3				Garner #1				Garner 7				
					C-W/2-NE				SE-SW-NE				C-N/2-NE				
1937 KB					1931 KB				1933 KB				1938 KB				
					Structural Relationship				Structural Relationship				Structural Relationship				
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log	
Anhydrite	786	1151												768	1170	-19	
Heebner	3476	-1539	3470	-1533	3477	-1546	7	13	3472	-1539	0	6		3476	-1538	-1	5
Toronto	3495	-1558	3492	-1555	3498	-1567	9	12						3494	-1556	-2	1
Douglas	3519	-1582	3512	-1575	3520	-1589	7	14						3518	-1580	-2	5
Brown Lime	3626	-1689	3622	-1685	3631	-1700	11	15	3623	-1690	1	5		3626	-1688	-1	3
Lansing	3650	-1713	3646	-1709	3664	-1733	20	24	3654	-1721	8	12		3648	-1710	-3	1
BKC	3936	-1999	3938	-2001	3948	-2017	18	16						3936	-1998	-1	-3
Kinderhook	4047	-2110	4049	-2112										4043	-2105	-5	-7
Viola	4083	-2146	4078	-2141	4101	-2170	24	29	4072	-2139	-7	-2		4081	-2143	-3	2
Simpson Shale	4205	-2268	4201	-2264	4211	-2280	12	16	4200	-2267	-1	3		4206	-2268	0	4
Simpson Sand	4213	-2276	4210	-2273	4220	-2289	13	16	4205	-2272	-4	-1		4212	-2274	-2	1
Arbuckle	4270	-2333	4266	-2329	4278	-2347	14	18	4268	-2335	2	6		4276	-2338	5	9
Total Depth	4320	-2383	4318	-2381	4290	-2359			4275	-2342				4378	-2440		



TRIOBITE TESTING, INC.

DRILL STEM TEST REPORT

Thomas Garner inc
305 E 7th
St John, KS 67576
ATTN: Josh Austin

15-2S-13W Stafford
Garner 8
Job Ticket: 63846 DST#: 1
Test Start: 2018.11.17 @ 08:15:00

GENERAL INFORMATION:

Formation: Lansing "H"	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock ft (KB)	Tester: Leal Cason
Time Tool Opened: 10:12:17	Unit No: 74
Time Test Ended: 15:05:02	Reference Elevations: 1937.00 ft (KB)
Interval: 3785.00 ft (KB) To 3810.00 ft (KB) (TVD)	1926.00 ft (CF)
Total Depth: 3810.00 ft (KB) (TVD)	KB to GR/CF: 11.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Good

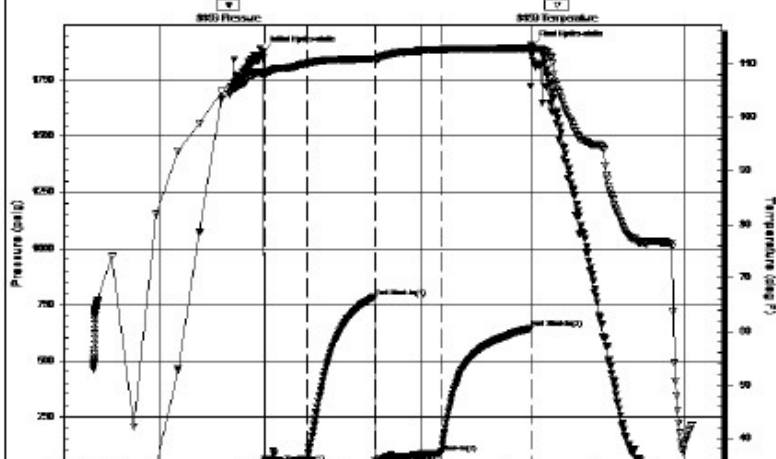
Serial #: 8159

Inside

Press@RunDepth: 87.41 psig @ 3786.00 ft (KB)	Capacity: psig
Start Date: 2018.11.17	End Date: 2018.11.17
Start Time: 08:15:01	End Time: 15:05:02
	Last Calib.: 2018.11.17
	Time On Btm: 2018.11.17 @ 10:11:17
	Time Off Btm: 2018.11.17 @ 13:14:47

TEST COMMENT: IF: Strong Blow , BOB in 90 seconds, Built to 127 inches
 IS: No Blow Back
 FF: Strong Blow , BOB in 10 seconds, Built to 111 inches
 FS: No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1879.33	108.20	Initial Hydro-static
1	43.67	108.01	Open To Flow (1)
30	59.25	109.97	Shut-In(1)
76	783.10	110.88	End Shut-In(1)
77	44.58	110.80	Open To Flow (2)
122	87.41	112.57	Shut-In(2)
183	645.45	112.90	End Shut-In(2)
184	1903.49	113.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1496 GIP	0.00
63.00	GWMCO 20%G 10%W 20%M 50%O	0.31
142.00	GMCO 40%G 10%M 50%O	0.70

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Thomas Garner inc
 305 E 7th
 St John, KS 67576
 ATTN: Josh Austin

15-2S-13W Stafford

Garner 8

Job Ticket: 63847 DST#: 2
 Test Start: 2018.11.18 @ 15:55:00

GENERAL INFORMATION:

Formation: Viola
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:58:47
 Time Test Ended: 23:07:02

Test Type: Conventional Bottom Hole (Reset)
 Tester: Leal Cason
 Unit No: 74

Interval: 4095.00 ft (KB) To 4120.00 ft (KB) (TVD)
 Total Depth: 4120.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1937.00 ft (KB)
 1926.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8159

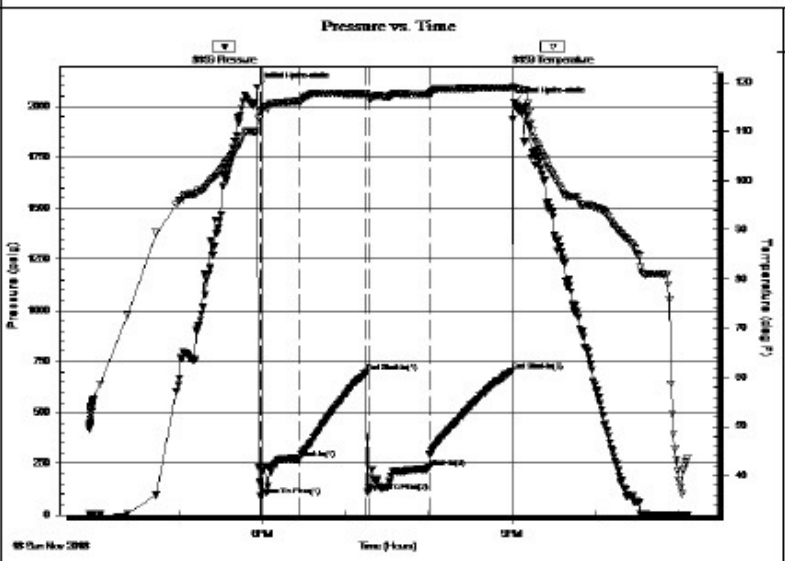
Inside

Press@RunDepth: 231.79 psig @ 4096.00 ft (KB)
 Start Date: 2018.11.18 End Date: 2018.11.18
 Start Time: 15:55:01 End Time: 23:07:02

Capacity: psig
 Last Calib.: 2018.11.18
 Time On Btn: 2018.11.18 @ 17:55:47
 Time Off Btn: 2018.11.18 @ 21:01:47

TEST COMMENT:

IF: Strong Blow, BOB in 30 seconds, Built to 285 inches
 IS: No Blow Back
 FF: Strong Blow, BOB in 15 seconds, GTS in 6 minutes, TSTM, Blow Built to 222 inches
 FSI: Blow Back Built to 1 inch



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2091.87	110.00	Initial Hydro-static
3	90.55	114.11	Open To Flow (1)
31	273.36	116.09	Shut-In(1)
80	696.16	117.69	End Shut-In(1)
81	112.27	117.01	Open To Flow (2)
125	231.79	117.69	Shut-In(2)
185	703.25	118.90	End Shut-In(2)
187	2019.37	118.77	Final Hydro-static

Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
0.00	3803 GIP	0.00
126.00	GWMCO 40%G 5%W 10%M 45%O	0.62
174.00	GOOM 20%G 28%O 52%M	1.62

* Recovery from multiple tests

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Thomas Garner inc

15-2S-13W Stafford

305 E 7th
St John, KS 67576

Garner 8

Job Ticket: 63848

DST#: 3

ATTN: Josh Austin

Test Start: 2018.11.19 @ 16:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:28:17

Time Test Ended: 23:24:02

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 4270.00 ft (KB) To 4275.00 ft (KB) (TVD)

Total Depth: 4275.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1937.00 ft (KB)

1926.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 8159

Inside

Press@RunDepth: 143.44 psig @ 4271.00 ft (KB)

Start Date: 2018.11.19

End Date:

2018.11.19

Capacity:

psig

Start Time: 16:30:01

End Time:

23:24:02

Last Calib.:

2018.11.19

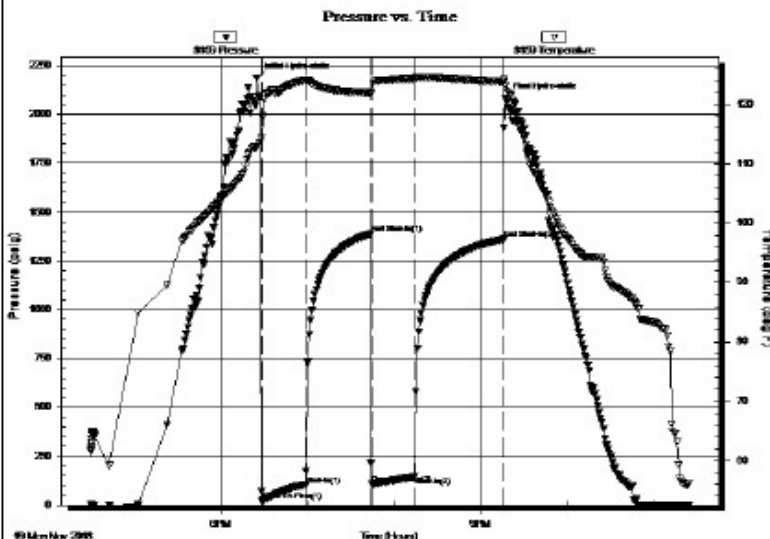
Time On Btm:

2018.11.19 @ 18:25:02

Time Off Btm:

2018.11.19 @ 21:17:02

TEST COMMENT: IF: Fair Blow, BOB in 16 minutes, Built to 20 inches
IS: No Blow Back
FF: Fair Blow, BOB in 28 minutes, Built to 13 inches
FS: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2186.62	112.86	Initial Hydro-static
4	21.01	114.23	Open To Flow (1)
34	102.10	124.10	Shut-In(1)
79	1387.72	122.04	End Shut-In(1)
80	105.84	121.81	Open To Flow (2)
110	143.44	124.41	Shut-In(2)
171	1360.50	123.81	End Shut-In(2)
172	2082.09	123.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	73 GIP	0.00
189.00	OMCW 10%O 20%M 70%W	0.93

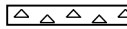









Gas Rates

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

136.00	GSY Oil 20%G 80%O	1.66





* Recovery from multiple tests

ROCK TYPES

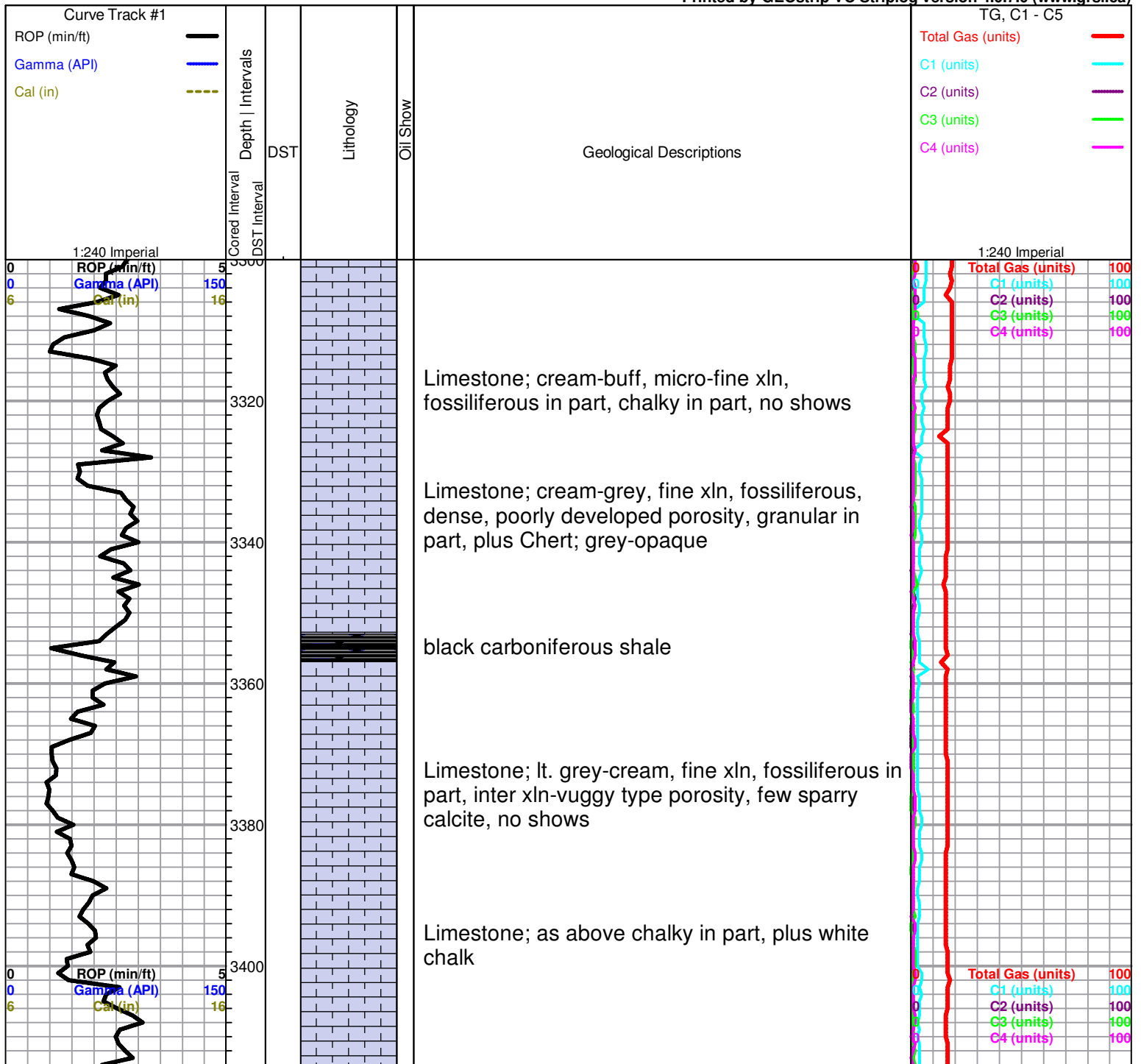
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 Chtcongl	 Lmst fw7>	 Carbon Sh	
 Dolsec	 shale, grn	 Ss	

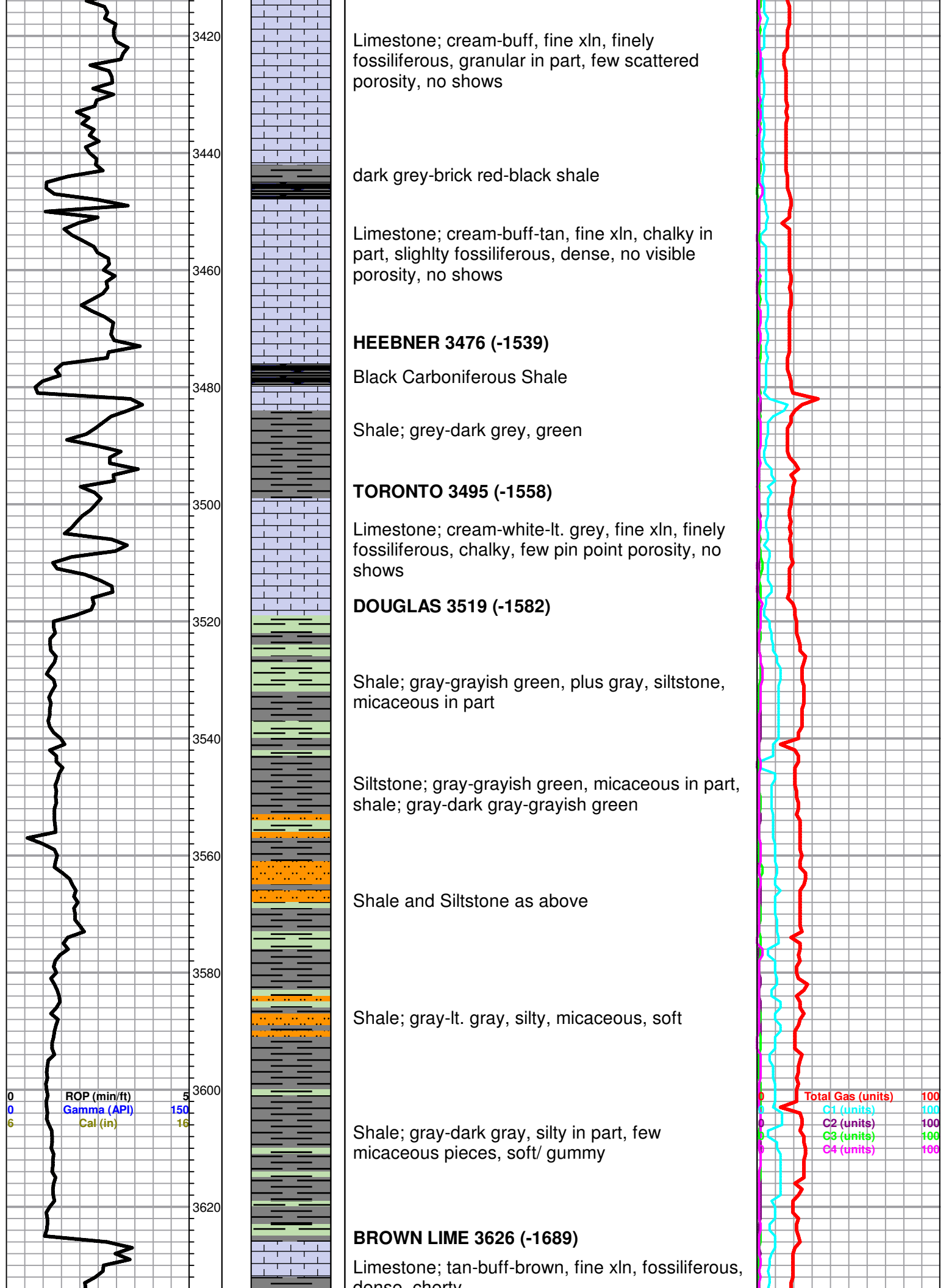
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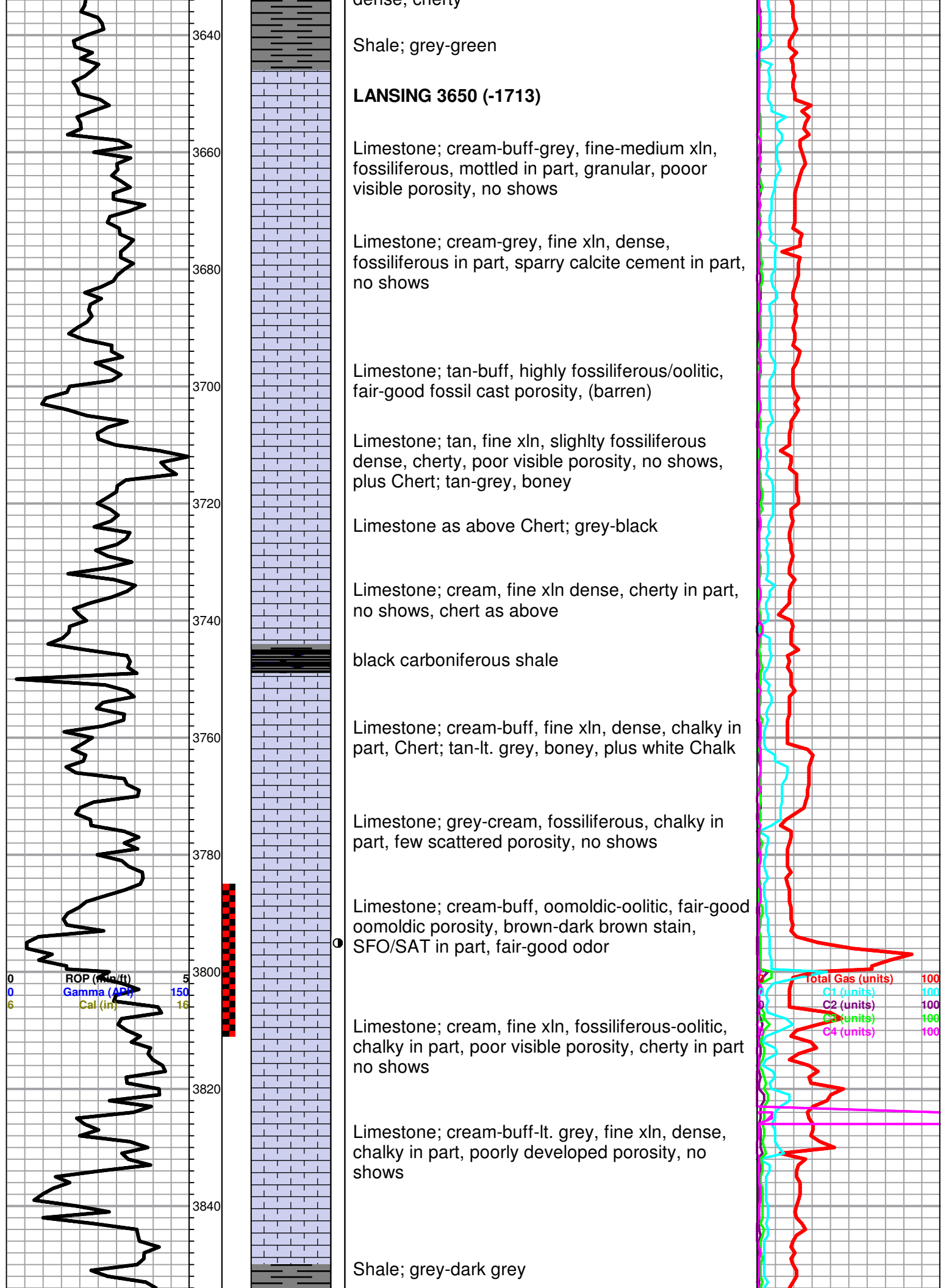
DST

