

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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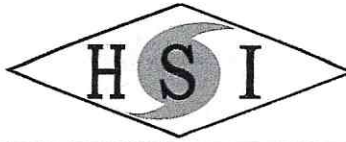
Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Thoroughbred Associates L.L.C.
Well Name	MILLER FARMS 32-1
Doc ID	1605329

All Electric Logs Run

Dual Induction
Neutron
Micro
Sonic



Customer	Thoroughbred Associates LLC	Lease & Well #	Miller Farms 32-1	Date	10/30/2021
Service District	Pratt Kansas	County & State	Comanche Kansa	Legals S/T/R	32-31s-18w
Job Type	surface	<input checked="" type="checkbox"/> PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	New Well? <input checked="" type="checkbox"/> YES <input type="checkbox"/> No
Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures			

916	M Brungardt	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
179/522	R Osborn	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
181/533	R valdez	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
		<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input checked="" type="checkbox"/> Muster Point/Medical Locations
		<input type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	

Comments

Product/ Service Code	Description	Unit of Measure	Quantity	Net Amount
cp050	H-Lite	sack	250.00	\$2,925.00
cp010	Class A Cement	sack	150.00	\$2,295.00
cp100	Calcium Chloride	lb	936.00	\$631.80
cp120	Cello-flake	lb	39.00	\$61.43
fe280	8 5/8" Baffle	ea	1.00	\$135.00
fe285	8 5/8" Rubber Plug	ea	1.00	\$157.50
fe250	8 5/8" Centralizer	ea	2.00	\$162.00
cp180	Sugar	lb	100.00	\$270.00
m015	Light Equipment Mileage	mi	65.00	\$99.00
m010	Heavy Equipment Mileage	mi	55.00	\$198.00
m020	Ton Mileage	tm	987.00	\$1,332.45
d011	Depth Charge: 501'-1000'	job	1.00	\$1,125.00
c050	Cement Plug Container	job	1.00	\$225.00

Customer Section: On the following scale how would you rate Hurricane Services Inc.?

Based on this job, how likely is it you would recommend HSI to a colleague?

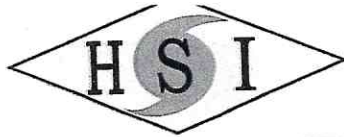
Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely

Total Taxable	\$ -	Tax Rate:		Net:	\$9,617.18
State tax laws deem certain products and services used on new wells to be sales tax exempt.					
Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.					
Sale Tax:	\$ -	Total:	\$	9,617.18	

HSI Representative: *Mark Brungardt*

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/4% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

[Handwritten Signature]
CUSTOMER AUTHORIZATION SIGNATURE



TREATMENT REPORT

Company: THOROUGHbred ASSOCIATES LLC	Well: MILLER FARMS 32-1	Ticket: WP2067
City, State: COLDWATER KS	County: COMANCHE KS	Date: 11/8/2021
Field Rep:	S-T-R: 33-31S-18W	Service: PLUG TO ABAN

Downhole Information

Hole Size:	in
Hole Depth:	ft
Casing Size:	in
Casing Depth:	ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	
Tool Depth:	ft
Displacement:	bbls

Calculated Slurry - Lead

Blend:	H-PLUG
Weight:	13.8 ppg
Water / Sx:	6.9 gal / sx
Yield:	1.43 ft ³ / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0.0 bbls
Excess:	
Total Slurry:	56.0 bbls
Total Sacks:	200 sx

Calculated Slurry - Tail

Blend:	
Weight:	ppg
Water / Sx:	gal / sx
Yield:	ft ³ / sx
Annular Bbls / Ft.:	bbs / ft.
Depth:	ft
Annular Volume:	0 bbls
Excess:	
Total Slurry:	0.0 bbls
Total Sacks:	#DIV/0! sx

TIME	RATE	PSI	BBLs	STAGE TOTAL BBLs	REMARKS
8:00 AM			-	-	ON LOCATION
9:05 AM				-	RUN DRILL PIPE TO 6000'
				-	1ST PLUG AT 6000'
12:44 PM	5.0	330.0	15.0	15.0	PUMP 15 BBL WATER
12:48 PM	3.3	260.0	12.2	27.2	MIX 50 SKS H-PLUG
1:01 PM	3.0	150.0	3.0	30.2	PUMP 3 WATER
1:02 PM	3.0	150.0	73.0	103.2	PUMP 73 MUD
				103.2	2ND PLUG AT 730'
5:35 PM	4.0	130.0	10.0	113.2	PUMP 10 BBL WATER
5:41 PM	3.9	120.0	12.2	125.4	MIX 50 SKS H-PLUG
5:46 PM	3.0	100.0	3.0	128.4	PUMP 3 BBL WATER
				128.4	3RD PLUG AT 300'
6:06 PM	4.0	80.0	5.0	133.4	PUMP 5 BBL WATER
6:11 PM	4.0	130.0	12.2	145.6	MIX 50 SKS H-PLUG
6:15 PM	4.0	75.0	0.5	146.1	PUMP .5 BBL WATER
				146.1	4TH PLUG AT 60'
6:52 PM	3.0	100.0	5.0	151.1	MIX 20 SKS H-PLUG
				151.1	CEMENT TO SURFACE
7:45 PM	1.0	25.0	7.0	158.1	MIX 30 SKS H-PLUG FOR RAT HOLR
7:50 PM	1.0	25.0	5.0	163.1	MIX 20 SKS H-PLUG for mouse hole
				163.1	
				163.1	
				163.1	
				163.1	JOB COMPLETE, THANK YOU!
				163.1	MIKE MATTAL
				163.1	RILEY & RUEBEN
				163.1	

CREW			UNIT	SUMMARY		
Cementer:	MATTAL		912	Average Rate	Average Pressure	Total Fluid
Pump Operator:	OSBORN		176/522	3.2 bpm	129 psi	163 bbls
Bulk #1:	RUEBEN		181/256			
Bulk #2:						



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Thoroughbred Associates LLC

32-31s-18w Commanche Co, Ks

8100 E 22nd St., STE 600
Wichita, Ks. 67226

Miller Farms 32-1

Job Ticket: 67600

DST#: 1

ATTN: Aaron Young

Test Start: 2021.11.04 @ 10:25:19

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:05:19

Time Test Ended: 21:33:49

Test Type: Conventional Bottom Hole (Initial)

Tester: Matt Smith

Unit No: 68

Interval: 4960.00 ft (KB) To 5014.00 ft (KB) (TVD)

Reference Elevations: 2151.00 ft (KB)

Total Depth: 5014.00 ft (KB) (TVD)

2141.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 10.00 ft

Serial #: 8788 Inside

Press@RunDepth: 132.82 psig @ 4961.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2021.11.04 End Date: 2021.11.04

Last Calib.: 2021.11.04

Start Time: 10:25:24 End Time: 21:33:49

Time On Btm: 2021.11.04 @ 14:00:04

Time Off Btm: 2021.11.04 @ 17:56:19

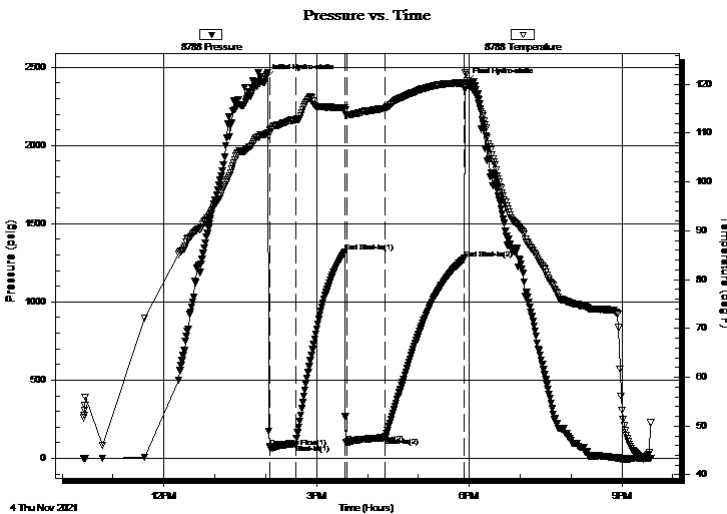
TEST COMMENT: IF: Strong Blow . B.O.B. in 30 secs. Built to 208.65". (30)

IS: Fair Blow . Built to 6.67". (60)

FF: Strong Blow . B.O.B., immediate. G.T.S. in 3 mins. Built to 181.92". Gauged Gas. (45)

FS: Weak Blow . Built to 1.47". (90)

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2428.69	109.78	Initial Hydro-static
6	71.04	110.83	Open To Flow (1)
35	91.61	112.71	Shut-In(1)
94	1318.62	115.25	End Shut-In(1)
96	95.31	113.63	Open To Flow (2)
141	132.82	115.09	Shut-In(2)
234	1277.03	120.25	End Shut-In(2)
237	2399.14	122.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
61.00	GOWCM 29%g 20%o 9%w 42%m	0.46
120.00	GHOWCM 22%g 22%o 5%w 51%m	0.98
65.00	GHOWCM 55%g 10%o 5%w 30%m	0.91
64.00	GHOWCM 30%g 15%o 1%w 54%m	0.90
32.00	GVSOCM 20%g 1%o 79%m	0.45

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	6.23	7.72
Last Gas Rate	0.13	5.25	7.36
Max. Gas Rate	0.13	6.23	7.72



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Thoroughbred Associates LLC

32-31s-18w Commanche Co, Ks

8100 E 22nd St., STE 600
Wichita, Ks. 67226

Miller Farms 32-1

Job Ticket: 67600

DST#: 1

ATTN: Aaron Young

Test Start: 2021.11.04 @ 10:25:19

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:

8000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
61.00	GOWCM 29%g 20%o 9%w 42%m	0.465
120.00	GHOWCM 22%g 22%o 5%w 51%m	0.978
65.00	GHOWCM 55%g 10%o 5%w 30%m	0.912
64.00	GHOWCM 30%g 15%o 1%w 54%m	0.898
32.00	GVSOCM 20%g 1%o 79%m	0.449

