KOLAR Document ID: 1522958

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 # 34318
Name: BEREXCO LLC
Address 1: 2020 N. BRAMBLEWOOD
Address 2:
City: WICHITA State: KS Zip: 67206 + 1094
Contact Person: Brett Blazer
Phone: (316) 265-3311
CONTRACTOR: License # 34318
Name: BEREXCO LLC
Wellsite Geologist: Ed Grieves
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.)*: Stratigraphic Test Well

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 #:

3/6/2020 Spud Date or Recompletion Date
4/22/2020 Date Reached TD
6/15/2020 Completion Date or Recompletion Date

API No.: 15-093-21979-00-00
Spot Description:
SE - SW - SE - SE Sec. 25 Twp. 22 S. R. 38 ☐ East ☑ West
100 Feet from ☐ North / ☑ South Line of Section
860 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Kearny
Lease Name: PATTERSON KGS Well #: #5-25
Field Name:
Producing Formation: N/A
Elevation: Ground: 3317 Kelly Bushing: 3329
Total Vertical Depth: 6550 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1763 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 4950 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: 3500 ppm Fluid volume: 800 bbls
Dewatering method used: Evaporated
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:** Karen Ritter **Date:** 07/08/2020

Operator Name: BEREXCO LLC Lease Name: PATTERSON KGS Well #: #5-25

Sec. 25 Twp. 22 S. R. 38 ☐ East ☑ West County: Kearny

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 *(Attach Additional Sheets)*	☑ Yes	☐ No
Samples Sent to Geological Survey	☑ Yes	☐ No
Cores Taken	☐ Yes	☑ No
Electric Log Run	☑ Yes	☐ No
Geologist Report / Mud Logs	☑ Yes	☐ No

List All E. Logs Run:
Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Heebner	3804	-475
Lansing	3860	-531
Cherokee	4485	-1156
Mississippi	4887	-1558
Viola	5561	-2232
Arbuckle	5823	-2494
Granite wash	6278	-2949

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Attached	Attached	Attached	Attached	Attached	Attached	Attached	Attached

ADDITIONAL CEMENTING / SQUEEZE RECORD

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

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: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

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

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	Top / Bottom

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

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	PATTERSON KGS #5-25
Doc ID	1522958

All Electric Logs Run

Sonic
Resistivity
Microlog
Porosity

Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	PATTERSON KGS #5-25
Doc ID	1522958

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1763	65/35 poz (Lead), Class C (Tail)	800	6% gel, 3% CC, 1/4# flakes (Lead), 2% CC, 1/4# flakes (Tail)
Production	7.875	5.5	15.5	6537	50/50 poz	350	5# Gilsonite, 0.5% Dispersant, 0.5% Fluid loss, 0.25# Defoamer
Production	7.875	5.5	15.5	4955	65/35 poz (Lead), Thixotrophic (Tail)	275	6% gel, 1/4# flakes (Lead), 10% gyp, 10% salt, 5# gilsonite, 0.5% Fluid loss, 0.25# Defoamer (Tail)

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Operator	BEREXCO LLC
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Doc ID	1522958

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Production	7.875	5.5	15.5	3207	65/35 poz (Lead), Thixotropic (Tail)	500	6% gel, 1/4# Flakes (Lead), 10% gyp, 10% salt, 5# gilsonite, 0.5% Fluid loss, 0.25# Defoamer (Tail)

QUASAR ENERGY SERVICES, INC.
3288 FM 51
Gainesville, Texas 76240
Office: 940-612-3336
Fax: 940-612-3336 | qesi@qeserve.com

