

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 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)</i> <i>(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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Form	ACO1 - Well Completion
Operator	Lario Oil & Gas Company
Well Name	LANG 1-12
Doc ID	1357441

All Electric Logs Run

Dual Induction
Microlog
GR-CNL-LDT
Sonic

Form	ACO1 - Well Completion
Operator	Lario Oil & Gas Company
Well Name	LANG 1-12
Doc ID	1357441

Tops

Name	Top	Datum
Heebner	3989	-845
Lansing	4036	-892
Stark Shale	4353	-1209
Hushpuckney	4402	-1258
Base KC	4486	-1342
Marmaton	4519	-1375
Pawnee	4615	-1471
Ft. Scott	4635	-1491
Johnson	4744	-1600
Morrow	4839	-1695
Mississippian	4928	-1784

Form	ACO1 - Well Completion
Operator	Lario Oil & Gas Company
Well Name	LANG 1-12
Doc ID	1357441

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	4552 - 4556	300 gals 15% MCA	4552
4	4615 - 4618	300 gals 15% MCA	4615



CONSOLIDATED
Oil Well Services, LLC

6/2/17

REMIT TO

Consolidated Oil Well Services, LLC
Dept:970
P.O.Box 4346
Houston, TX 77210-4346

New

MAIN OFFICE

P.O.Box 884
Chanute, KS 66720
620/431-9210, 1-800/467-8676
Fax 620/431-0012

Invoice

Invoice#

810195

Invoice Date: 04/30/17

Terms: Net 30

Page 1

LARIO OIL & GAS

P.O. BOX 1093
GARDEN CITY KS 67846
USA
3162655611

LANG 1-12 ✓

drilling AFE 17-054
May 4, 2017 *AK*

Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0471	Cement Pump Charge 301' - 500' (Coalbed/Methane)	1.000	1,150.0000	30.000	805.00
CE0002	Equipment Mileage Charge - Heavy Equipment	40.000	7.1500	30.000	200.20
CE0710	Cement Delivery Charge	1.000	855.6000	30.000	598.92
CC5871	Surface Blend II, 2% Gel/3% CaCl	260.000	23.0000	30.000	4,186.00

Subtotal 8,271.60

Discounted Amount 2,481.48

SubTotal After Discount 5,790.12

Amount Due 8,779.90 If paid after 05/30/17

Tax: 355.81

Total: **6,145.93**

WF
[Signature]
2017

MAY - 9 2017

APR 30 2017
KS KE BB SF DM



May. 2. 2017 8:37AM

CONSOLIDATED
Oil Well Services, LLC

8077
7980

No. 0352 P. 2

TICKET NUMBER **51805**

LOCATION **Oakley, KS**

FOREMAN **Walt Dinkel**

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

INVOICE # 8195

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
4-29-17	4793	Lang 1-12	12	20 ^s	3.5 ^w	Wichita
CUSTOMER			TRUCK #	DRIVER	TRUCK #	DRIVER
Lario Oil & Gas			731	Cory Davis		
MAILING ADDRESS			566	Steven Odel		
P.O. Box 1093						
CITY	STATE	ZIP CODE				
Garden City	Ks	67846				

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 383 CASING SIZE & WEIGHT 2 3/4" - 8.978
 CASING DEPTH 383 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 15.2 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 15-20'
 DISPLACEMENT 23 BBL DISPLACEMENT PSI _____ MIX PSI _____ RATE 4 BPPM

REMARKS: Safety Meeting, Rig up on Duke #5, Circ. casing on bottom
mix 260 s/s surface Blend II, Displace 23-BBL H₂O, Shut in
Cemented & Cure

Thank You
Walt + Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CC0471	1	PUMP CHARGE	1,150.00	1,150.00
CC0002	40	MILEAGE	7.15	286.00
CC0710	12.22	Ten Mileage Delivery	178.00	2,175.60
CC5771	260 s/s	Surface Blend II	23.00	5,980.00
				8,291.60
		Less 30% Disc		2,481.48
				5,790.12
			9.5%	352.81
			SALES TAX	352.81
			ESTIMATED TOTAL	\$ 6145.93

AUTHORIZATION Kenneth Miller TITLE Duke Rig Supervisor DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's acknowledgment, and the conditions on the back of this form are in effect for services identified on this form.

Received Time: May. 2. 2017 8:37AM No. 0963



PAGE	CUST NO	YARD #	INVOICE DATE
1 of 1	1002301	1718	05/24/2017
INVOICE NUMBER			
92431286			

Pratt (620) 672-1201
 B LARIO OIL & GAS
 I PO Box: 1093
 L GARDEN CITY
 L KS US 67846
 T
 O ATTN: ACCOUNTS PAYABLE

J LEASE NAME Lang 1-12 ✓
 O LOCATION
 B COUNTY Wichita
 S STATE KS
 I JOB DESCRIPTION Cement-New Well Casing/Pi
 E JOB CONTACT

drilling ACP
afe 17-054
May 30, 2017
AK

JOB #	EQUIPMENT #	PURCHASE ORDER NO.	TERMS	DUE DATE
41026698	19570		Net - 30 days	06/23/2017

	QTY	U of M	UNIT PRICE	INVOICE AMOUNT
<i>For Service Dates: 05/15/2017 to 05/15/2017</i>				
0041026698				
171814428L Cement-New Well Casing/Pi 05/15/2017 Cement Production Casing				
AA2 Cement	275.00	EA	8.19	2,252.25 T
A-Con' Blend	300.00	EA	8.37	2,511.00 T
Calcium Chloride	846.00	EA	0.47	397.62 T
Celloflake	75.00	EA	1.67	125.25 T
Gypsum	1,295.00	EA	0.34	440.30 T
Salt	1,525.00	EA	0.23	350.75 T
C-15	156.00	EA	5.63	878.28 T
C-41P	65.00	EA	1.80	117.00 T
Gilsonite	1,375.00	EA	0.30	412.50 T
Super Flush II	500.00	EA	0.69	345.00 T
"Two Stage Cement Collar, 4 1/2" (Blue)	1.00	EA	2,590.00	2,590.00
"Auto Fill Float Shoe 4 1/2" (Blue)"	1.00	EA	247.50	247.50
"Turbolizer, 4 1/2" (Blue)"	16.00	EA	63.75	1,020.00
4 1/2 Canvas Basket (Gray)	1.00	EA	258.75	258.75
"Unit Mileage Chg (PU, cars one way)"	100.00	MI	2.03	203.00
Heavy Equipment Mileage	300.00	MI	3.38	1,014.00
"Proppant & Bulk Del. Chgs., per ton mil	2,705.00	EA	1.13	3,056.65
Blending & Mixing Service Charge	575.00	BAG	0.63	362.25
Plug Container Util. Chg.	1.00	EA	112.50	112.50
Additional Stage Charge	1.00	EA	972.00	972.00
Cement Data Acquisition Monitor	1.00	EA	247.50	247.50
Depth Charge; 5001-6000'	1.00	EA	1,296.00	1,296.00
"Service Supervisor, first 8 hrs on loc.	1.00	EA	78.75	78.75

PLEASE REMIT TO:	SEND OTHER CORRESPONDENCE TO:	SUB TOTAL	19,288.85
BASIC ENERGY SERVICES, LP	BASIC ENERGY SERVICES, LP	TAX	665.55
PO BOX 841903	801 CHERRY ST, STE 2100	INVOICE TOTAL	19,954.40
DALLAS, TX 75284-1903	FORT WORTH, TX 76102		



Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

Job Log

Customer:	Lario Oil & Gas	Cement Pump No.:	38199, 19570 Hrs.	Operator TRK No.:	78938
Address:		Ticket #:	1718 14428 L	Bulk TRK No.:	30464, 37724 Santiago Rene
City, State, Zip:		Job Type:	Z42 - Cement Production Casing		
Service District:	1718 - Liberal, Ks.	Well Type:	OIL		
Well Name and No.:	Lang 1-12	Well Location:	County:	Wichita	State: Ks

Type of Cmt	Sacks	Additives	Truck Loaded On		
AA2	225	5% W-60, 10% SALT, .6% C-15, 1/4# DEFOAMER, 5# GILSONITE	30464, 37724 Santiago		Front Back
"A-Con' Blend	300	3% CALCIUM CHLORIDE, 1/4# POLYFLAKE	14355, 37725 Rene		Front Back
AA2	50	5% w-60, 10% SALT, .6% C-15, 1/4# DEFOAMER, 5# GILSONITE	30464, 37724		Front Back
Lead/Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel
Lead:	14.8	1.51	6.64	339.75	TT Man Hours: 79
Tail:	11.4	2.95	18.1	885	# of Men on Job: 4

Time (am/pm)	(BPM)	Volume (BBLs)	Pumps		Pressure(PSI)		Description of Operation and Materials
			T	C	Tubing	Casing	
12:30							ON LOCATION & SAFETY MEETING
13:00							RIG UP & WAIT
3:00 PM							RUN FLOAT EQUIPMENT
6:30 PM							CIRCULATE HOLE
6:45 PM							RIG TO P.T.
18:55							PRESSURE TEST TO 3000PSI
18:57	3	11.9			250		PUMP 500GALLONS SUPER MUD FLUSH II
							PUMP 5BBL SPACER
19:06							PUMP 50SX RAT & MOUSE
19:13	6.5	60.5 slurry			250		PUMP 225SX AA2 @ 14.8# / STAGE 1
19:35							SHUTDOWN / W.P / DROP LATCH DOWN PLUG
19:40	7.4	10			80		DISPLACE 43.4BBL H2O
	7.3	20			90		
	7.3	30			90		
	6.5	43.4			90		DISPLACE W/ 36.8BBL MUD
	5.5	50			250		
	5.3	60			470		
	5.5	70			600		SLOW RATE TO 2.0BPM @ 550PSI
20:09	2	80.2			720		LAND PLUG PRESSURE UP TO 1500PSI
20:12							RELEASE BACK — FLOAT HELD
20:15							DROP OPENING TOOL
20:29							OPEN TOOL PRESSURE UP TO 1200PSI
20:30							RIG CIRCULATE HOLE

Size Hole	7 7/8"	Depth			TYPE	Plug Container	
Size & Wt. Csg.	4 1/2" 10.5#	Depth	5070'	New / Used	Packer	Depth	
Stage Collar	2315'	Depth			Retainer	Depth	
Top Plugs		Type			Perfs	CIBP	

Customer Signature: <i>[Signature]</i> AME 5-047	Basic Representative:	Daniel Beck
	Basic Signature:	<i>[Signature]</i>
	Date of Service:	5/15/2017



Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

IPRESSURE PUMPING Job Log

Customer:	Lario Oil & Gas	Cement Pump No.:	38199, 19570 Hrs.	Operator TRIC No.:	78938		
Address:		Ticket #:	1718 14428 L	Bulk TRIC No.:	30464, 37724 Santiago	14355, 37725 Rene	
City, State, Zip:		Job Type:	Z42 - Cement Production Casing				
Service District:	1718 Liberal Ks	Well Type:	OIL				
Well Name and No.:	Lang 1-12	Well Location:		County:	Wichita	State:	KS

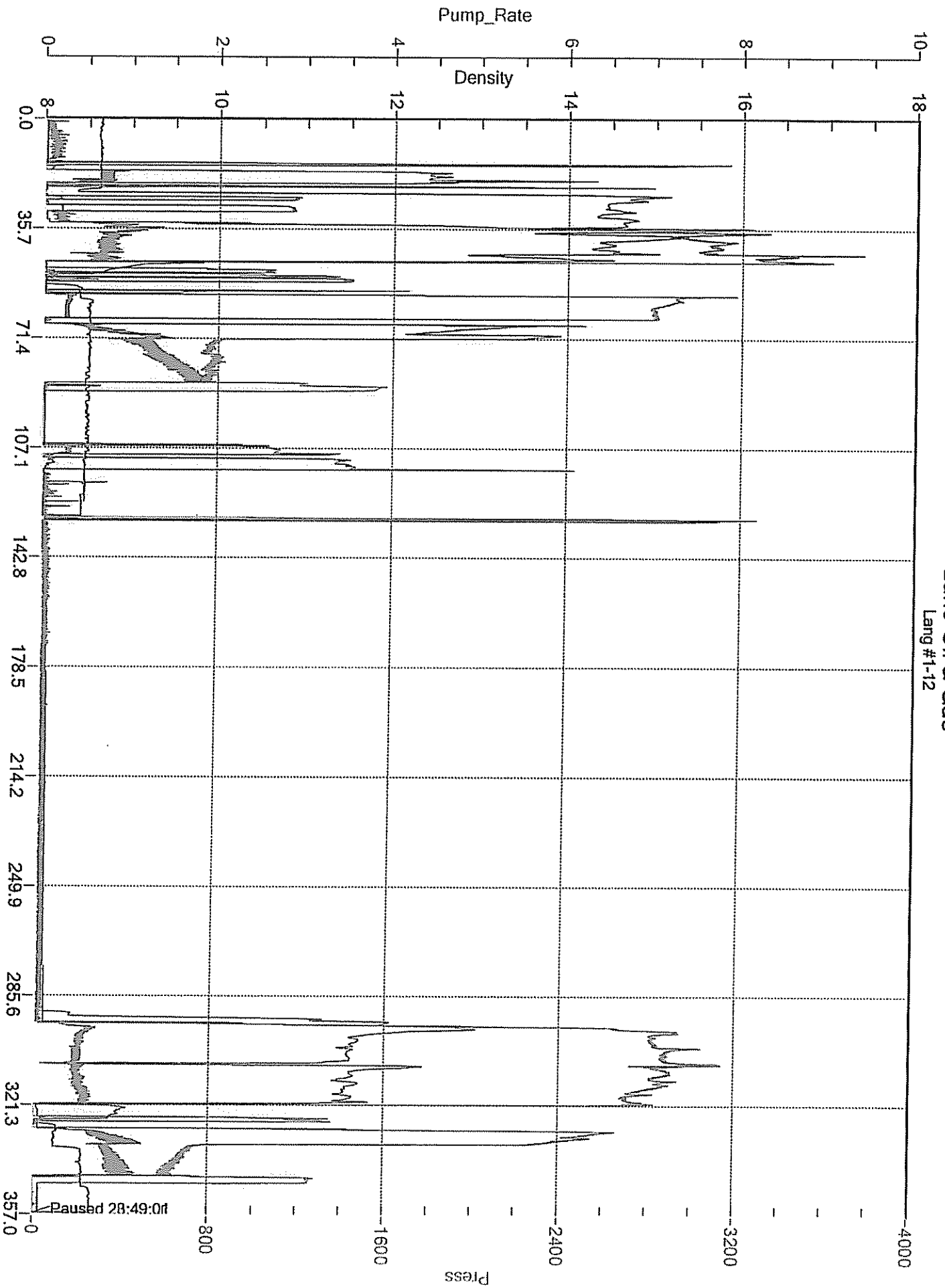
Type of Cmt	Sacks	Additives	Truck Loaded On		
AA2	225	5% W-60, 10% SALT, .6% C-15, 1/4# DEFOAMER, 5# GILSONITE	30464, 37724 Santiago		Front Back
"A-Con' Blend	300	3% CALCIUM CHLORIDE, 1/4# POLYFLAKE	14355, 37725 Rene		Front Back
AA2	50	5% w-60, 10% SALT, .6% C-15, 1/4# DEFOAMER, 5# GILSONITE	30464, 37724		Front Back
Lead/Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel
Lead:	14.8	1.51	6.64	339.75	TT Man Hours:
Tail:	11.4	2.95	18.1	885	# of Men on Job: 4

Time (am/pm)	(BPM)	Volume (BBLs)	Pumps		Pressure(Psi)		Description of Operation and Materials
			T	C	Tubing	Casing	
23:30							RIG TO P.T.
23:45	6.7	157.6 slurry				250	PUMP 300SX 'A-Con' Blend @ 11.4# / STAGE 2
11:05 PM							CEMENT RETURNS 142BBL INTO SLURRY
12:08 AM							SHUTDOWN / W.P. / DROP PLUG
12:15 AM	6.6	1				270	DISPLACE
	6.3	10				350	
	6.3	20				400	
	6	26				400	SLOW RATE TO 2BPM @ 320PSI
	1.6	30				380	
0:31:00	1.6	36.8				420	LAND PLUG / PRESSURE UP TO 1200PSI
0:33							RELEASE BACK -- FLOAT HELD
							JOB COMPLETE

Size Hole	7 7/8"	Depth			TYPE	Plug Container	
Size & Wt. Csg.	4 1/2" 10.5#	Depth	5070'	New / Used	Packer	Depth	
tbg.		Depth			Retainer	Depth	
Top Plugs	2315'	Type			Perfs	CIBP	

Customer Signature: *[Signature]* Basic Representative: Daniel Beck
 Basic Signature: *[Signature]*
 Date of Service: 5/15/2017

Lario Oil & Gas
Lang #1-12





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

Well Name: LANG # 1-12
Location: Sec 12 20s 35w, Wichita County, Kansas
License Number: 15-203-20316
Spud Date: April 27th 2017
Surface Coordinates: 1980' FNL & 2190' FWL
Region: Wildcat
Drilling Completed: May 13th 2017

Bottom Hole Coordinates:

Ground Elevation (ft): 3133' K.B. Elevation (ft): 3144'
Logged Interval (ft): 3500' To: 5100' Total Depth (ft): 5100'
Formation: Lansing, Marm, St. Louis
Type of Drilling Fluid: Natural chemical

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

OPERATOR

Company: Lario Oil & Gas co.
Address: 301 S. Market
Wichita, Kansas 67202
Co. Geo: John Hastings

GEOLOGIST

Name: Tim Hedrick
Company: Earth Tech OGI, Inc
Address: PO Box 683
Hooker, Okla. 73945
888-543-8378 cell: 580-754-0062



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Lario Oil And Gas Company

12-20-35w Wichita Co KS

301S. Market St.
Wichita KS
67202
ATTN: Tim Hedrick

Lang 1-12

Job Ticket: 63724

DST#: 1

Test Start: 2017.05.09 @ 03:20:15

GENERAL INFORMATION:

Formation: **I**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:54:15

Time Test Ended: 11:22:45

Test Type: Conventional Bottom Hole (Initial)

Tester: Mke Roberts

Unit No: 81

Interval: 4270.00 ft (KB) To 4310.00 ft (KB) (TVD)

Reference Elevations: 3132.00 ft (KB)

Total Depth: 4310.00 ft (KB) (TVD)

3122.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 6749

Outside

Press@RunDepth: 128.61 psig @ 4271.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.05.09

End Date:

2017.05.09

Last Calib.:

2017.05.09

Start Time: 03:20:15

End Time:

11:22:45

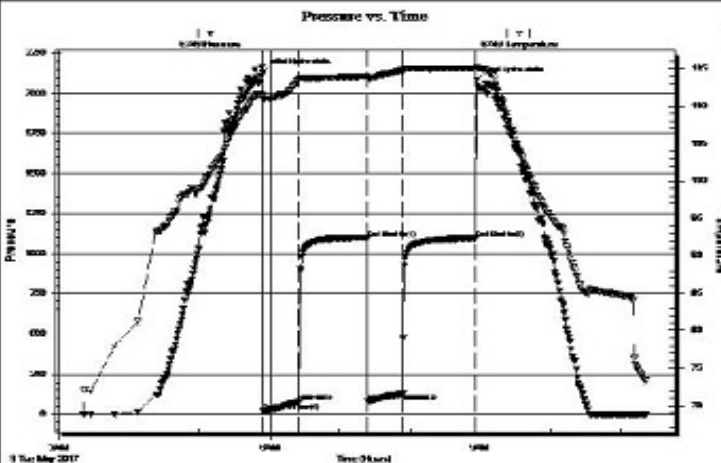
Time On Btm:

2017.05.09 @ 05:54:00

Time Off Btm:

2017.05.09 @ 08:57:15

TEST COMMENT: IF: Built to 1" blow
IS: No return blow
FF: Built to 1" blow
FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2129.34	111.63	Initial Hydro-static
1	17.53	110.99	Open To Flow (1)
32	78.72	113.57	Shut-In(1)
90	1096.22	113.97	End Shut-In(1)
90	80.71	113.58	Open To Flow (2)
120	128.61	114.79	Shut-In(2)
183	1095.36	115.07	End Shut-In(2)
184	2081.27	115.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	mud 100% m	0.61
120.00	mcw 50% m 50% w	0.68

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Lario Oil And Gas Company

12-20-35w Wichita Co KS

301S. Market St.
Wichita KS
67202
ATTN: Tim Hedrick

Lang 1-12

Job Ticket: 63725

DST#: 2

Test Start: 2017.05.10 @ 14:27:15

GENERAL INFORMATION:

Formation: **Marmaton B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:32:15

Time Test Ended: 22:16:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Mke Roberts

Unit No: 81

Interval: **4540.00 ft (KB) To 4572.00 ft (KB) (TVD)**

Total Depth: 4572.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3132.00 ft (KB)

3122.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6749

Outside

Press@RunDepth: 278.33 psig @ 4541.00 ft (KB)

Start Date: 2017.05.10 End Date:

Start Time: 14:27:15 End Time:

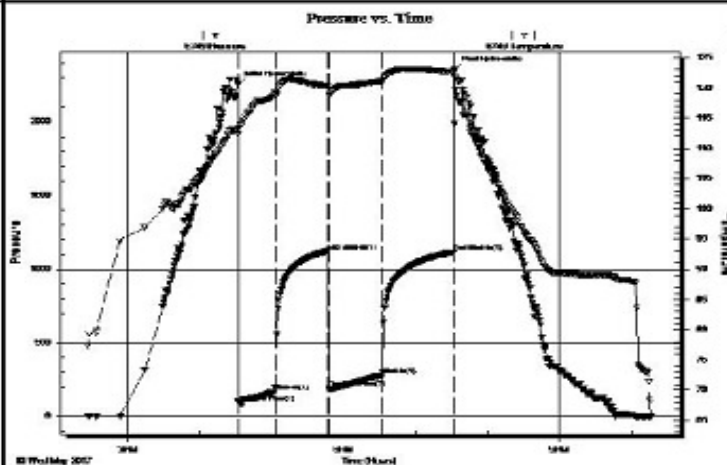
Capacity: 8000.00 psig

Last Calib.: 2017.05.10

Time On Btm: 2017.05.10 @ 16:32:00

Time Off Btm: 2017.05.10 @ 19:32:30

TEST COMMENT: IF:BOB in 4 min.
IS:Built to 8" blow and died to 6" blow
FF:BOB in 7 min.
FS:BOB in 12 min. died back to 6" blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2256.76	113.08	Initial Hydro-static
1	95.34	112.35	Open To Flow (1)
31	167.04	119.10	Shut-In(1)
75	1123.36	120.30	End Shut-In(1)
76	191.28	119.47	Open To Flow (2)
120	278.33	121.10	Shut-In(2)
180	1116.27	122.65	End Shut-In(2)
181	2358.33	122.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP= 1054	0.00
402.00	gco 40%g 60%o	3.51
234.00	gcmo 5%g 5%m 90%o	3.28

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Lario Oil And Gas Company

12-20-35w Wichita Co KS

301S. Market St.
Wichita KS
67202
ATTN: Tim Hedrick

Lang 1-12

Job Ticket: 63726

DST#: 3

Test Start: 2017.05.11 @ 10:02:15

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:24:00

Time Test Ended: 17:48:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Mke Roberts

Unit No: 81

Interval: **4594.00 ft (KB) To 4628.00 ft (KB) (TVD)**

Total Depth: 4628.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3132.00 ft (KB)

3122.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6749

Outside

Press@RunDepth: 124.50 psig @ 4595.00 ft (KB)

Start Date: 2017.05.11

End Date:

2017.05.11

Capacity: 8000.00 psig

Last Calib.: 2017.05.11

Start Time: 10:02:15

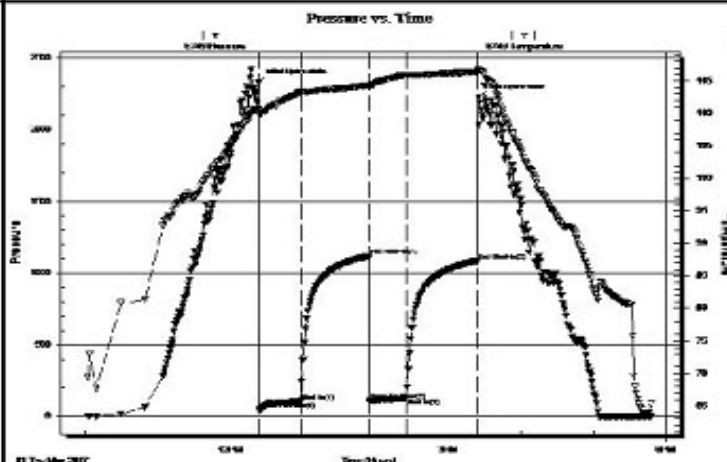
End Time:

17:48:15

Time On Btm: 2017.05.11 @ 12:23:45

Time Off Btm: 2017.05.11 @ 15:25:30

TEST COMMENT: IF: Built to 3' blow
IS: No return blow
FF: Built to weak surface blow
FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2335.10	110.59	Initial Hydro-static
1	43.64	109.94	Open To Flow (1)
35	100.32	113.27	Shut-In(1)
91	1117.99	114.28	End Shut-In(1)
92	107.20	114.02	Open To Flow (2)
122	124.50	115.92	Shut-In(2)
181	1084.94	116.43	End Shut-In(2)
182	2227.57	116.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	mud with oil spots 100% m	0.89

* Recovery from multiple tests

Gas Rates

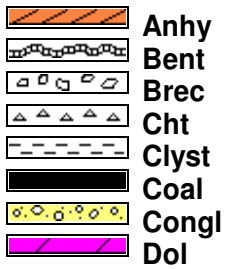
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Trilobite Testing, Inc

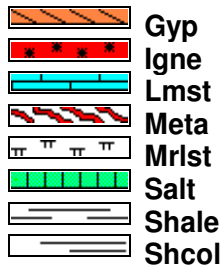
Ref. No: 63726

Printed: 2017.05.14 @ 23:57:06

ROCK TYPES



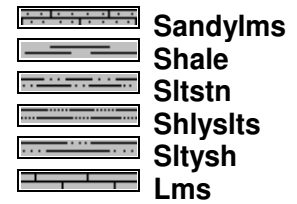
Anhy
Bent
Brec
Cht
Clyst
Coal
Congl
Dol



Gyp
Igne
Lmst
Meta
Mrlst
Salt
Shale
Shcol



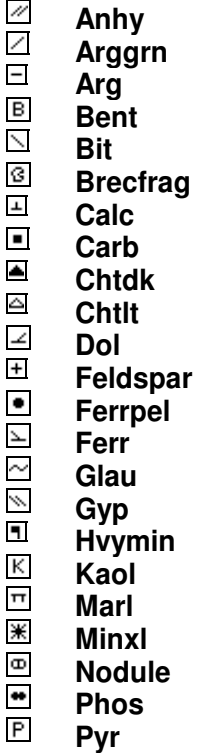
Shgy
Sltst
Ss
Till
Carb sh
Dol
Dtd
Gry sh



Sandylms
Shale
Sltstn
Shlyslts
Sitysh
Lms

ACCESSORIES

MINERAL

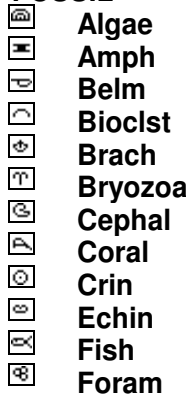


Anhy
Arggrn
Arg
Bent
Bit
Brecfrag
Calc
Carb
Chtdk
Chtlt
Dol
Feldspar
Ferrpel
Ferr
Glau
Gyp
Hvymin
Kaol
Marl
Minxl
Nodule
Phos
Pyr

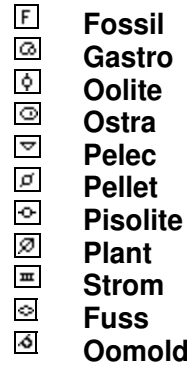


Salt
Sandy
Silt
Sil
Sulphur
Tuff
Chlorite
Dol
Sand
Sity

FOSSIL

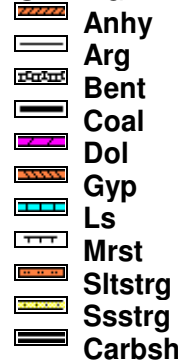


Algae
Amph
Belm
Bioclst
Brach
Bryozoa
Cephal
Coral
Crin
Echin
Fish
Foram



Fossil
Gastro
Oolite
Ostra
Pelec
Pellet
Pisolite
Plant
Strom
Fuss
Oomold

STRINGER

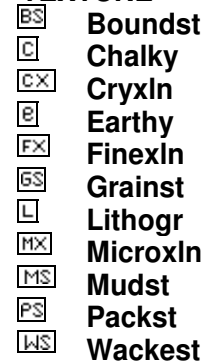


Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Sltstrg
Ssstrg
Carbsh



Clystn
Dol
Grysh
Gryslt
Lms
Sandylms
Sh
Sltstn

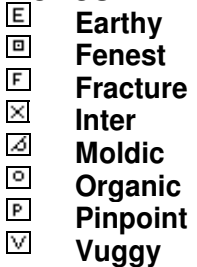
TEXTURE



Boundst
Chalky
Cryxln
Earthy
Finexln
Grainst
Lithogr
Microxln
Mudst
Packst
Wackest

OTHER SYMBOLS

POROSITY TYPE



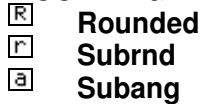
Earthy
Fenest
Fracture
Inter
Moldic
Organic
Pinpoint
Vuggy

SORTING



Well
Moderate
Poor

ROUNDING

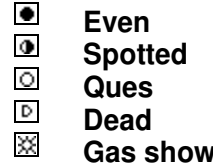


Rounded
Subrnd
Subang



Angular

OIL SHOWS



Even
Spotted
Ques
Dead
Gas show

INTERVALS

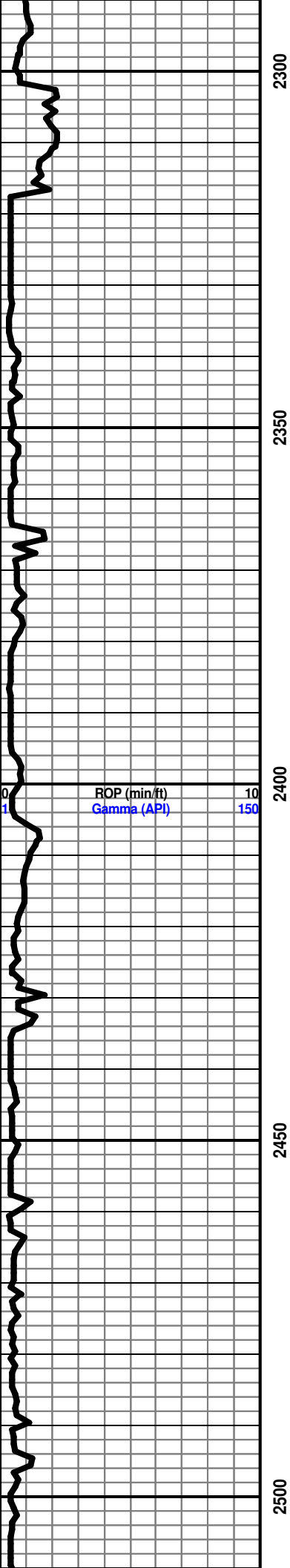


Core
Dst
Dst

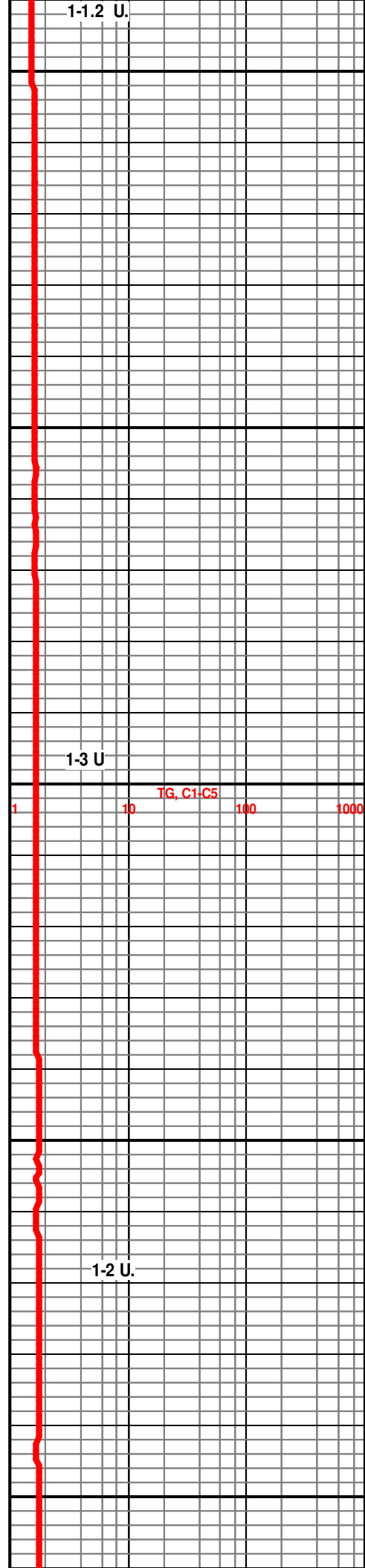
EVENTS



Rft
Sidewall



BASE ANHYDRITE 2317' (+827')

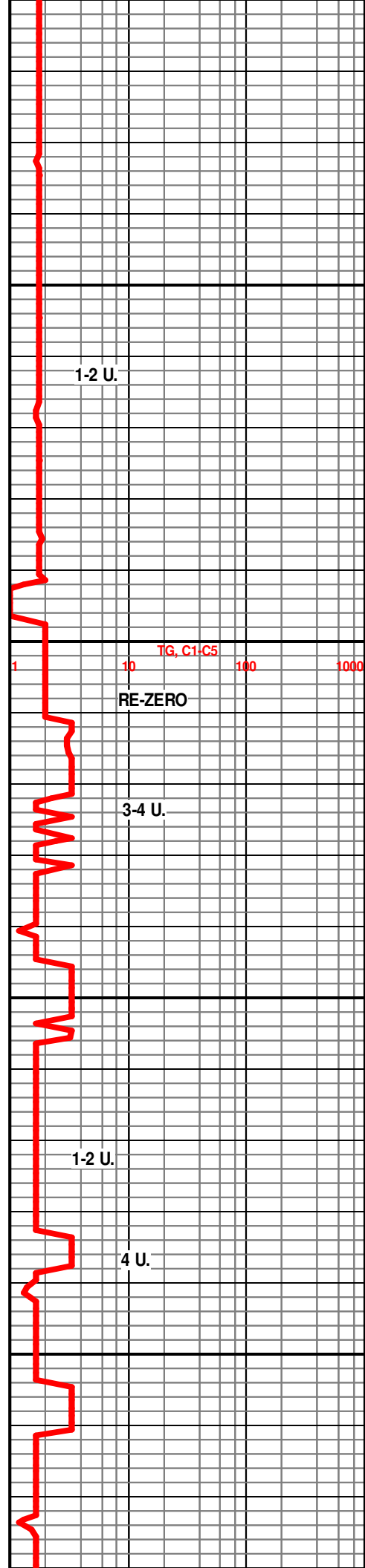
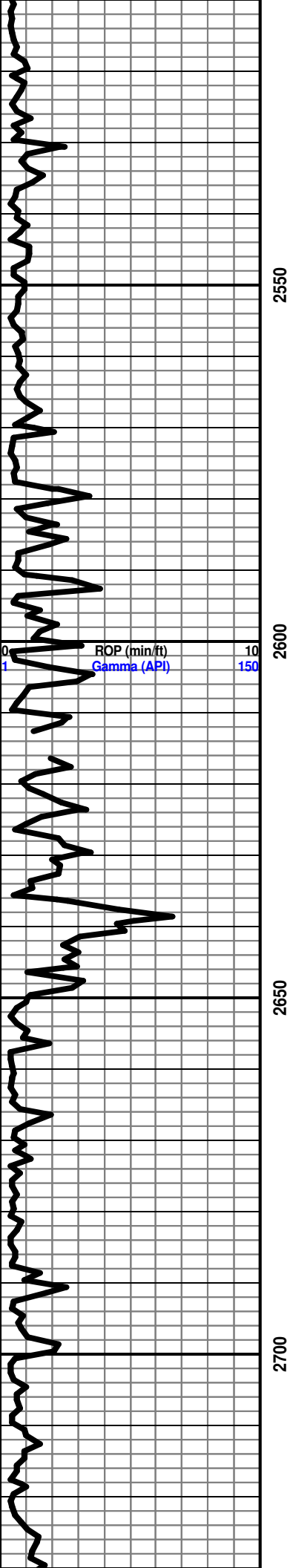


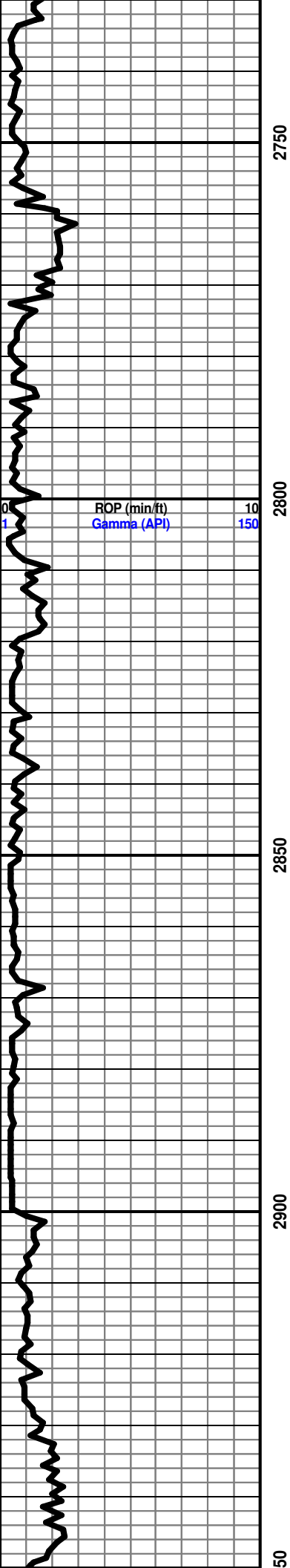
1-1.2 U.