Total Length: 342.00 ft

Total Volume: 3.702 bbl

Num Fluid Samples: 1

Num Gas Bombs: 1

Serial #: P-4 Matt

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Thoroughbred Associates LLC

32-31s-18w Commanche Co, Ks

8100 E 22nd St., STE 600
Wichita, Ks. 67226

Miller Farms 32-1

Job Ticket: 67600

DST#: 1

ATTN: Aaron Young

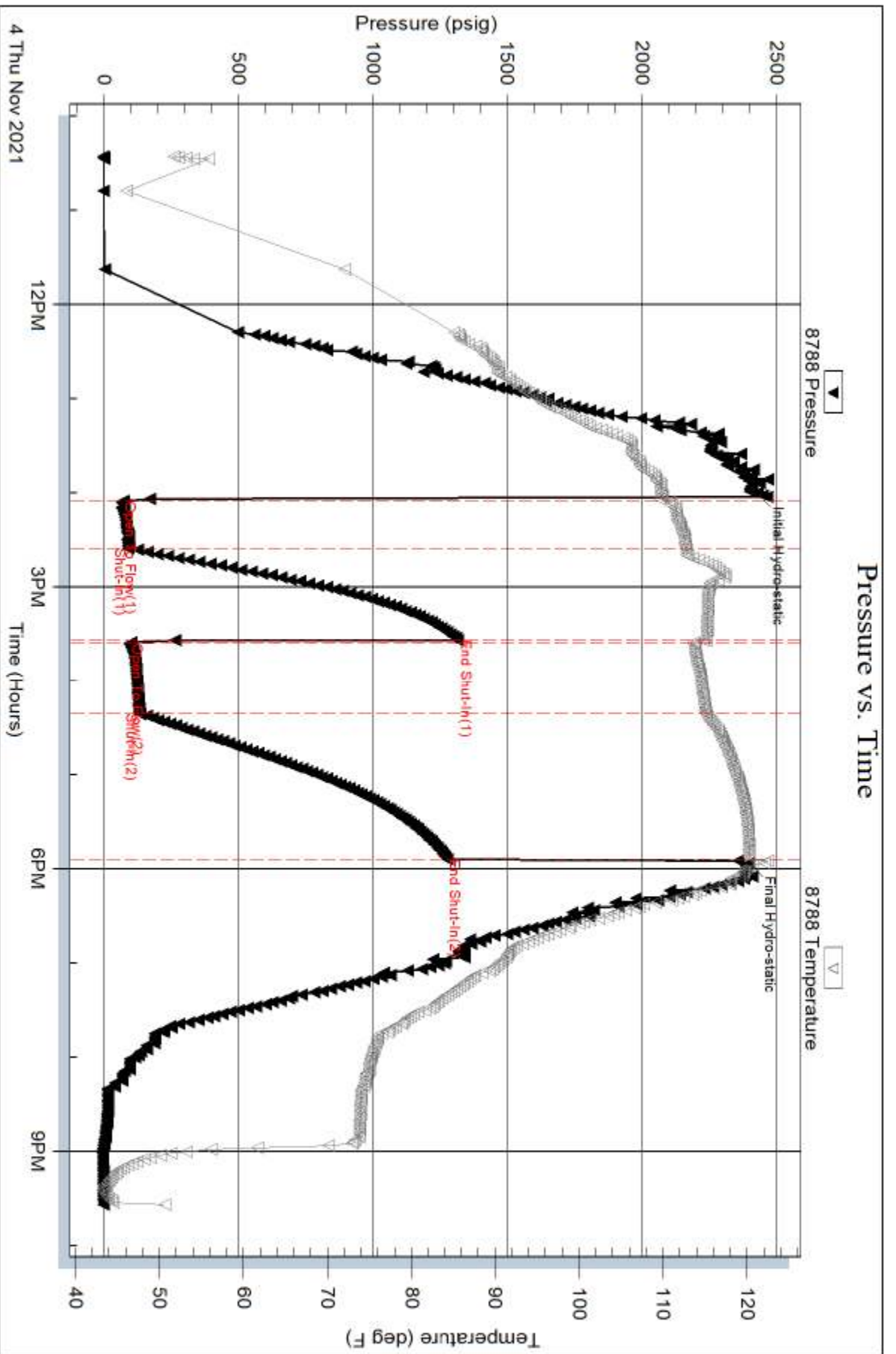
Test Start: 2021.11.04 @ 10:25:19

Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.13	6.23	7.72
2	20	0.13	5.91	7.60
2	30	0.13	5.63	7.50
2	40	0.13	5.47	7.44
2	45	0.13	5.25	7.36

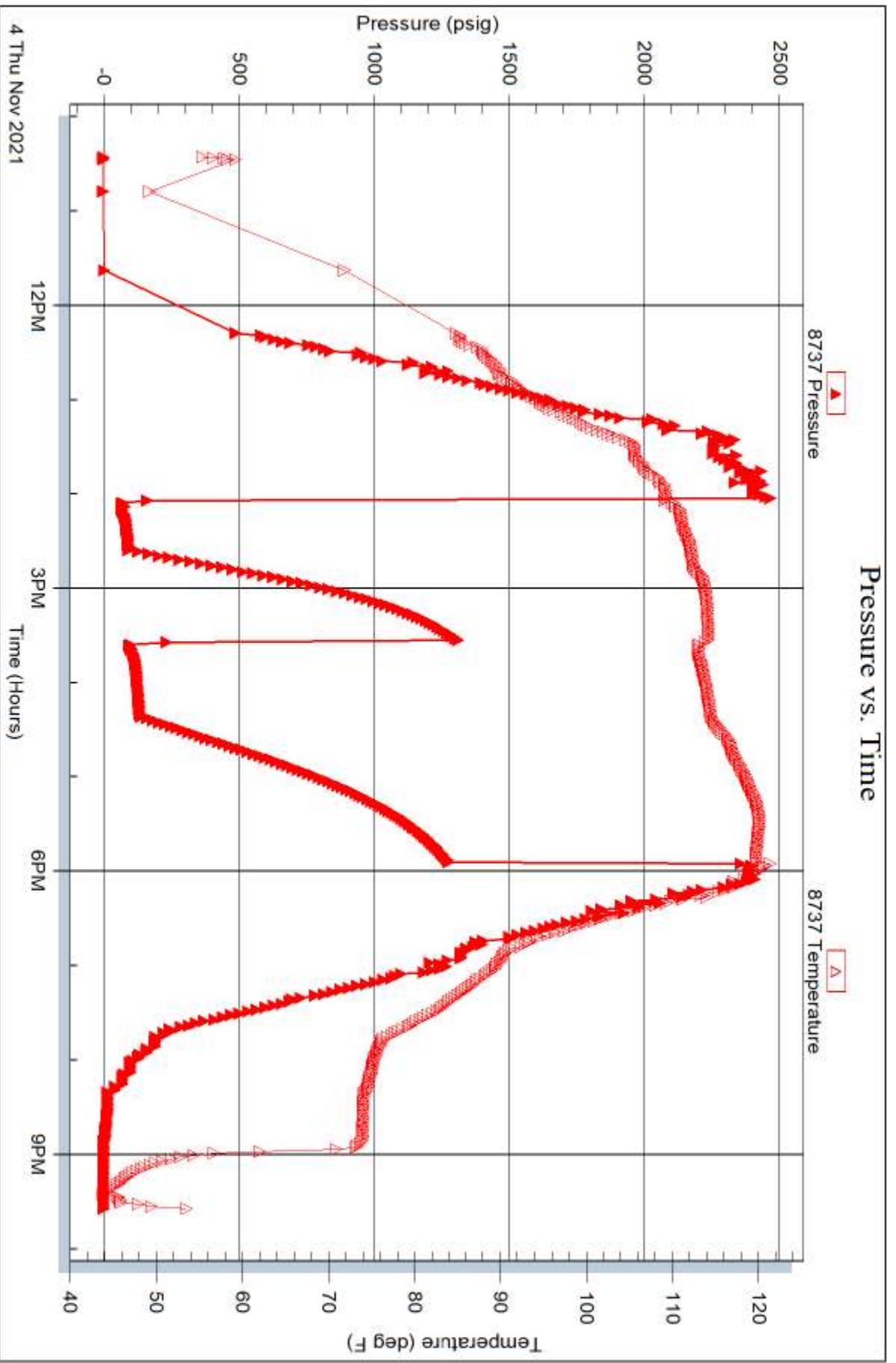


Serial #: 8737

Outside Thoroughbred Associates LLC

Miller Farms 32-1

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 67600

Printed: 2021.11.04 @ 22:29:39



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Thoroughbred Associates LLC

32-31s-18w Commanche Co, Ks

8100 E 22nd St., STE 600
Wichita, Ks. 67226

Miller Farms 32-1

Job Ticket: 67201

DST#: 2

ATTN: Aaron Young

Test Start: 2021.11.06 @ 08:12:39

GENERAL INFORMATION:

Formation: **Viola**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:41:09
 Time Test Ended: 21:23:54
 Interval: **5656.00 ft (KB) To 5750.00 ft (KB) (TVD)**
 Total Depth: 5750.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Matt Smith
 Unit No: 68
 Reference Elevations: 2151.00 ft (KB)
 2141.00 ft (CF)
 KB to GR/CF: 10.00 ft

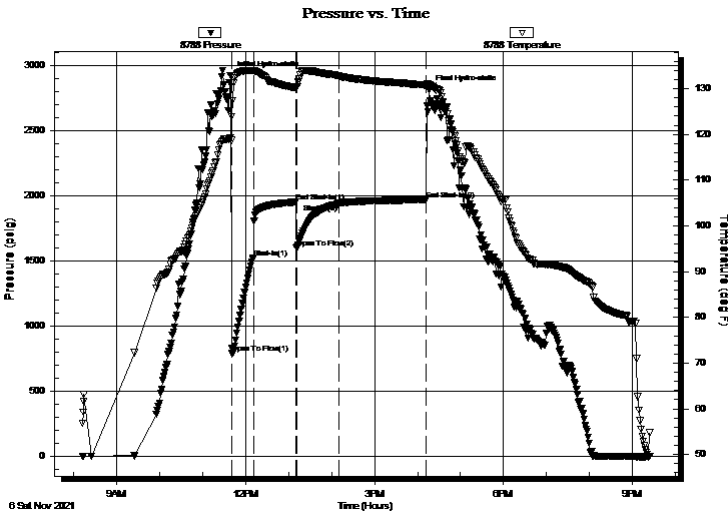
Serial #: 8788

Inside

Press@RunDepth: 1936.00 psig @ 5657.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2021.11.06 End Date: 2021.11.06 Last Calib.: 2021.11.06
 Start Time: 08:12:44 End Time: 21:23:54 Time On Btm: 2021.11.06 @ 11:38:54
 Time Off Btm: 2021.11.06 @ 16:16:24

TEST COMMENT: IF: Strong Blow . B.O.B. in 1 min. Built to 268.68". (30)
 IS: Weak Blow . Built to 3.73". (60)
 FF: Strong Blow . B.O.B. in 1 1/2 min. Built to 150.29". (60)
 FS: No Blow . (120)