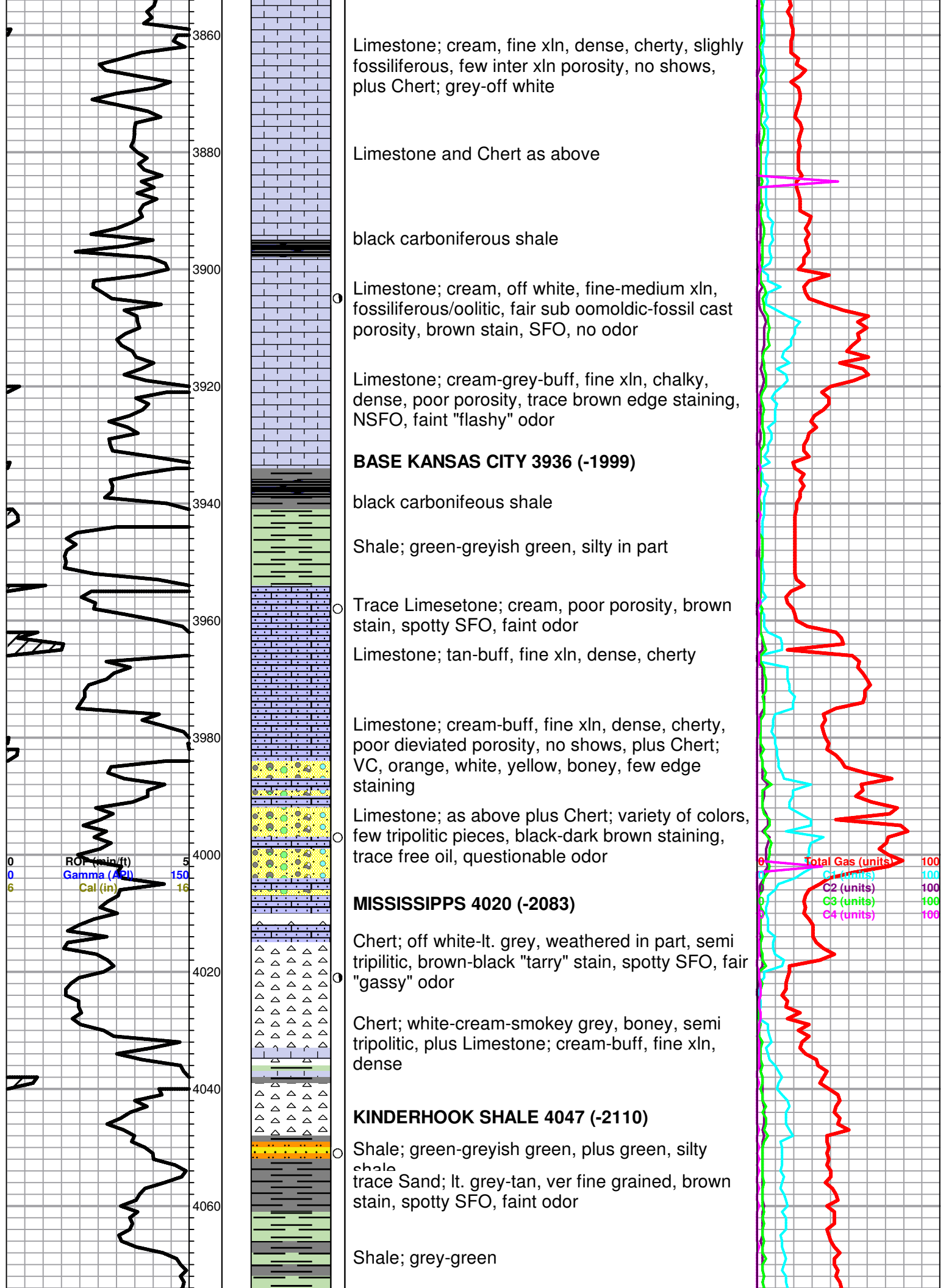
 DST Int
 DST alt
 Core
 tail pipe

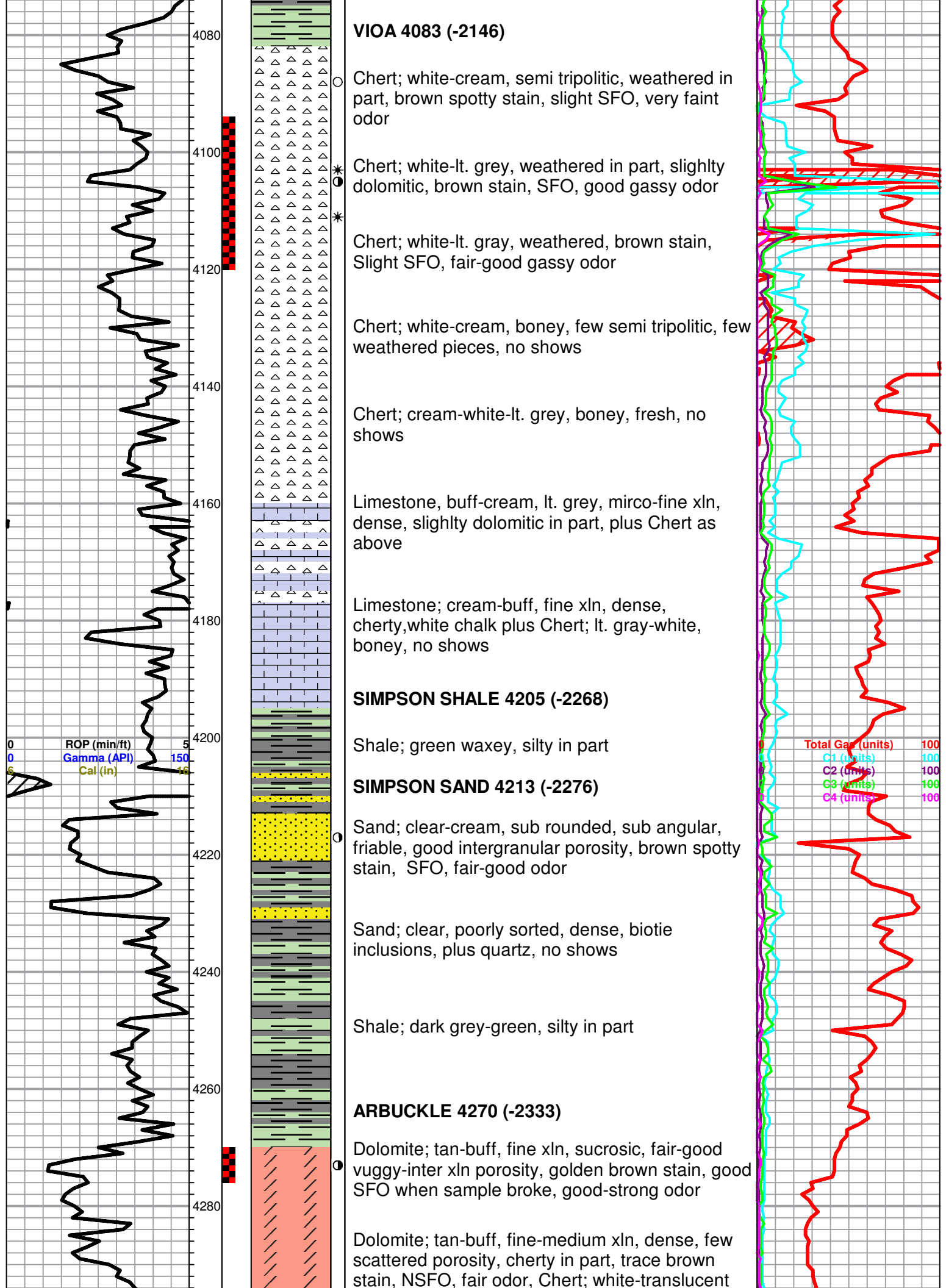
Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)

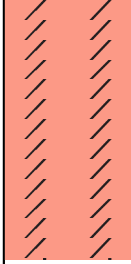
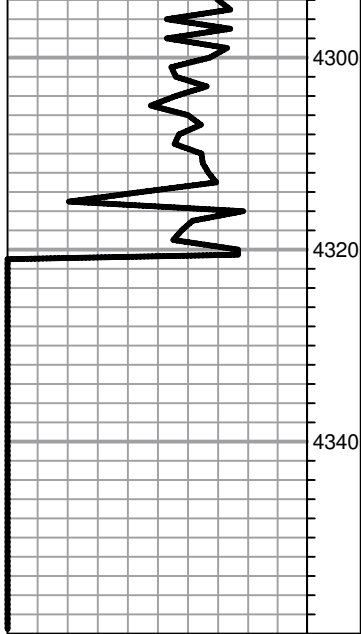








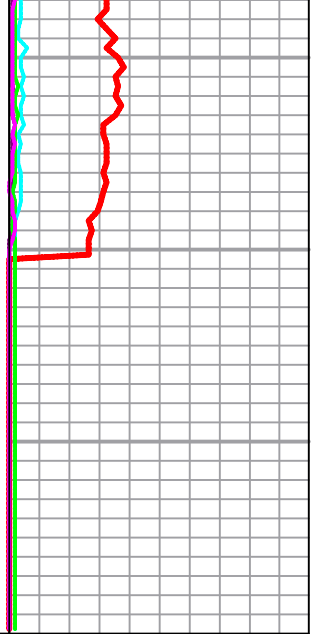




Dolomite; tan-pink-lt. grey, fine-medium xln, dense, cherty, no visible porosity, no shows plus white boney Chert

Dolomite: as above

ROTARY TOTAL DEPTH 4320 (-2383)



		DUAL COMP POROSITY LOG	
Company: THOMAS GARNER, INC. Well: GARNER #8 Field: LEISS NW County: STAFFORD State: KANSAS			
Location: NE SW/4E, F&E SEC 15 T16P 25S R02E 13W Log Measured From: KELLY BUSHING Date: 11/20/2018 Log Number: 43307 Depth: 4318'		Company: THOMAS GARNER, INC. Well: GARNER #8 Field: LEISS NW County: STAFFORD State: KANSAS	
Equipment: Equipment Location: T-08 CHUMHS Equipment Serial: THOMAS GARNER Witnessed By:		Other Services: DIL/M&W K 8 1887 C 1 1825	
Density: Density: 3.27 Type Fluid in Hole: CHEMICAL Slightly PPM Cl: 6200		Depth Logged Interval: Depth: 327' Depth: 4318'	
Run In: Run In: 7.825" Run In: 307'		Max. Rec. Temp. F: 119 Min. Rec. Temp. F: 31 Equipment Run Time: 3 HOURS Equipment Location: T-08 CHUMHS Equipment Serial: THOMAS GARNER Witnessed By:	
Bonded Record: From: TO Size: 258' Casing Record: From: TO		Depth: Depth: 327' Depth: 4318'	

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments
 N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
 ST JOHN,
 5 SOUTH, 1/2 EAST,
 SOUTH INTO

Log Measured From: KELLY BUSHING 11 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
 www.pioneer.com 785-625-3853

Your Pioneer Energy Services Crew
 Engineer: D. SCHMIDT
 Operator:
 Operator:

This Log Record Was Witnessed By
 Primary Witness: THOMAS GARNER
 Secondary Witness:
 Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00		GR-M&W (89-M&W)	3.00	3.50	50.00
CNLS	29.90		CNT-M&W (8k10-MW)	5.50	3.50	100.00
CNSSC	29.15		CDL-M&W (934-5002)	8.50	4.00	250.00
LSD	20.85					
DCAL	20.83					
SSD	20.35					
RLL3	15.80					
RLL3F	15.79					
CILD	8.00		DIL-M&W (PSI 988)	18.50	3.50	220.00
CILM	4.70					
SP	0.20					

thomas.garner.garner.8.db:field/well/STACK/pass3.4
 Total length: 35.50 ft
 Total weight: 620.00 lb
 O.D.: 4.00 in

Log Variables Database: C:\ProgramData\Warrior\Data\thomas.garner.garner.8.db
 Dataset: field/well/STACK/pass3.4/_vars_

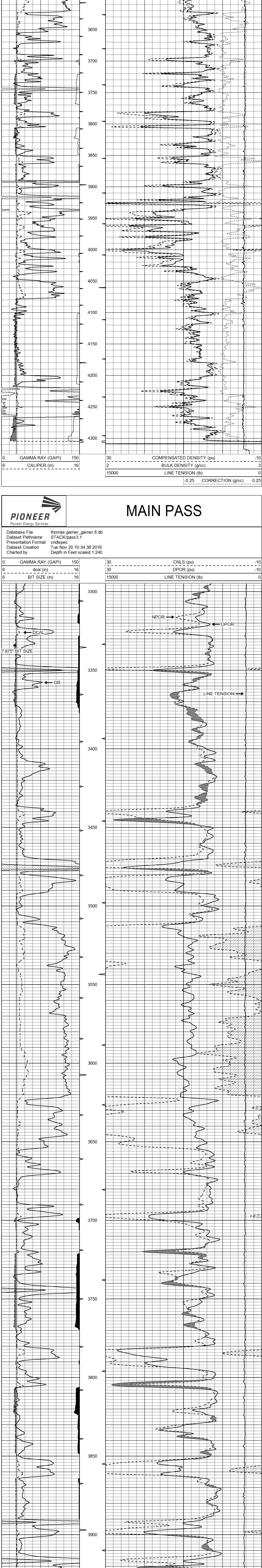
Top - Bottom							
A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	7.875	degF 119	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPOSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	0	0	mV -230	degF 50	Off	4318

MAIN PASS

Database File: thomas.garner.garner.8.db
 Dataset Pathname: STACK/pass3.1
 Presentation Format: cdl
 Dataset Creation: Tue Nov 20 10:34:38 2018
 Dataset Creation: Tue Nov 20 10:34:38 2018
 Charted by: Depth in Feet scaled 1.600

0	GAMMA RAY (GAPI)	150	30	COMPENSATED DENSITY (pu)	-10
6	CALIPER (in)	16	2	BULK DENSITY (g/cc)	-3
			15000	LINE TENSION (lb)	0

0.25 CORRECTION (g/cc) 0.25

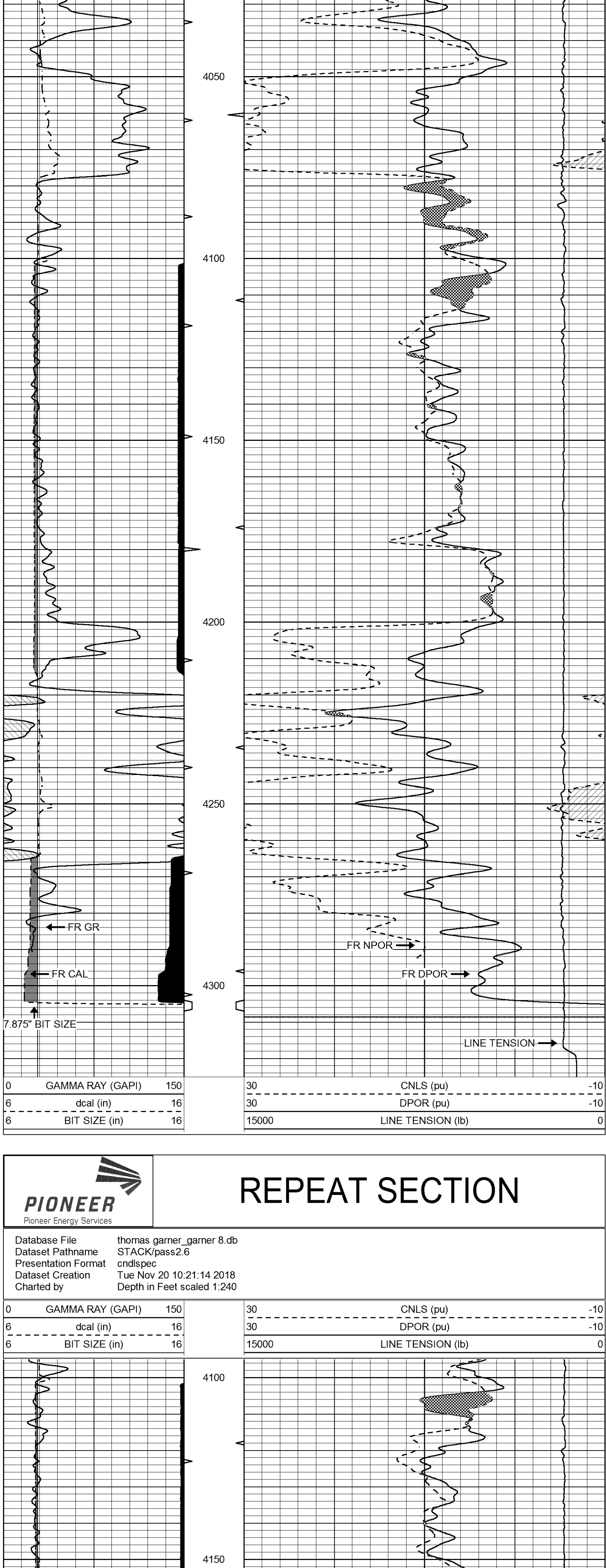


MAIN PASS

Database File: thomas.garner.garner.8.db
 Dataset Pathname: STACK/pass3.1
 Presentation Format: cdl
 Dataset Creation: Tue Nov 20 10:21:14 2018
 Dataset Creation: Tue Nov 20 10:21:14 2018
 Charted by: Depth in Feet scaled 1.240

0	GAMMA RAY (GAPI)	150	30	CNLS (pu)	-10
6	dcal (in)	16	30	DPOR (pu)	-10
6	BIT SIZE (in)	16	15000	LINE TENSION (lb)	0

0.25 CORRECTION (g/cc) 0.25

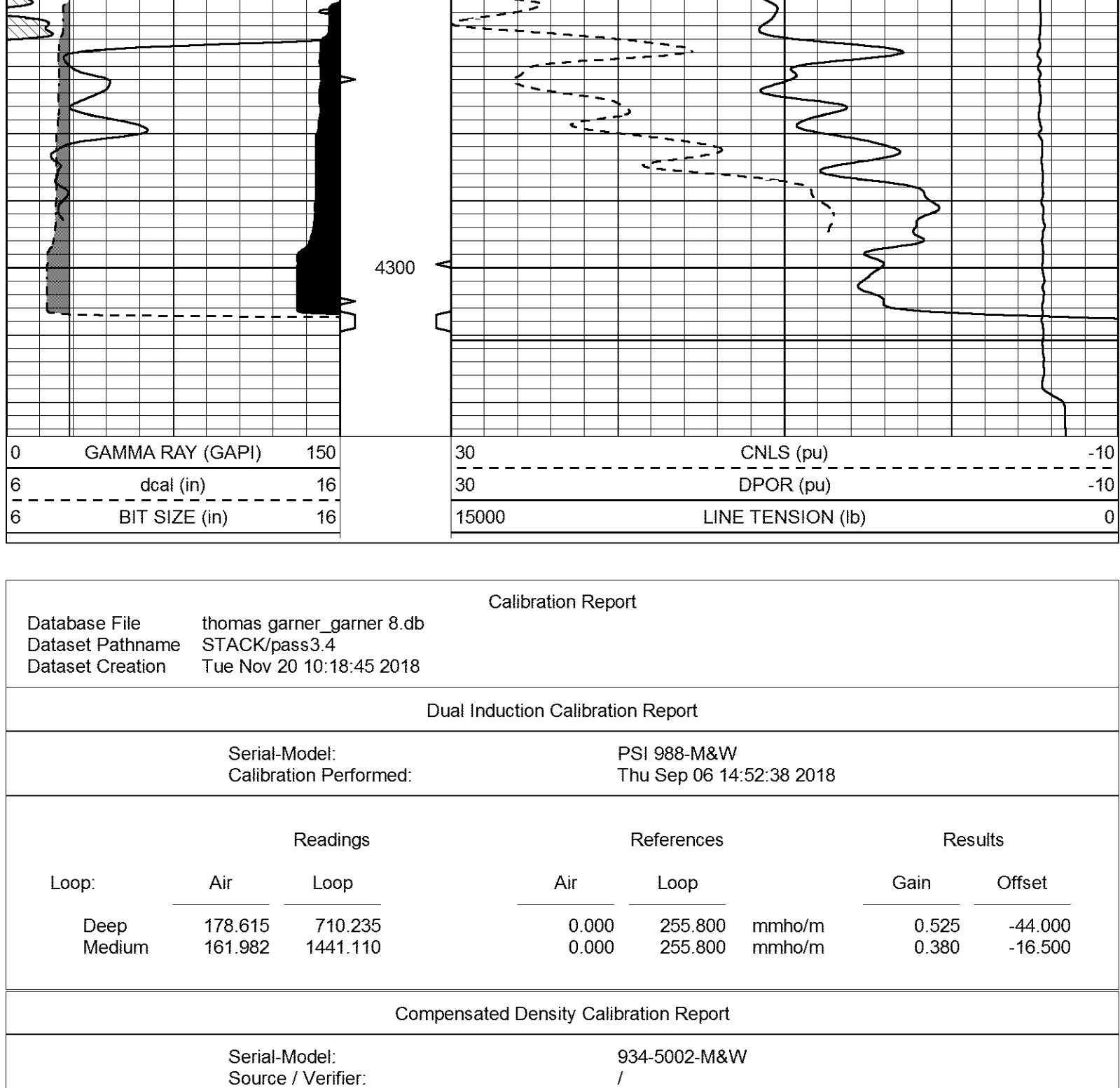


REPEAT SECTION

Database File: thomas.garner.garner.8.db
 Dataset Pathname: STACK/pass3.4
 Dataset Creation: Tue Nov 20 10:18:45 2018