1-3 U

1-2 U.

TG, C1-C5





2750

2800

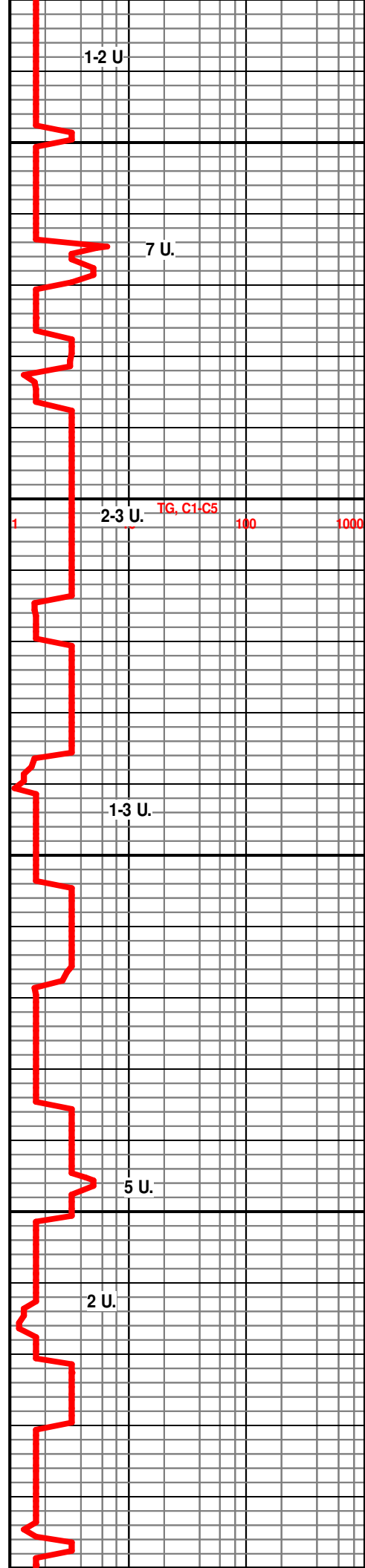
2850

2900

2950

ROP (min/ft)
Gamma (API)

10
150



1-2 U.

7 U.

2-3 U.

TG, C1-C5

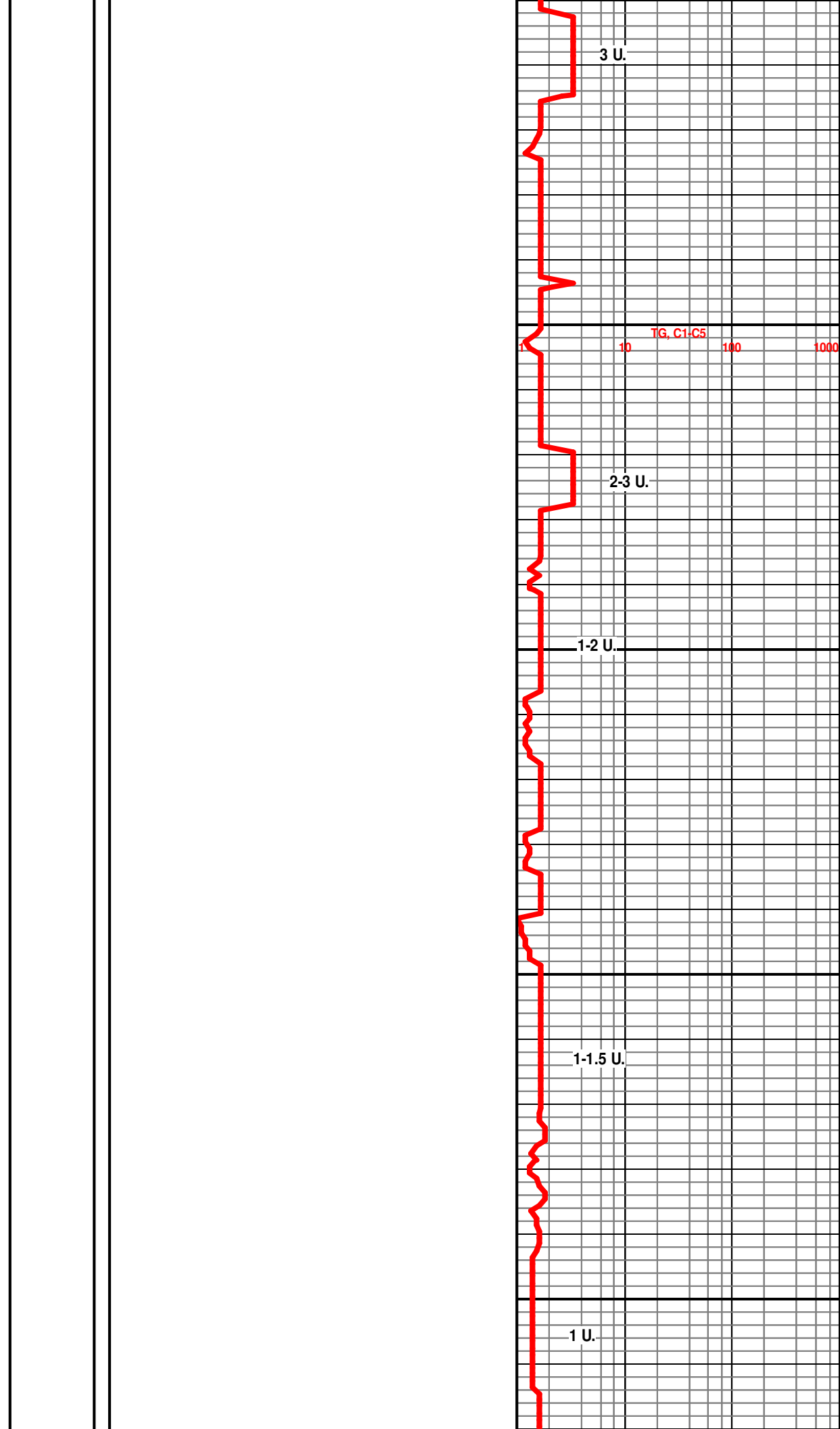
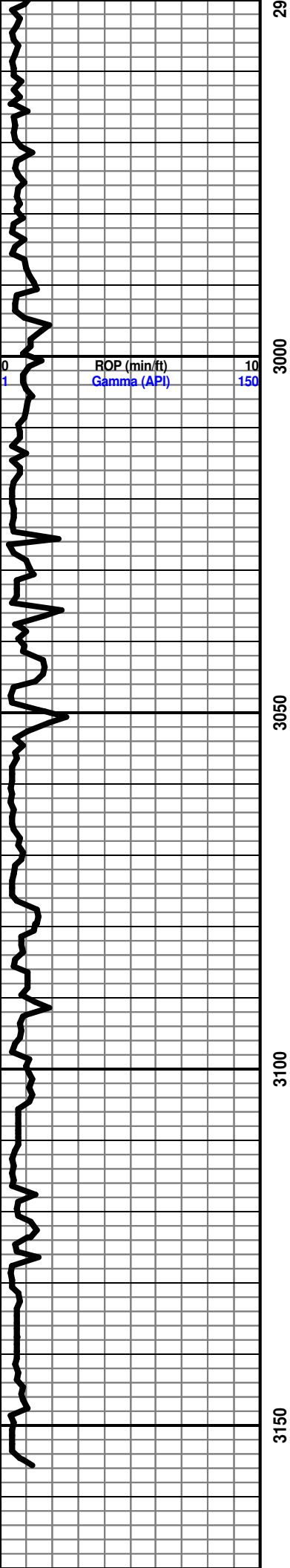
100

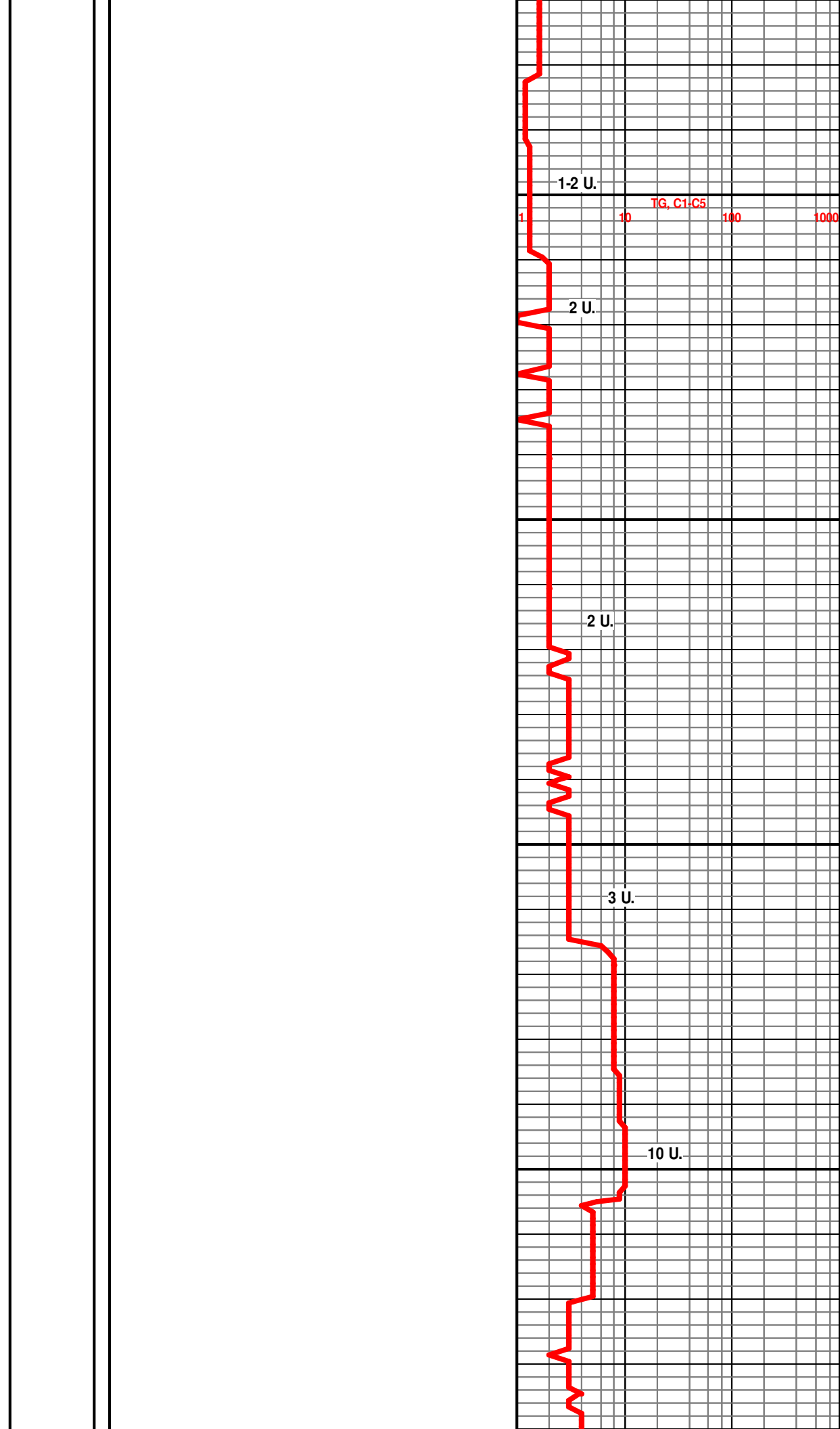
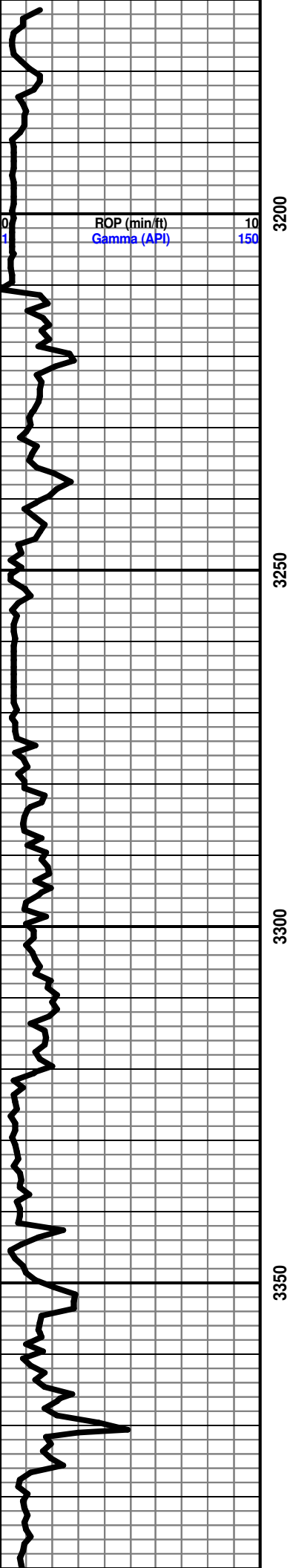
1000

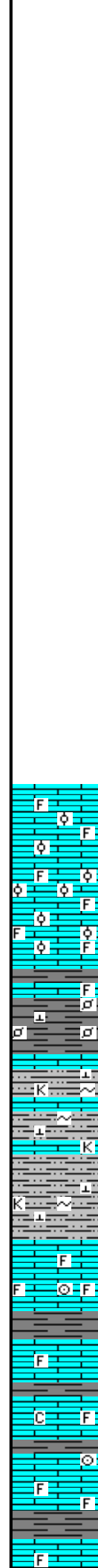
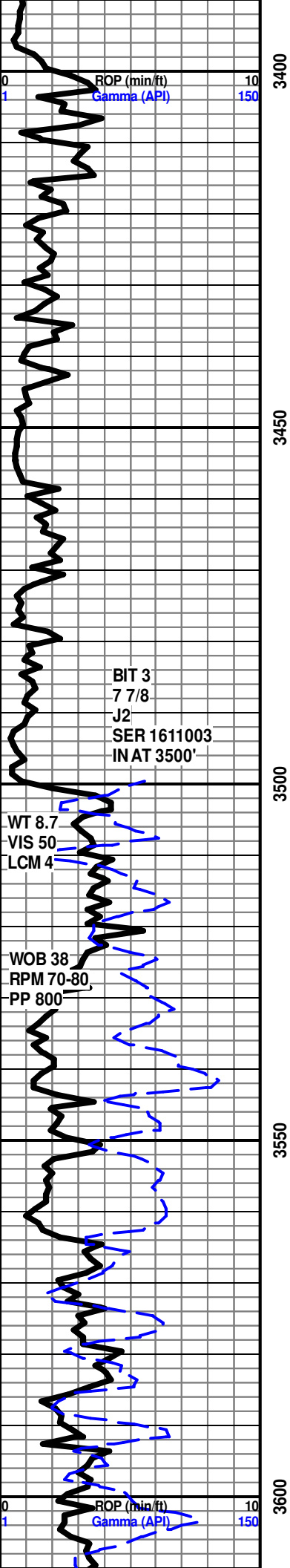
1-3 U.

5 U.

2 U.







3400

3450

3500

3550

3600

BIT 3
7 7/8
J2
SER 1611003
IN AT 3500'

WT 8.7
VIS 50
LCM 4

WOB 38
RPM 70-80
PP 800

LS- CRM LT TN TN- HD DNS- MD-F-XLN, V/ RE-XLN MTRX, ABDT IMBD FOSS FRGS THRU, SCAT IMBD MD V/TT OOL, TR SMLL CALC XLS IP, V/V/ DLL YEL MIN FLO THRU, NO VIS POR, NO VIS SHOW OR CUT

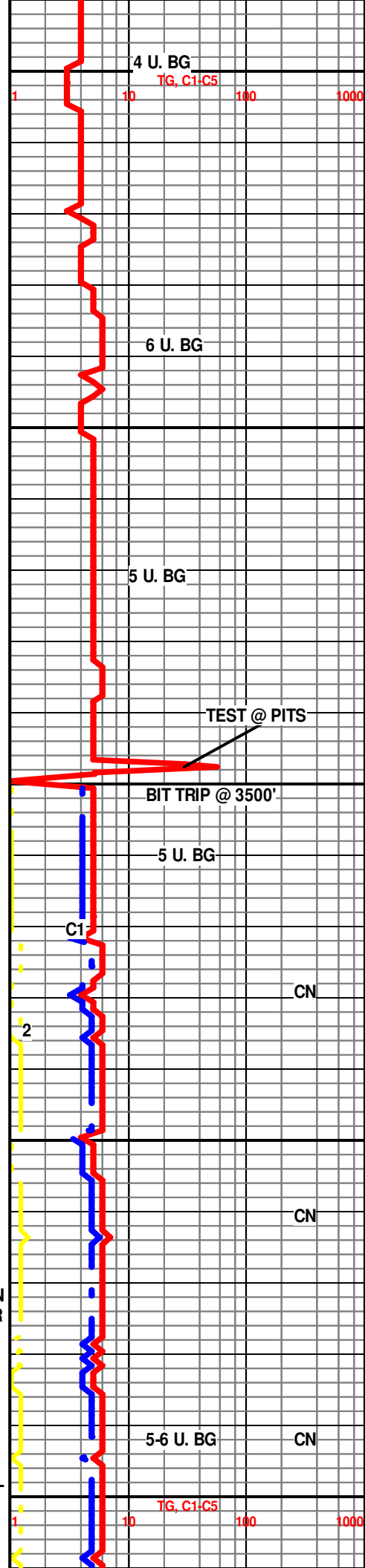
SH- LT TO MED GRY- FRM BLKY SMTH TO SLI GRNY TXT IP, SLI CALC IP, TR PELT

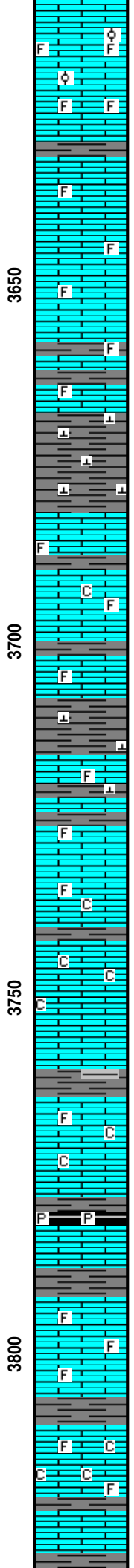
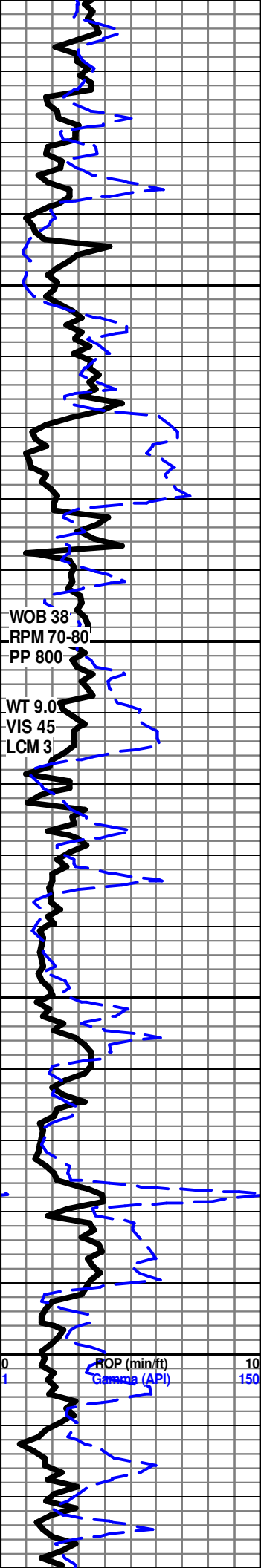
SILTST- LT GY LT GREEN TAN IP, HD TT TO V/ FRI IP, V/V/FN -GRN QURTZ GRNS ANG S-ANG, ABDT LMNTD AND DISS SH THRU, SLI CALC IP, ABDT SCAT IMBD GLAUC & OR KAOL, MICRO MICA IP, NO FLO, SLI TR V/ PR INTER-GRN POR IP, NO VIS CUT OR SHOW