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2920.76	119.25	Initial Hydro-static
3	791.47	123.91	Open To Flow (1)
32	1525.62	133.94	Shut-In(1)
92	1952.96	130.21	End Shut-In(1)
93	1598.03	130.21	Open To Flow (2)
151	1936.00	132.79	Shut-In(2)
273	1969.70	130.77	End Shut-In(2)
278	2817.07	130.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3498.00	W 100%w	47.97
512.00	GWCM 5%g 30%w 65%m	7.18
176.00	WCM 5%w 95%m	2.47

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Thoroughbred Associates LLC

32-31s-18w Commanche Co, Ks

8100 E 22nd St., STE 600
Wichita, Ks. 67226

Miller Farms 32-1

Job Ticket: 67201

DST#: 2

ATTN: Aaron Young

Test Start: 2021.11.06 @ 08:12:39

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:

64000 ppm

Viscosity: 44.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6300.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3498.00	W 100%w	47.971
512.00	GWCM 5%g 30%w 65%m	7.182
176.00	WCM 5%w 95%m	2.469

Total Length: 4186.00 ft Total Volume: 57.622 bbl

Num Fluid Samples: 0

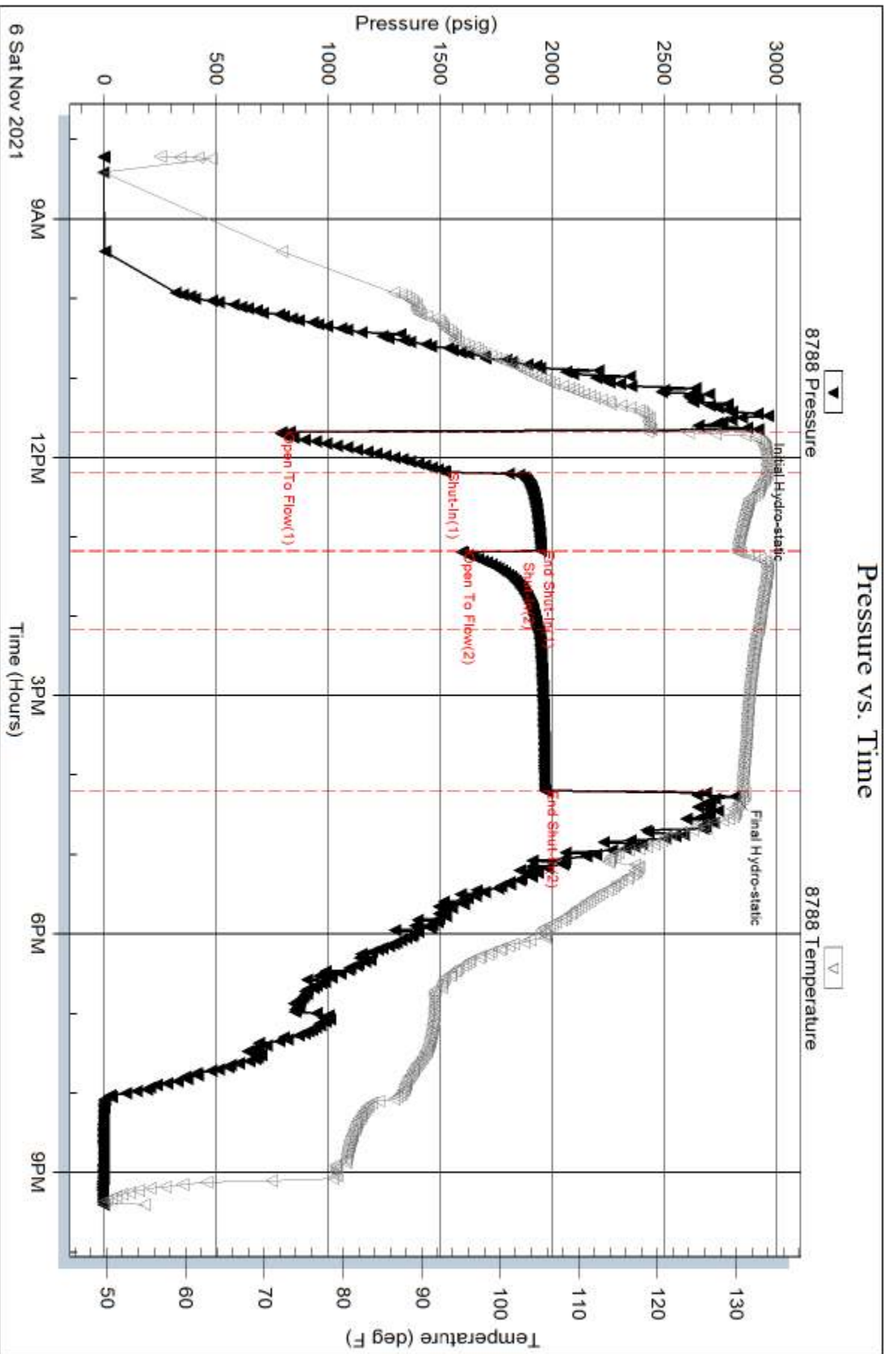
Num Gas Bombs: 0

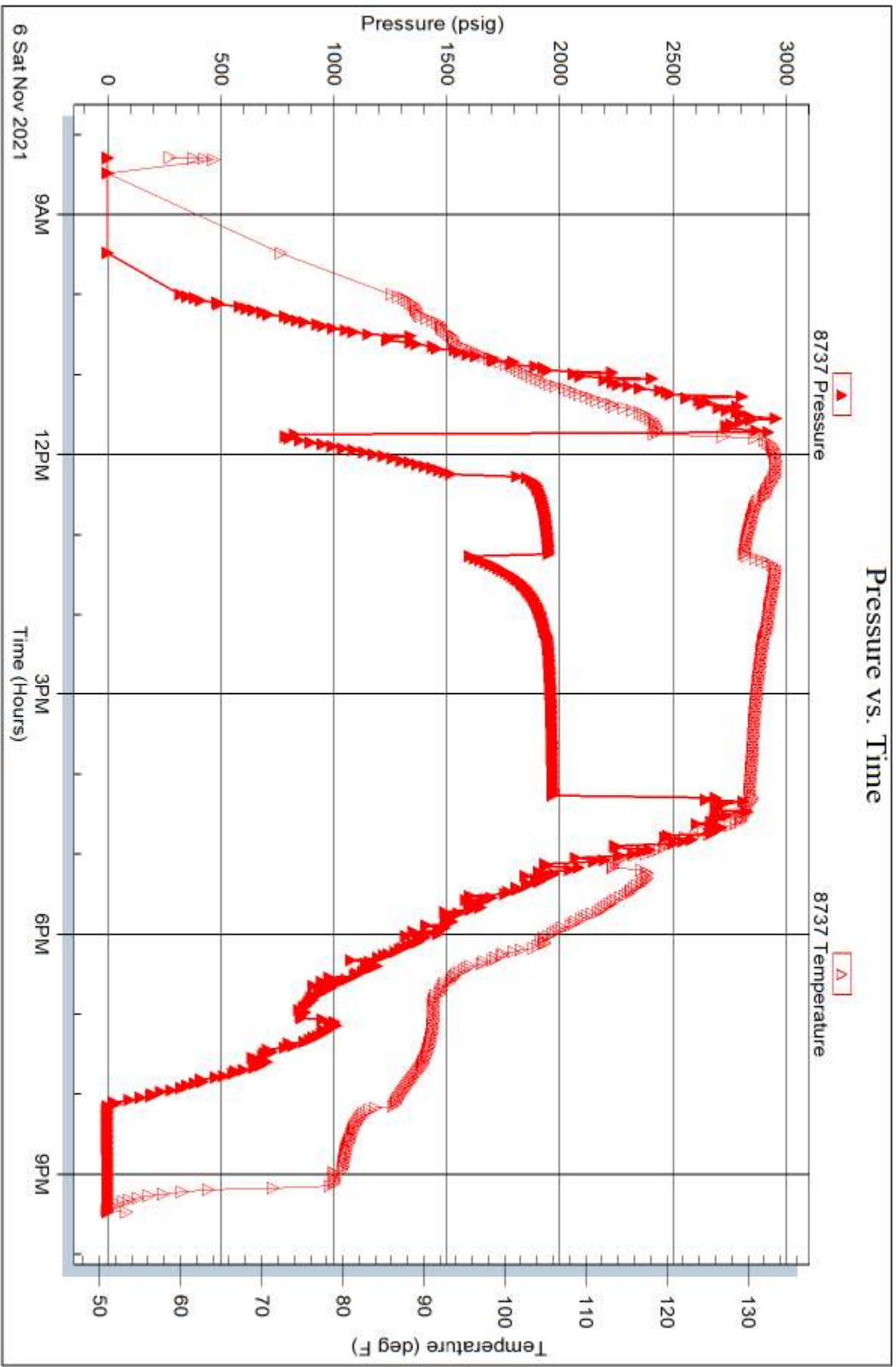
Serial #: None

Laboratory Name:

Laboratory Location:

Recovery Comments: RW is .13 @ 59 Degrees = 64,000 Chlorides.





Geologic Report
Aaron L. Young

Drilling Time and Sample Log

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

Well Name: Miller Farms #32-1
API: 15-033-21791
Location: Section 32 - T31S - R18W
License Number: 31514
Spud Date: 10/30/2021
Surface Coordinates: 673' FSL and 1116' FWL

Region: Comanche Co., KS
Drilling Completed: 11/07/2021

Bottom Hole
Coordinates:
Ground Elevation (ft): 2140' K.B. Elevation (ft): 2151'
Logged Interval (ft): 4800' To: 6060' Total Depth (ft): 6060'
Formation: Arbuckle
Type of Drilling Fluid: Chemical - MudCo

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

OPERATOR

Company: Thoroughbred Associates L.L.C
Address: 8100 E 22nd ST STE 600
Wichita, KS 67226+2307

GEOLOGIST

Name: Aaron L. Young, M.S.
Company: Young Consulting LLC
Address: 100 S Main, Suite 505
Wichita, Kansas 67202

General Info

CONTRACTOR: Murfin Drilling Rig #114

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	RR	15-15-15	690'	574'	10.0
2	7-7/8	Smith MI 616	15-15-15	6060'	5370'	105.25

Surveys: 690'-.75, 1704'-1, 5015'-.75

GENERAL DRILLING AND PUMP INFORMATION:

Drilling with 10,000-15,000 lbs. on bit and approx 110 RPM.