0	GAMMA RAY (GAPI)	150	30	CNLS (pu)	-10
6	dcal (in)	16	30	DPOR (pu)	-10
6	BIT SIZE (in)	16	15000	LINE TENSION (lb)	0

0.25 CORRECTION (g/cc) 0.25



Calibration Report
 Database File: thomas.garner.garner.8.db
 Dataset Pathname: STACK/pass3.4
 Dataset Creation: Tue Nov 20 10:18:45 2018

Dual Induction Calibration Report

Serial/Model: PSI 988-M&W
 Calibration Performed: Thu Sep 06 14:52:38 2018

Loop:	Readings		References		Results	
	Air	Loop	Air	Loop	Gain	Offset
Deep	178.615	710.235	0.000	255.800	0.525	-44.000
Medium	161.982	1441.110	0.000	255.800	0.380	-16.500

Compensated Density Calibration Report

Serial/Model: 934-5002-M&W
 Source / Verifier: M&W
 Master Calibration Performed: Wed Aug 29 11 03:55 2018

Master Calibration		Far Detector		Near Detector	
Magnesium	1.755 g/cc	3720.16	2661.79	cps	
Aluminum	2.685 g/cc	696.57	1725.83	cps	
Spine Angle = 75.50		Density/Spine Ratio = 0.537			
Size		Reading			
Small Ring	4.00 in	1.16			
Large Ring	16.00 in	1.01			

Compensated Neutron Calibration Report

Serial Number: 8k10-MW
 Tool Model: M&W
 Calibration Performed: Wed Nov 16 11:21:36 2016

Detector	Readings		Target		Normalization	
	Short Space	Long Space	Short Space	Long Space	Short Space	Long Space
Short Space	6240.00	640.00	1000.00	1000.00	1.6025	1.9500

Gamma Ray Calibration Report

Serial Number: 89-M&W
 Tool Model: M&W
 Calibration Performed: Tue Apr 11 17:08:01 2017

Calibrator Value: 1000.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps

Company: THOMAS GARNER, INC.
 Well: GARNER #8
 Field: LEISS NW
 County: STAFFORD
 State: KANSAS



DUAL INDUCTION LOG

Pioneer Energy Services

Company **THOMAS GARNER, INC.**
 Well **GARNER #8**
 Field **LEISS NW**
 County **STAFFORD** State **KANSAS**

Company **THOMAS GARNER, INC.**
 Well **GARNER #8**
 Field **LEISS NW**
 County **STAFFORD**
 State **KANSAS**

Location: **API #: 15-185-24037-00-00**
NE SW NE
1716' FNL & 1737' FEL
SEC 15 TWP 25S RGE 13W
 Permanent Datum **GROUND LEVEL Elevation 1926'**
 Log Measured From **KELLY BUSHING**
 Drilling Measured From **KELLY BUSHING**
 Other Services **CNL/CDL MEL**
 Elevation **K.B. 1937'**
D.F. N/A
G.L. 1926'

Date	11/20/2018
Run Number	ONE
Depth Driller	4320'
Depth Logger	4318'
Bottom Logged Interval	4317'
Top Log Interval	300'
Casing Driller	8.625" @ 307'
Casing Logger	308'
Bit Size	7.875"
Type Fluid in Hole	CHEMICAL
Salinity, ppm CL	6200
Density / Viscosity	9.0 65
pH / Fluid Loss	10.5 9.2
Source of Sample	FLOWLINE
Rm @ Meas. Temp	0.40 @ 50
Rmt @ Meas. Temp	0.30 @ 50
Rmc @ Meas. Temp	0.54 @ 50
Source of Rmf / Rmc	CHARTS
Rm @ BHT	0.17 @ 119
Operating Rig Time	3 HOURS
Max Rec. Temp. F	119
Equipment Number	108
Location	HAYS
Recorded By	D. SCHMIDT
Witnessed By	THOMAS GARNER

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

ST JOHN,
 5 SOUTH, 1/2 EAST,
 SOUTH INTO

Log Measured From: **KELLY BUSHING** 11 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew		This Log Record Was Witnessed By	
Engineer: D. SCHMIDT	Operator:	Primary Witness: THOMAS GARNER	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Case	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
------	-------------	-----------	-------------	-------------	-----------	-------------

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	33.00		GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC CNSSC	29.90 29.15		CNT-M&W (tk10-MW)	5.50	3.50	100.00
LSD DCAL SSD	20.85 20.83 20.35		CDL-M&W (934-5002)	8.50	4.00	250.00
RLL3 RLL3F	15.80 15.79		DIL-M&W (PSI 988)	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					

Dataset: thomas garner_garner 8.db: field/well/STACK/pass3.4
 Total length: 35.50 ft
 Total weight: 620.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\thomas garner_garner 8.db
 Dataset field/well/STACK/pass3.4/_vars_

Top - Bottom

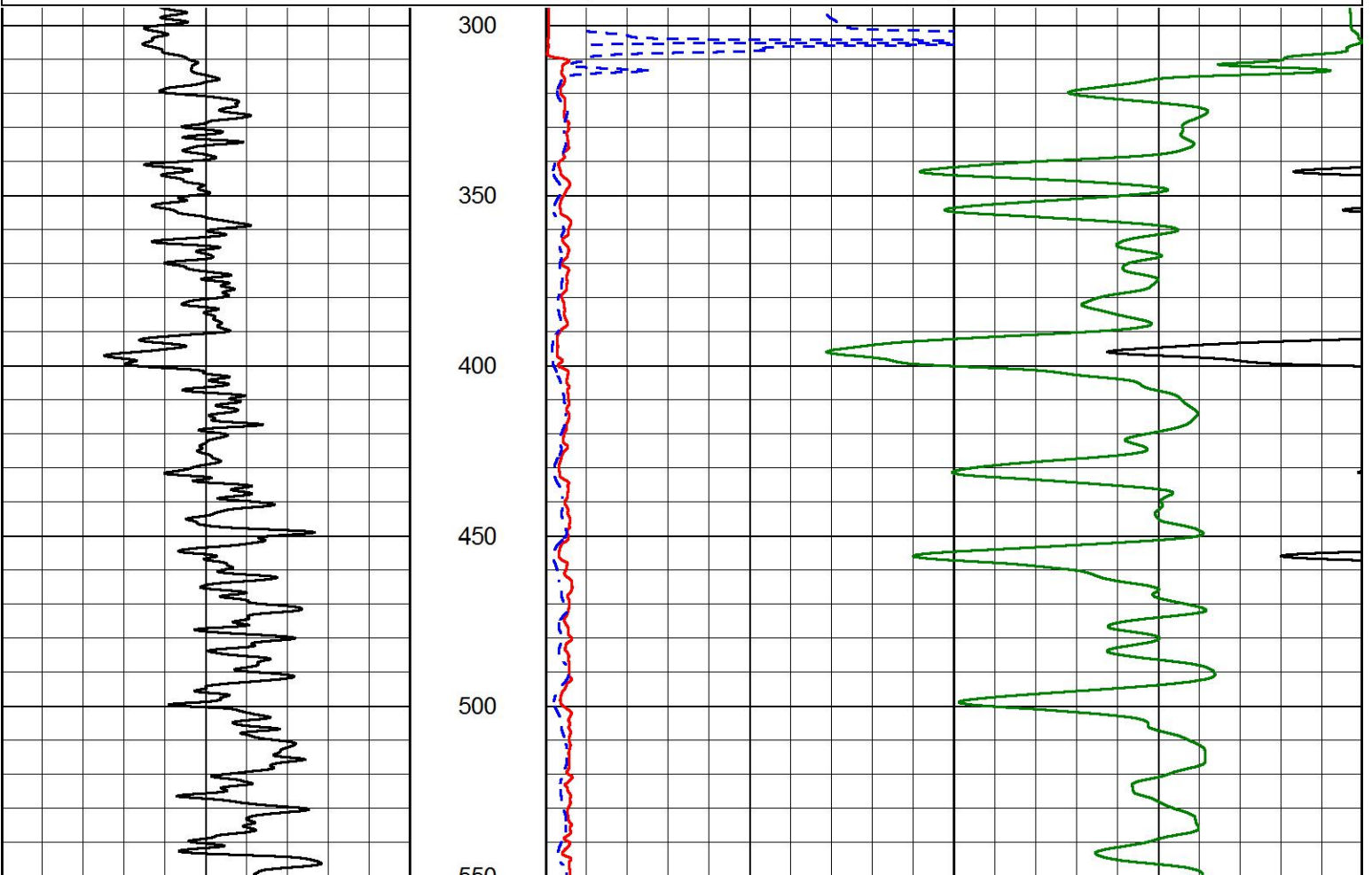
A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	119	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	-230	50	Off	4318

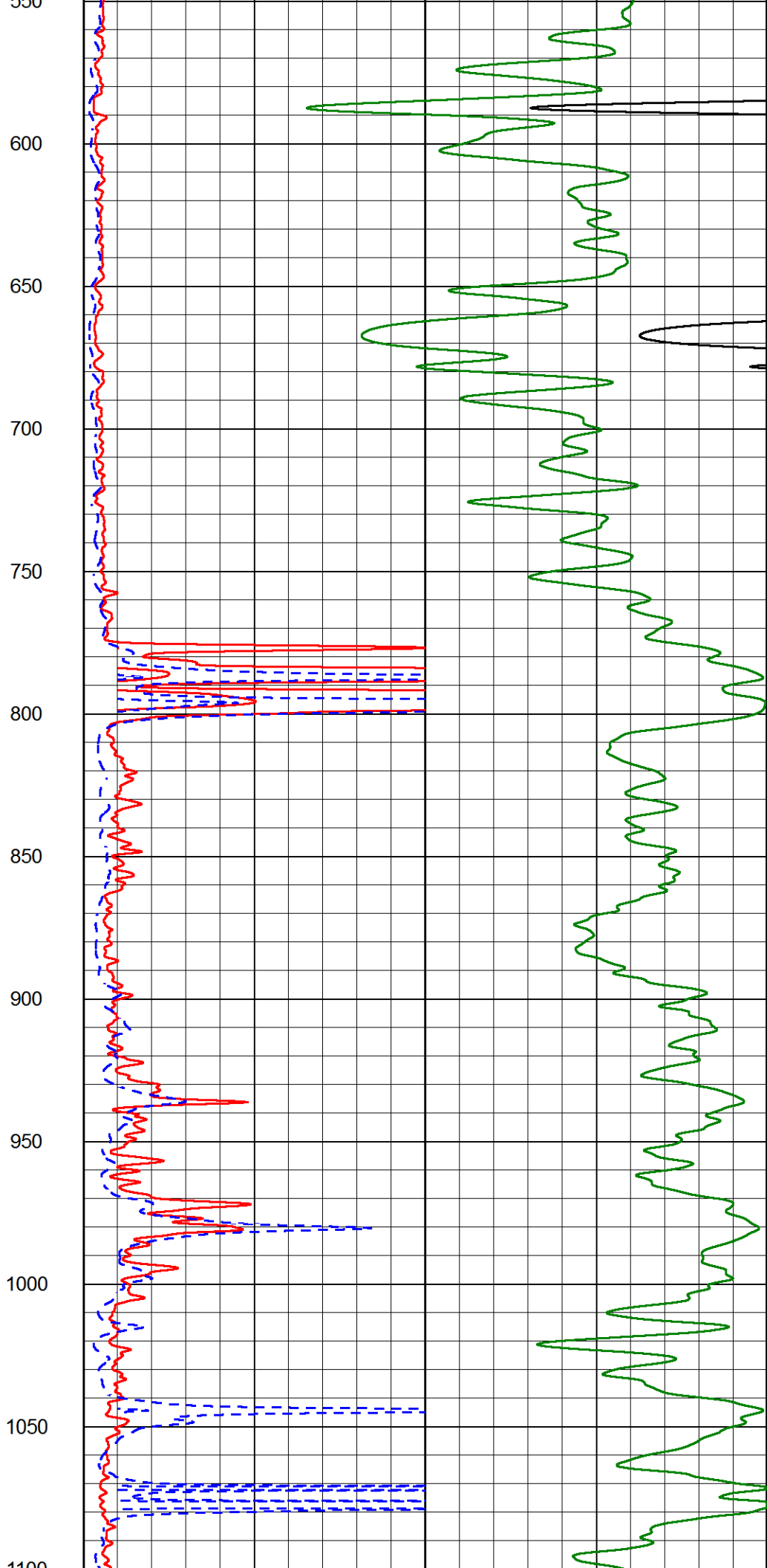
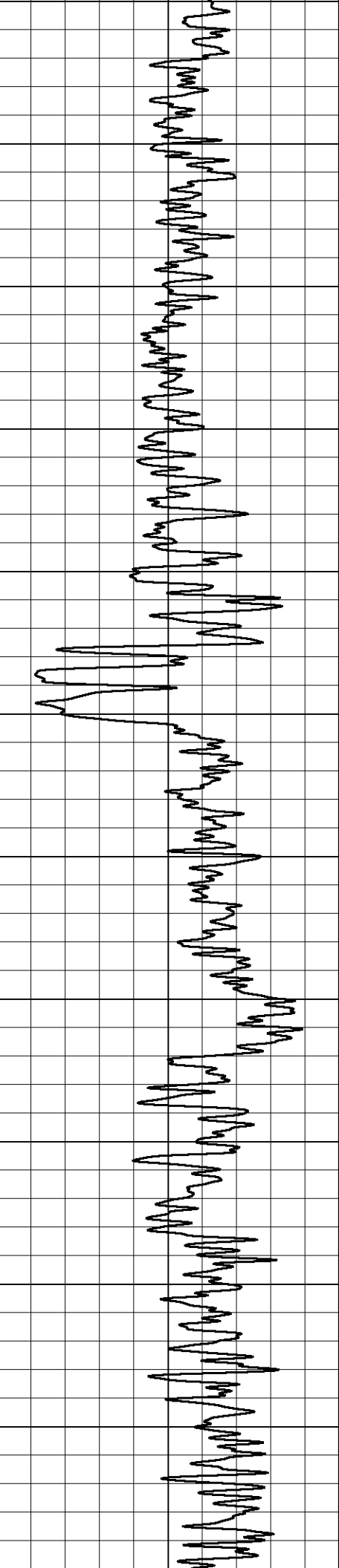


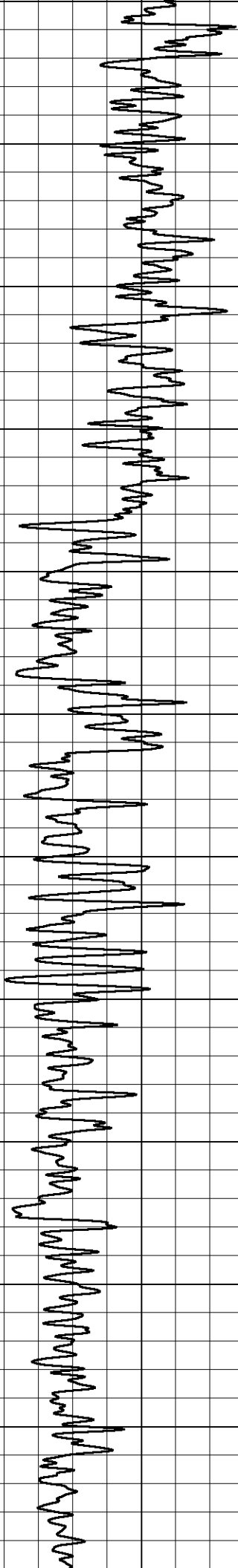
MAIN PASS

Database File thomas garner_garner 8.db
 Dataset Pathname STACK/pass4.1
 Presentation Format dil2in
 Dataset Creation Tue Nov 20 10:58:10 2018
 Charted by Depth in Feet scaled 1:600

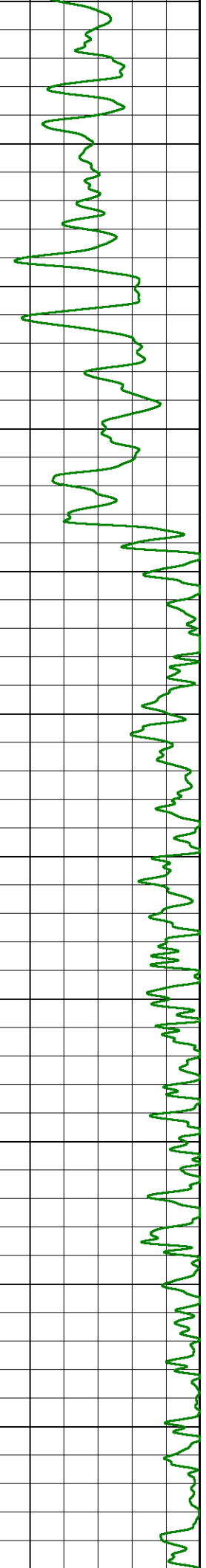
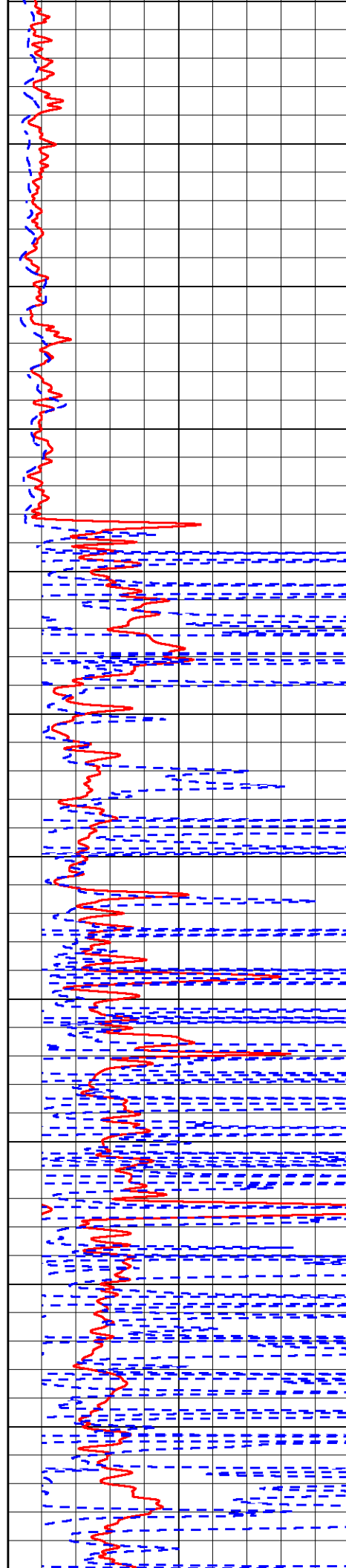
0	GAMMA RAY (GAPI)	150	2000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50	0	DEEP RESISTIVITY (Ohm-m)	50
50	RLL3 (Ohm-m)	500	50	RILD (Ohm-m)	500

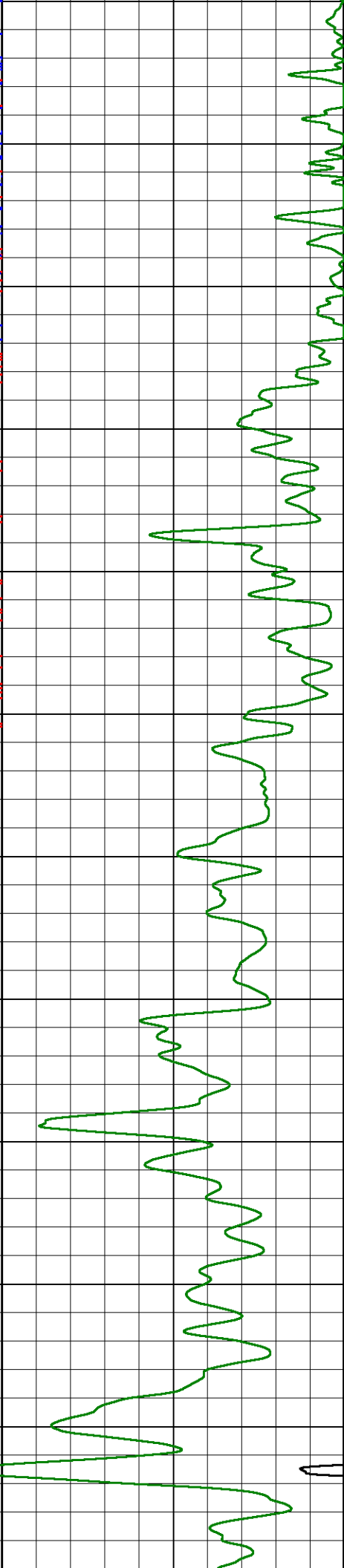
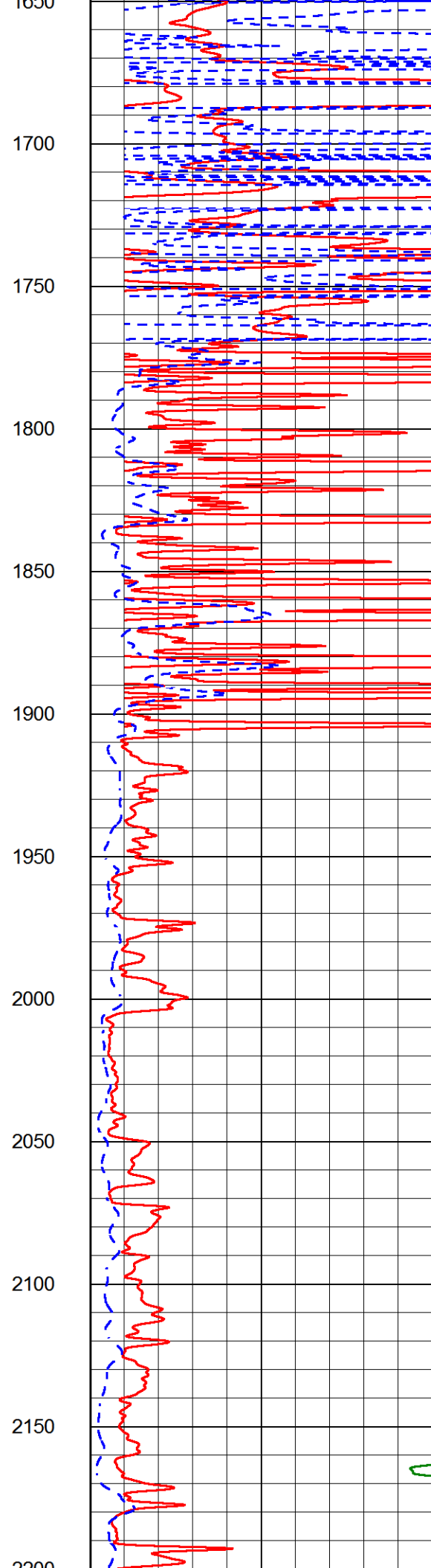
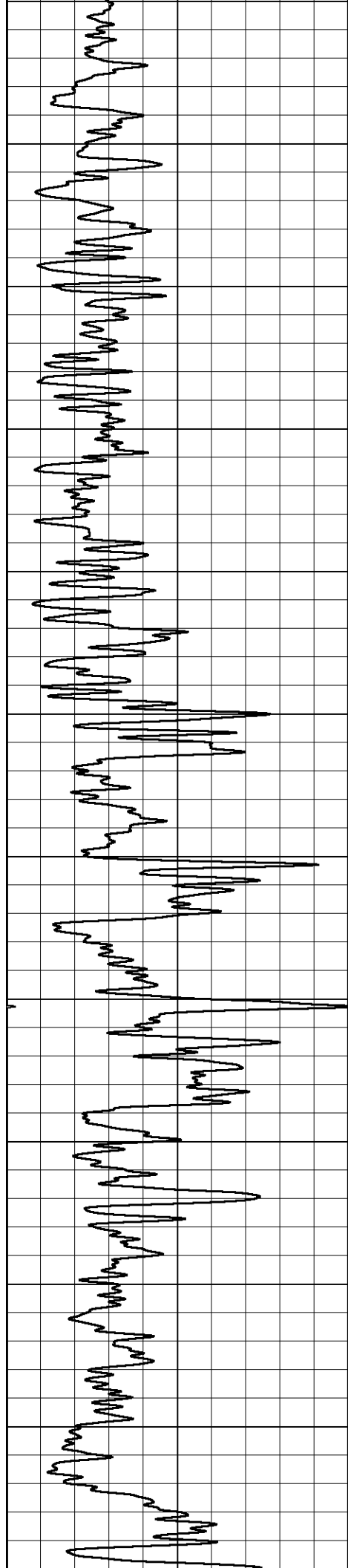