STOTLER 3562' (-418')

LS-CRM BFF- HD DNS TO SLI BRITT IP, MD-F-XLN, RE-XLN MTRX, ABDT IMBD REWORKED FOSS FRGS THRU, SLI TR CRIN STEMS, SLI TR IMBD LRG CALC XLS IP, V/V/DLL YELMIN FLO IP TO NO FLO, NO VIS POR, NO VIS SHOW OR CUT

LS- OFF WHT CRM BFF- HD DNS TO BRITT IP, SLI TR SFT IP, MD-XLN RE-XLN MTRX IMBD FOSS FRGS SCAT THRU, TR CRIN STEMS, HVY TR IMBD SFT WHT CHLK IP, V/V/DLL YEL FLO IP, NO VIS POR, NO VIS SHOW OR CUT





LS- CRM LT TN TN- HD DNS TO BRITT IP, MD-XLN V/
RE-XLN MTRX, ABTD IMBD FOSS FRGS THRU, SCAT
SMLL TO MD CALC XLS IMBD THRU, SLI TR MICRO OOL
IP, NO FLO TO SLI TR V/V/DLL YEL MIN FLO IP, NO VIS
POR, NO VIS SHOW OR CUT

LS- CRM BFF- HD DNS TO SLI TR BRITT, F-XLN TR MD-XLN
IP, RE-XLN MTRX IMBD FOSS FRGS SCAT IP, LT BRIT YEL
MIN FLO THRU, NO VIS POR, NO VIS SHOW OR CUT

LS- CRM GY DK GY- HD DNS MOTT, F TO MED XLN IP,
ABTD IMBD V/ DK GY SH THRU, TR FOSS FRGS SCAT IP,
NO FLO, NO VIS POR, NO VIS SHOW OR CUT

SH- GY DK GY- FRM BLKY V/ GRNY TXT V/ CALC SCAT
THRU

LS- OFF WHT CRM LT GY IP HD DNS IP TO SFT IP, F-XLN
TO SUCRO SLI TR S-CHLKY IP, TR SCAT IMBD FOSS
FRGS, SLI TR IMBD LT GY SH IP, V/ DLL YEL MIN FLO IP,
NO VIS POR, NO VIS SHOW OR CUT

SH- GY DK GY-FRM BLKY GRNY TXT , V/ CALC TO LMY IP,
TR FOSS FRGS IP

LS- OFF WHT CRM BFF- HD DNS IP TO V/ SFT, V/ TT
SUCRO MTRX GRDNG TO SUCRO S-CHLKY TO CHLKY IP,
SLI TR FOSS FRGS IP, V/ DLL YEL MIN FLO IP, NO
VISPOR, NO VIS SHOW OR CUT

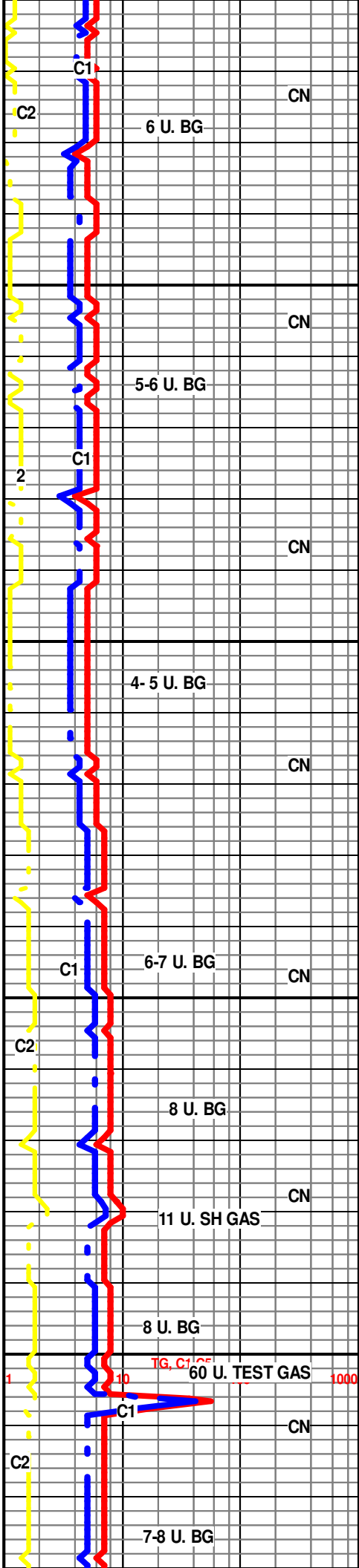
LS- CRM LT TN - HD BRITT IP TO SFT, V/ SUCRO MTRX TO
SUCRO S-CHLKY, TR IMBD FOSS FRGS IP, HVY TR IMBD
LRG PBBLE SIZED CALC XLS IP, DLL YEL MIN FLO IP, PR
VIS MICRO PP POR IP, NO VIS SHOW OR CUT

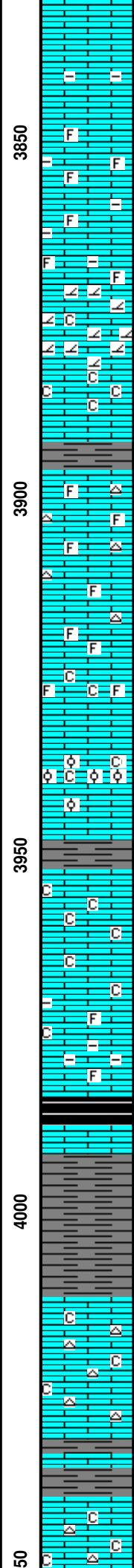
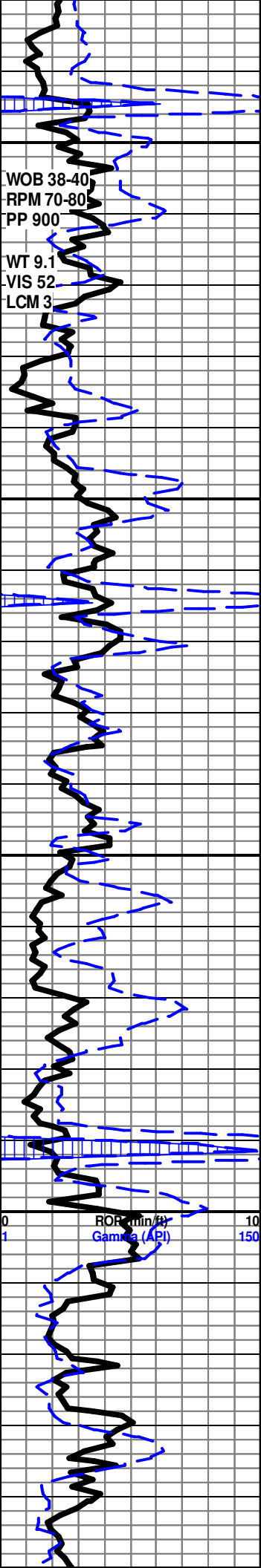
SH- BLK SFT CARB W/ ABTD IMBD DISS PYR THRU

TOPEKA 3792' (-648')

LS- CRM LT TN TN- HD DNS TO BRITT, MD-XLN RE-XLN
MTRX, ABTD IMBD FOSS & FOSS FRGS SCAT THRU, SLI
TR SMLL CALC XLS IP, V/DLL YEL MIN FLO IP, NO VIS
POR, NO VIS SHOW OR CUT

LS- WHT OFF WHT CRM- HD BRITT TO SFT IP, V/ SUCRO
MTRX TO SUCRO S-CHLKY, HVY TR FREE SFT WHT CHLK
IP, TR IMBD FOSS FRGS IP, V/ LT YEL MIN FLO IP, NO VIS
POR, NO VIS SHOW OR CUT





LS- OFF WHT LT GY IP- HD BRITT IP TO V/ SFT, SUCRO S-CHLKY TO CHLKY MTRX, SLI TR IMBD SH IP, NO FLO, NO VIS POR, NO VIS SHOW OR CUT

CN

LS- CRM LT TN - HD V/ BRITT , MD-XLN IP TO V/ TT SUCRO MTRX, SCAT IMBD FOSS FRGS IP, SLI TR IMBD LT GY SH IP, LT YEL MIN FLO IP, PR VIS MICRO PP POR IP. NO VIS SHOW OR CUT

C2

C1

9U. BG

LS- CRM BFF- HD DNS TO SLI TR BRITT IP, V/V/TT SUCRO MTRX, V/ DOLO IP, GRDNG TO ABDT SFT WHT CHLK AND FREE SFT CHLK, LT YEL MIN FLO IP, V/ PR MICRO PP POR IP, NO VIS SHOW OR CUT

CN

10U. BG

SH- LT TO MED GY- FRM BLKY GRNY TXT, CALC IP

LS- LT TN TN - HD DNS V/ SLI TR BRITT, V/ TT SUCRO MTRX TO F-XLN IP, RE-XLN IMBF FOSS FRGS SCAT IP, WHT TN RE-WORKED CHRT, NO FLO NO VIS POR, NO VIS SHOW OR CUT

8 U. BG

CN

LS- LT TN TN TO OFF WHT IP, HD V/ BRITT MD-XLN TO SUCRO IP RE-XLN, IMBD FOSS FRGS SCAT THRU, GRDNG TO ABDT SFT WHT CHLK IP, LT BRIT YEL MIN FLO IP, PR SCAT MICRO PP TO TR MICRO V UG POR IP, NO VIS SHOW OR CUT

CN

8-9 U. BG

LS- CRM LT TN TN - HD DNS IP TO BRITT, MD-XLN RE-XLN MTRX, V/ MICRO OOL, SCAT FOSS FRGS IP, S-CHLKY IP, SLI TR CALC XLS IMBD IP, NO FLO, TR V/ PR INTER-XLN POR IP, NO VIS SHOW OR CUT

LS- CRM LT TN TN- HD IP TO V/ SFT, V/ SUCRO S-CHLKY MTRX , GRDNG TO ABDT SFT LT BRN CHLK THRU. NO FLO, NO VIS POR, NO VIS SHOW OR CUT

LS- TN BRN GY IP, HD DNS MOTT, V/ TT SUCRO MTRX TO MD XLN IP, SCAT IMBD FOSS FRGS IP, TR V/ FRM WHT CHLK, TR IMBD DK GY SH IP, SLI TR CALC XLS IP, NO FLO, NO VIS POR, NO VIS SHOW OR CUT

C1

CN

C2

HEEBNER 3984' (-840')

SH-BLK SFT CARB

11 U. SH GAS

SH-LT GRAY TO LT GREEN- FRM BLK SMTH TXT

CN

TORONTO 4012' (-868')

LS- OFF WHT CRM BFF- HD DNS IP TO BRIT, V/SUCRO TO SUCRO S-CHLKY W/ ABDT IMBD OFF WHT LT TN CHRT THRU, TR FREE SFT WHT CHLK, V/ LT YEL MIN FLO, PR VIS MICRO PP POR IP, NO VIS SHOW OR CUT

10 U. BG

CN

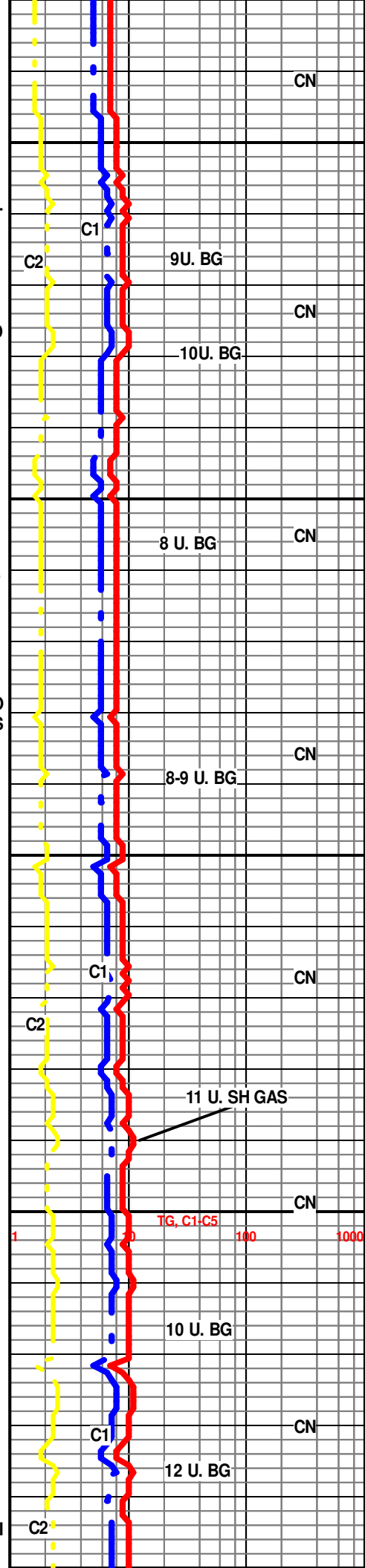
C1

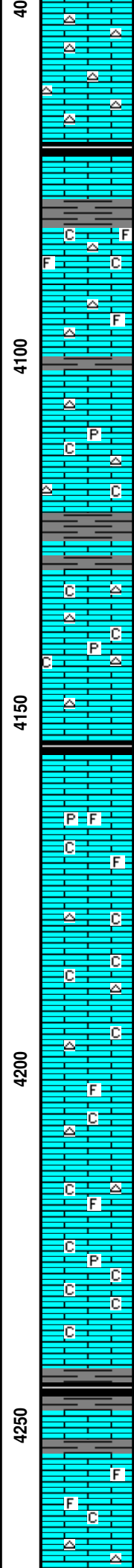
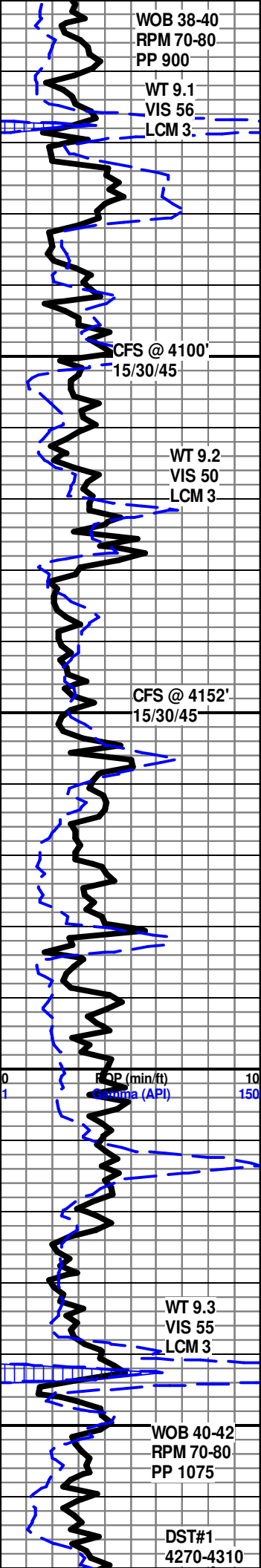
LANSING 4040 (-896')

12 U. BG

C2

LS- CRM BFF- HD V/ BRITT, V/ SUCRO S-CHLKY MTRX, SLI TR MD XLN IP ABDT WHT CHRT, SLI TR SMLL CALC XLS IP, LT BRIT YEL MIN FLO SCAT THRU, NO VIS POR, NO





IP, LT BRIT YEL MIN FLO SCAT THRU, NO VIS POR, NO VIS SHOW OR CUT

LS- CRM LT TN- HS SNA SLI TR BRITT, F-VF-XLN , TR FOSS FRGS IMBD IP, V/ S-CHLKY IP, ABDT WHT TO DK GY CHRT, LT BRIT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

SH- DK GY - FRM BLKY TO BLK SFT CARB

LANSING "B" 4081' (-937')

LS- OFF WHT CRM LT TN IP- HD BRITT , MD-XLN TO SUCRO IP, TR IMBD SFT WHT CHLK IP, SCAT IMBD FOSS FRGS IP, MED CALC XLS IMBD IP, DLL YEL MIN FLO SCAT IP, PR TO TR FR INTER-XLN POR IP, NOVIS SHOW OR CUT

LS- CRM LT TN OFF WHT- HD DNS TO BRITT IP, F-XLN TO MD-XLN IP, SLI TR S-CHLKY IP, TR FREE SFT WHT CHLK, WHT LT N CHRT IMBD IP, SMLL CALC XLS IMBD IP,SLI TR DISS PYR IP, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW OR CUT

LANSING "D" 4131' (-987')

LS- WHT OFF WHT CRM- HD DNS IP TO BRITT, F-XLN GRDNG TO SFT WHT CHLKY MTRX, ABDT IMBD WHT CHRT W/ TR IMBD DISS PYR IP, LT BRIT YELMIN FLO SCAT THRU, TR PR INTER-XLN POR IP TO NO POR, NO VIS SHOW OR CUT

SH- BLK SFT CARB V/ CALC IP

LS- OFF WHT CRM BFF- HD DNS V/F-CRYPTO-XLN TO V/ TT SUCRO IP, RE-XLN, HVY TR SMLL TO MD CALC XLS IMBD IP, TR FOSS FRGS IP,SLI TR DISS PYR IP, LT BRIT YEL MIN FLO IP, TRPR SCAT MICRO VUG POR IN ONE ROCK, NO VIS CUT OR SHOW

LS- OFF WHT CR M BFF- F-XLN TO SUCRO IP TO FRM CRM TO WHT CHLK IP TO ABDT SFT WHT CHLK IP, HVY TR SCAT WHT TN CHRT, LT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

LS- OFF WHT CRM LT TN- HD DNS TO TR BRITT IP, V/F-CRYPTO-XLN, SUCRO IP TO FRM WHT CRM CHLK IP, TR SMLL CALC XLS IP, SLI TR FOSS FRGS IP, TR WHT CHRT, LT BRIT YEL MIN FLO IN 60%, NO VIS POR, NO VIS SHOW OR CUT