Running 9 stands of collars; 520.18'

Pumping approx 800 psi at standpipe @ 60 SPM

Daily Status

10-22-21 Edge Services drilled rathole and set 80' for conductor casing.
 10-29-21 Begin MIRT. Murfin Drilling has the contract, Rig #114.
 10-30-21 Finish MIRT. Drilled from 80' - 690', cut 580'.
 - Spud well @ 8:30 AM on 10/30/21.
 - Ran 17 jts of 23# J-55 8-5/8" surface casing, set @ 690' (tallied 671.06'), cemented 250 sxs H-Lite, 3% cc, followed by 150 sxs Class A, 2% cc 1/4# celflake. Job completed by Hurricane. Cement did circulate. Kenny Sullivan, Dist #1.
 - Plug down @ 2:00 AM on 10/31/21.
 10-31-21 WOC @ 690'.
 11-01-21 Drilling ahead @ 1005', cut 315.
 - Drilled out @ 8:00 PM on 10/31/21. 11-02-21 Drilling ahead @ 2510', cut 1505'.
 11-03-21 Drilling ahead @ 4210', cut 1700'.
 - Displacement @ 3740', used 700 bbls, .75 hrs.
 11-04-21 Testing @ 5014', cut 804'. Should be on bottom 10:00-11:00am.
 - DST #1 4960-5014 (Altamont)
 11-05-21 Drilling ahead @ 5172', cut 158'.
 11-06-21 TOOH for DST #2 @ 5750' (Viola), cut 578'.
 11-07-21 Drilling ahead @ 5855', cut 105'.
 11-08-21 RTD 6060', cut 205'. Log from 10:50 PM on 11/07/21 to 4:00 AM on 11/08/21. LTD 6070' Plug to abandon w/220 sxs H-Plug. Jet cellar & pits. Job completed by Hurricane @ 7:45 PM on 11/08/21. Rig released @ 11:45 PM on 11/08/21.

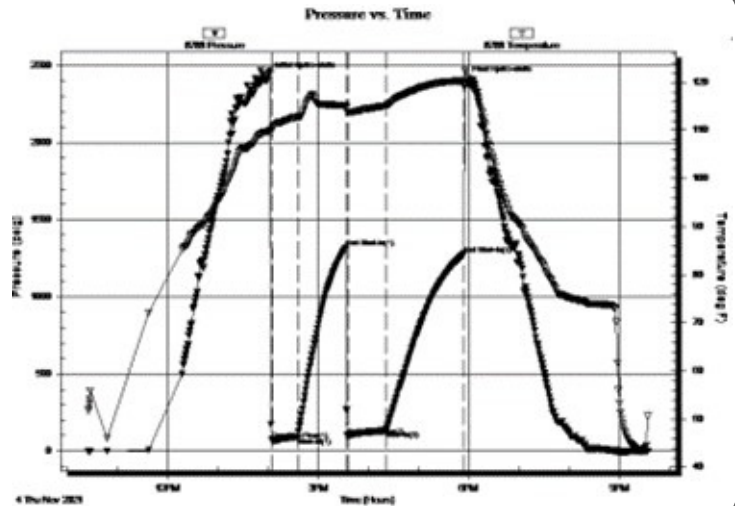
DST #1 Altamont 4960'-5014' 30"-60"-45"-90"

IF: BOB in 30 sec. Built to 208.65"
 SI: Fair blow, built to 6.67"
 FF: BOB immed. Built to 181.92" Guaged gas
 FSI: Weak blow, built to 1.47"

Rec'd: 61' GOWCM (29% G, 20% O, 9% W, 42% M), 120' GHOWCM (22% G, 22% O, 5% W, 51% M), 65' GHOWCM (55%G, 10% O, 5% W, 30% M), 64' GHOWCM (30% G, 15% O, 1% W, 54% M), 32' GVSOCM (20% G, 1% O, 79% M)

Guaged 7.26 mcf/d

SIP: 1319-1277# FP: 71-92#, 95-133# HP: 2429-2399#

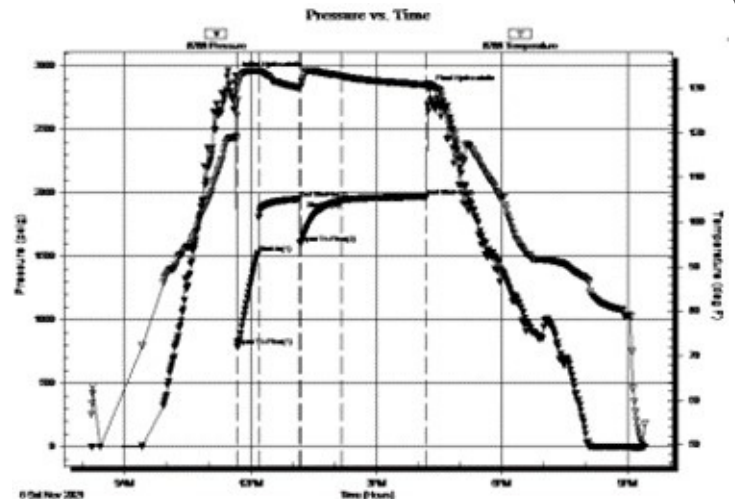


DST #2 Viola 5656'-5750' 30"-60"-60"-120"

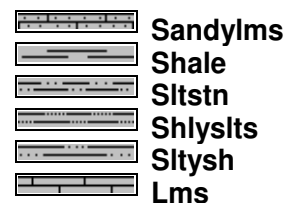
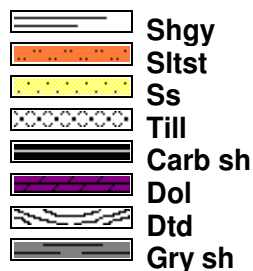
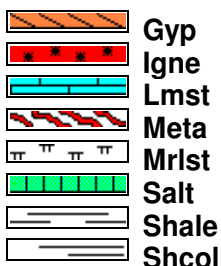
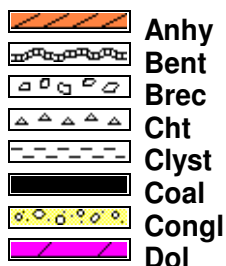
IF: BOB in 1 min. Built to 268.68"
 SI: Weak blow, built to 3.73"
 FF: BOB 1.5 min. Built to 150.29"
 FSI: No blow

Rec'd: 3498' W (100% W), 512' GWCM (5% G, 30% W, 65% M), 176' WCM (5% W, 95% M)

SIP: 1953-1970#
 FP: 791-1526#, 1598-1936#
 HP: 2921-2817#



ROCK TYPES

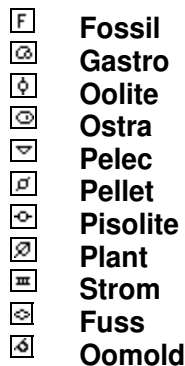
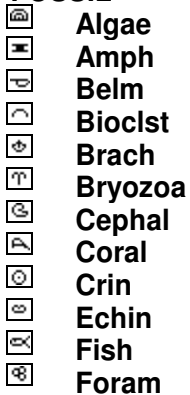


ACCESSORIES

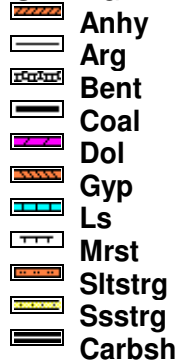
MINERAL



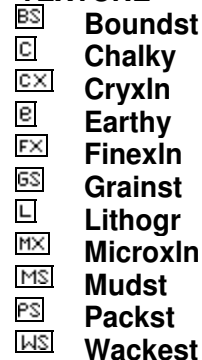
FOSSIL



STRINGER

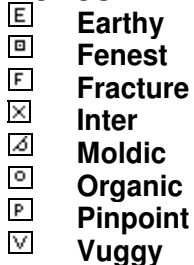


TEXTURE



OTHER SYMBOLS

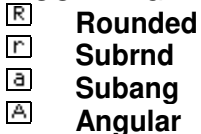
POROSITY TYPE



SORTING



ROUNDING



OIL SHOWS




INTERVALS




EVENTS



Curve Track 1

ROP (min/ft) 

Gamma Ray 

MD

Porosity


24%
18%
12%
6%


Lithology


Oil Shows


Geological Descriptions


TG, C1-C5


TG (units) 