Form 185-2c

3/10/20
CEMENTING JOB LOG

CEMENTING JOB LOG

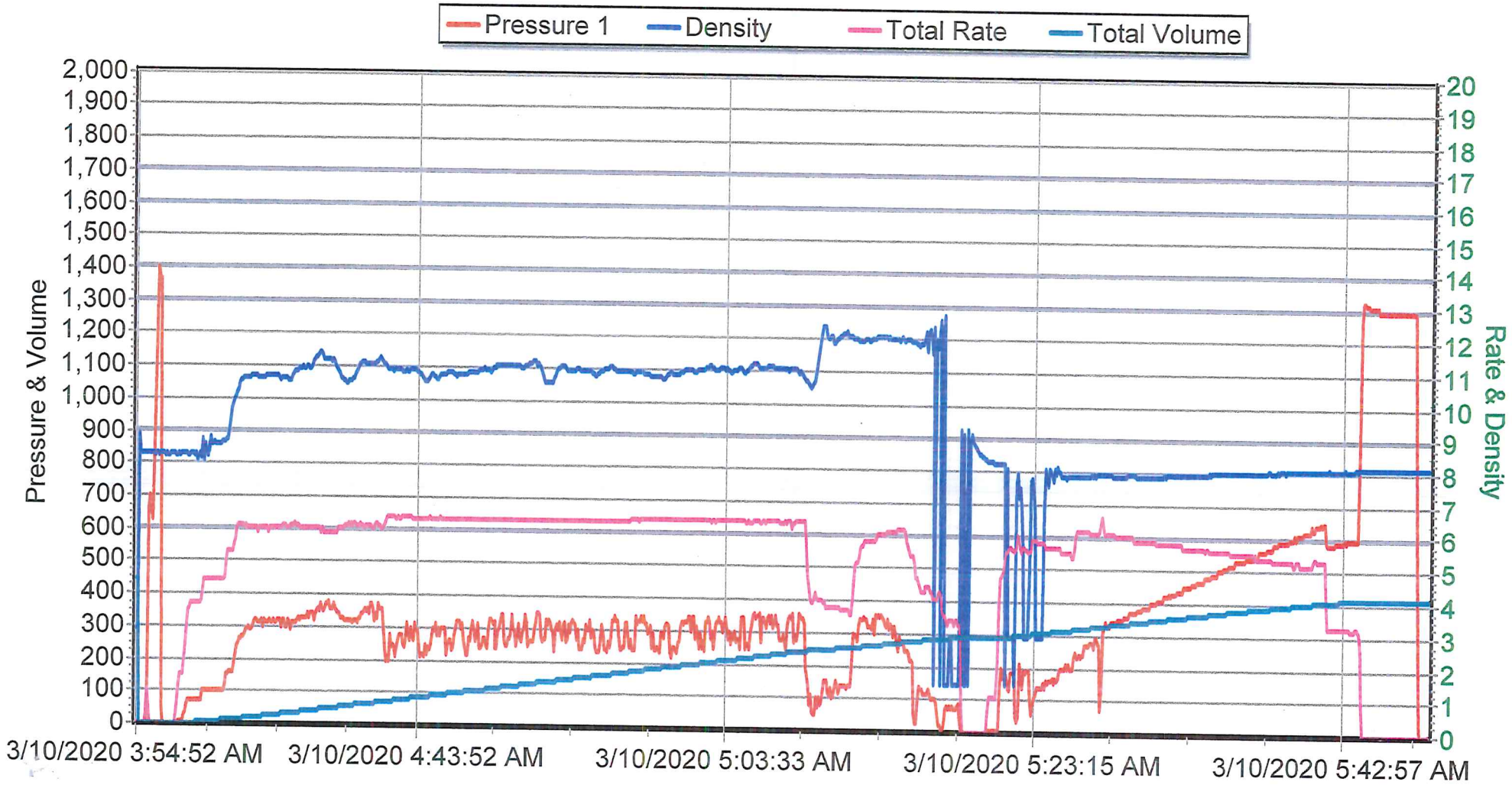
Company:	BEREXCO INC			**Well Name:**	PATTERSON KGS #5-25		
Type Job:	Cement- Surface			**AFE #:**	0		
CASING DATA							
Size:	8 5/8	Grade:	J-55	Weight:	24		
Casing Depths	Top: 0	Bottom:	SJ- 43.73				
Drill Pipe:	Size: 0	Weight:	0				
Tubing:	Size: 0	Weight:	0	Grade:	0	TD (ft):	1770
Open Hole:	Size: 12 1/4	T.D. (ft):	1770				
Perforations	From (ft): 0	To:	0	Packer Depth(ft):	0		

CEMENT DATA							
Spacer Type:	FRESH WATER						
Amt.	10 BBL	Sks Yield		ft $^3/_{sk}$		Density (PPG)	
LEAD:	65/35/6 -- 3% CC, 1/4# POLY					Excess	
Amt.	650	Sks Yield	1.95	ft $^3/_{sk}$		Density (PPG)	12.4
TAIL:	CLASS C -- 2% CC, 1/4# POLY					Excess	
Amt.	150	Sks Yield	1.34	ft $^3/_{sk}$		Density (PPG)	14.9
WATER:							
Lead:		gals/sk:	10.9	Tail:	gals/sk:	6.35	Total (bbls):
Pump Trucks Used:	110 / DP7						
Bulk Equipment:	217 -- FB11						
Disp. Fluid Type:	FRESH WATER	Amt. (Bbls.)	111	Weight (PPG):	8.33		
Mud Type:				Weight (PPG):			