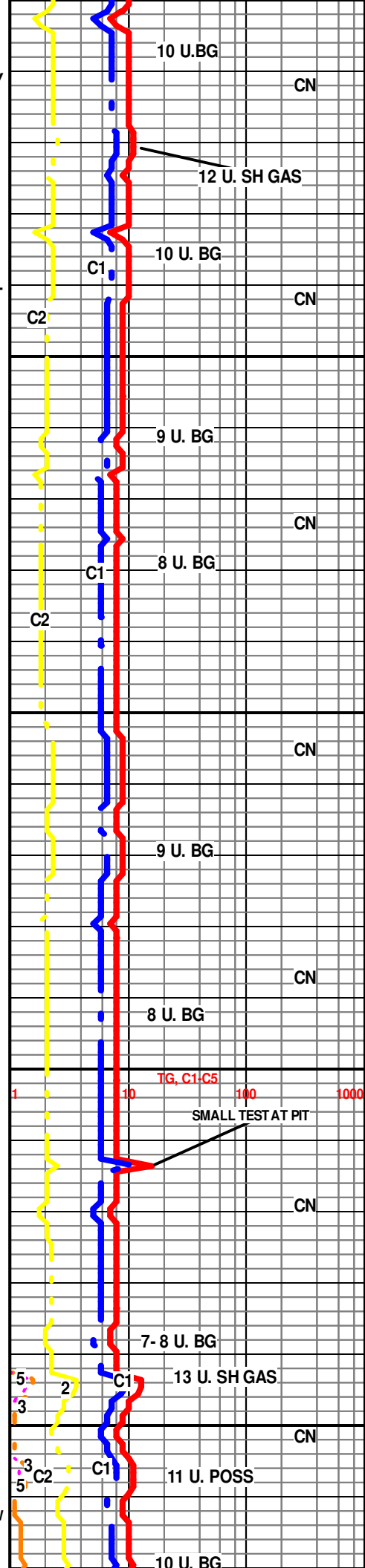
LS- OFF WHT CRM - HD TO FRM IP, V/ SUCRO TO SUCRO S-CHLKY MTRX W/ ABDT CRM V/ FRM CHLK THRU, TR DISS PYR IP, LT BRIT YEL MIN FLO IP, NO VIS POR, NO VIS CUT OR SHOW

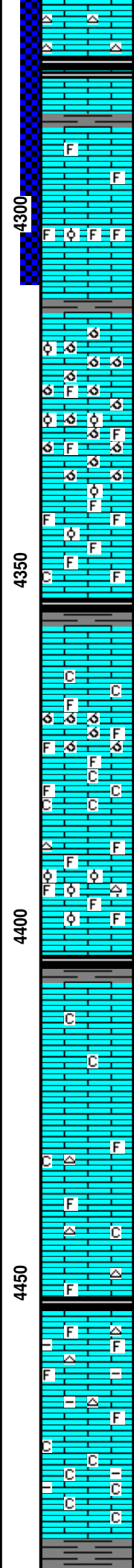
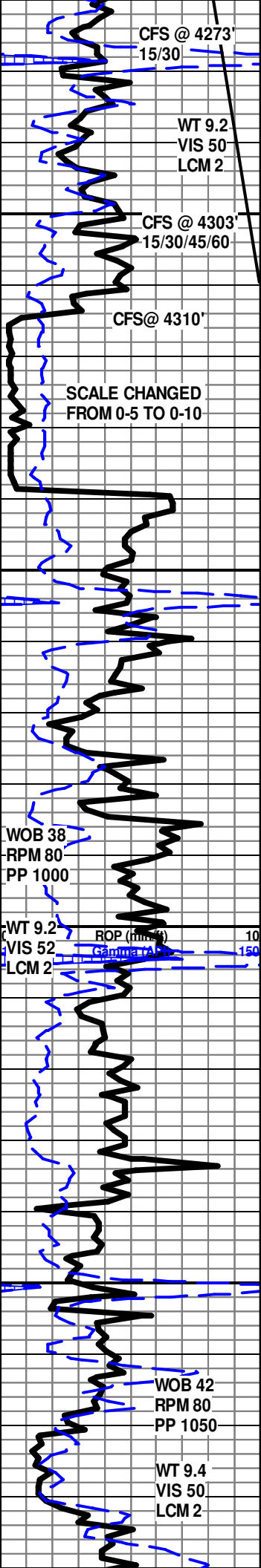
MUNCIE CRK 4243' (-1099')

SH- BLK SFT CARB W/ V/ FN DIS PYR THRU

LANSING "H" 4254' (-1110')

LS- OFF WHT CRM LT TN- HD DNS TO BRITT, MD-F-XLN, RE-XLN MTRX, IMBD FOSS FRGS IP, IMBD SMLL ANG LM GRNS IP, SLI TR CHLKY FOSS FRGS IP, TR SMLL CALC XLS IMBD IP, LT BRIT YEL GLD FLO IN 2%, BRIT YEL FLO IN 40%, V/ PR VIS INTER-XLN POR IN 2-3%, NO VIS CUT OR SHOW





LS CRM LT TN - HD DNS V/ SLI TR BRIT I, MD-XLN TO V-F-XLN IP, RE-XLN IP, IMBD FOSS FRGS IP ABDT WHT TN CHRT IMBD, LT BRIT YEL MIN FLO SCATT THRU, NO VIS POR, NO VIS SHOW OR CUT

LANSING "I" 4288' (-1144')

4291-4298' LS- OFF WHT CRM TN DK TN (DUE TO LV OIL STN IN 30%) HD DNS TO BRITT, MD-XLN TO CRS SUCRO MTRX IP, IMBD ANG LM GRNS SCAT THRU, ABDT IMBD SMLL TO MD CALC XLS W/ LV OIL STN, SCAT FOSS FRGS IP, SLI S-CHLKY IP BRIT YEL GLD FLO IN 10-20%, DLL YEL FLO IN 30%. PR TO FR VIS INTER-XLN POR IN 20% W/ CALC XLS, PR TR FR MICRO VUG POR IN 10%. TR PR INTER-FOSS POR IN 2%, EXCEL INST FLSH CUT THRU, EXCEL SLO STRM CUT IN 80%, FR TO GD OIL ODOR, LT TN LCH ON DISH, LT OIL SHEEN ON ROCKS IN TRAY

LANSING "J" 4314' (-1170')

4301-4303' LS- CRM LT TN LT BRN DUE TO VRGTD TN OIL STN SCAT THRU, HD DNS, V/ SLI TR BRITT, MD-XLN, V/ RE-XLN MTRX, ABDT IMBD FOSS FRGS THRU. SCAT SMLL OOL IP, SCAT V/ SMLL CALC XLS IMBD IP W/ OIL STN, SCAT BRIT YEL GLD FLO IN 10%, DLL LT YEL FLO IN 20%, V/ PR VIS INTER-XLN POR IN 10%, V/ GD INST FLSH CUT IN 10%, FR SLO STRM CUT IN 30%, GD OIL ODOR, BRN LCH ON DISH

4314-4339' LS- CRM BFF, HD BRITT, MD-XLN, V/ RE-XLN MTRX, V/ MD OOLCAST W/ ABDT SCAT SMLL TO MD OOL, SCAT IMBD FOSS FRGS THRU, SMLL CALC XLS IMBD THRU, BRIT YEL FLO THRU, EXCEL OOLCST TO MICRO VUG POR THRU, NO VIS SHOW OR CUT, STRNG SLPHR ODOR,

4340- 4354' LS CRM LT TN LT GY- HD DNS MD-F-XLN, RE-XLN MTRX ABDT IMBD FOSS FRGS SCAT THRU, TR IMBD LT GY SH IP, TR SFT CHLK IP, SCAT LT YEL MIN FLO, NO VIS POR, NO SHOW

STARK 4355' (-1211')

LANSING "K" 4359' (-1215')

LS- OFF WHT CRM BFF- HD V/BRITT, MD-F-XLN, V/ RE-XLN MTRX, V/ OOLCAST TO MICRO VUG, ABDT IMBD FOSS FRGS, SLI TI V/ S-CHLKY IP GRDNG TO ABDT FRM WHT CHLK, LT BRI T SCAT YEL FLO THRU, V/ GD MICRO VUG TO MD OOLCAST POR THRU, NO VIS SHOW OR CUT

LS- CRM LT TN TN - HD DNS, MD-F-XLN, V/ RE-XLN MTRX, ABDT IMBD MICRO OOL, ABDT IMBD FOSS FRGS, TR LRG IMBD CRIN STEMS, TR WHT TN CHRT, TR SMLL VRGTD CALC XLS IMBD IP, LT BRIT YEL FLO THRU, SLI TR PR INTER-XLN POR, NO VIS CUT OR SHOW

HUSHPUCKNEY 4404' (-1260')

LANSING "L" 4408' (-1264')

LS- OFF WHT CRM- HD DNS SLI TR BRITT, F-V/F-XLN TO SUCRO S-CHLKY IP, TR CALC XLS CLSTRS IP, LT BRIT YEL MIN FLO SCAT THRU, NO VIS POR, NO VIS SHOW OR CUT

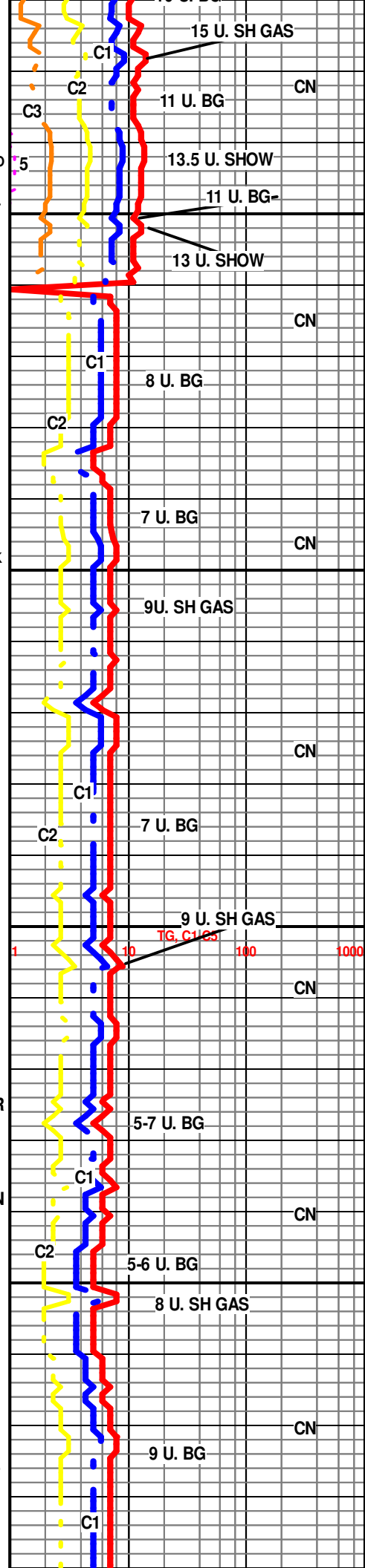
LS- OFF WHT CRM LT TN IP, HD DNS F-V/F-XLN TR RE-XLN IP, V/ TT SUCRO S-CHLKY IP, HVY TR TN WHT CHRT, SLI TR FOSS FRGS IP, LT BRIT YEL MIN FLO THRU, NO VIS POR, NO VIS SHOW OR CUT

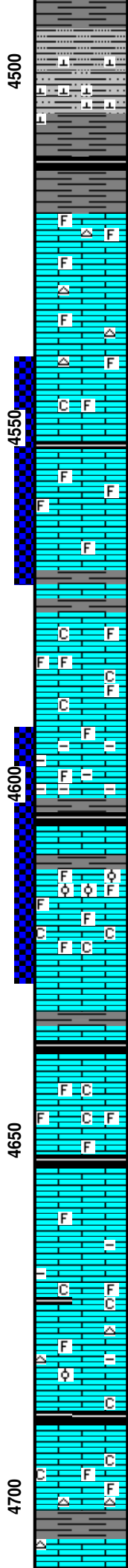
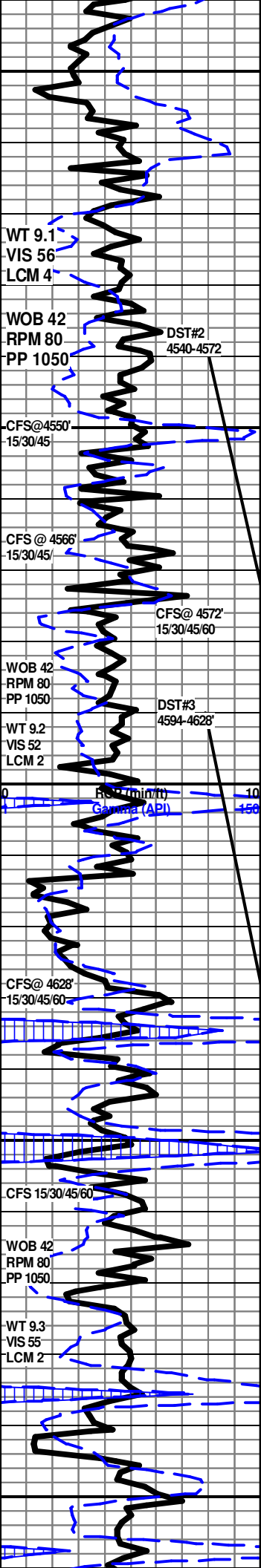
SH- BLK SFT CARB

LS- CRM TN LT GY- HD DNS V/F-CRYPTO-XLN, SLI MOTT, ABDT IMBD FOSS FRGS, IMBD TN WHT CHRT, TR IMBD DISS DK GY SH IP, SCAT LT BRIT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW

LS- OFF WHT CRM - FRM, ABDT FRM WHT CHLK TO FREE SFT WHT CHLK, SLI TR IMBD DISS GY SH, LT YEL MIN FLO IP, NO VIS POR, NO VIS HOW

BKC 4486' (- 1342')





SH- GREEN RED GY- FRM BLKY SMTH TXT MOTT

SH- LT GREEN LT BRN - FRM BLKY , V/ GRAINY TXT, MIBD V/V/FN GRN QURTZ & IMBD V/F LM GRNS IP

MARMATON 4521' (-1377')

LS- LT TN DK TN - HD DNS TO BRITT, MD-F-XLN V/ RE-XLN MTRX, SCAT IMBD FOSS FRGS IP, SMLL MD CALC XLS IMBD THRU & ON ONE FACES OF ROCK, TR FREE MD CALC XLS, TR WHT TN CHRT , DLL LT YEL FLO SCAT THRU, TR PR INTER-CLN POR IP, NO VIS SHOW OR CUT

LS- CRM BFF- LT TN- HD DNS IP TOBRITT, MD-F-XLN TO SLI SUCRO S-CHLKY IP , SLI TR IMBD SFT WHT CHLK IP, SCAT TR SMLL FOSS FRGS IP, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

MARMATON 'B' 4553' (-1409')

SH- BLK SFT CARB

4555'-4562' LS- CRM LT TN TN TN (DUR TO LT OIL STN IN 40%) HD DNS IP TO V/ BRITT, F-MD-XLN RE-XLN MTRX, IMBD ANG LM GRNS IP SCAT FOSS FRGS IP, ABDT SCAT IMBD MD TO TR FREE LRG CALC XLS W/ OIL STN, BRIT YEL GLD FLO IN 80%, LT BRIT YEL FLO IN 2%, PR FR TO TR GD INTER-XLN POR & TR PR TO FR INTER-FOSS POR IP, EXCEL INST FLSH CUT THRU, EXCEL SLO STRM CUT THRU, GD OIL ODOR, LT TN LCH ON DISH

4567-4570- LS- CRM LT TN - HD DNS F-V-F-XLN SLI RE-XLN IP, SLI TR FOSS FRGS IMBD IP, SLI TR SMLL IMBD CALX XLS IP, LT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

4576-4589- LS- CRM BFF OFF WHT IP- HD DNS MD-XLN RE-XLN MTRX, SUCRO S-CHLKY IP, IMBD FOSS FRGS SCAT THRU, SLI TR SFT WHT CHLK IP, DLL TO LT YEL MIN FLO SCAT IP TO NO FLO, NO VIS POR, NO VIS CUT OR SHOW

4590- 4600- LS- CRM LT T GY GY- HD DNS TO SLI BRITT, V/SJCR O MTRX, V/ ARG TO SHLYTHRU, SLI TR FOSS FRGS IP, NO FLO, NO VIS POR, NO VIS SHOW OR CUT

PAWNEE 4613' (-1469')

4613-4622' LS- TN DK TN IN 90% W. LT TN OIL STN IN 90%, HD V/ BRITT, MD-XLN RE-XLN MTRX THRU, ABDT IMBD SMLL TO MD ANG LM GRNS THRU, SCAT IMBD FOSS FRGS THRU, ABDT SMLL OOL IP, HWY TR ABDT FRM FREE WHT CHLK IP NOT IMBD, BRIT YEL GLD FLO IN 90%, PR TO FR VIS INTER-XLN TO INTER-FOSS POR SCAT THRU, TR FR MICRO VUG POR IP, FR MICRO OOL POR IN 2%, ECEL INST FL SH CUT IN 80-90%, V/ GD SLO STRM CUT IN 80%, V. GD STRNG OIL ODOR , TN STN ON DISH

FT SCOTT 4638' (-1434')

4644-4648' LS- LT TN TN BRN(LT BRN OIL STN IN 20%)- HD DNS TO SLI BRITT, V/ TT SUCRO MTRX, ABDT IMBD V/ FN ANG LM GRNS IP, SCAT IMBD FOSS & FOSS FRGS, IMBD SMLL VRGTD CALC XLS IP, SLI TR S-CHLKY IPS LI TR DISS PYR IP. V/ DLL YEL GLD FLO IN 20%, LT BRIT YEL FLO IN 20%, V/ PR VIS INTER-XLN & PR MICRO PP POR IN 5%, SLI TR SCAT PR MICRO VUG POR IP, V/GD FL SH CUT IN 20%-30%, GD SL STRM CUT IN 20%, FR TO TR GD OIL ODOR,

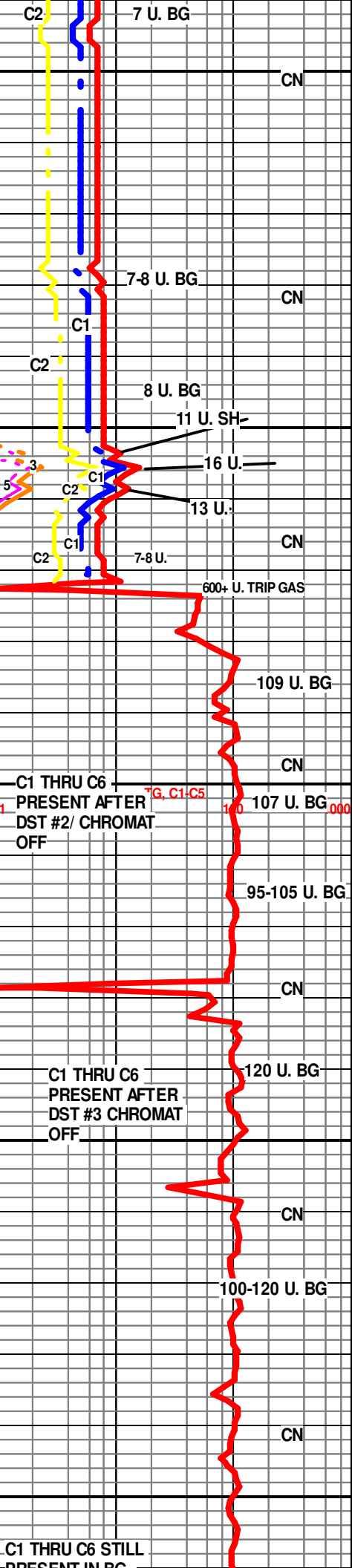
CHEROKEE 4651' (-1507')