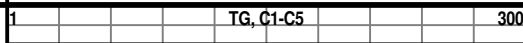
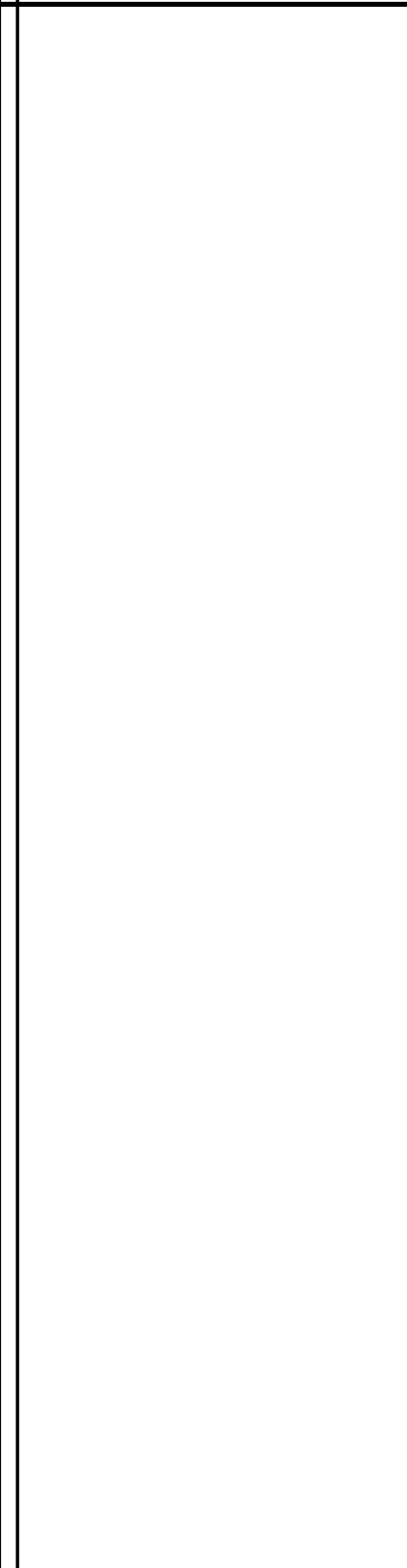
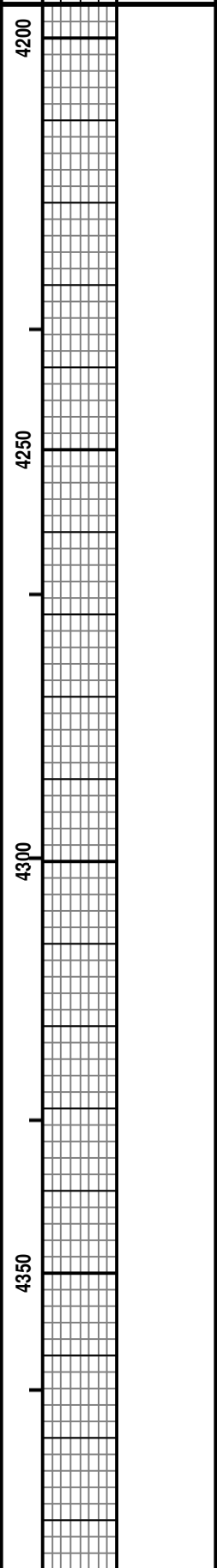
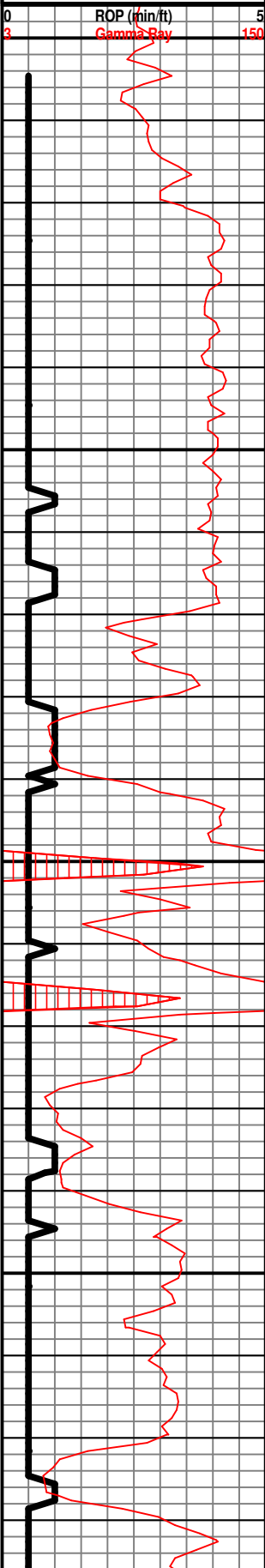
C1 (units) 

C2 (units) 

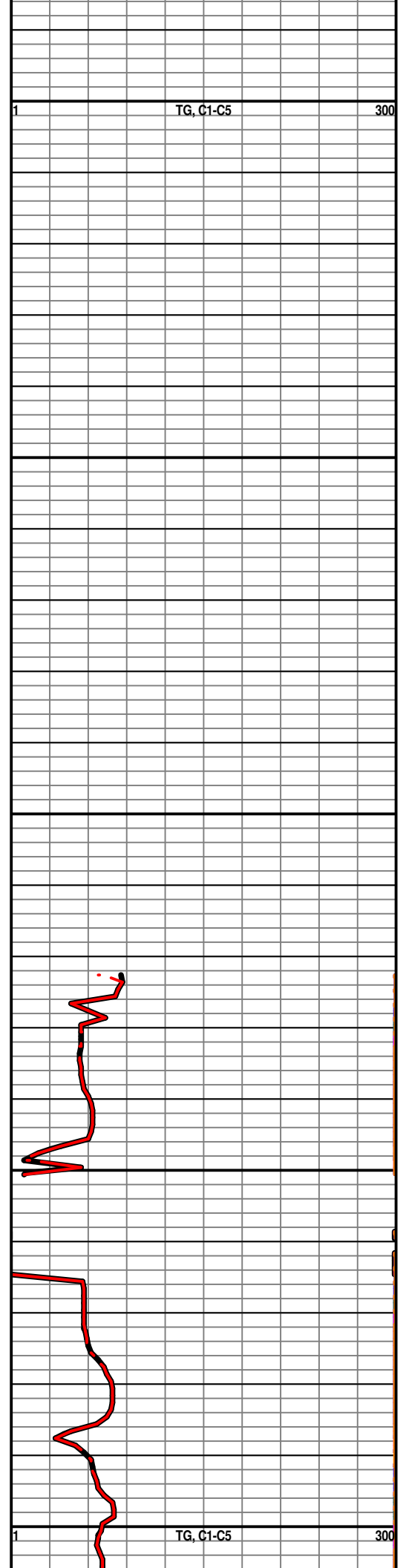
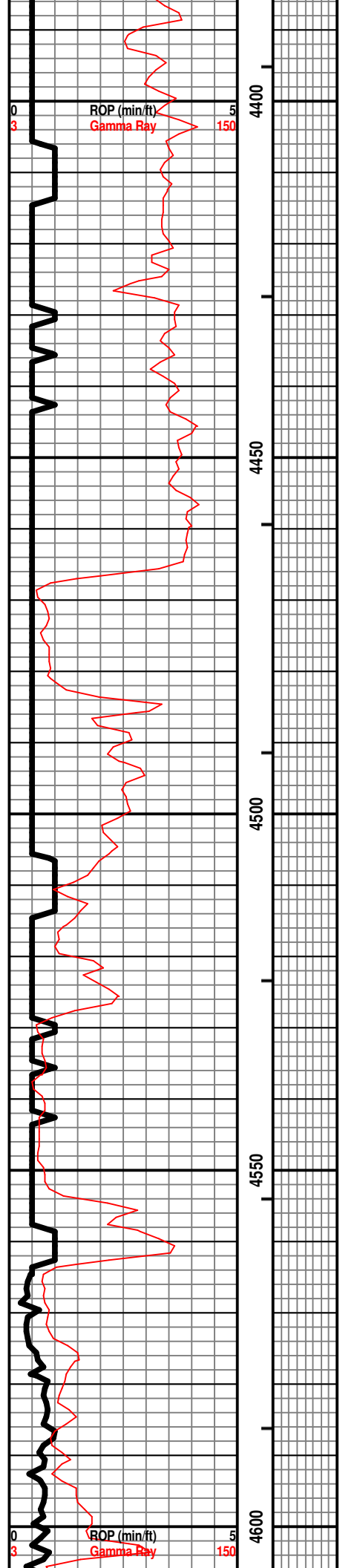
C3 (units) 

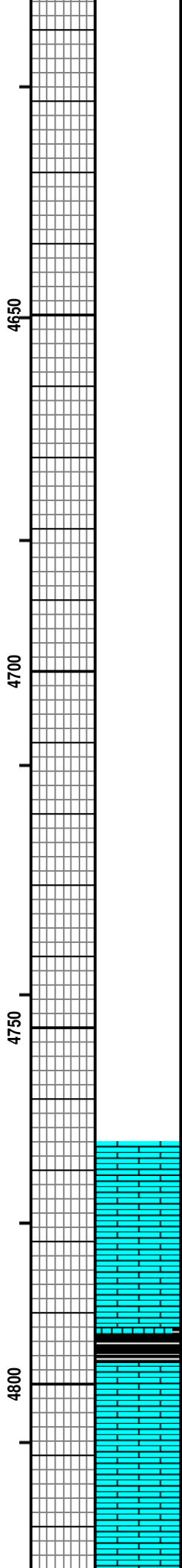
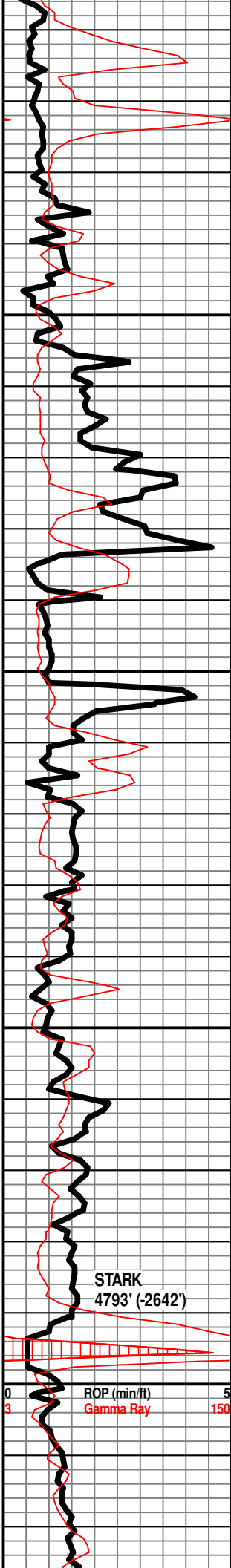
C4 (units) 

C5 (units) 



ENTIRE REPORT
WAS SLID 4'
DOWN TO MATCH
LOGS

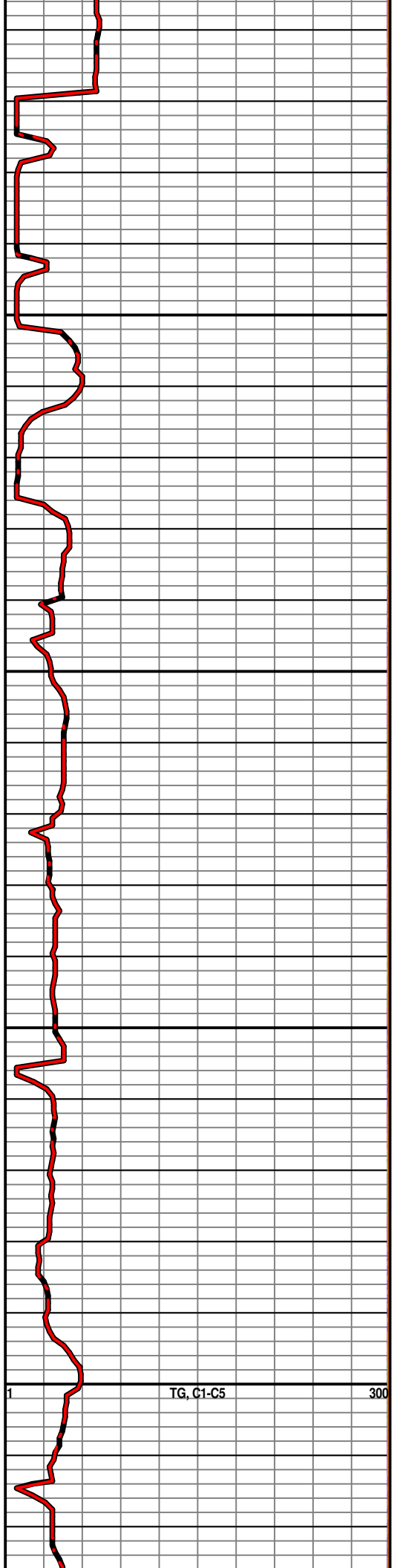


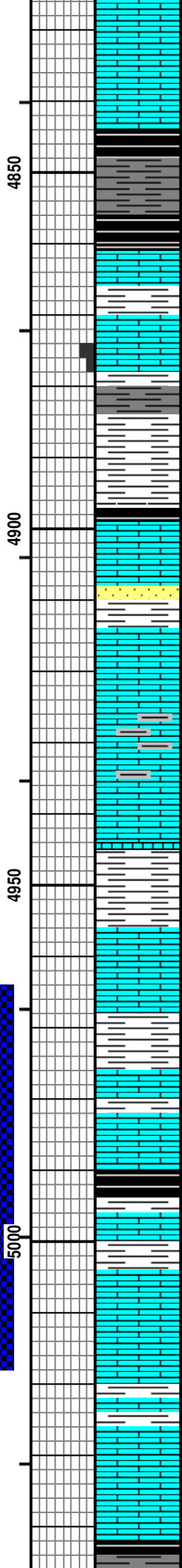


LS - CRM, VF / F XLN, PRED SUBCHKY / MOD
DNS, CHKY IN PT, FOSS IN PT

SH - BLK, CARB, SLI SHO OF GAS BUB, W/ LS -
TAN / CRM, F XLN, PRED MOD DNS, SUBCHKY
IN PT, P OOLMOLDIC POR IN PT, NS, NO ODOR,
FOSS IN PT