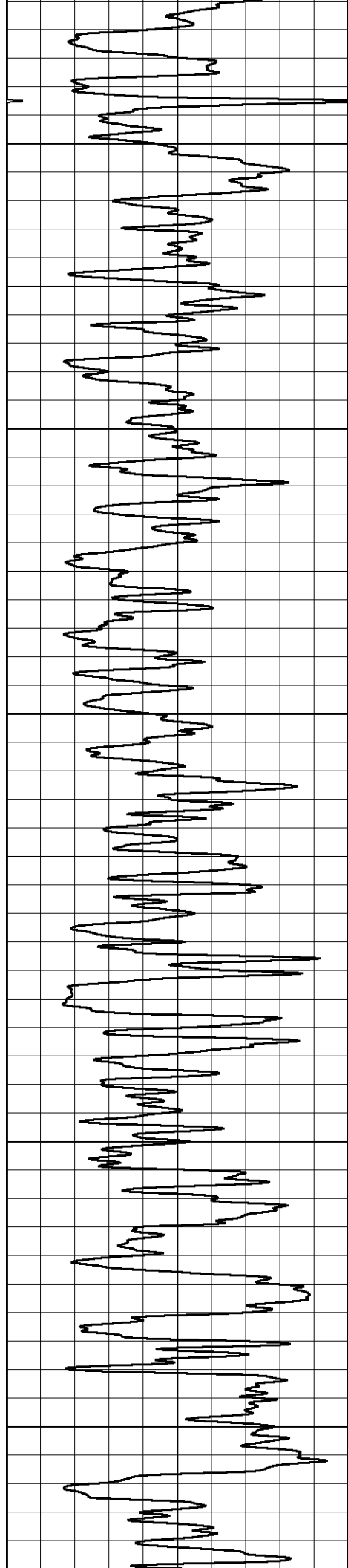




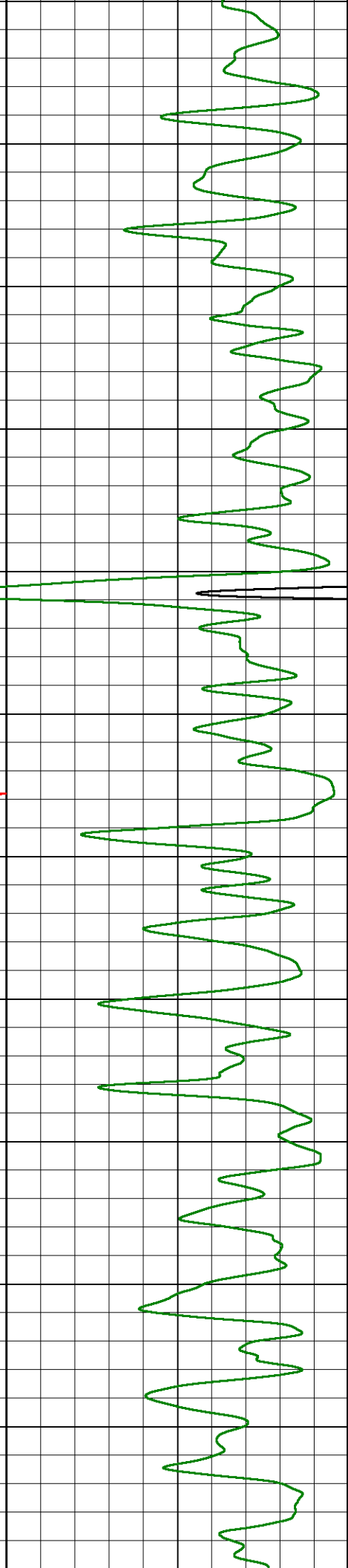
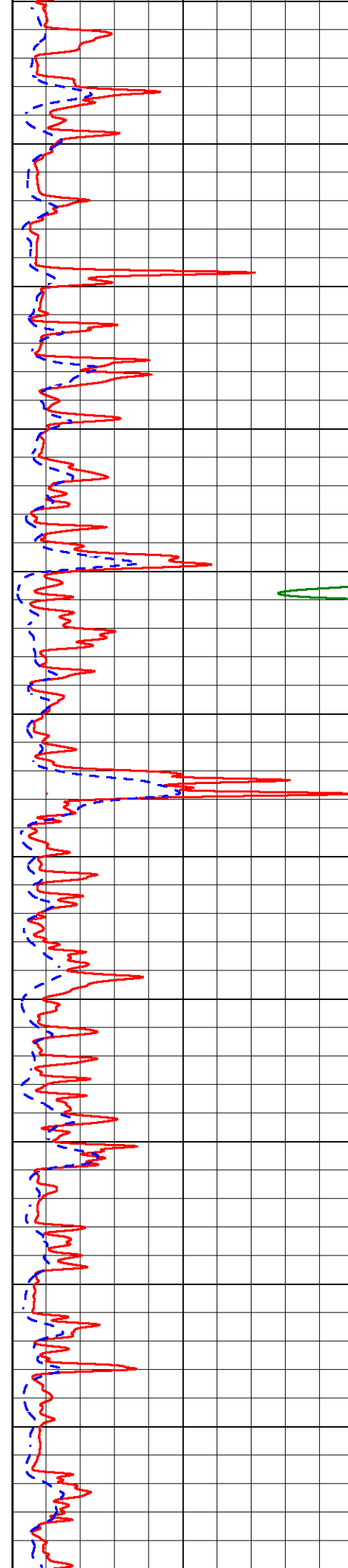
1100
1150
1200
1250
1300
1350
1400
1450
1500
1550
1600
1650

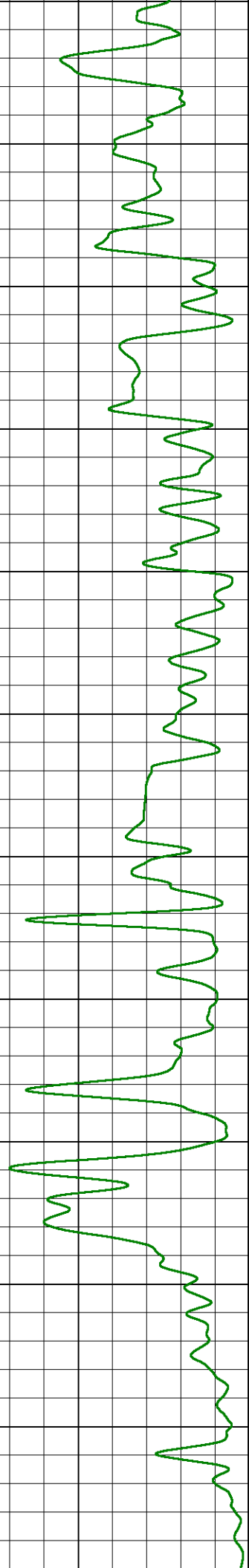
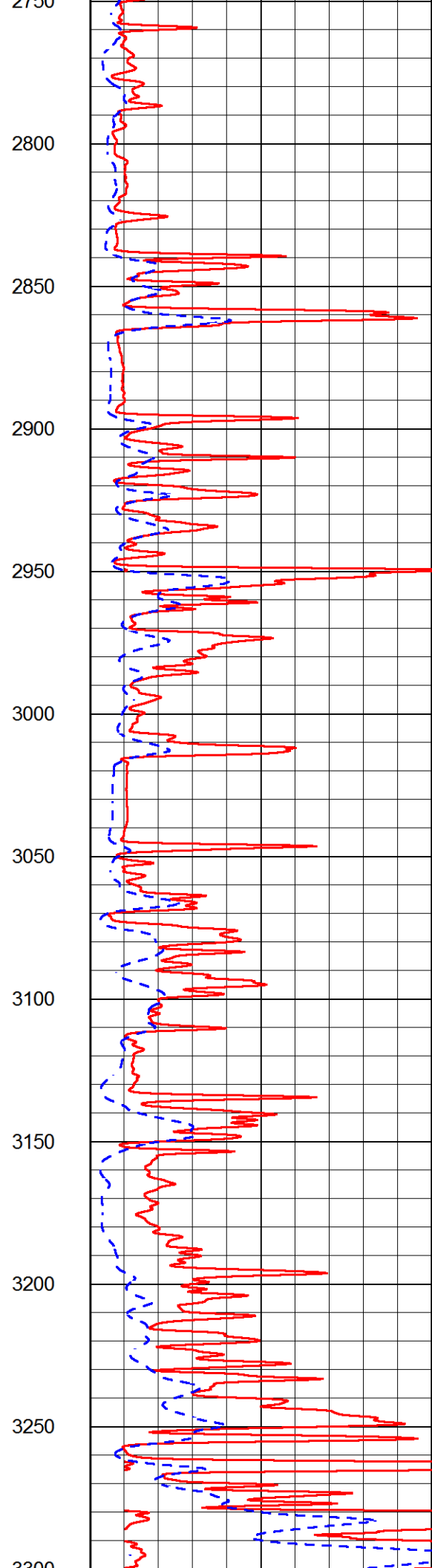
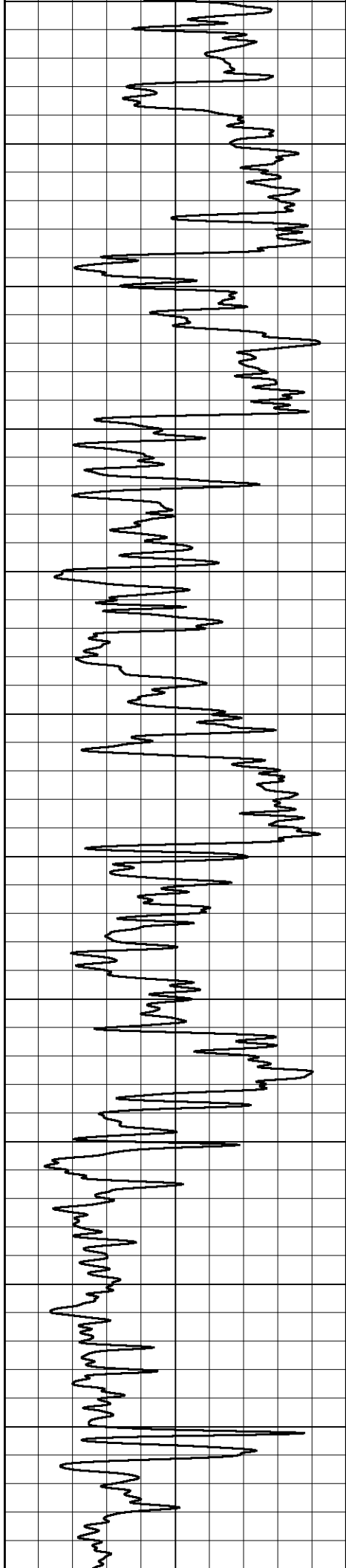


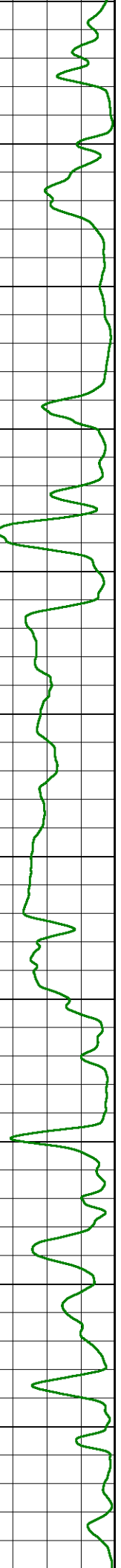
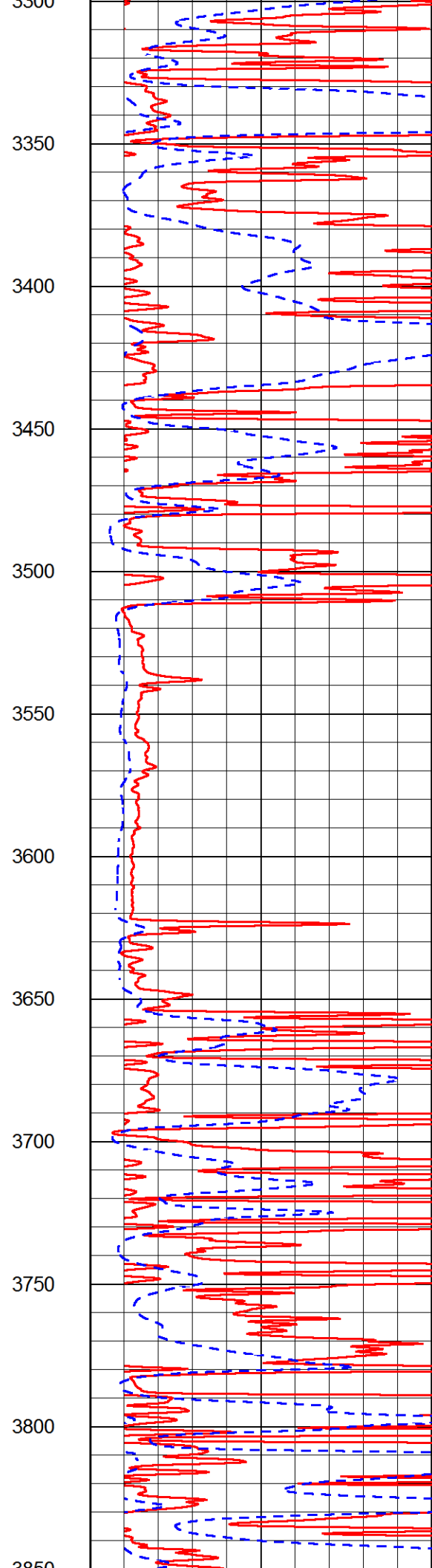
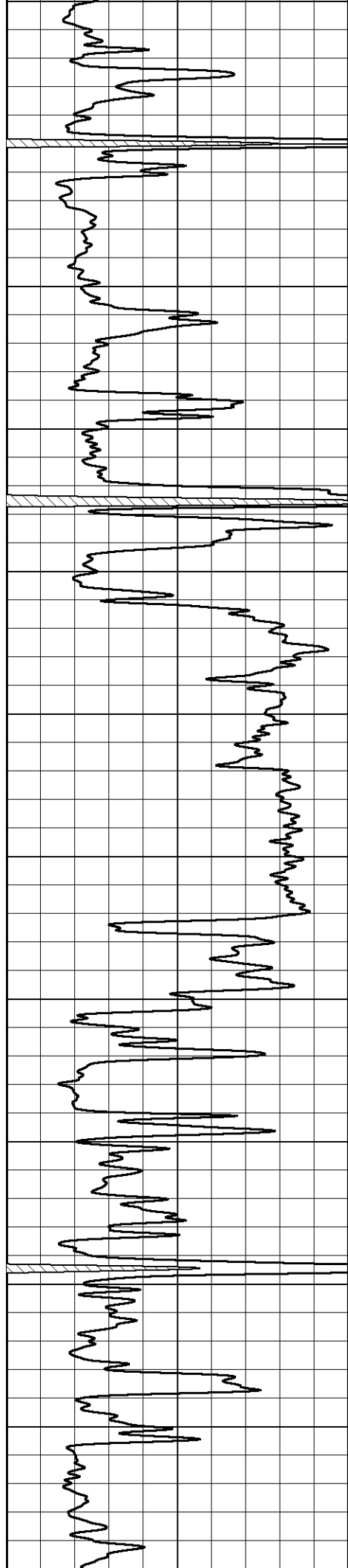


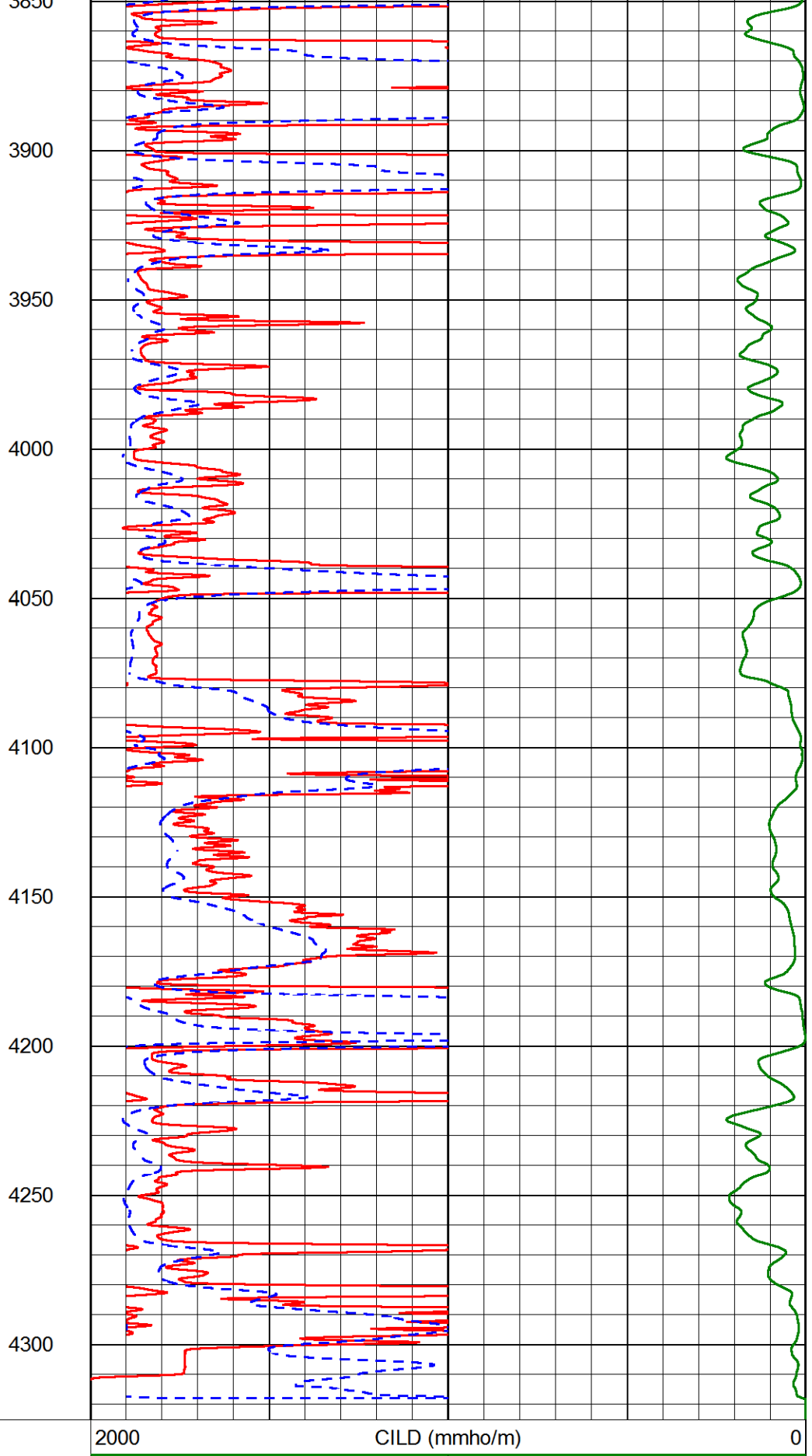
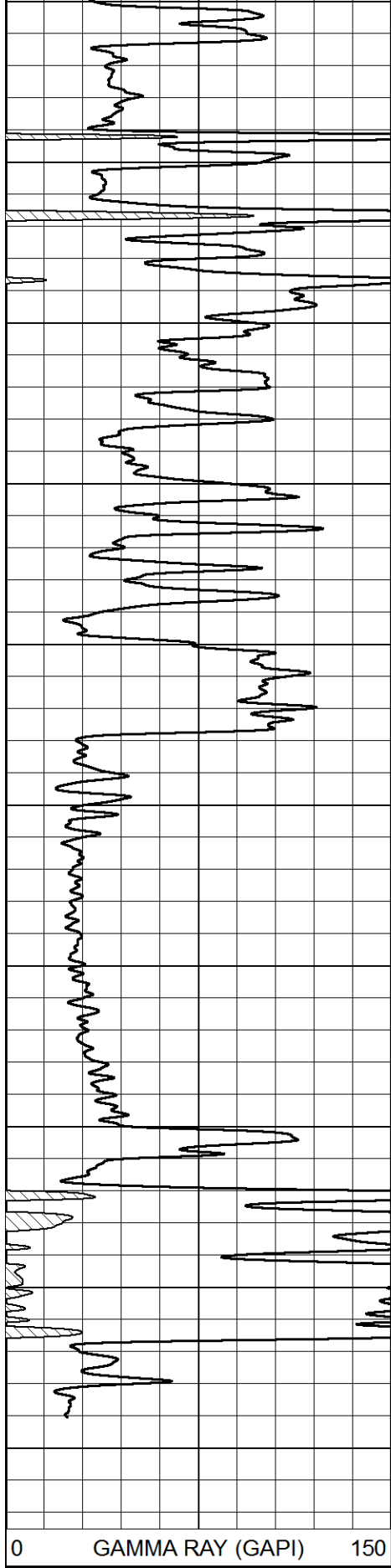