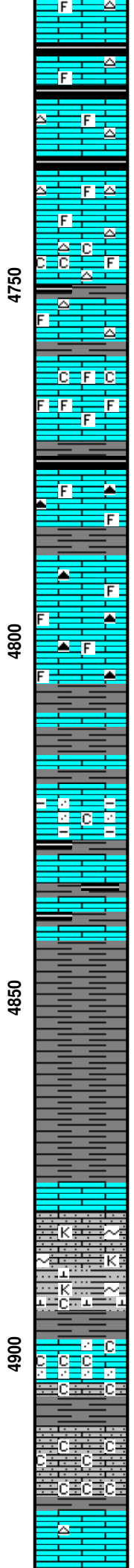
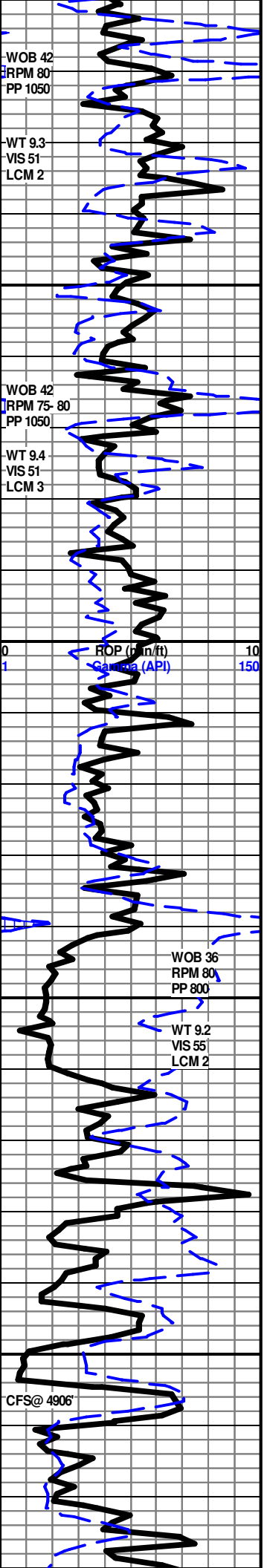
LS- OFF WHT CRM BFF- HD DNS , V/ TT SUCRO MTRX, V/ S-CHLKY IP IP W/ TR BLK CARB SH IMBD IP, SLI TR PHNTM FOSS FRGS IP, LTGY SH IP, V/ DLL YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

LS- CRM LT TN TN - HD DNS V/F-CRYPTO-XLN , RE-XLN IP, SCAT IMBD FOSS FRGS IP, SLI TR IMBD MICRO OOL , TR IMBD CHRT IP, V/ DLL YEL MIN FLO, NO VIS POR, NO VIS SHOW OR CUT

LWR CHEROKEE 4686' (-1542')

LS- OFF WHT CRM- HD IP TO SFT, MD-XLN RE-XLN MTRX TO SUCRO V. S-CHLKY, SLI TR FOSS FRGS IP, SLI TR RE-WORKED TN WHT CHRT IP, NO FLO TO TR LT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT





LS- TN DK TN- HD DNS V/F-CRYPTO-XLN, FRLY NON DESCRIPT W/ HVY TR IMBD RE-WORKED TN WHT CRT W/ TR IMBD FOSS FRGS, NO FLO, NO VIS POR, NO VIS SHOW OR CUT

LS- CRM LT TN LT BRN - HD DNS F-V/F-XLN, SLI RE-XLN IP, IMBD RE-WORKD LT TN CHRT , SCAT IMBD FOSS FRGS IP, DLL YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

LS- CRM LT TN OFF WHT IP, HD DNS IPTO BRITT, F-MED XLN , SLI RE-XLN IP, W/ TR RE-WRKTED IMBD CHRT, TR FOSS FRGS IMBD IP, TR SBDT FRM TO WHT SFT CHLK IP. LT YEL MIN FLO, NO VIS POR, NO VIS SHOW OR CUT

JOHNSON ZN 4760 (-1616')

LS- WHT OFF WHT LT TN - HD DNS IP TO V/ SFT, V/ SFT SUCRO S-CHLKY MTRX TO F-XLN IP, IMBD FOSS & FOSS FRGS SCAT THRU, TR SMLL IMBD CALC XLS IP, LT YEL MIN FLO IP, SLI TR PR INTER-XLN POR IP, NO VIS SHOW OR CUT

LS- CRM TN DK TN -HD DNS F-CRYPTO-XLN, SLI RE-XLN IP, IMBD TN BRN RE-WORKED CHRT W/ IMBD FOSS FRGS IP, TR IMBD LT GY SH IP, LT YEL MIN FLO, NO VIS POR, NO VIS SHOW

LS- CRM TN LT BRN GY IP, HD DNS MOTT, F-V/F-XLN TO CRYPT-XLN IP, HVY TR FOSS FRGS IMBD IP, TN BRN RE-WORKED CHRT W/ FOS FRGS IMBD IP, LT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW

SH- GY DK GY- FRM BLKY , SMTH TO GRNY TXTM SLI CALC IP

LS- CRM TN BRN LT GY - HD DNS MOTT, F-XLN TO MD-XLN IP, TR TT S-SUCRO IP SLI TR S-CHLKY IPSLI TR IMBD V/V/FN-GRN QURTZ, TR IMBD DISS LT GY SH IP, TR LT BRIT YEL MIN FLO IN 10% TO NO FLO, NO VIS POR, NO VIS SHOW

SH- GY DK GY TO BLK- FRMBLKY V/ CALC TO LMY TR BLK SFT CARB IP, TR IMBD FOSS FRGS IP

MORROW 4841'(-1697')

SH- V/ LT GREEN DK GREEN, BRN YELLOW, MOTT, FRM BLKY SMTH TXT

SH- PRED A/ AB V/ LT GREEN DK GREEN, BRN YELLOW, MOTT, FRM BLKY SMTH TXT

LS-BRN DK GY- HD DNS MOTT, CRYPTO-XLN TO S-LITHO, FRLY NON DESCRIPT, NO FLO, NO VIS POR

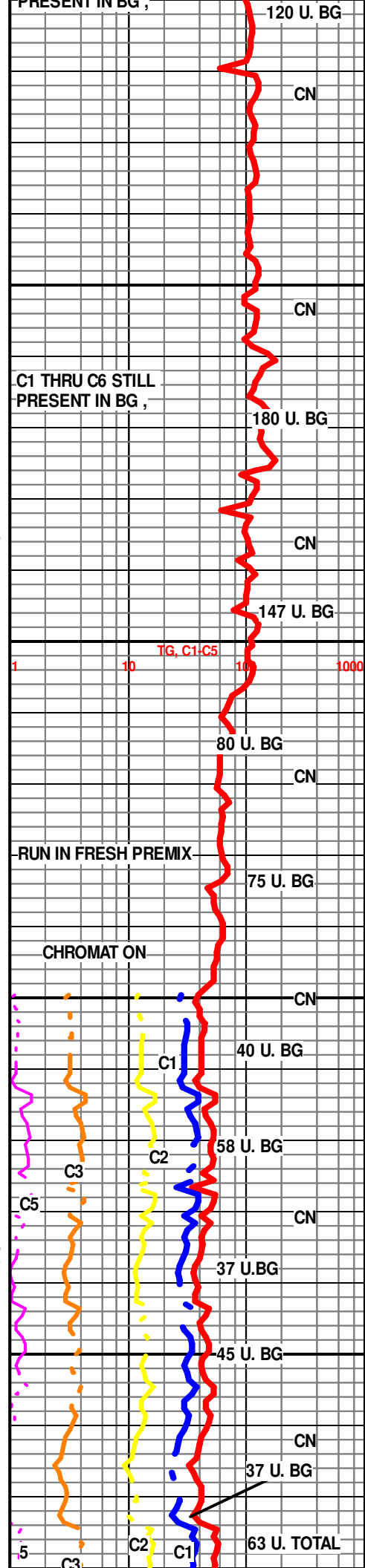
LS- LT TN TN - HD DNS V/ TT SUCRO MTRX, ABDT IMBD SMLL ANG LM GRNS THRU, SCAT IMBD V/F-GRN CLR QURTZ GRNS THRU, ABDT IMBD GLAUC & OR KAOL. GRDNG TO VAREN SILTY SH IP, V/ CALC TO HVY TR CHLKY IP, NO FLO, NO VIS POR, NO VIS SHOW OR CUT

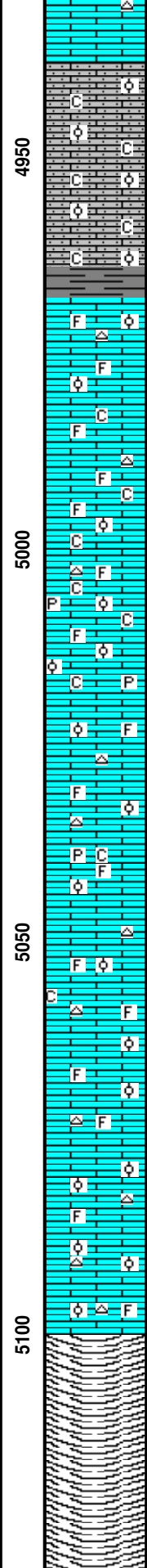
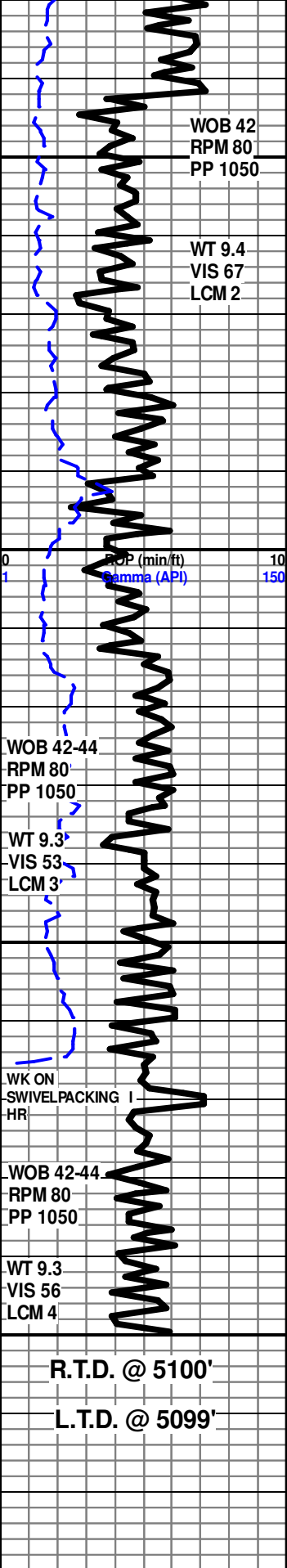
LS- OFF WHT WHT LT GREEN- V/ SFT FREE CHLK W/ ABDT IMBD V/V/FN-GRN QURTZ IMBD THRU, NO FLO, NO VIS POR, NO VIS SHOW

SH- RED BRN GY GREEN-MOTT, FRM BLKY SMTH TXT

LS- WHT OFF WHT - MD HD TO SFT, V/ SUCRO S-CHLKY TO CHLKY MTRX, ABDT IMBD V/V/FN-GRN CLR TO FRSTY QURTZ GRAINS THRU, HVY TR ABDT SFT WHT CHLK IP, NO FLO, NO VIS POR, NO VIS SHOW OR CUT

MISSISSIPPI 4921' (-1777')





LS- CRM TN LT GY- HD DNS , CRYPTO-V/F- XLN , SLI TR IMBD W HT CHRT IP, LT BRIT YEL MIN FLO SCAT THRU, NO VIS POR, NO VIS CUT OR SHOW

LS- OFF WHT CRM- HD V/ BRITT V/ SUCRO MTRX V/ S-CHLKY ABDT IMBD V/F-GRN QURTZ THRU, AREN TO SNDY, SCAT SMLL MICRO OOL, LT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

ST. LOUIS 4967' (-1823')

SH- GREEN V/ DK GREEN- FRM BLKY SMTH TXT

LS- CRM BFF LT TN - HD DNS IP TO BRITT, MD-XLN RE-XLN MTRX, SLI TR S-CHLKY IP, SCAT IMBD SMLL FOSS FRGS SCAT THRU, V/ SMLL MICRO OOL SPARSLEY SCAT THRU, TN CHRT, LT BRIT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

LS- CRM BFF LT TN - HD DNS IP TO SLI BRITT, MD-XLN RE-XLN MTRX, HVY TR V/ S-CHLKY IP, IMBD SMLL FOSS FRGS SCAT THRU, V/ SMLL MICRO OOL SCAT THRU, TN CHRT, LT BRIT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

LS- OFF WHT CRM BFF - HD DNS IP TO BRITT, MD-XLN RE-XLN MTRX, V/ S-CHLKY IP, IMBD SMLL FOSS FRGS SCAT THRU, TR IMBD PYR IP, TR PYR CLSTERS, V/ SMLL MICRO OOL SCAT THRU, TN CHRT, LT BRIT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

LS- WHT OFF WHT CRM BFF - HD DNS TO BRITT, MD-XLN RE-XLN MTRX, SLI S-CHLKY IP, IMBD SMLL FOSS FRGS SCAT THRU, TR IMBD DISS PYR IP, V/ SMLL MICRO OOL SCAT THRU, TR TN CHRT, LT BRIT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

LS- WHT OFF WHT CRM BFF - HD DNS TO SLI BRITT, MD-XLN RE-XLN MTRX, IMBD SMLL FOSS FRGS SCAT THRU, V/ SMLL MICRO OOL SCAT THRU, TR WHT CHRT, LT BRIT YEL MIN FLO IP, NO VIS POR, NO VIS SHOW OR CUT

R.T.D @ 2:35 PM MAY 13TH, 2017

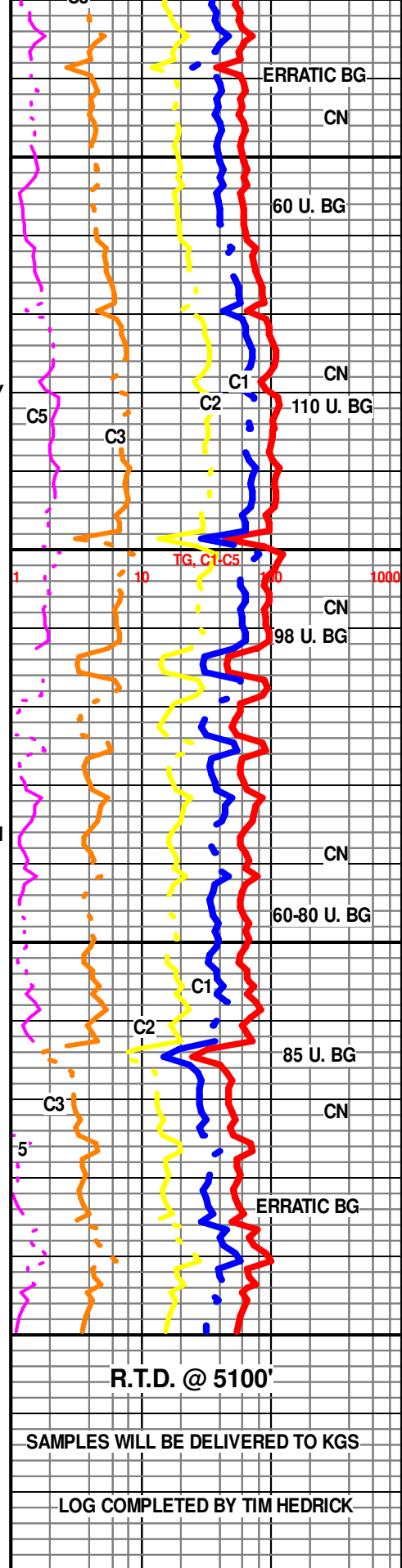
CIRC 1 HOUR/ SHORT TRIP 15 STANDS

CTCH 1.5 HOURS/ TOFL

START OUT @ 8:50 PM FOR LOGS

START LOGGING 12:00 AM MAY 14TH-ELI HAYS

LOGS FINISHED @ 5:39 AM, MAY 14TH, 2017





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Lario Oil And Gas Company

12-20-35w Wichita Co KS

301S. Market St.
Wichita KS
67202
ATTN: Tim Hendricks

Lang 1-12

Job Ticket: 63724

DST#: 1

Test Start: 2017.05.09 @ 03:20:15

GENERAL INFORMATION:

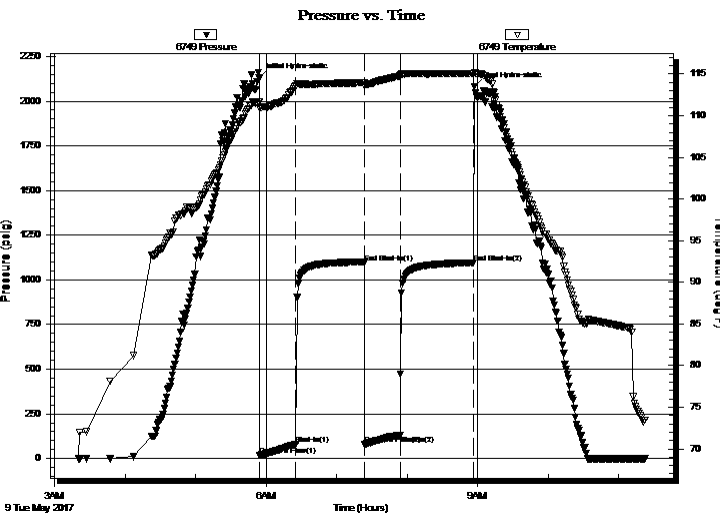
Formation: **I**
 Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole (Initial)**
 Time Tool Opened: **05:54:15** Tester: **Mike Roberts**
 Time Test Ended: **11:22:45** Unit No: **81**
Interval: 4270.00 ft (KB) To 4310.00 ft (KB) (TVD) Reference Elevations: **3132.00 ft (KB)**
 Total Depth: **4310.00 ft (KB) (TVD)** **3122.00 ft (CF)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair** KB to GR/CF: **10.00 ft**

Serial #: 6749

Outside

Press@RunDepth: **128.61 psig @ 4271.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2017.05.09** End Date: **2017.05.09** Last Calib.: **2017.05.09**
 Start Time: **03:20:15** End Time: **11:22:45** Time On Btm: **2017.05.09 @ 05:54:00**
 Time Off Btm: **2017.05.09 @ 08:57:15**

TEST COMMENT: IF: Built to 1" blow
 IS: No return blow
 FF: Built to 1" blow
 FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2129.34	111.63	Initial Hydro-static
1	17.53	110.99	Open To Flow (1)
32	78.72	113.57	Shut-In(1)
90	1096.22	113.97	End Shut-In(1)
90	80.71	113.58	Open To Flow (2)
120	128.61	114.79	Shut-In(2)
183	1095.36	115.07	End Shut-In(2)
184	2081.27	115.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	mud 100%m	0.61
120.00	mcw 50%m 50%w	0.68

Gas Rates

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



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TESTING, INC.**

DRILL STEM TEST REPORT

Lario Oil And Gas Company

12-20-35w Wichita Co KS

301S. Market St.
Wichita KS
67202
ATTN: Tim Hendricks

Lang 1-12

Job Ticket: 63724

DST#: 1

Test Start: 2017.05.09 @ 03:20:15

GENERAL INFORMATION:

Formation: **I**
 Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole (Initial)**
 Time Tool Opened: **05:54:15** Tester: **Mike Roberts**
 Time Test Ended: **11:22:45** Unit No: **81**