LS - CRM / TAN, F / M XLN, VF XLN IN PT, PRED
MOD DNS / DNS, SUBCHKY IN PT, FOSS IN PT





MOD DNS / DNS, SUBCHKY IN PT, FOSS IN PT
 SH - DK GY / BLK, CARB, W/ LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS IN PT

SH - BLK, CARB, SLI SHO OF GAS BUB, LS - CRM / TAN / GY IN PT, F XLN, MOD DNS / DNS, FOSS IN PT, W/ SH - GY / GRN

SH - DK GY / BLK, CARB IN PT, LMY IN PT, W/ LS - TAN, F XLN, MOD DNS / DNS, P OOLMOLDIC POR IN PT, FOSS, NS, NO ODOR

SH - BLK, CARB, W/ SH - GRN GY, W/ FEW PIECES OF SS - CLR / WHT, VF GR, RND, W SRTD, MOD / P CEM, FRI IN PT, GLAUC IN PT, SHLY IN PT, W/ LS - TAN / CRM, F / VF XLN, MOD DNS / DNS, SUBCHKY IN PT

LS - DK GY / GY, F / M XLN, MOD DNS / DNS, SHLY IN PT

SH - GRN / GY / RDISH-ORNG / MAR, W/ LS - CRM, VF / XLN, SUBCHKY / MOD DNS

SH - GRN / GY, W/ LS - CRM, VF XLN, SUBCHKY / CHKY IN PT, MOD DNS IN PT

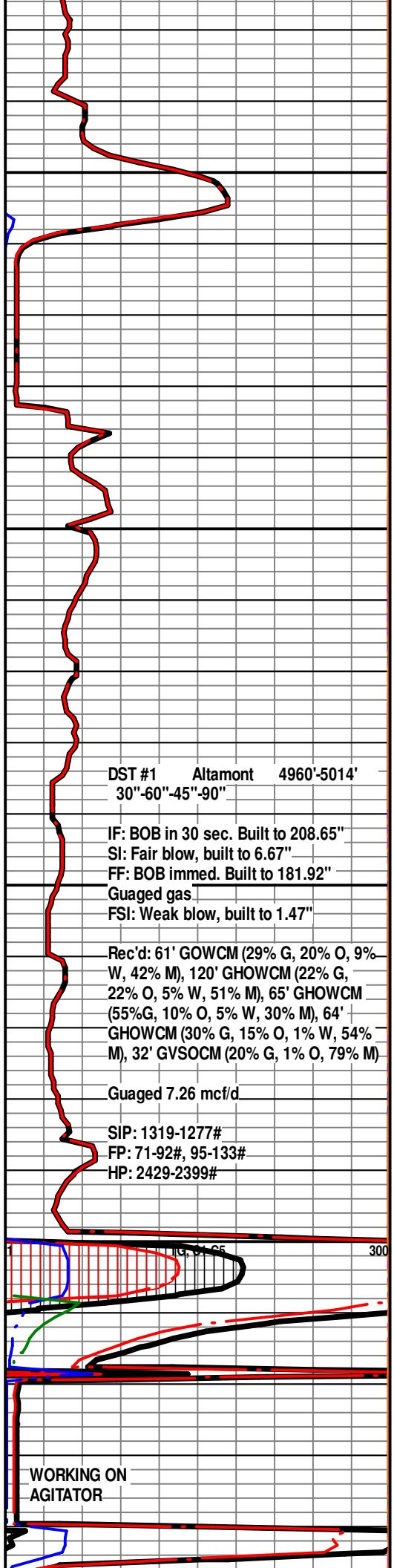
SH - BLK, CARB, W/ SH - LT GY / LT GRN, W/ LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS IN PT

LS - CRM / TAN, F XLN, ABUND FOSS, F / G INTERXLN & INTERPART POR, OOLMOLDIC POR IN PT, SSFO, V LT BRN OIL DROPLETS, FEW GAS BUB WHEN BRKN, F CUP ODOR, BRI YEL-GRN FLUOR IN SHOW ROCKS, ABUND OIL SHEEN

LS - TAN / CRM, F / M XLN, MOD DNS / DNS, FOSS

LS - TAN, M XLN, MOD DNS / DNS, FOSS, W/ LS - CRM, VF XLN, MOD DNS / SUBCHKY

SH - BLK, CARB, W/ LS - CRM / GY, VF XLN, MOD DNS / SUBCHKY



DST #1 Altamont 4960'-5014'
 30"-60"-45"-90"

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 SI: Fair blow, built to 6.67"
 FF: BOB immed. Built to 181.92"
 Guaged gas
 FSI: Weak blow, built to 1.47"

Rec'd: 61' GOWCM (29% G, 20% O, 9% W, 42% M), 120' GHOWCM (22% G, 22% O, 5% W, 51% M), 65' GHOWCM (55%G, 10% O, 5% W, 30% M), 64' GHOWCM (30% G, 15% O, 1% W, 54% M), 32' GVSOCM (20% G, 1% O, 79% M)

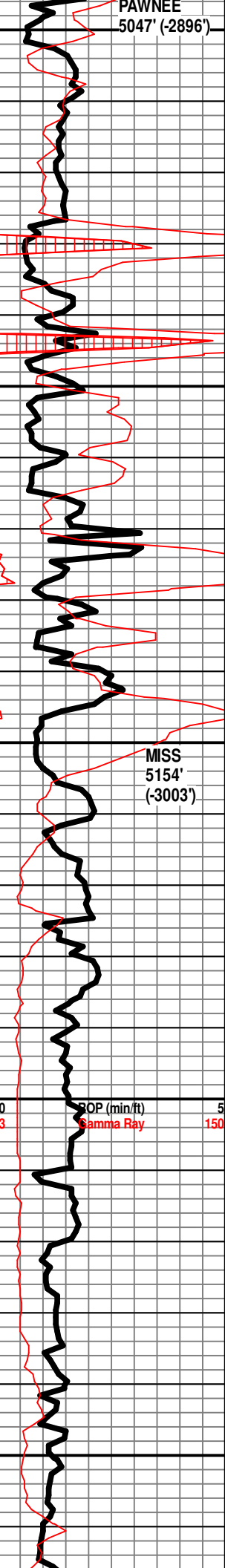
Guaged 7.26 mcf/d

SIP: 1319-1277#
 FP: 71-92#, 95-133#
 HP: 2429-2399#

WORKING ON AGITATOR

PAWNEE
5047' (-2896')

5050
5100
5150
5200
5250



LS - CRM / TAN, VF / F XLN, SUBCHKY / MOD DNS, W/ SH - GY / GRN IN PT

LS - CRM / WHT IN PT, VF XLN, SUBCHKY / CHKY IN PT, MOD DNS IN PT, FOSS IN PT

LS - CRM, VF XLN, SUBCHKY / MOD DNS

SH - BLK, CARB, VG SHO OF GAS BUB
LS - TAN / LT BRN, F / M XLN, DNS, P VUG POR, POS FRAC POR, P / F INTERXLN POR IN FEW PIECES, VG SHO OF GAS BUB, F AMOUNT OF OIL SHEEN, NSFO, BRI YEL-GRN FLUOR IN SHO ROCKS

SH - BLK, CAR, W/ LS - CRM, VF / F XLN, MOD DNS, SUBCHKY IN PT, DNS IN PT, FOSS IN PT

SH - DK GY / BLK, W/ LS - CRM, VF / F XLN, MOD DNS / SUBCHKY, FOSS IN PT

LS - CRM / TAN, F XLN, ABUND FOSS, P / F INTERXLN POR IN PT, VUG POR IN PT, VSSFO, V LT BRN OIL DROPLETS, G SHO OF GAS BUB, BRI YEL-GRN FLUOR IN SHO ROCKS, W/ SH - GY