2200
2250
2300
2350
2400
2450
2500
2550
2600
2650
2700
2750









0 GAMMA RAY (GAPI) 150

2000 CILD (mmho/m) 0

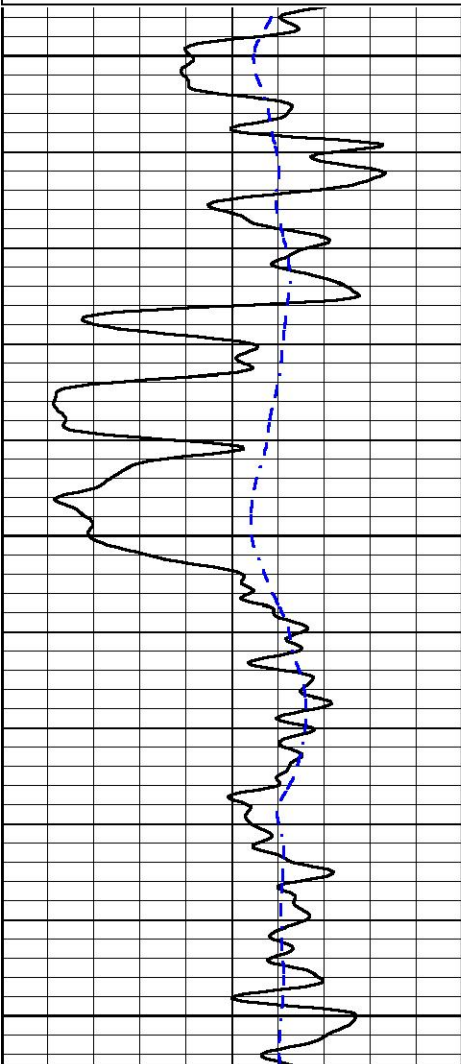
0	RLL3 (Ohm-m)	50
0	DEEP RESISTIVITY (Ohm-m)	50
50	RLL3 (Ohm-m)	500
50	RILD (Ohm-m)	500

MAIN PASS

Database File thomas garner_garner 8.db
 Dataset Pathname STACK/pass4.1
 Presentation Format dil
 Dataset Creation Tue Nov 20 10:58:10 2018
 Charted by Depth in Feet scaled 1:240

0 GAMMA RAY (GAPI) 150
 -200 SP (mV) 0

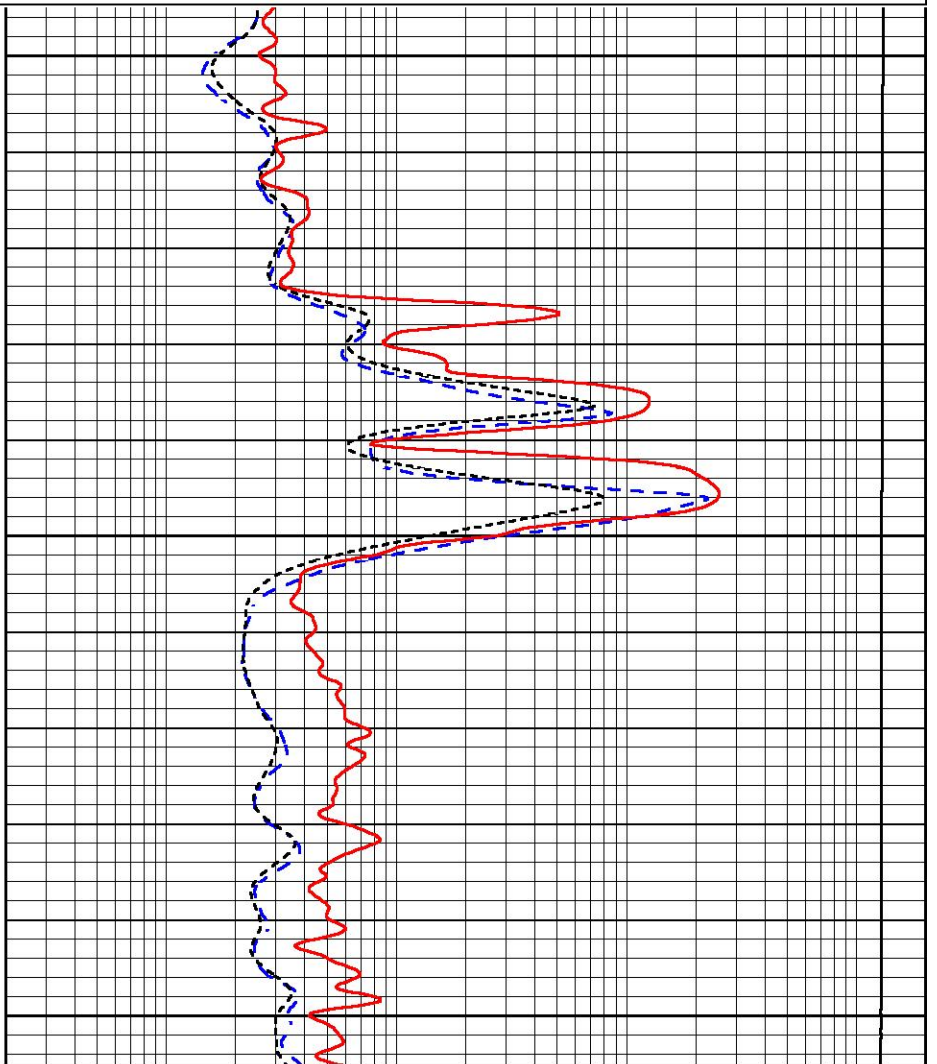
0.2 DEEP RESISTIVITY (Ohm-m) 2000
 0.2 MEDIUM RESISTIVITY (Ohm-m) 2000
 0.2 RLL3 (Ohm-m) 2000
 15000 LINE TENSION (lb) 0



750

800

850



0 GAMMA RAY (GAPI) 150
 -200 SP (mV) 0

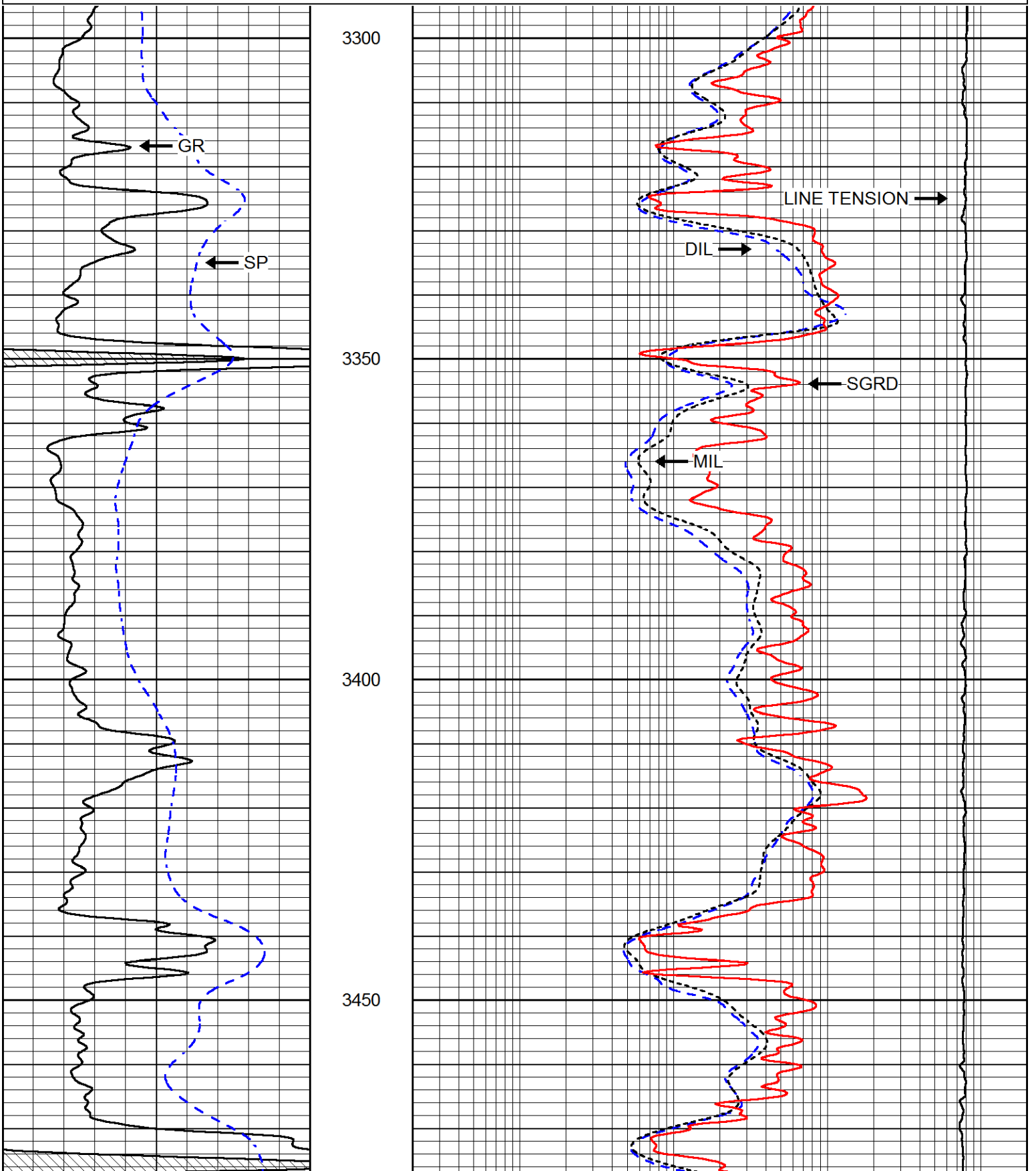
0.2 DEEP RESISTIVITY (Ohm-m) 2000
 0.2 MEDIUM RESISTIVITY (Ohm-m) 2000
 0.2 RLL3 (Ohm-m) 2000
 15000 LINE TENSION (lb) 0

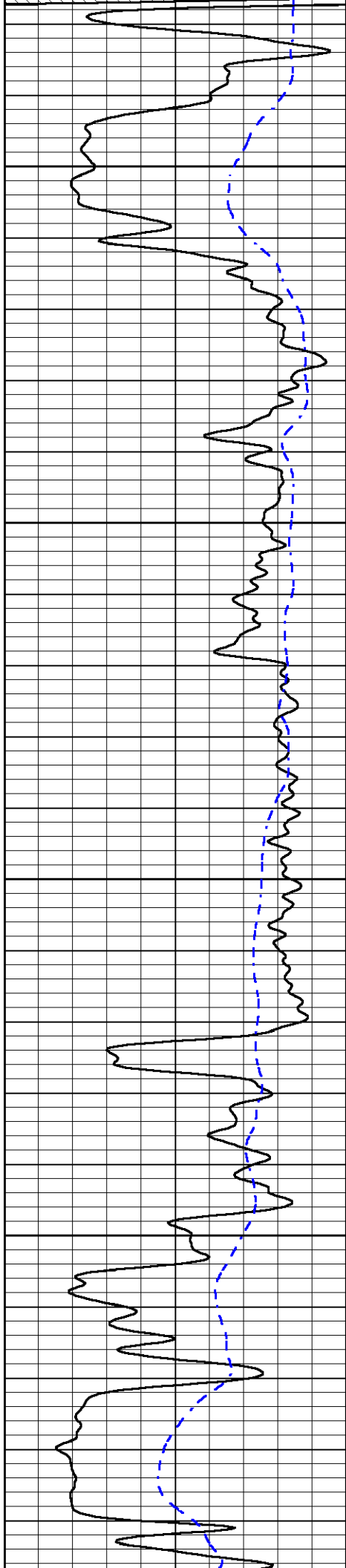
MAIN PASS

Database File thomas garner_garner 8.db
 Dataset Pathname STACK/pass3.1
 Presentation Format dil
 Dataset Creation Tue Nov 20 10:34:38 2018
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0