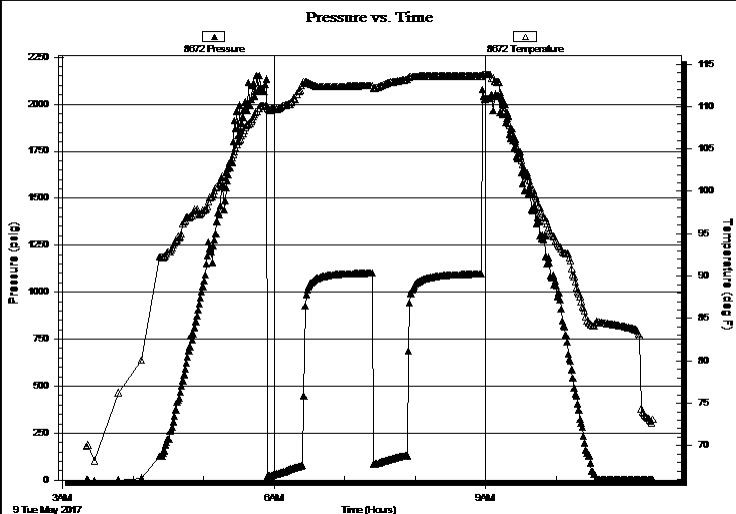
Interval: 4270.00 ft (KB) To 4310.00 ft (KB) (TVD) Reference Elevations: **3132.00 ft (KB)**
 Total Depth: **4310.00 ft (KB) (TVD)** **3122.00 ft (CF)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair** KB to GR/CF: **10.00 ft**

Serial #: 8672

Inside

Press@RunDepth: **psig @ 4271.00 ft (KB)** Capacity: **8000.00 psig**
 Start Date: **2017.05.09** End Date: **2017.05.09** Last Calib.: **2017.05.09**
 Start Time: **03:20:15** End Time: **11:22:30** Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Built to 1" blow
 IS: No return blow
 FF: Built to 1" blow
 FS: No return blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
124.00	mud 100%m	0.61
120.00	mcw 50%m 50%w	0.68

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Lario Oil And Gas Company

12-20-35w Wichita Co KS

301S. Market St.
Wichita KS
67202

Lang 1-12

Job Ticket: 63724

DST#: 1

ATTN: Tim Hendricks

Test Start: 2017.05.09 @ 03:20:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

15000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	mud 100%m	0.610
120.00	mcw 50%m 50%w	0.681

Total Length: 244.00 ft Total Volume: 1.291 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

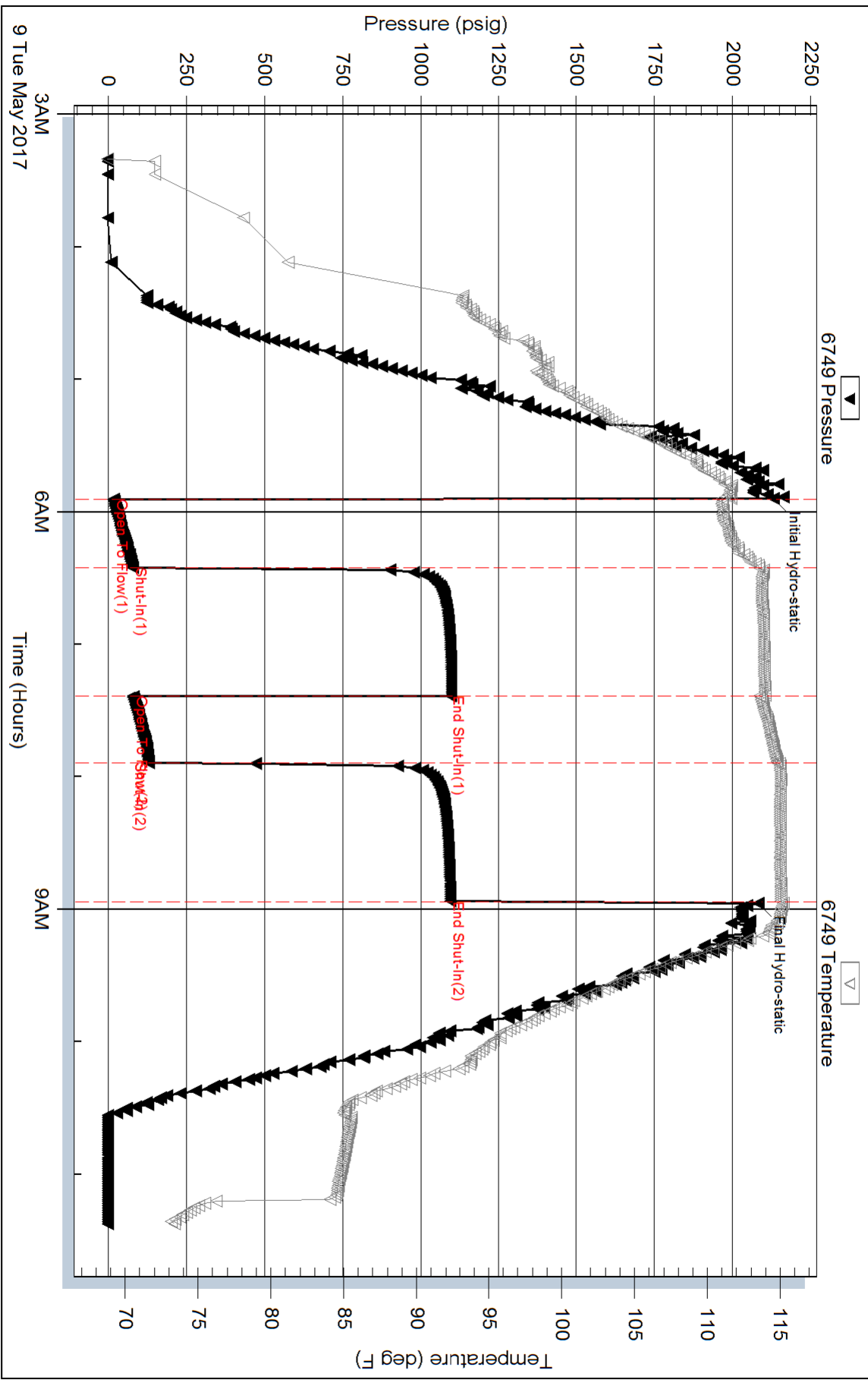
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW= .463@75.9= 15,000 ppm

Pressure vs. Time



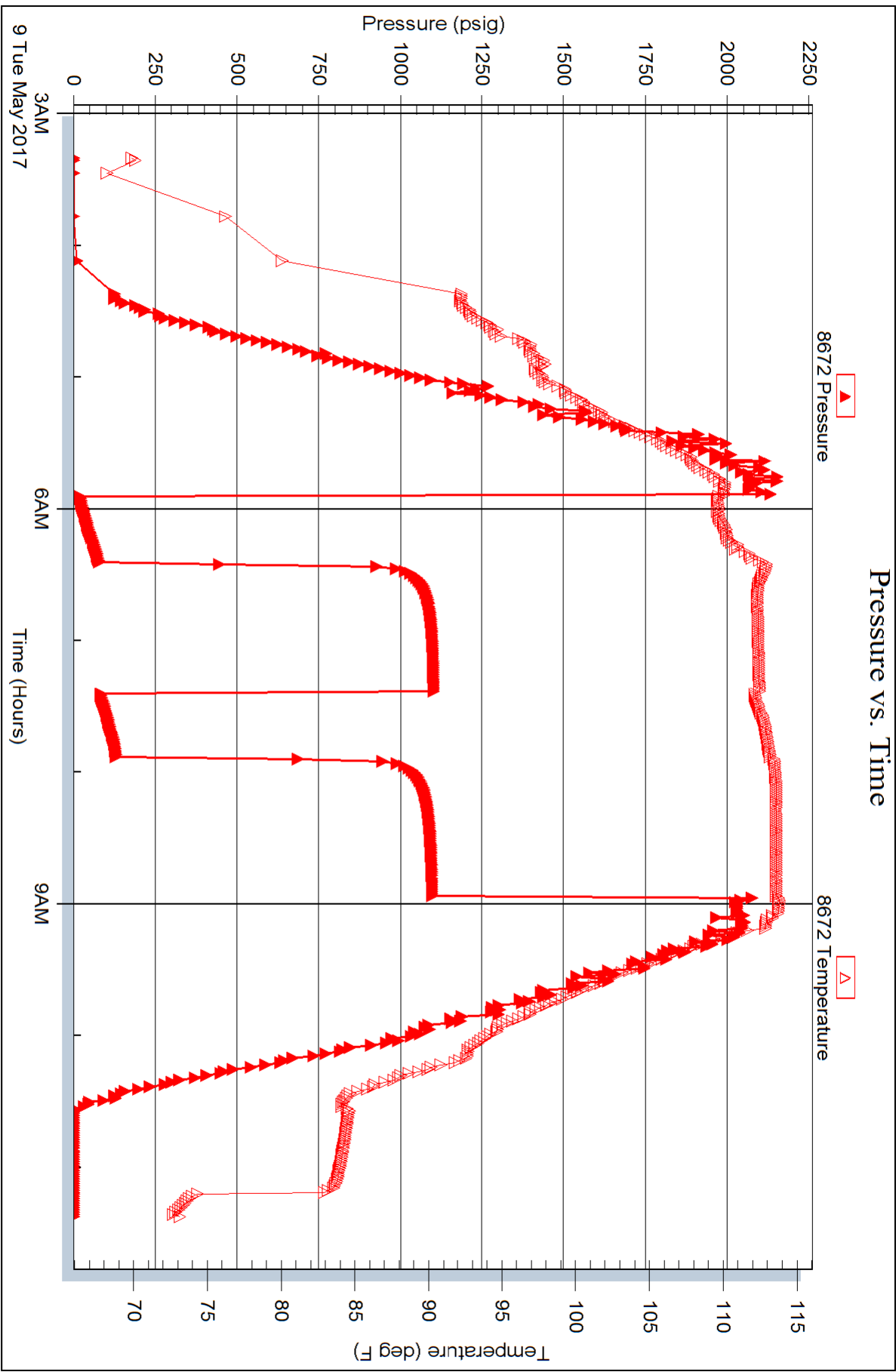
Serial #: 8672

Inside

Lario Oil And Gas Company

Lang 1-12

DST Test Number: 1





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Lario Oil And Gas Company

12-20-35w Wichita Co KS

301S. Market St.
Wichita KS
67202
ATTN: Tim Hendricks

Lang 1-12

Job Ticket: 63725

DST#: 2

Test Start: 2017.05.10 @ 14:27:15

GENERAL INFORMATION:

Formation: **Marmaton B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:32:15

Time Test Ended: 22:16:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4540.00 ft (KB) To 4572.00 ft (KB) (TVD)

Reference Elevations: 3132.00 ft (KB)

Total Depth: 4572.00 ft (KB) (TVD)

3122.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 6749 Outside

Press@RunDepth: 278.33 psig @ 4541.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.05.10

End Date: 2017.05.10

Last Calib.: 2017.05.10

Start Time: 14:27:15

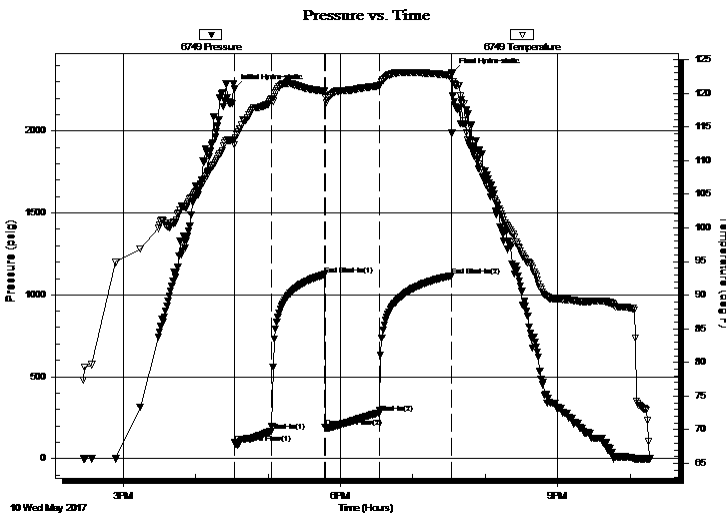
End Time: 22:16:45

Time On Btm: 2017.05.10 @ 16:32:00

Time Off Btm: 2017.05.10 @ 19:32:30

TEST COMMENT: IF:BOB in 4 min.
IS:Built to 8" blow and died to 6" blow
FF:BOB in 7 min.
FS:BOB in 12 min. died back to 6" blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2256.76	113.08	Initial Hydro-static
1	95.34	112.35	Open To Flow (1)
31	167.04	119.10	Shut-In(1)
75	1123.36	120.30	End Shut-In(1)
76	191.28	119.47	Open To Flow (2)
120	278.33	121.10	Shut-In(2)
180	1116.27	122.65	End Shut-In(2)
181	2358.33	122.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP= 1054	0.00
402.00	gco 40%g 60%o	3.51
234.00	gcmo 5%g 5%m 90%o	3.28

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Lario Oil And Gas Company

12-20-35w Wichita Co KS

301S. Market St.
Wichita KS
67202
ATTN: Tim Hendricks

Lang 1-12

Job Ticket: 63725

DST#: 2

Test Start: 2017.05.10 @ 14:27:15

GENERAL INFORMATION:

Formation: **Marmaton B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:32:15

Time Test Ended: 22:16:45

Interval: **4540.00 ft (KB) To 4572.00 ft (KB) (TVD)**

Total Depth: 4572.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Reference Elevations: 3132.00 ft (KB)

3122.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8672 Inside

Press@RunDepth: psig @ 4541.00 ft (KB)

Start Date: 2017.05.10 End Date: 2017.05.10

Start Time: 14:27:15 End Time: 22:16:30

Capacity: 8000.00 psig

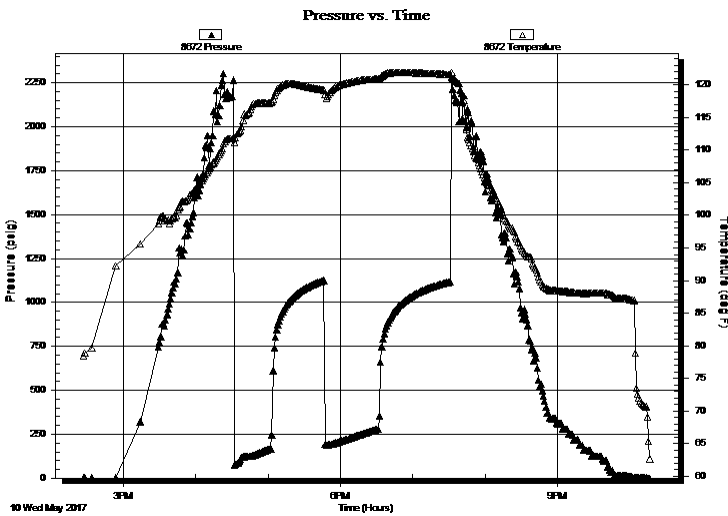
Last Calib.: 2017.05.10

Time On Btm:

Time Off Btm:

TEST COMMENT: IF:BOB in 4 min.
IS:Built to 8" blow and died to 6" blow
FF:BOB in 7 min.
FS:BOB in 12 min. died back to 6" blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GIP= 1054	0.00
402.00	gco 40%g 60%o	3.51
234.00	gcmo 5%g 5%m 90%o	3.28

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Lario Oil And Gas Company

12-20-35w Wichita Co KS

301S. Market St.
Wichita KS
67202

Lang 1-12

Job Ticket: 63725

DST#: 2

ATTN: Tim Hendricks

Test Start: 2017.05.10 @ 14:27:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

29 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GIP= 1054	0.000
402.00	gco 40%g 60%o	3.507
234.00	gcmo 5%g 5%m 90%o	3.282

Total Length: 636.00 ft

Total Volume: 6.789 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

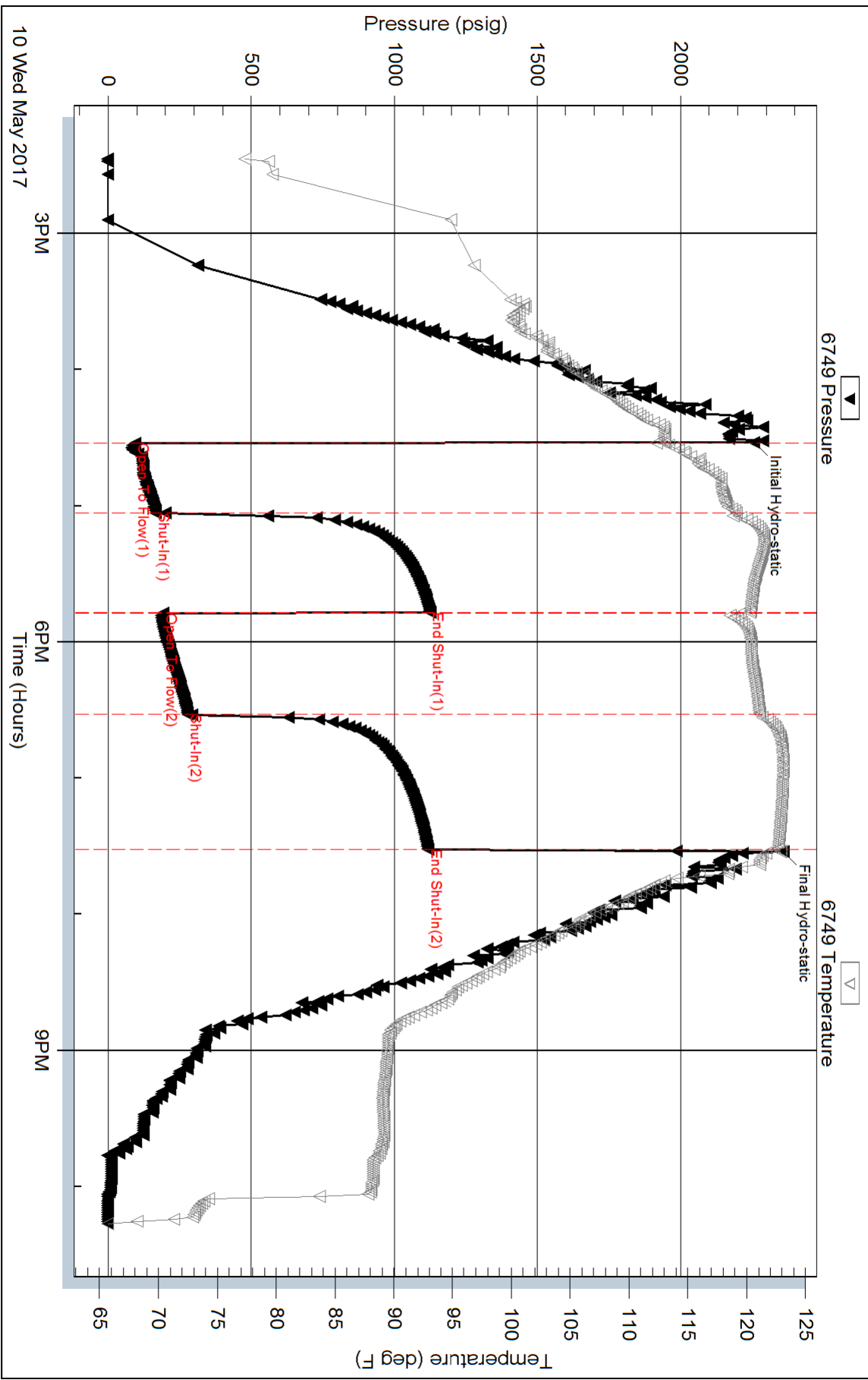
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API= 29@60