SH - BLK, CARB, W/ LS - TAN / CRM, F / VF XLN, MOD DNS / SUBCHKY, FOSS IN PT, W/ SH - GY

LS - CRM / TAN, F XLN, MOD DNS / DNS, W/ SH - TURQ / LT GY, PYRITIC IN PT, FOSS IN PT

SH - GY / GRN, W/ LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS IN PT

LS - CRM / WHT, VF XLN, SUBCHKY / CHKY

LS - CRM / WHT, VF XLN, SUBCHKY / CHKY

LS - CRM / WHT, VF XLN, SUBCHKY / MOD DNS, CHKY IN PT

LS - WHT / CRM, CHKY / SUBCHKY

LS - WHT / CRM, VF XLN, SUBCHKY / MOD DNS, DNS IN PT, FOSS IN PT

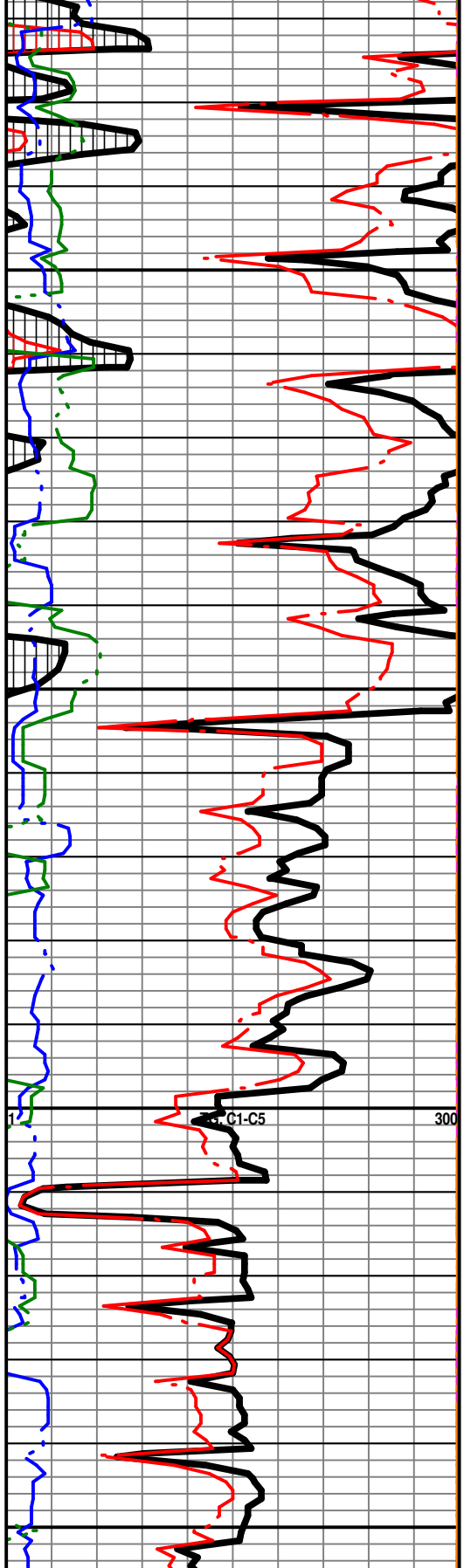
LS - CRM / WHT, VF XLN, SUBCHKY / MOD DNS IN PT, FOSS

LS - WHT / CRM IN PT, PRED V CHKY / CHKY, SUBCHKY IN PT

LS - CRM, VF XLN, SUBCHKY / MOD DNS, CHKY IN PT, DNS IN PT, ARG IN PT W/ DRK GY SH

LS - CRM / LT GY, VF XLN, MOD DNS / SUBCHKY IN PT, ARG IN PT W/ DRK GY SH

REPLACED AGITATOR

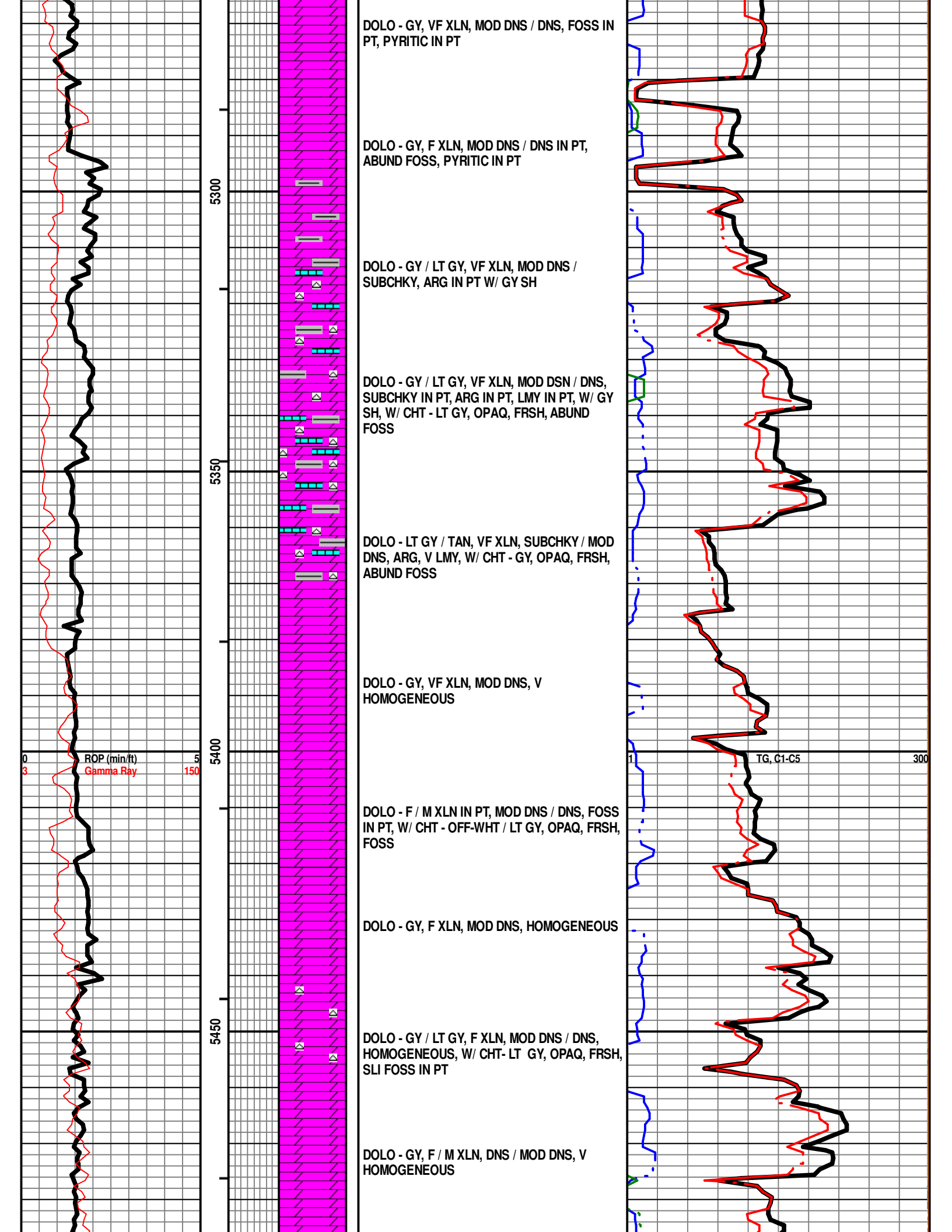


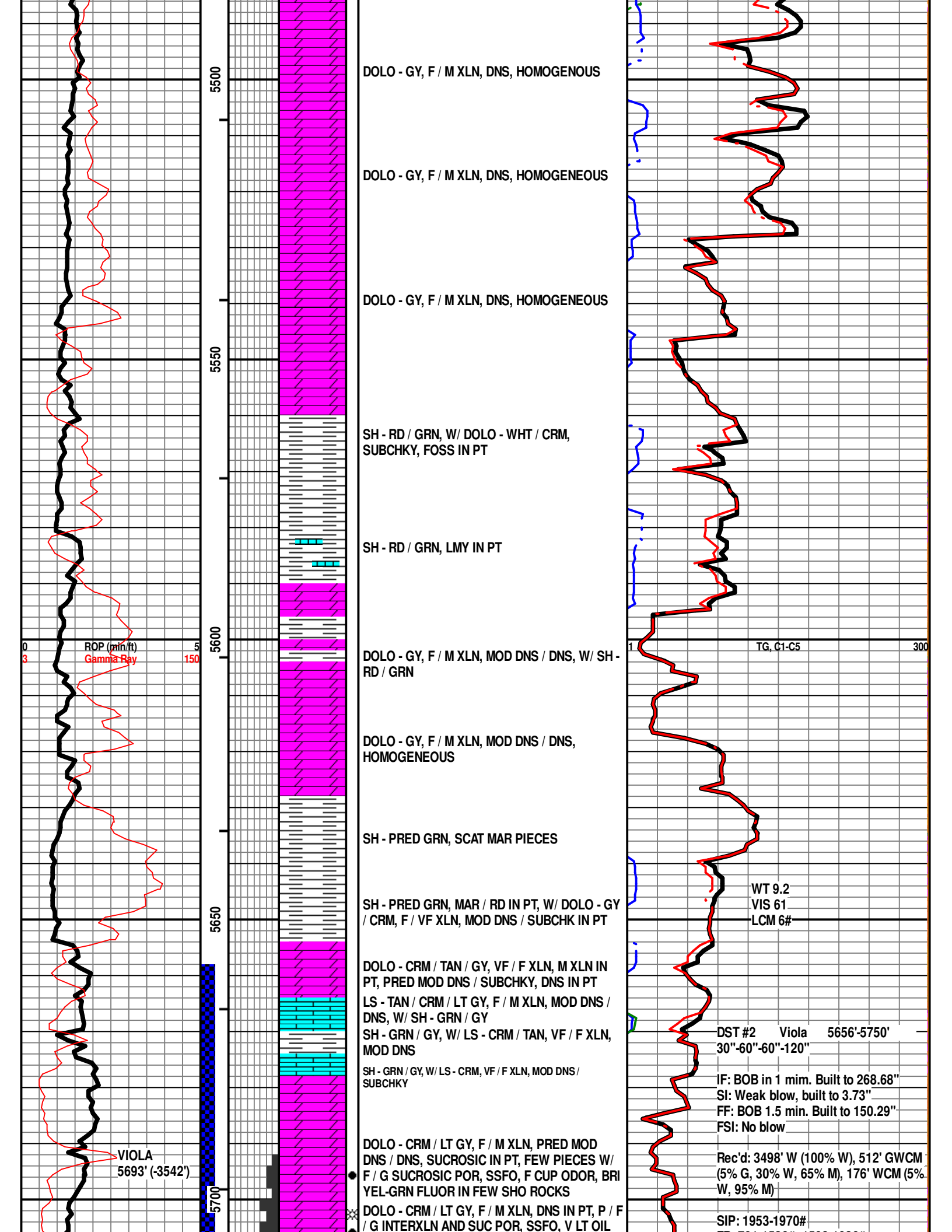
MISS
5154'
(-3003')

SOP (min/ft)
Gamma Ray

0 3 5 150

C1-C5 300





5500
5550
5600
5650
5700

DOLO - GY, F / M XLN, DNS, HOMOGENOUS

DOLO - GY, F / M XLN, DNS, HOMOGENOUS

DOLO - GY, F / M XLN, DNS, HOMOGENOUS

SH - RD / GRN, W/ DOLO - WHT / CRM, SUBCHKY, FOSS IN PT

SH - RD / GRN, LMY IN PT

DOLO - GY, F / M XLN, MOD DNS / DNS, W/ SH - RD / GRN

DOLO - GY, F / M XLN, MOD DNS / DNS, HOMOGENOUS

SH - PRED GRN, SCAT MAR PIECES

SH - PRED GRN, MAR / RD IN PT, W/ DOLO - GY / CRM, F / VF XLN, MOD DNS / SUBCHK IN PT

DOLO - CRM / TAN / GY, VF / F XLN, M XLN IN PT, PRED MOD DNS / SUBCHKY, DNS IN PT
 LS - TAN / CRM / LT GY, F / M XLN, MOD DNS / DNS, W/ SH - GRN / GY
 SH - GRN / GY, W/ LS - CRM / TAN, VF / F XLN, MOD DNS