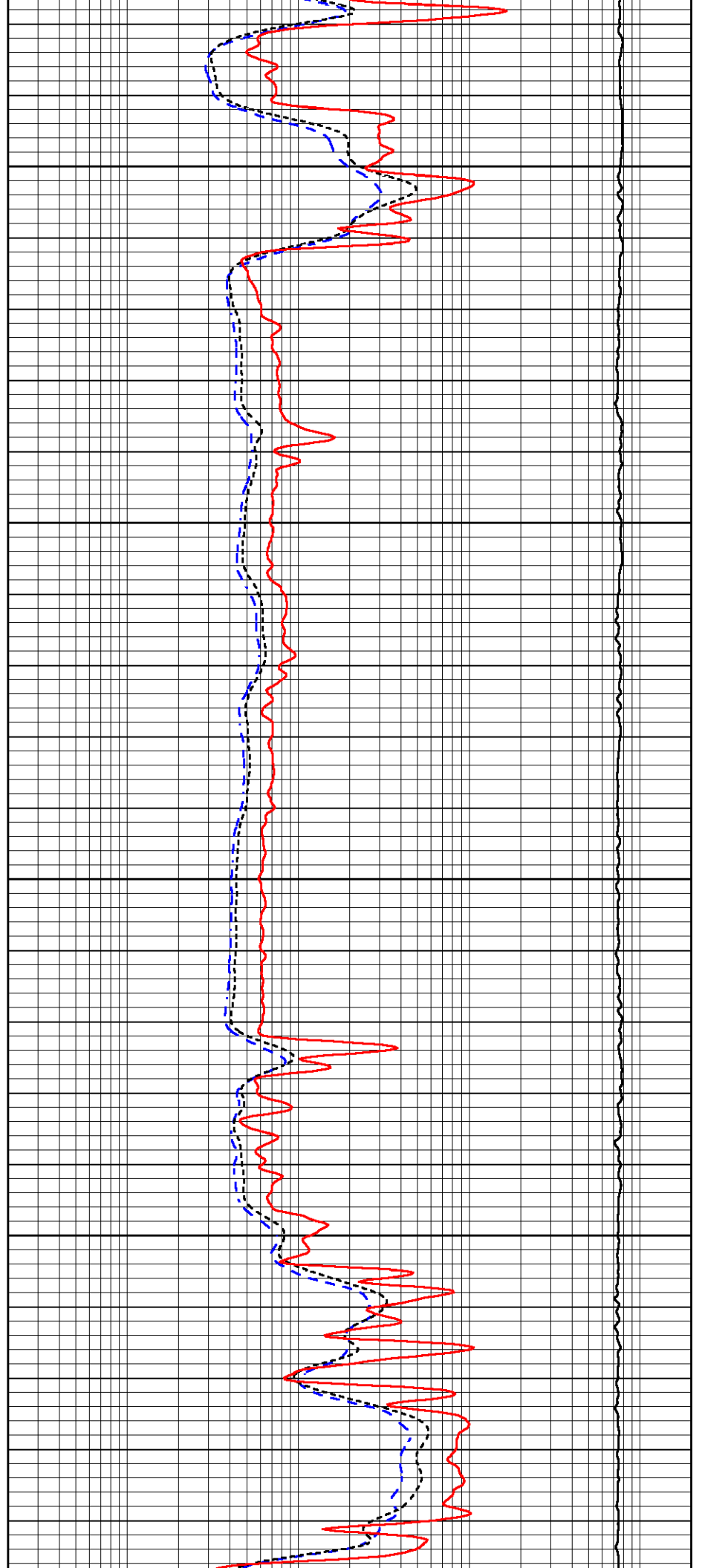


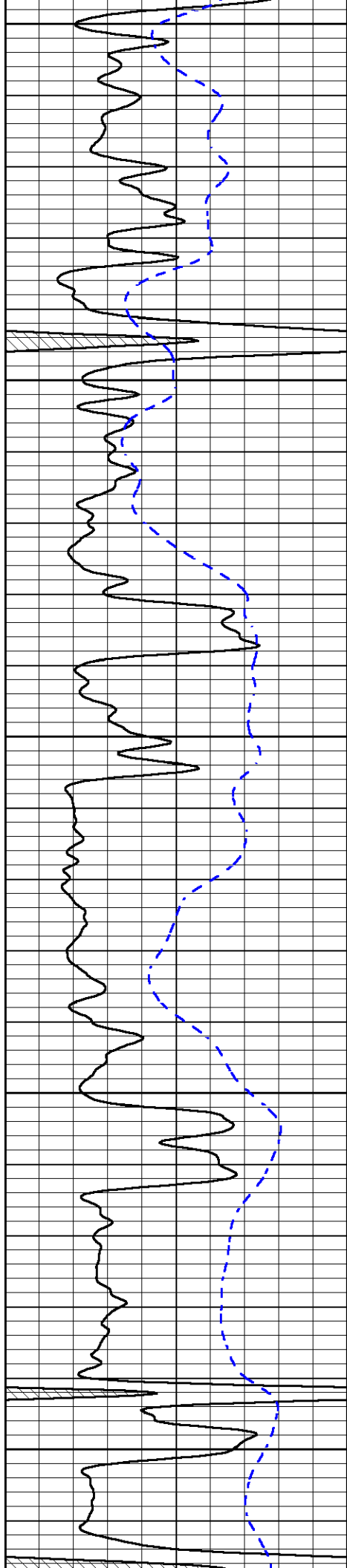
3500

3550

3600

3650





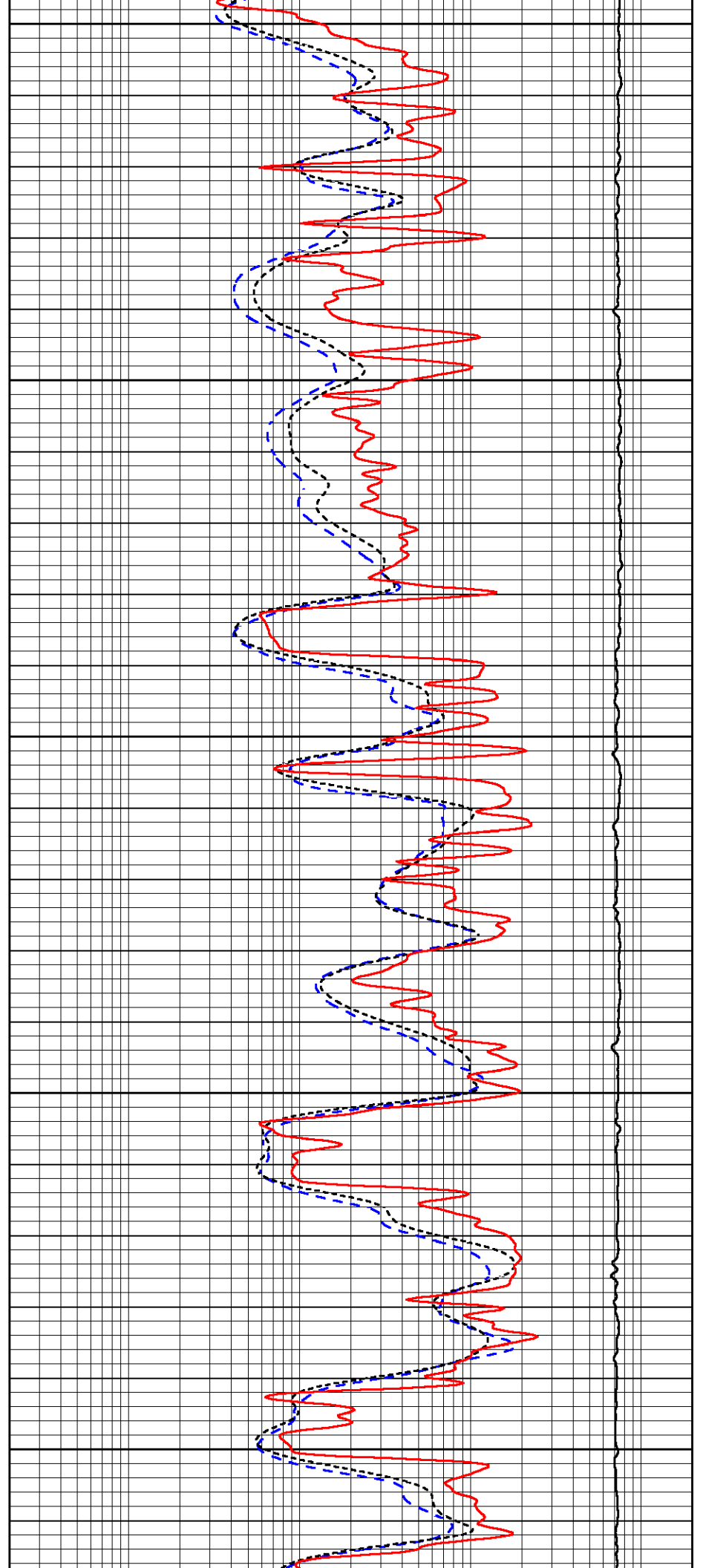
3700

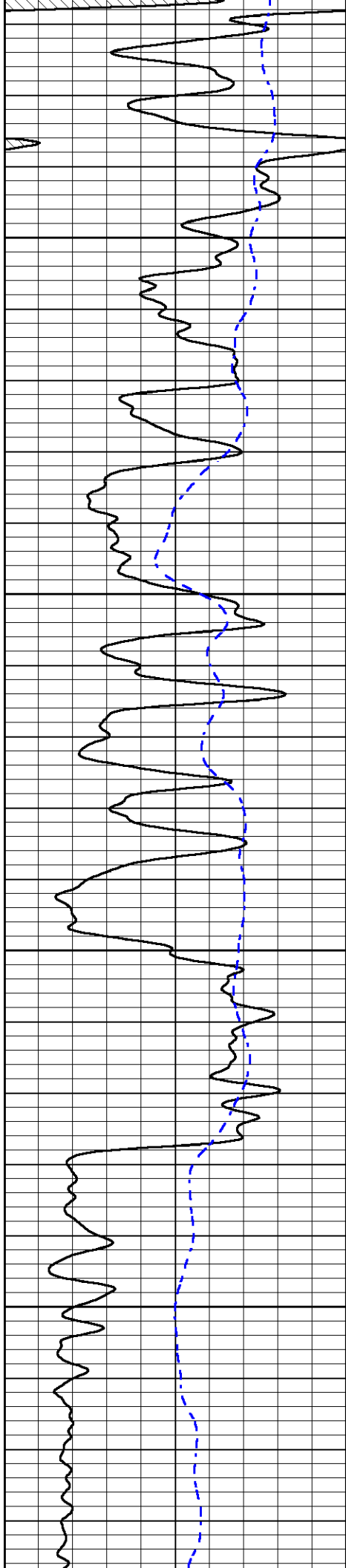
3750

3800

3850

3900



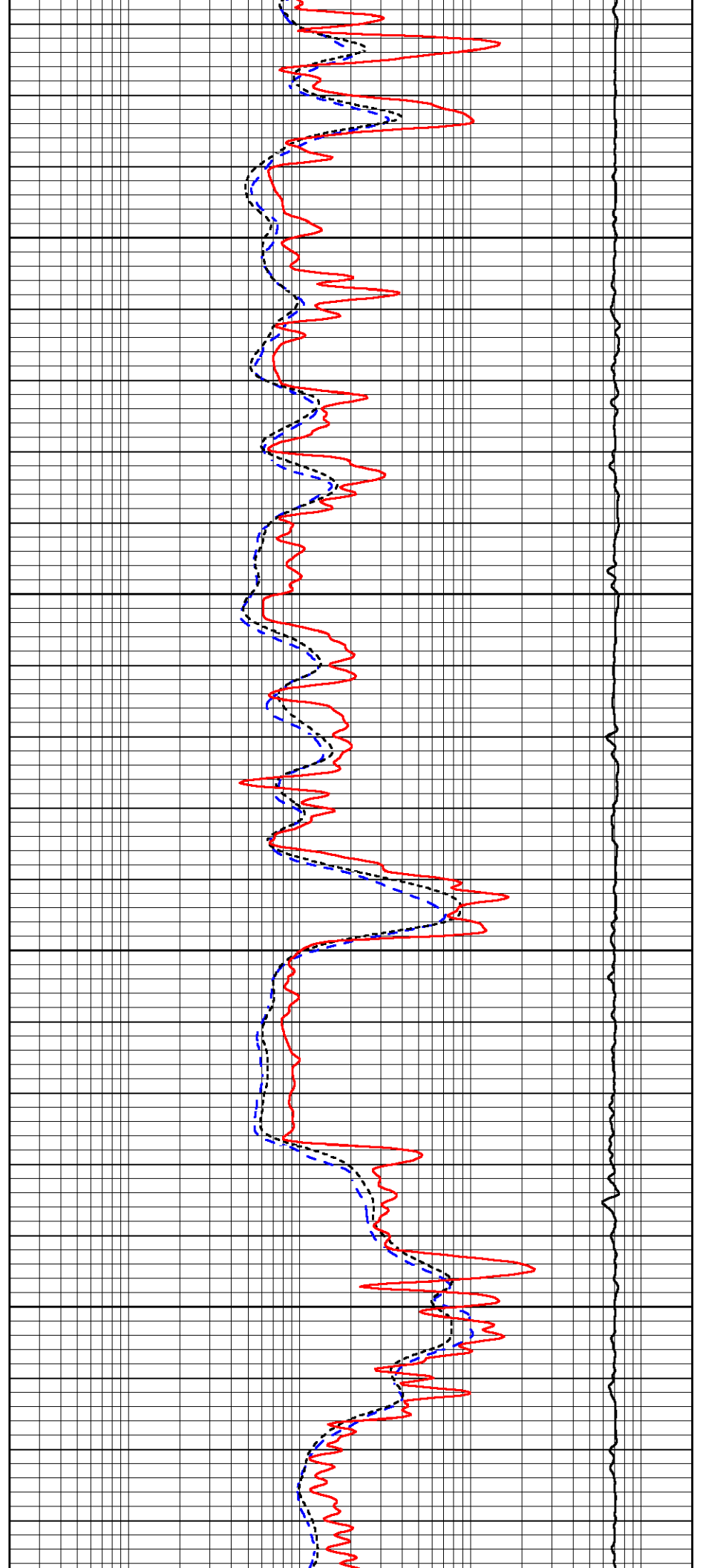


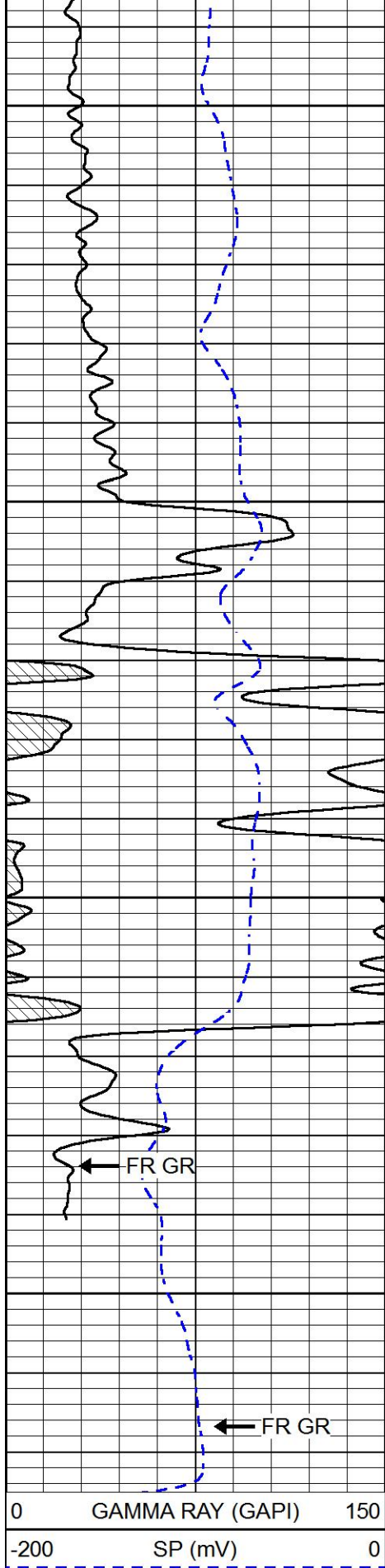
3950

4000

4050

4100





4150

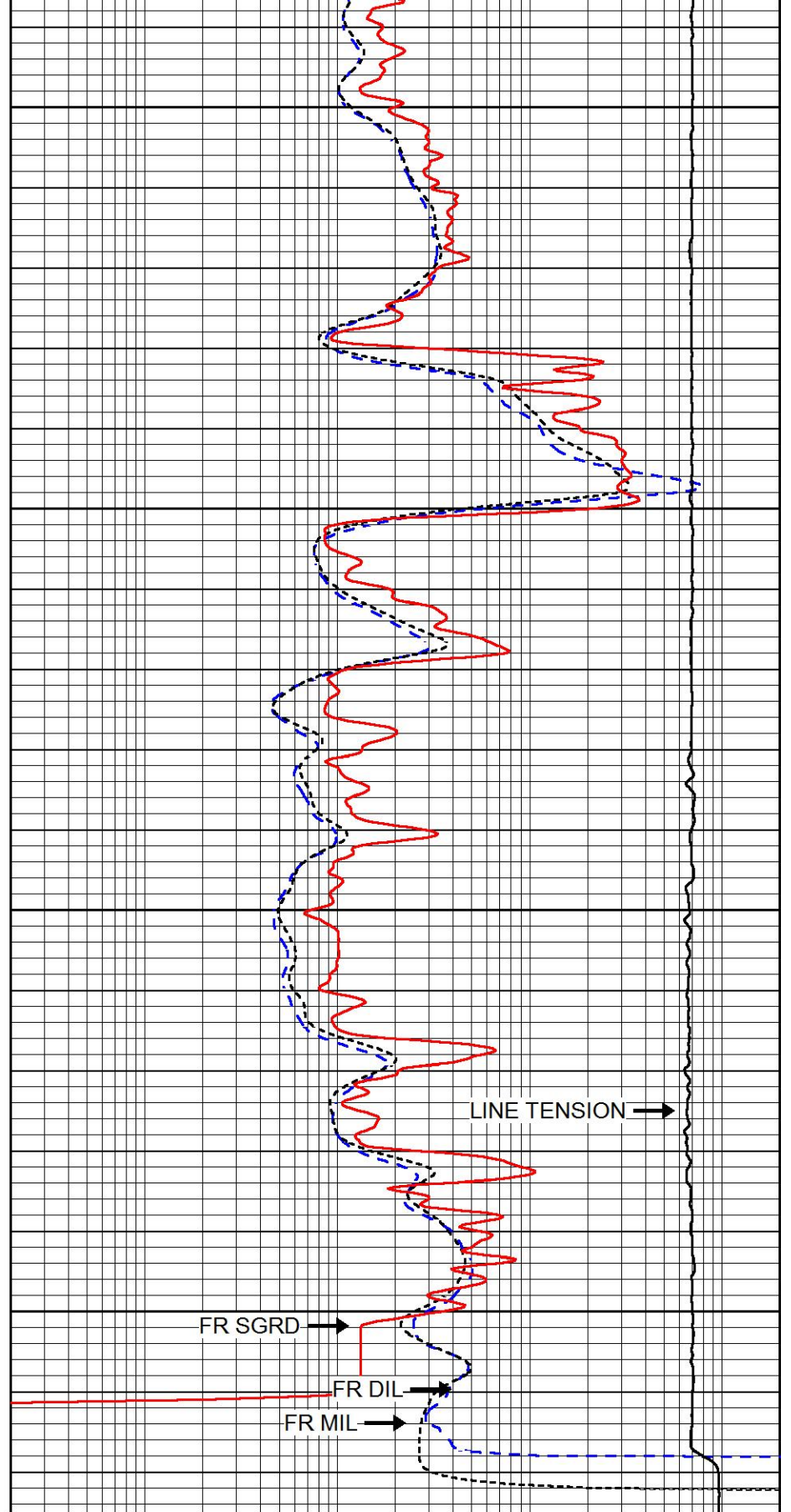
4200

4250

4300

0 GAMMA RAY (GAPI) 150

-200 SP (mV) 0

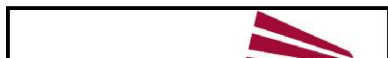


0.2 DEEP RESISTIVITY (Ohm-m) 2000

0.2 MEDIUM RESISTIVITY (Ohm-m) 2000

0.2 RLL3 (Ohm-m) 2000

15000 LINE TENSION (lb) 0

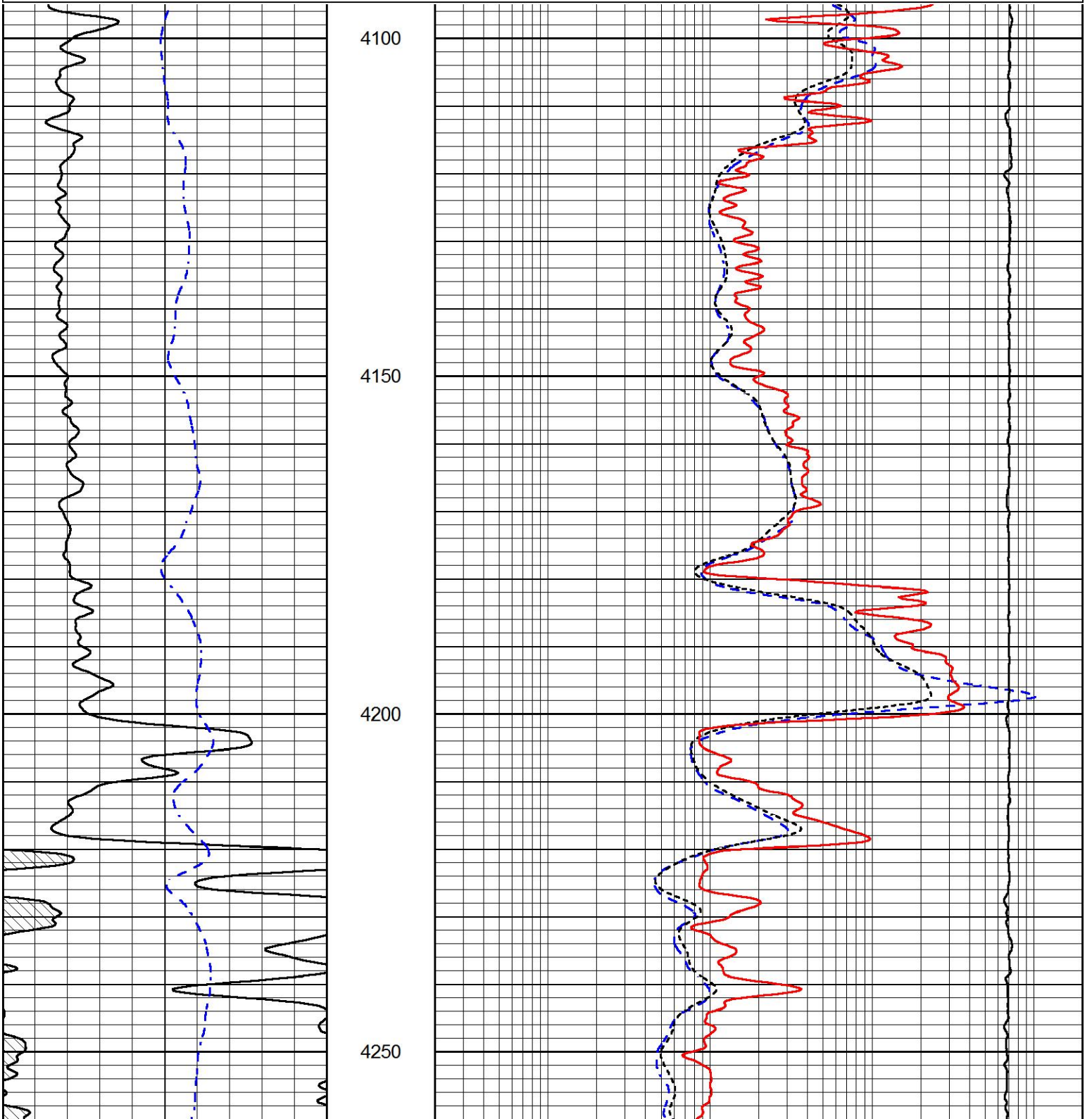


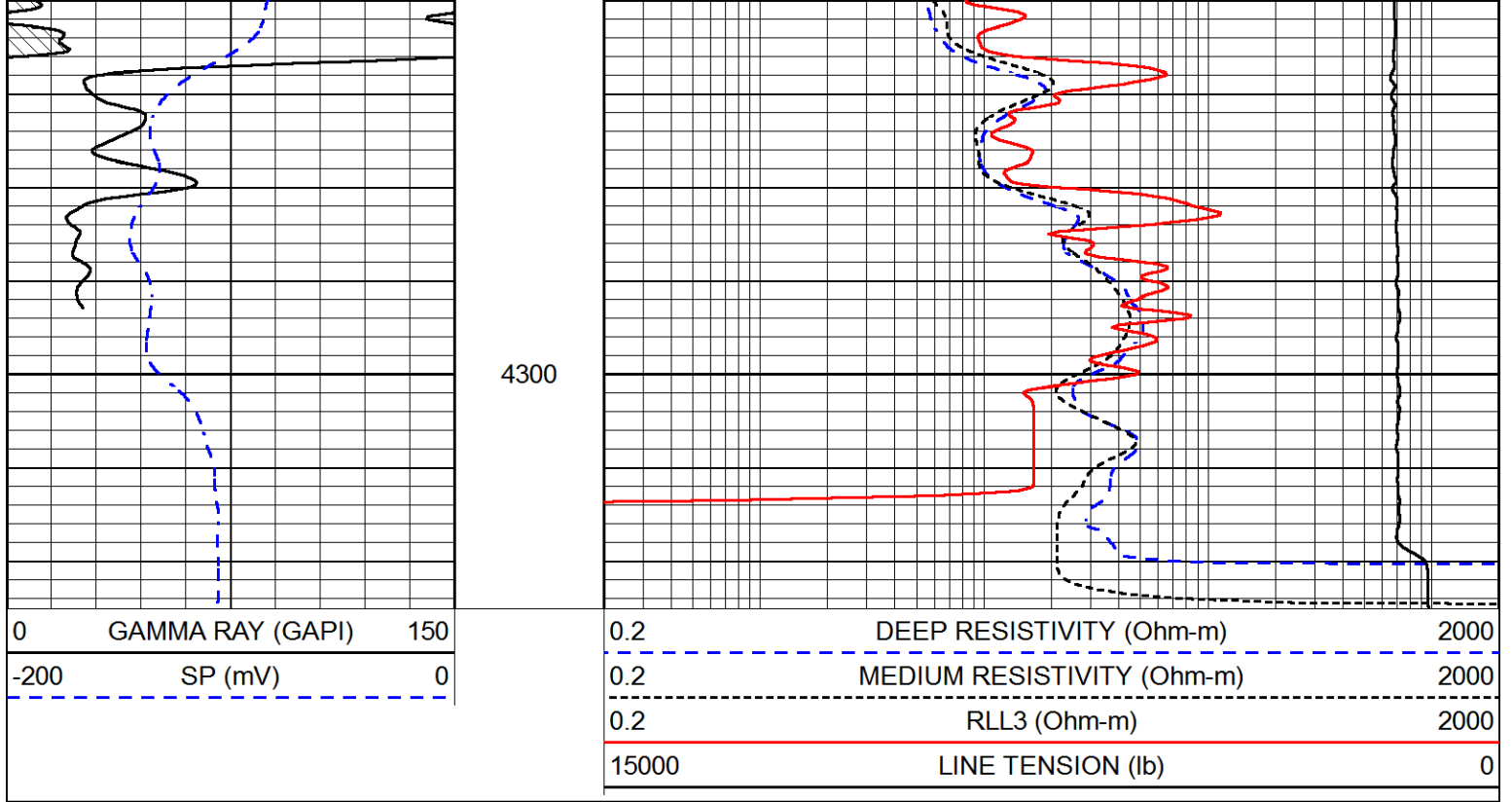
REPEAT SECTION

Database File thomas garner_garner 8.db
Dataset Pathname STACK/pass2.6
Presentation Format dil
Dataset Creation Tue Nov 20 10:21:14 2018
Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0





Calibration Report

Database File thomas garner_garner 8.db
 Dataset Pathname STACK/pass3.4
 Dataset Creation Tue Nov 20 10:18:45 2018

Dual Induction Calibration Report

Serial-Model: PSI 988-M&W
 Calibration Performed: Thu Sep 06 14:52:38 2018

Loop:	Readings		References		Results	
	Air	Loop	Air	Loop	Gain	Offset
Deep	178.615	710.235	0.000	255.800	mmho/m	0.525 -44.000
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.380 -16.500

Compensated Density Calibration Report

Serial-Model: 934-5002-M&W
 Source / Verifier: /
 Master Calibration Performed: Wed Aug 29 11:03:55 2018

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	3720.16	2661.79	cps
Aluminum	2.685	g/cc	696.57	1725.83	cps

Spine Angle = 75.50

Density/Spine Ratio = 0.537

	Size	Reading
Small Ring	4.00 in	1.16
Large Ring	16.00 in	1.01

Compensated Neutron Calibration Report

Serial Number: tk10-MW
 Tool Model: M&W
 Calibration Performed: Wed Nov 16 11:21:36 2016

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number: 89-M&W
 Tool Model: M&W
 Calibration Performed: Tue Apr 11 17:08:01 2017

Calibrator Value: 1000.0 GAPI
 Background Reading: 0.0 cps
 Calibrator Reading: 6.2 cps
 Sensitivity: 0.5200 GAPI/cps



Company THOMAS GARNER, INC.
 Well GARNER #8
 Field LEISS NW
 County STAFFORD
 State KANSAS



DRILL STEM TEST REPORT

Prepared For: **Thomas Garner inc**

305 E 7th
St John, KS 67576

ATTN: Josh Austin

Garner #8

15-2S-13W Stafford,KS

Start Date: 2018.11.17 @ 08:15:00

End Date: 2018.11.17 @ 15:05:02

Job Ticket #: 63846 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.11.21 @ 09:10:57



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Thomas Garner inc
 305 E 7th
 St John, KS 67576
 ATTN: Josh Austin

15-2S-13W Stafford,KS

Garner #8

Job Ticket: 63846

DST#: 1

Test Start: 2018.11.17 @ 08:15:00

GENERAL INFORMATION:

Formation: **Lansing "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:12:17

Time Test Ended: 15:05:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 74

Interval: 3785.00 ft (KB) To 3810.00 ft (KB) (TVD)

Reference Elevations: 1937.00 ft (KB)

Total Depth: 3810.00 ft (KB) (TVD)