Pressure vs. Time



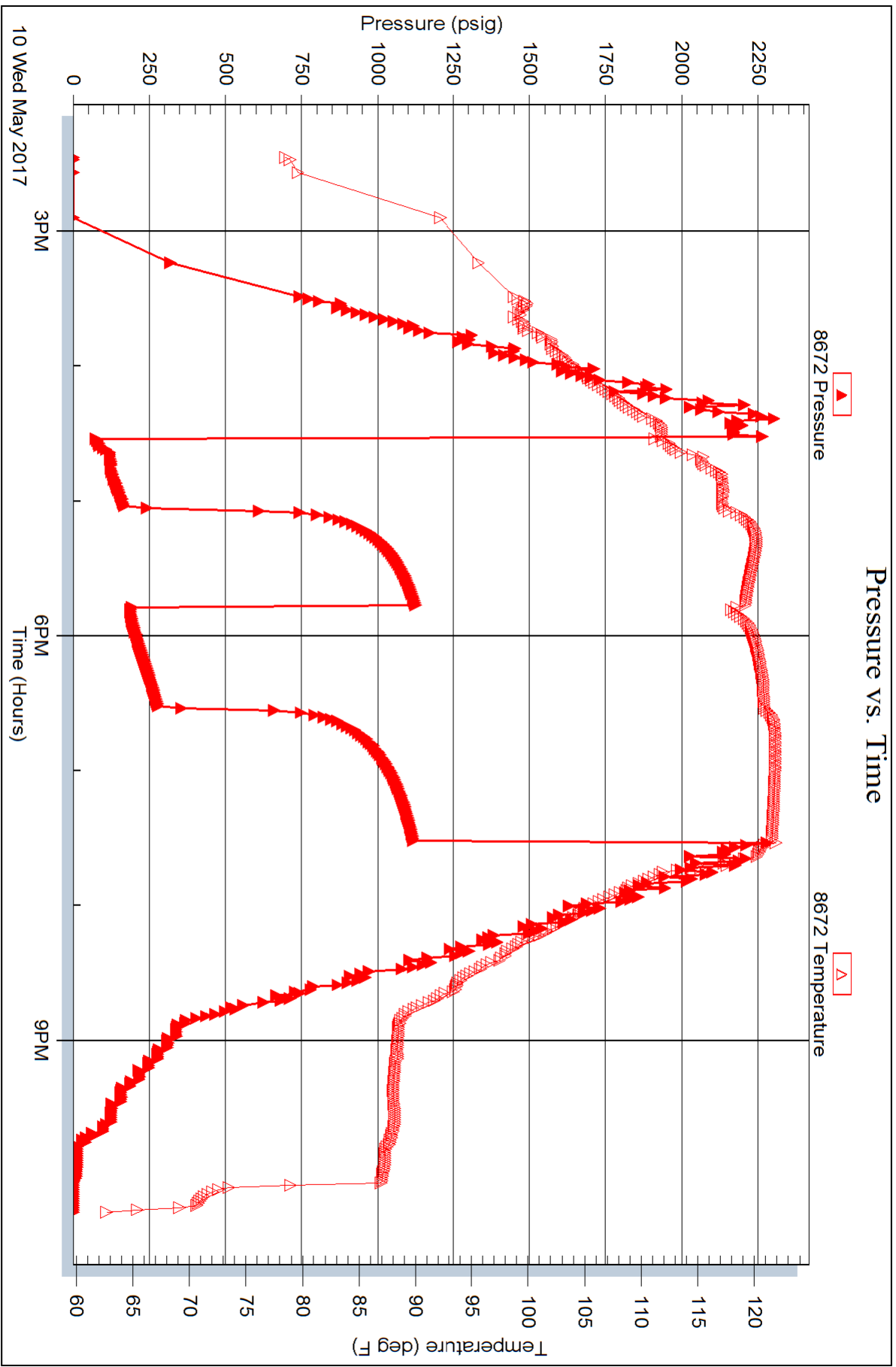
Serial #: 8672

Inside

Lario Oil And Gas Company

Lang 1-12

DST Test Number: 2





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Lario Oil And Gas Company

12-20-35w Wichita Co KS

301S. Market St.
Wichita KS
67202
ATTN: Tim Hedrick

Lang 1-12

Job Ticket: 63726

DST#: 3

Test Start: 2017.05.11 @ 10:02:15

GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:24:00

Time Test Ended: 17:48:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4594.00 ft (KB) To 4628.00 ft (KB) (TVD)

Reference Elevations: 3132.00 ft (KB)

Total Depth: 4628.00 ft (KB) (TVD)

3122.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 6749 Outside

Press@RunDepth: 124.50 psig @ 4595.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.05.11

End Date:

2017.05.11

Last Calib.: 2017.05.11

Start Time: 10:02:15

End Time:

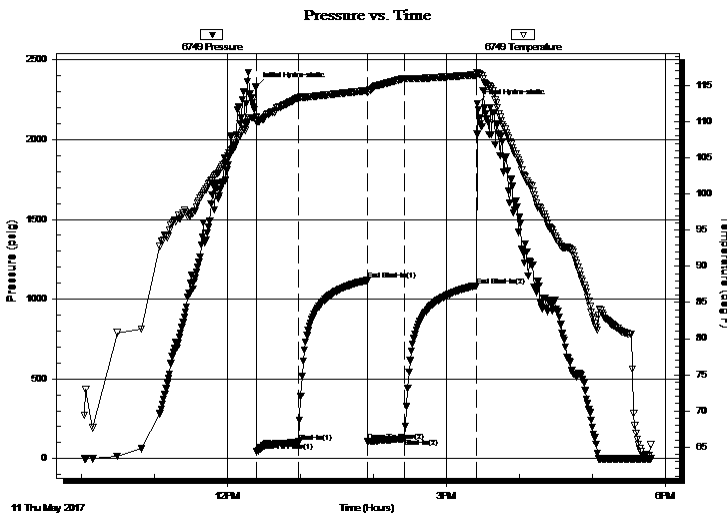
17:48:15

Time On Btm: 2017.05.11 @ 12:23:45

Time Off Btm: 2017.05.11 @ 15:25:30

TEST COMMENT: IF: Built to 3" blow
IS: No return blow
FF: Built to weak surface blow
FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2335.10	110.59	Initial Hydro-static
1	43.64	109.94	Open To Flow (1)
35	100.32	113.27	Shut-In(1)
91	1117.99	114.28	End Shut-In(1)
92	107.20	114.02	Open To Flow (2)
122	124.50	115.92	Shut-In(2)
181	1084.94	116.43	End Shut-In(2)
182	2227.57	116.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	mud with oil spots 100% m	0.89

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Lario Oil And Gas Company

12-20-35w Wichita Co KS

301S. Market St.
Wichita KS
67202

Lang 1-12

Job Ticket: 63726

DST#: 3

ATTN: Tim Hedrick

Test Start: 2017.05.11 @ 10:02:15

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5100.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	mud w ith oil spots 100%m	0.885

Total Length: 180.00 ft Total Volume: 0.885 bbl

Num Fluid Samples: 0

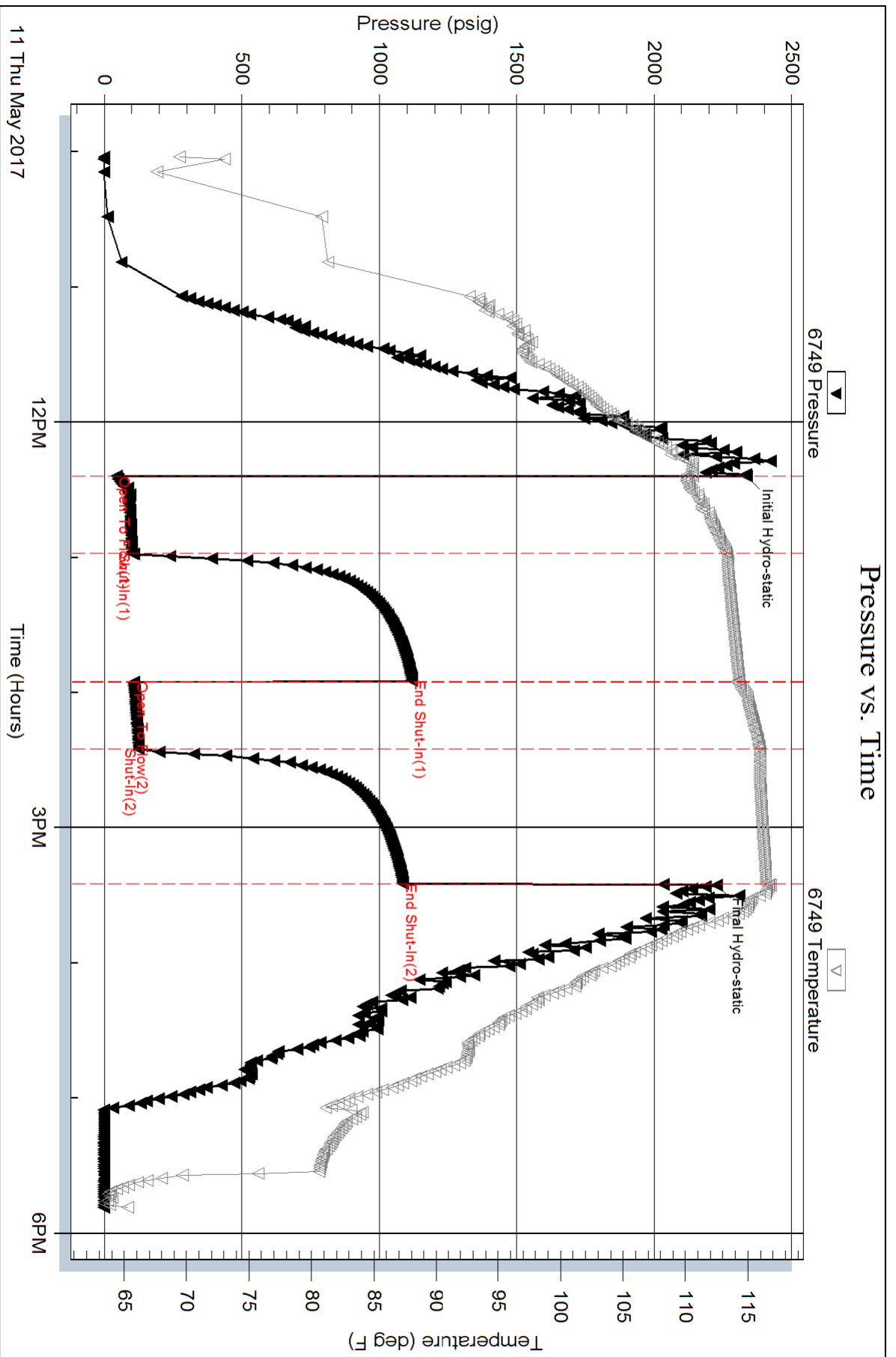
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



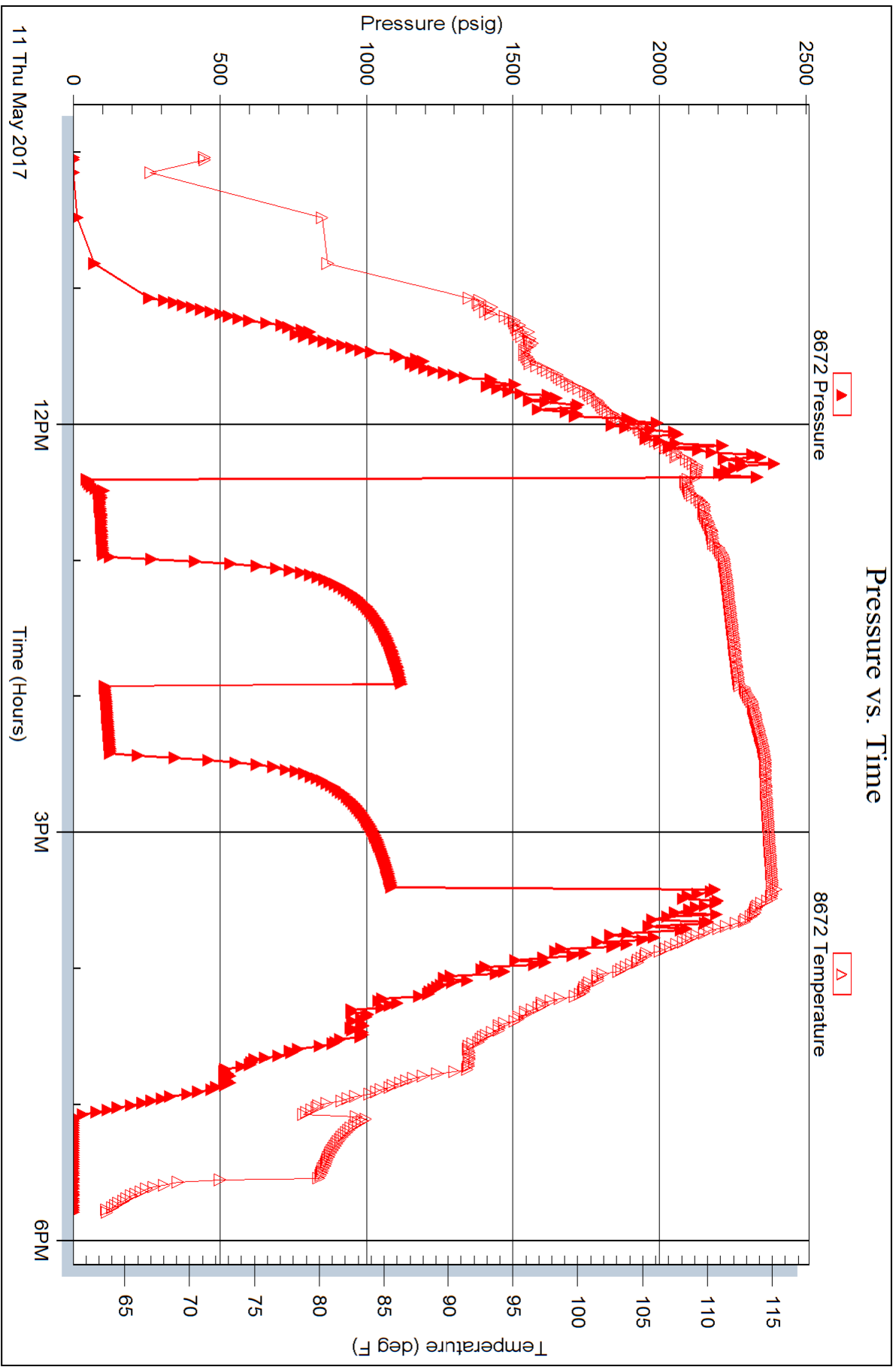
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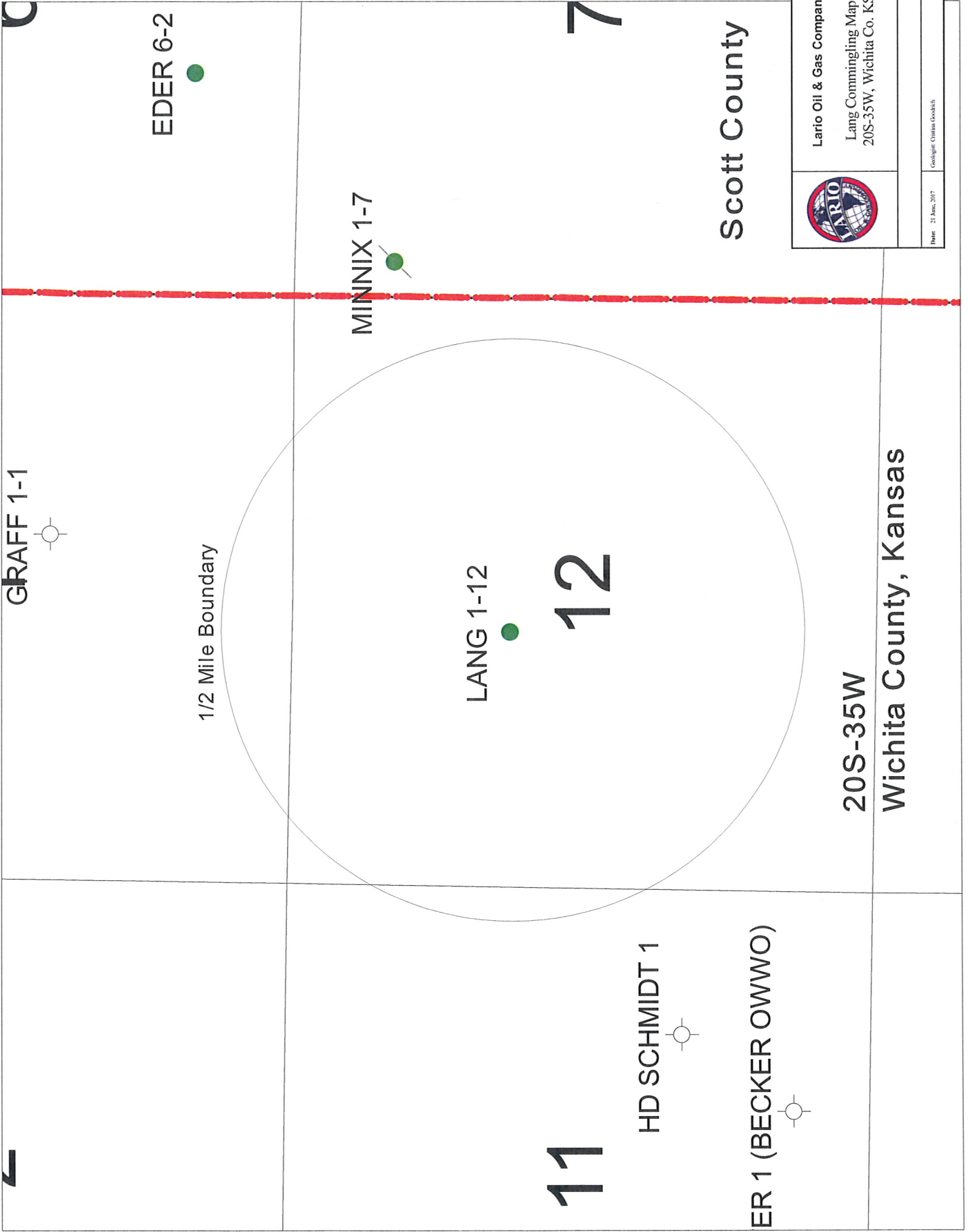
Inside

Lario Oil And Gas Company

Lang 1-12

DST Test Number: 3





GRAFF 1-1



1/2 Mile Boundary

EDER 6-2



MINNIX 1-7



LANG 1-12



12

11

HD SCHMIDT 1



ER 1 (BECKER OWWO)



Scott County

20S-35W

Wichita County, Kansas



Lario Oil & Gas Company
Lang Commingling Map
20S-35W, Wichita Co. KS

Date: 21 June, 2017

Geologist: Christina Goodrich