SH - GRN / GY, W/ LS - CRM, VF / F XLN, MOD DNS / SUBCHKY

DOLO - CRM / LT GY, F / M XLN, PRED MOD DNS / DNS, SUCROSIC IN PT, FEW PIECES W/ F / G SUCROSIC POR, SSFO, F CUP ODOR, BRI YEL-GRN FLUOR IN FEW SHO ROCKS

DOLO - CRM / LT GY, F / M XLN, DNS IN PT, P / F / G INTERXLN AND SUC POR, SSFO, V LT OIL

TG, C1-C5

WT 9.2
VIS 61
LCM 6#

DST #2 Viola 5656'-5750'
30"-60"-60"-120"

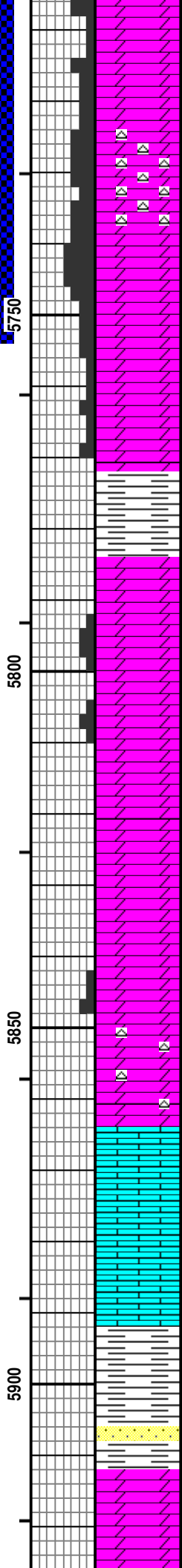
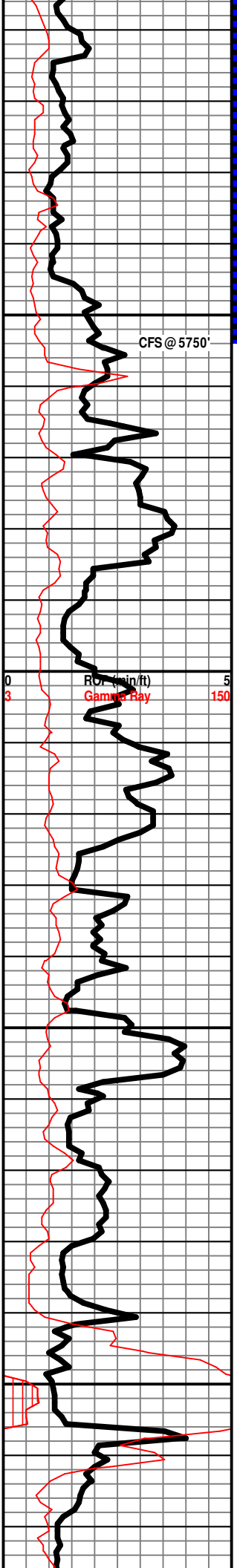
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Rec'd: 3498' W (100% W), 512' GWCM (5% G, 30% W, 65% M), 176' WCM (5% W, 95% M)

SIP: 1953-1970#

ROP (min/ft)
Gamma Ray

VIOLA
5693' (-3542')



DROPLETS, SLI SHO OF GAS WHEN BRKN, G CUP DOOR, BRI YEL-GRN FLUOR IN SHO ROCKS

DOLO - CRM, F / M XLN, DNS IN PT, SUC IN PT, P / F INTERXLN POR, P / F SUC POR IN PT, SSFO, SLI SHO OF GAS WHEN BRKN, V STRONG CUP ODOR, BRI YEL-BRN FLUOR IN SHO ROCKS

CHT - CRM / LT GY, PRED FRSH, P WEATH POR IN PT, DOLOMITIC IN PT, W/ DOLO - CRM, F / M XLN, P / F / G INTERXLN AND SUC POR IN PT, FEW FOSS & RHOMBIC PIECES WITH VUG POR, DNS IN PT, SSFO, V LT BRN OIL, V STRONG CUP ODOR, BRI YEL-GRN FLUOR IN SHO ROCKS

DOLO - LT GY / CRM IN PT, F XLN, M XLN IN PT, PRED DNS, SUCROSIC IN PT, P SUC POR IN PT, NS

DOLO - LT GY / CRM, F / M XLN, PRED DNS, P INTERXLN & VUG POR IN FEW PIECES, NS

SH - RD / GRN / GY / LT BRN, V SOFT IN PT

DOLO - WHT / CRM, V CHKY, SUBCHKY IN PT, SUCROSIC IN PT

DOLO - CRM / TAN, F XLN, SLI SUCROSIC, DNS / MOD DNS, P / F SUC POR IN PT, W/ SCAT CHT - CRM / TAN, OPAQ, FRSH, FOSS

DOLO - CRM / TAN, F XLN, SLI SUCROSIC, MOD DNS / DNS, P / F SUC POR IN PT

DOLO - TAN / LT BRN, F XLN, SUCROSIC, MOD DNS / DNS, P / F SUC POR IN PT

DOLO TAN / LT BRN, F XLN, SLI SUCROSIC, MOD DNS / DNS

DOLO - DK TAN / LT BRN, F / M XLN, SUCROSIC IN PT, DNS / MOD DNS

DOLO - TAN / BRN, F XLN, SUCROSIC, P SUC POR IN PT, NS

DOLO - CRM / TAN / BRN, F / M XLN, MOD DNS / DNS, SUCROSIC IN PT, W/ CHT - CRM / TAN, OPAQ, FRSH, FOSS

LS - CRM / WHT, SUBCHKY / CHKY

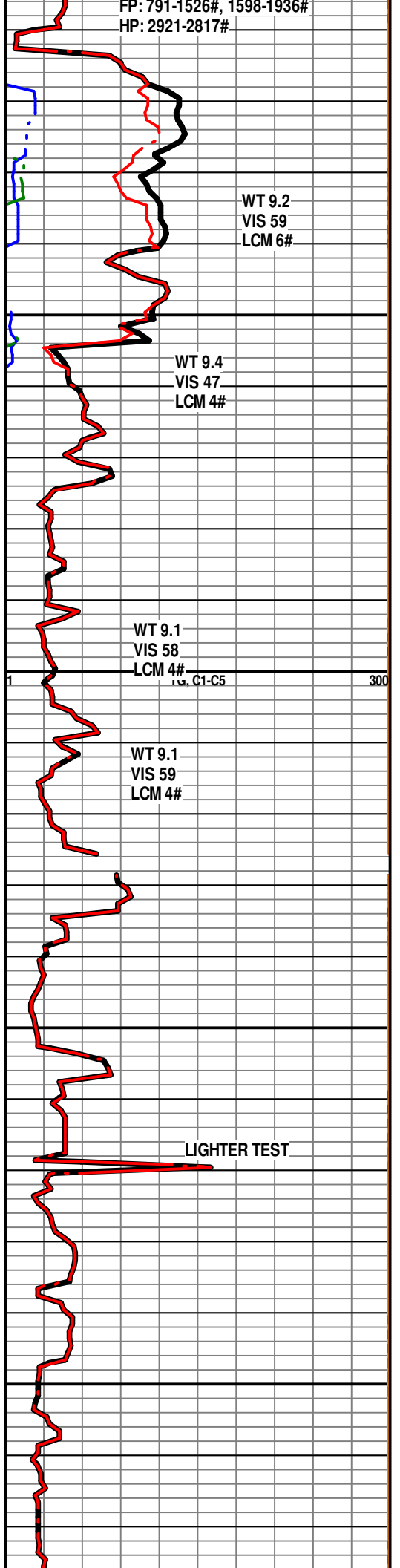
LS - CRM / WHT, SUBCHKY / CHKY

LS - WHT / CRM, CHKY / V CHKY, SUBCHKY IN PT

SH - GRN / TURQ, SLI WAXY IN PT, W/ LS - WHT / CRM, CHKY

SH - GRN / TURQ, SLI WAXY IN PT, W/ FEW CLUSTERS OF SS - WHT / GY / GRN, F GR, RND, W SRTD, MOD CEM, ARG IN PT, PYRITIC IN PT

DOLO - TAN / CRM / BRN, F XLN, MOD DNS / DNS



WT 9.2
VIS 59
LCM 6#

WT 9.4
VIS 47
LCM 4#

WT 9.1
VIS 58
LCM 4#

WT 9.1
VIS 59
LCM 4#

LIGHTER TEST

CFS@5750'

Gamma Ray

C1-C5

SIMPSON SH
5938' (-3787')

SS - CLR / GY, F / M GR, SUB-RND / SUB-ANG, P
SRTD, W CEM, DNS, GLAUC, V PYRITIC, W/ SH
- GRN

SS - GY, VF GR, RND, MOD CEM, MOD DNS,
SLTY IN PT, ARG

SH - GRN / GY / LT GY

SH - GRN / LT GRN

SH - GRN / LT GRN / LT GY, SNDY IN PT,
PYRITIC IN PT

SS - CLR, M GR, RND, MOD / W CEM, GLAUC, P
INTERGR POR, NS

SH - GRN / LT GY

SIMPSON SD
5994' (-3843')

SS - CLR, F / M GR, RND, MOD SRTD, MOD
CEM, PRED FRI, P / F INERGR POR, NS

ROP (min/ft)
Gamma Ray

150

TG, C1-C5

300

LIGHTER TEST

CFS @ 6010'

ARBUCKLE
6018' (-3867')

DOLO - BRN, F / M XLN, PRED DNS, P
SUCROSIC POR IN FEW PIECES, VUG POR IN
FEW PIECES, NS

DOLO - BRN, F / M XLN, PRED DNS / V DNS,
SUCROSIC IN FEW PIECES

DOLO - BRN / CRM, F / M XLN, DNS, SUCROSIC
IN PT, F / G SUC POR IN PT, NS

DOLO - CRM / BRN, F XLN, F / G SUCROSIC
POR, NS, FOSS IN PT

RTD 6060'

ENTIRE REPORT
WAS SLID 4'
DOWN TO MATCH
LOGS

5950

6000

6050