1926.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8159

Inside

Press@RunDepth: 87.41 psig @ 3786.00 ft (KB)

Capacity: psig

Start Date: 2018.11.17

End Date:

2018.11.17

Last Calib.:

2018.11.17

Start Time: 08:15:01

End Time:

15:05:02

Time On Btm:

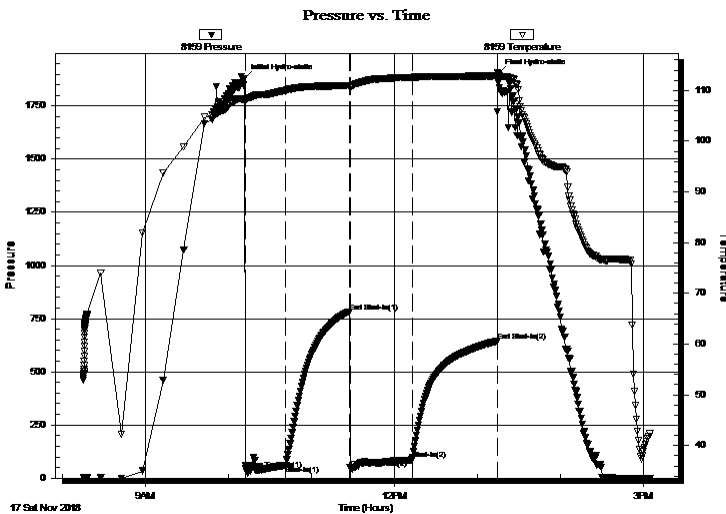
2018.11.17 @ 10:11:17

Time Off Btm:

2018.11.17 @ 13:14:47

TEST COMMENT: IF: Strong Blow , BOB in 90 seconds, Built to 127"
 IS: No Blow Back
 FF: Strong Blow , BOB in 10 seconds, Built to 111"
 FS: No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1879.33	108.20	Initial Hydro-static
1	43.67	108.01	Open To Flow (1)
30	59.25	109.97	Shut-In(1)
76	783.10	110.88	End Shut-In(1)
77	44.58	110.80	Open To Flow (2)
122	87.41	112.57	Shut-In(2)
183	645.45	112.90	End Shut-In(2)
184	1903.49	113.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	1496 GIP	0.00
63.00	GWMCO 20%G 10%W 20%M 50%O	0.31
142.00	GMCO 40%G 10%M 50%O	0.70

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Thomas Garner inc

15-2S-13W Stafford,KS

305 E 7th
St John, KS 67576

Garner #8

Job Ticket: 63846

DST#: 1

ATTN: Josh Austin

Test Start: 2018.11.17 @ 08:15:00

Tool Information

Drill Pipe:	Length: 3568.00 ft	Diameter: 3.80 inches	Volume: 50.05 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 216.00 ft	Diameter: 2.25 inches	Volume: 1.06 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 51.11 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3785.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	44.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3771.00	
Hydraulic tool	5.00			3776.00	
Packer	5.00			3781.00	19.00 Bottom Of Top Packer
Packer	4.00			3785.00	
Stubb	1.00			3786.00	
Recorder	0.00	8159	Inside	3786.00	
Recorder	0.00	6749	Outside	3786.00	
Perforations	21.00			3807.00	
Bullnose	3.00			3810.00	25.00 Bottom Packers & Anchor
Total Tool Length:	44.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Thomas Garner inc

15-2S-13W Stafford,KS

305 E 7th
St John, KS 67576

Garner #8

Job Ticket: 63846

DST#: 1

ATTN: Josh Austin

Test Start: 2018.11.17 @ 08:15:00

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:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	1496 GIP	0.000
63.00	GWMCO 20%G 10%W 20%M 50%O	0.310
142.00	GMCO 40%G 10%M 50%O	0.698

Total Length: 205.00 ft Total Volume: 1.008 bbl

Num Fluid Samples: 0

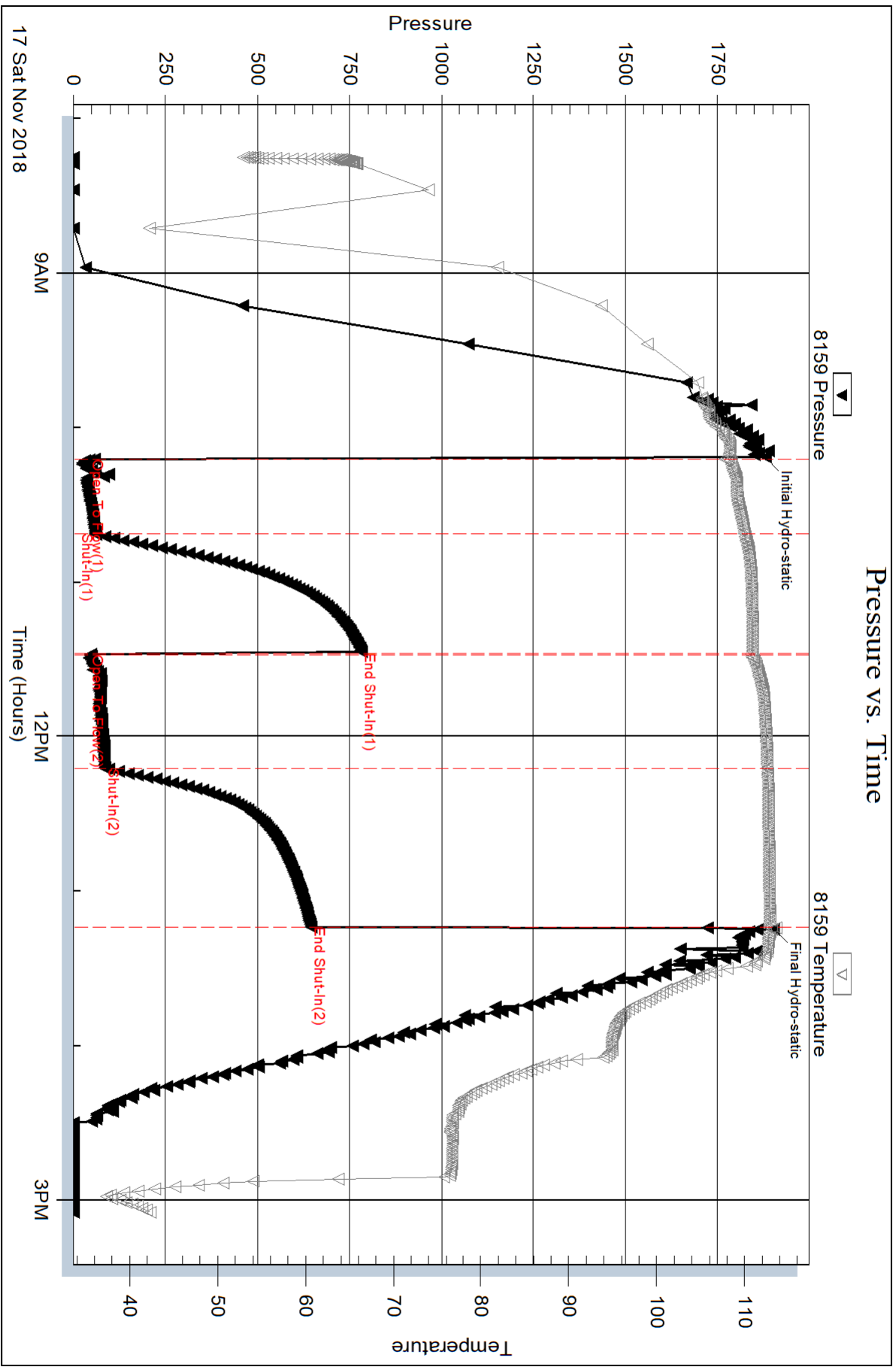
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

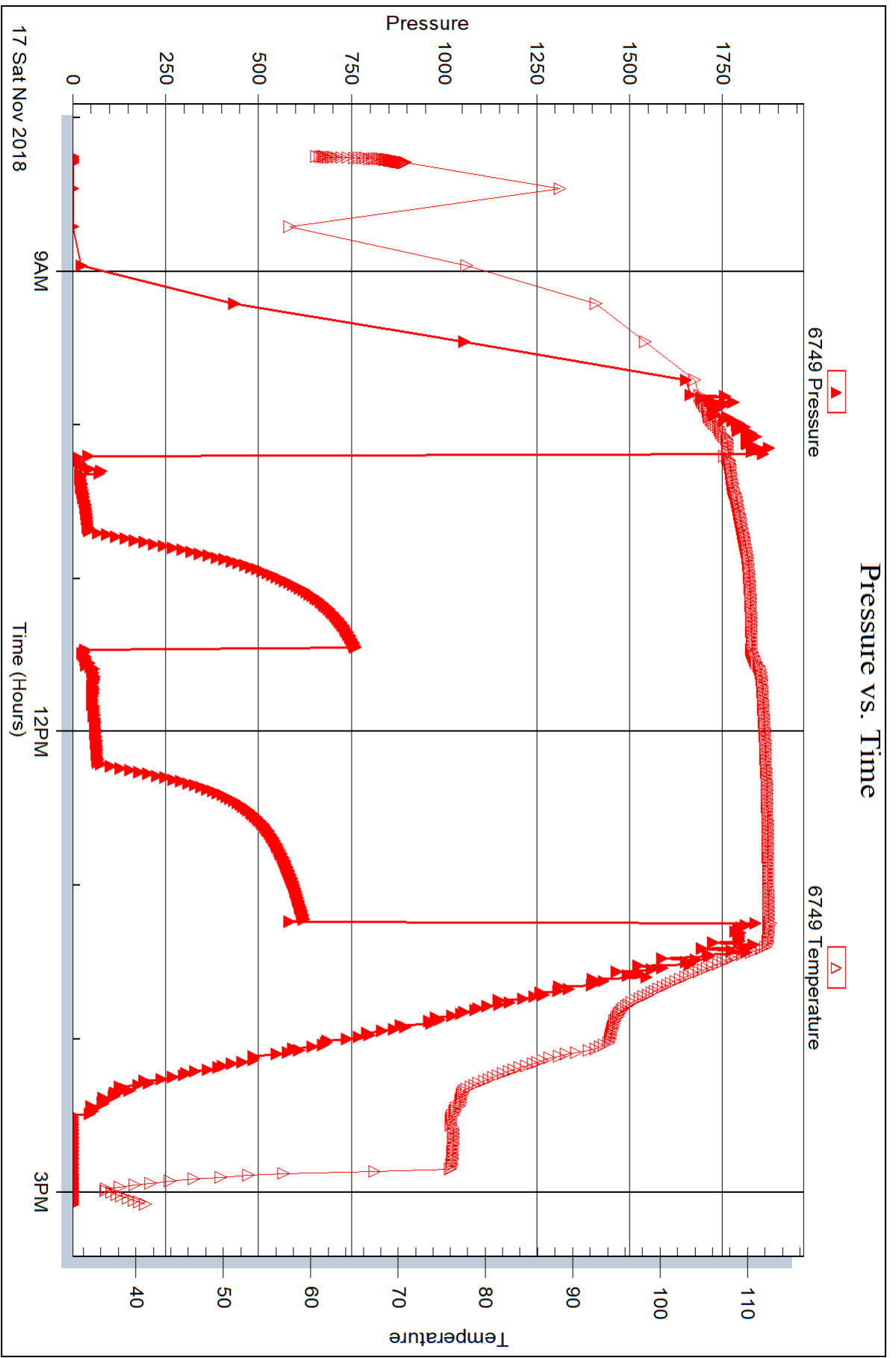


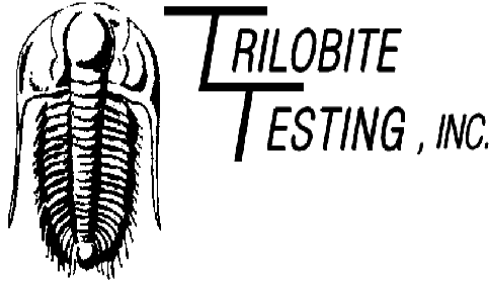
Serial #: 6749

Outside Thomas Garner inc

Garner #8

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Thomas Garner inc**

305 E 7th
St John, KS 67576

ATTN: Josh Austin

Garner #8

15-2S-13W Stafford,KS

Start Date: 2018.11.18 @ 15:55:00

End Date: 2018.11.18 @ 23:07:02

Job Ticket #: 63847 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.11.21 @ 09:10:34



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Thomas Garner inc
305 E 7th
St John, KS 67576
ATTN: Josh Austin

15-2S-13W Stafford,KS

Garner #8

Job Ticket: 63847

DST#: 2

Test Start: 2018.11.18 @ 15:55:00

GENERAL INFORMATION:

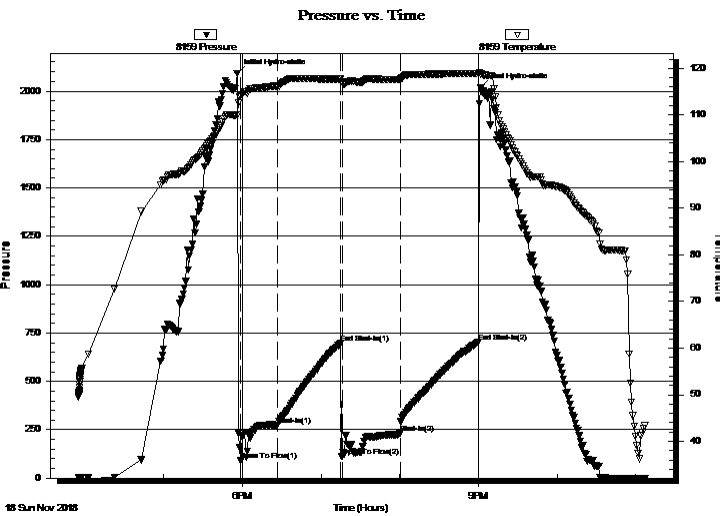
Formation: **Viola**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 17:58:47
 Tester: Leal Cason
 Time Test Ended: 23:07:02
 Unit No: 74
 Interval: **4095.00 ft (KB) To 4120.00 ft (KB) (TVD)**
 Reference Elevations: 1937.00 ft (KB)
 Total Depth: 4120.00 ft (KB) (TVD)
 1926.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 KB to GR/CF: 11.00 ft

Serial #: 8159

Inside

Press@RunDepth: 231.79 psig @ 4096.00 ft (KB) Capacity: psig
 Start Date: 2018.11.18 End Date: 2018.11.18 Last Calib.: 2018.11.18
 Start Time: 15:55:01 End Time: 23:07:02 Time On Btm: 2018.11.18 @ 17:55:47
 Time Off Btm: 2018.11.18 @ 21:01:47

TEST COMMENT: IF: Strong Blow , BOB in 30 seconds, Built to 285"
 IS: No Blow Back
 FF: Strong Blow , BOB in 15 seconds, GTS in 6 minutes, TSTM, Blow Built to 222"
 FS: Blow Back Built to 1"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2091.87	110.00	Initial Hydro-static
3	90.55	114.11	Open To Flow (1)
31	273.36	116.09	Shut-In(1)
80	696.16	117.69	End Shut-In(1)
81	112.27	117.01	Open To Flow (2)
125	231.79	117.69	Shut-In(2)
185	703.25	118.90	End Shut-In(2)
187	2019.37	118.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GTS	0.00
126.00	GWMCO 40%G 5%W 10%M 45%O	0.62
174.00	GOCM 20%G 28%O 52%M	1.62

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Thomas Garner inc

15-2S-13W Stafford,KS

305 E 7th
St John, KS 67576

Garner #8

Job Ticket: 63847

DST#: 2

ATTN: Josh Austin

Test Start: 2018.11.18 @ 15:55:00

Tool Information

Drill Pipe:	Length: 3887.00 ft	Diameter: 3.80 inches	Volume: 54.52 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 216.00 ft	Diameter: 2.25 inches	Volume: 1.06 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 55.58 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4095.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	44.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4081.00	
Hydraulic tool	5.00			4086.00	
Packer	5.00			4091.00	19.00 Bottom Of Top Packer
Packer	4.00			4095.00	
Stubb	1.00			4096.00	
Recorder	0.00	8159	Inside	4096.00	
Recorder	0.00	6749	Outside	4096.00	
Perforations	21.00			4117.00	
Bullnose	3.00			4120.00	25.00 Bottom Packers & Anchor
Total Tool Length:	44.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Thomas Garner inc

15-2S-13W Stafford,KS

305 E 7th
St John, KS 67576

Garner #8

Job Ticket: 63847

DST#: 2

ATTN: Josh Austin

Test Start: 2018.11.18 @ 15:55:00

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:

ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6700.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GTS	0.000
126.00	GWMCO 40%G 5%W 10%M 45%O	0.620
174.00	GOCM 20%G 28%O 52%M	1.621

Total Length: 300.00 ft Total Volume: 2.241 bbl

Num Fluid Samples: 0

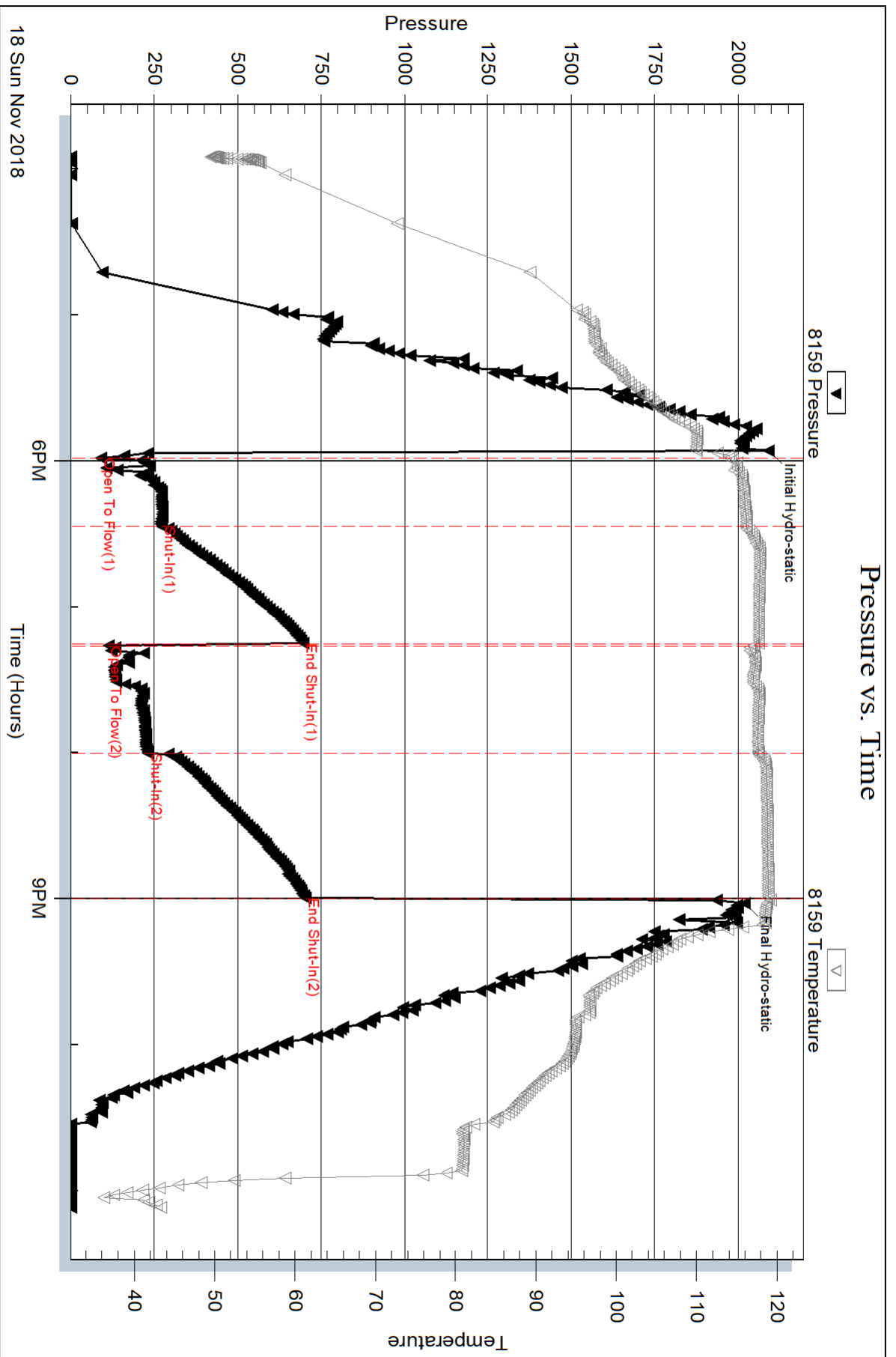
Num Gas Bombs: 0

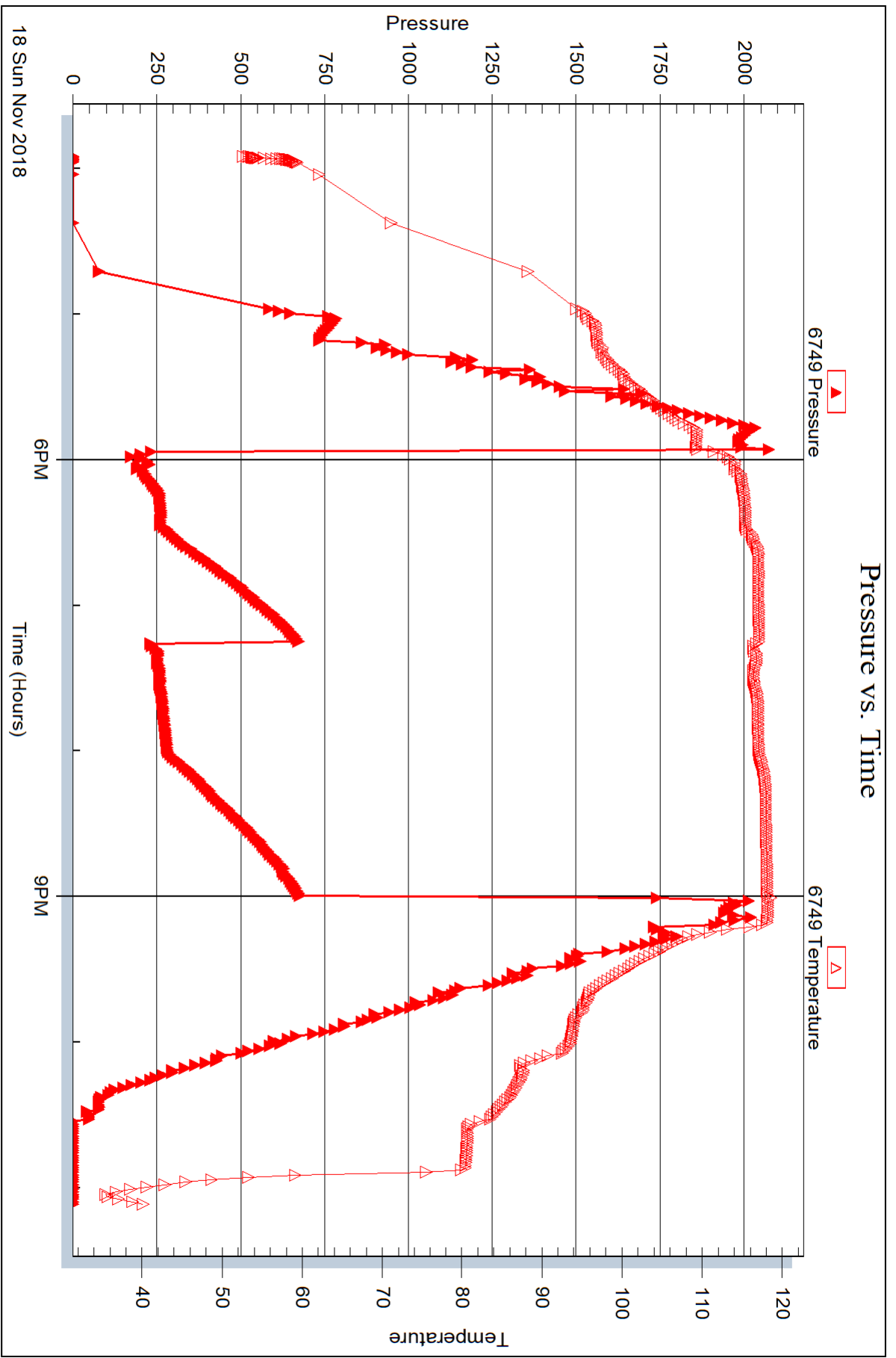
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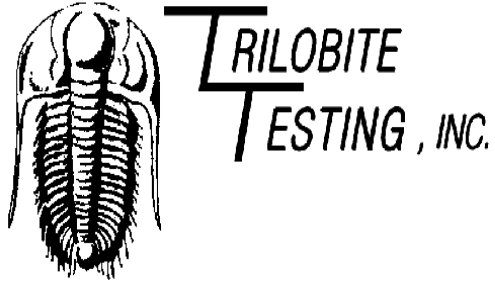
Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Thomas Garner inc**

305 E 7th
St John, KS 67576

ATTN: Josh Austin

Garner #8

15-2S-13W Stafford,KS

Start Date: 2018.11.19 @ 16:30:00

End Date: 2018.11.19 @ 23:24:02

Job Ticket #: 63848 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.11.21 @ 09:10:04



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Thomas Garner inc
305 E 7th
St John, KS 67576
ATTN: Josh Austin

15-2S-13W Stafford,KS

Garner #8

Job Ticket: 63848

DST#: 3

Test Start: 2018.11.19 @ 16:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:28:17
 Time Test Ended: 23:24:02
 Interval: **4270.00 ft (KB) To 4275.00 ft (KB) (TVD)**
 Total Depth: 4275.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Leal Cason
 Unit No: 74
 Reference Elevations: 1937.00 ft (KB)
 1926.00 ft (CF)
 KB to GR/CF: 11.00 ft

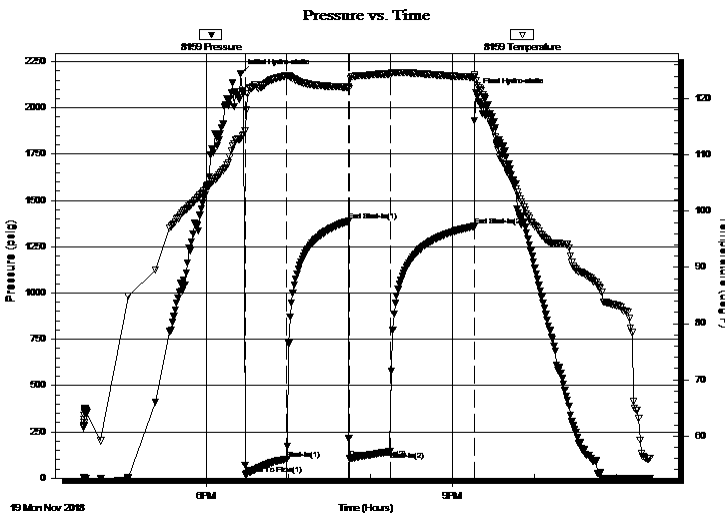
Serial #: 8159

Inside

Press@RunDepth: 143.44 psig @ 4271.00 ft (KB) Capacity: psig
 Start Date: 2018.11.19 End Date: 2018.11.19 Last Calib.: 2018.11.19
 Start Time: 16:30:01 End Time: 23:24:02 Time On Btm: 2018.11.19 @ 18:25:02
 Time Off Btm: 2018.11.19 @ 21:17:02

TEST COMMENT: IF: Fair Blow , BOB in 16 minutes, Built to 20"
 IS: No Blow Back
 FF: Fair Blow , BOB in 28 minutes, Built to 13"
 FS: No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2186.62	112.86	Initial Hydro-static
4	21.01	114.23	Open To Flow (1)
34	102.10	124.10	Shut-In(1)
79	1387.72	122.04	End Shut-In(1)
80	105.84	121.81	Open To Flow (2)
110	143.44	124.41	Shut-In(2)
171	1360.50	123.81	End Shut-In(2)
172	2082.09	123.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	73 GIP	0.00
189.00	OMCW 10%O 20%M 70%W	0.93
136.00	GSY Oil 20%G 80%O	1.66

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Thomas Garner inc

15-2S-13W Stafford,KS

305 E 7th
St John, KS 67576

Garner #8

Job Ticket: 63848

DST#: 3

ATTN: Josh Austin

Test Start: 2018.11.19 @ 16:30:00

Tool Information

Drill Pipe:	Length: 4046.00 ft	Diameter: 3.80 inches	Volume: 56.75 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 216.00 ft	Diameter: 2.25 inches	Volume: 1.06 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 57.81 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial	76000.00 lb
Depth to Top Packer:	4270.00 ft			Final	76000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	5.00 ft				
Tool Length:	24.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4256.00	
Hydraulic tool	5.00			4261.00	
Packer	5.00			4266.00	19.00 Bottom Of Top Packer
Packer	4.00			4270.00	
Stubb	1.00			4271.00	
Recorder	0.00	8159	Inside	4271.00	
Recorder	0.00	6749	Outside	4271.00	
Perforations	1.00			4272.00	
Bullnose	3.00			4275.00	5.00 Bottom Packers & Anchor
Total Tool Length:	24.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Thomas Garner inc
305 E 7th
St John, KS 67576
ATTN: Josh Austin

15-2S-13W Stafford,KS
Garner #8
Job Ticket: 63848 **DST#: 3**
Test Start: 2018.11.19 @ 16:30:00

Mud and Cushion Information

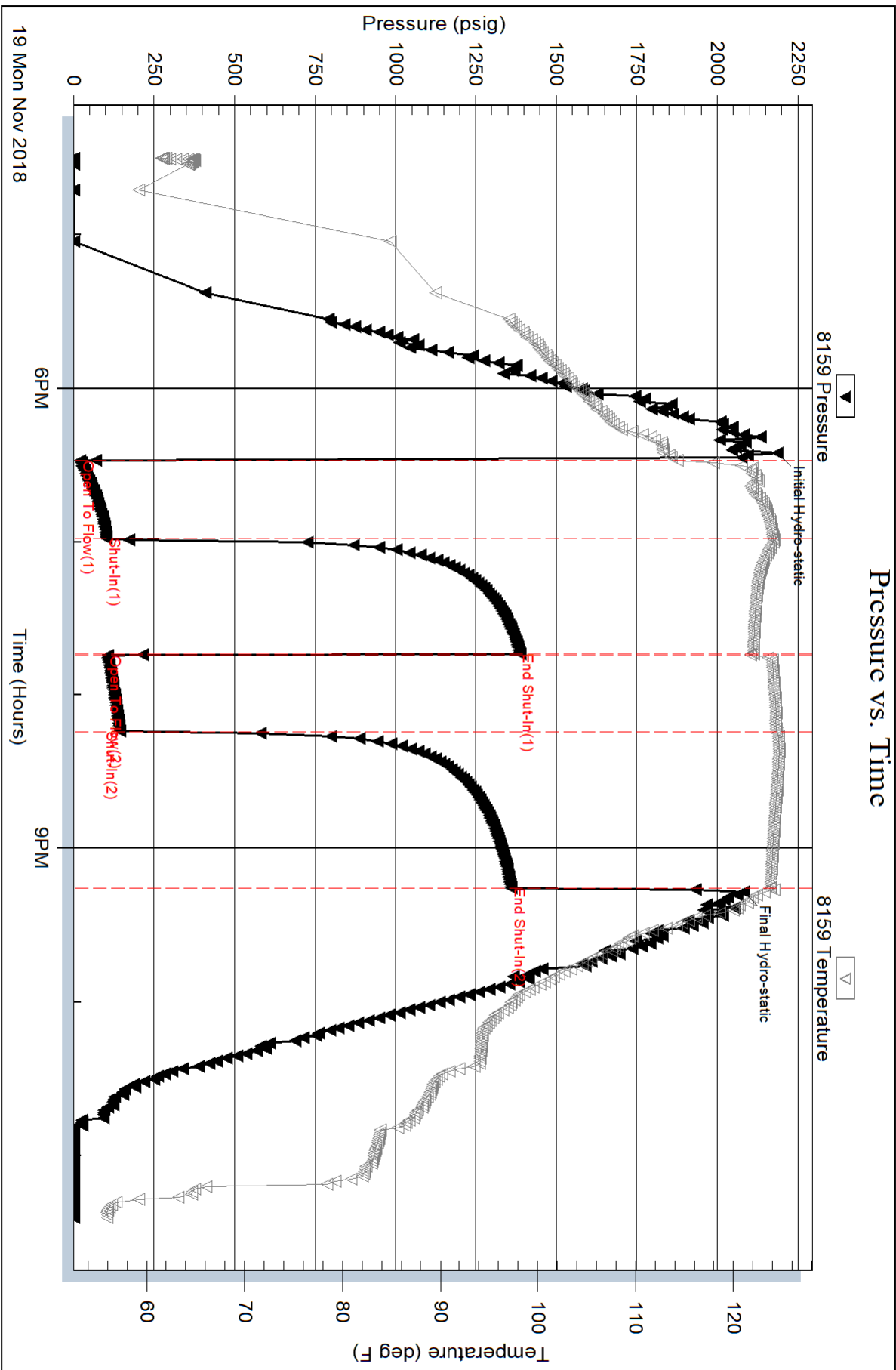
Mud Type: Gel Chem	Cushion Type:	Oil API: 38.8 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 44000 ppm
Viscosity: 65.00 sec/qt	Cushion Volume: bbl	
Water Loss: 9.19 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 6200.00 ppm		
Filter Cake: 0.02 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	73 GIP	0.000
189.00	OMCW 10%O 20%M 70%W	0.929
136.00	GSY Oil 20%G 80%O	1.662

Total Length: 325.00 ft Total Volume: 2.591 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: Gravity was 39.8 @ 70 degrees
RW was .21 @ 55 degrees

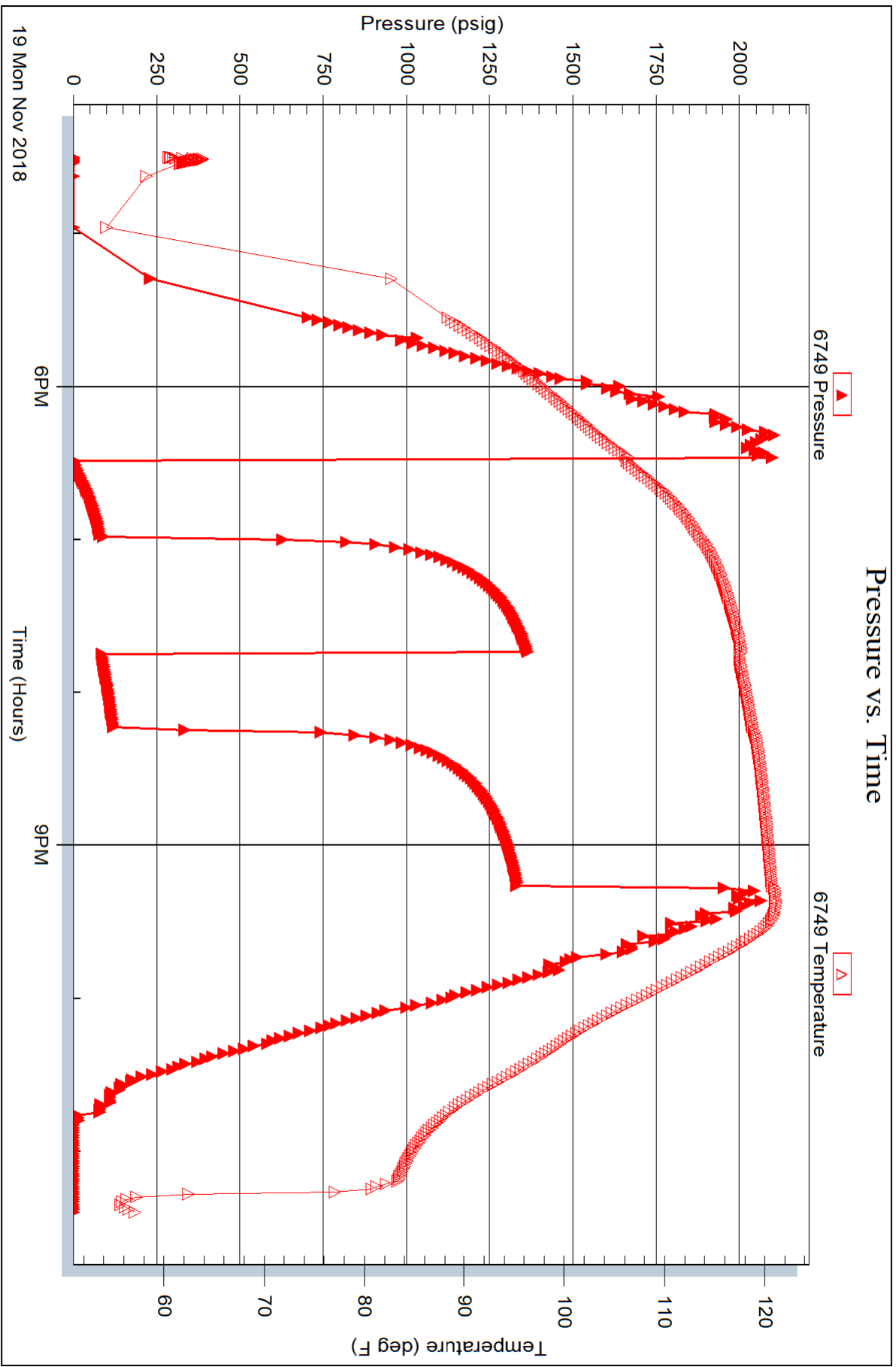


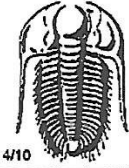
Serial #: 6749

Outside Thomas Garner inc

Garner #8

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63846

Well Name & No. Garner 8 Test No. 1 Date 11/17/18
 Company Thomas Garner Inc Elevation 1937 KB 1926 GL
 Address 305 E 7th St. John, KS 67576
 Co. Rep/Geo. Josh Austin Rig Sterling 4
 Location: Sec. 15 Twp 25 Rge. 13W Co. Stafford State KS

Interval Tested 3785 - 3810 Zone Tested Lansing "H"
 Anchor Length 25 Drill Pipe Run 3568 Mud Wt. 8.6
 Top Packer Depth 3780 Drill Collars Run 216 Vis 57
 Bottom Packer Depth 3785 Wt. Pipe Run 0 WL 8.0
 Total Depth 3810 Chlorides 4500 ppm System LCM 2

Blow Description IF: Strong Blow, BOB in 90 seconds, Built to 127 inches
ISI: No Blow Back

FF: Strong Blow, BOB in 10 seconds, Built to 111 inches

FST: No Blow Back

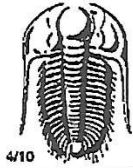
Rec	Feet of	%gas	%oil	%water	%mud
<u>1496</u>	<u>6IP</u>				
<u>142</u>	<u>GMCO</u>	<u>40%</u>	<u>50%</u>		<u>10%</u>
<u>63</u>	<u>GWMC0</u>	<u>20%</u>	<u>50%</u>	<u>10%</u>	<u>20%</u>

Rec Total 205 BHT 113 Gravity NIC API RW NIC @ NIC F Chlorides NIC ppm

(A) Initial Hydrostatic 1279 Test 1050 T-On Location 07:00
 (B) First Initial Flow 44 Jars _____ T-Started 08:15
 (C) First Final Flow 59 Safety Joint _____ T-Open 10:12
 (D) Initial Shut-In 783 Circ Sub _____ T-Pulled 13:14
 (E) Second Initial Flow 44 Hourly Standby _____ T-Out 15:05
 (F) Second Final Flow 37 Mileage (25) 25 Comments _____
 (G) Final Shut-In 645 Sampler _____
 (H) Final Hydrostatic 1903 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1075
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1075

Approved By [Signature] Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63847**

Well Name & No. Garner 8 Test No. 2 Date 11/18/18
 Company Thomas Garner Inc Elevation 1937 KB 1926 GL
 Address 305 E 7th St John, KS 67576
 Co. Rep / Geo. Josh Austin Rig Sterling 4
 Location: Sec. 15 Twp 25 Rge. 13W Co. Stafford State KS

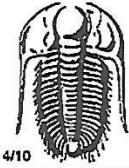
Interval Tested 4095 - 4120 Zone Tested Viola
 Anchor Length 25 Drill Pipe Run 3887 Mud Wt. 9.2
 Top Packer Depth 4090 ~~4095~~ Drill Collars Run 216 Vis 68
 Bottom Packer Depth 4095 Wt. Pipe Run 0 WL 8.8
 Total Depth 4120 Chlorides 6700 ppm System LCM 1

Blow Description IF: Strong Blow, BOB in 30 seconds, Built to 285 inches
ISI: NO Blow Back
FF: Strong Blow, BOB in 15 seconds, GTS in 6 minutes, TSTM, Blow Built to 222 inches
FST: Blow Back Built to 1 inch

Rec	Feet of	%gas	%oil	%water	%mud
<u>3803</u>	<u>GIP</u>				
<u>174</u>	<u>GOCM</u>	<u>20%</u>	<u>28%</u>	<u>52%</u>	
<u>126</u>	<u>GWMCO</u>	<u>40%</u>	<u>45%</u>	<u>5%</u>	<u>10%</u>

Rec Total 300 BHT 119 Gravity NIC API RW NIC @ NIC °F Chlorides NIC ppm
 (A) Initial Hydrostatic 2091 Test 1150 T-On Location 15:00
 (B) First Initial Flow 90 Jars _____ T-Started 15:55
 (C) First Final Flow 273 Safety Joint _____ T-Open 17:58
 (D) Initial Shut-In 696 Circ Sub _____ T-Pulled 21:00
 (E) Second Initial Flow 112 Hourly Standby _____ T-Out 23:07
 (F) Second Final Flow 232 Mileage (25) 25 Comments _____
 (G) Final Shut-In 703 Sampler _____
 (H) Final Hydrostatic 2019 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1175
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1175

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63848**

Well Name & No. Garner 8 Test No. 3 Date 11/19/18
 Company Thomas Garner Inc Elevation 1937 KB 1926 GL
 Address 305 E 7th St John, KS 67576
 Co. Rep/Geo. Josh Austin Rig Sterling 4
 Location: Sec. 15 Twp 25 Rge. 13W Co. Stafford State KS

Interval Tested 4270 - 4275 Zone Tested Arbuckle
 Anchor Length 5 Drill Pipe Run 4046 Mud Wt. 9.0
 Top Packer Depth 4265 Drill Collars Run 216 Vis 65
 Bottom Packer Depth 4270 Wt. Pipe Run 0 WL 9.2
 Total Depth 4275 Chlorides 6200 ppm System LCM 2

Blow Description IF: Fair Blow, BOB in 16 minutes, Built to 20 inches
ISI: NO BLOW BACK
FF: Fair Blow, BOB in 28 minutes, Built to 13 inches
FSI: NO BLOW BACK

Rec	Feet of	%gas	%oil	%water	%mud
<u>73</u>	<u>6IP</u>				
<u>136</u>	<u>654 oil</u>	<u>20</u>	<u>80</u>		
<u>189</u>	<u>OMCW</u>		<u>10</u>	<u>70</u>	<u>20</u>

Rec Total 325 BHT 124 Gravity 38.8 API RW .21 @ 55° F Chlorides 44000 ppm

(A) Initial Hydrostatic 2187 Test 1150 T-On Location 15:30
 (B) First Initial Flow 21 Jars _____ T-Started 16:30
 (C) First Final Flow 102 Safety Joint _____ T-Open 18:28
 (D) Initial Shut-In 1388 Circ Sub _____ T-Pulled 21:15
 (E) Second Initial Flow 106 Hourly Standby _____ T-Out 23:24
 (F) Second Final Flow 143 Mileage (25) 25 Comments _____
 (G) Final Shut-In 1360 Sampler _____
 (H) Final Hydrostatic 2082 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1175
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1175

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