COMPANY REPRESENTATIVE: _____ **CEMENTER:** KIRBY HARPER

TIME	PRESSURES PSI			FLUID PUMPED DATA		REMARKS
AM/PM	Casing	Tubing	ANNULUS	TOTAL	RATE	
0030						ON LOCATION--SPOT AND RIG UP
0430						CASING ON BOTTOM--BREAK CIRC
0515						SAFETY MEETING
0525	1500					PRESSURE TEST LINES
0527	300			10	6	START PUMPING WATER SPACER
0530	300			226	6	START PUMPING LEAD
0609	300			36	6	START PUMPING TAIL
0621						SHUT DOWN--CLEAN UP PUMP AND LINES
0623	300			0	6	START DISPLACING WITH FRESH WATER
0642	600			101	3	SLOW RATE
0645	650-1250			111		BUMP PLUG
0647	1250-0					RELEASE PRESSURE--FLOAT HELD
				30 BBL		CIRCULATED CEMENRT TO THE PIT

BEREXCO
PATTERSON KGS 5-25
8.625" SURFACE
03/10/20



QUASAR ENERGY SERVICES, INC.
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Form 185-2f

4/22/20

CEMENTING JOB LOG

CEMENTING JOB LOG

Company:	Berexco, Inc.			**Well Name:**	Patterson KGS #5-25		
Type Job:	Cement - DV Tool			**AFE #:**	0		
CASING DATA							
Size:	5 1/2	Grade:	J-55	Weight:	15.5		
Casing Depths	Top: 0	Bottom:	6537				
Drill Pipe:	Size: 0	Weight:	0				
Tubing:	Size: 0	Weight:	0	Grade:	0	TD (ft):	6550
Open Hole:	Size: 7 7/8	T.D. (ft):	6550				
Perforations	From (ft): 0	To:	0	Packer Depth(ft):	0		
CEMENT DATA							
Spacer Type:	12BBL MUD FLUSH						
Amt.		Sks Yield		$ft^3/_{sk}$		Density (PPG)	
LEAD:						Excess	
Amt.		Sks Yield		$ft^3/_{sk}$		Density (PPG)	
TAIL:	50/50 POZ STAGE 1					Excess	
Amt.	350	Sks Yield		$ft^3/_{sk}$	1.17	Density (PPG)	14.7
WATER:							
Lead:		gals/sk:		Tail:	38.3	gals/sk:	4.6	Total (bbls):	38.3
Pump Trucks Used:	110, DP7						
Bulk Equipment:	228, 660						
Disp. Fluid Type:	WATER / MUD	Amt. (Bbls.)	153.5	Weight (PPG):	8.3		
Mud Type:				Weight (PPG):			

COMPANY REPRESENTATIVE: Greg Klaus **CEMENTER:** Max Ball

TIME	PRESSURES PSI			FLUID PUMPED DATA		REMARKS
AM/PM	Casing	Tubing	ANNULUS	TOTAL	RATE	
5:00AM						ON LOCATION / RUN FLOAT EQUIPMENT
11:15AM						SAFETY MEETING / RIG TO CIRCULATE
12:30PM						RIG TO PT
12:45PM	550			12	3.4	PUMP 12BBL MUD FLUSH
12:50PM	5.6			72.9slurry	5.6	PUMP 350SX TAIL @ 14.7#
1:05PM						SHUTDOWN / DROP PLUG / WP
1:12PM	270			5	7.5	DISPLACE WITH H2O 35.6BBL
1:19PM	270			35.6	7.5	SWITCH TO MUD 117.9BBL
	270			50	7.5	
	270			70	7.5	
	270			90	7.5	
	280			110	7.5	
	490			130	7	
	630			140	5.2	
	790			143	4.1	SLOW RATE TO 2.7BPM @ 820
1:40PM	910			153.5	2.2	LAND PLUG / PRESSURE UP TO 1550PSI
1:41PM						RELEASE BACK --- PLUG HELD
1:44PM						DROP OPENING TOOL FOR 2ND STAGE
2:04PM	850					PUMP OPENING W/ 850PSI
2:15PM						CIRCULATE / GOT APPROX 10BBL CEMENT
8:05PM						RIG TO PT
8:09PM	250			12	3.8	PUMP 12BBL MUD FLUSH

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Form 185-2f

4/22/20

CEMENTING JOB LOG

CEMENTING JOB LOG

Company:	Berexco, Inc.			**Well Name:**	Patterson KGS #5-25		
Type Job:	Cement - DV Tool			**AFE #:**	0		
CASING DATA							
Size:	5 1/2	Grade:	J-55	Weight:	15.5		
Casing Depths	Top: 0	Bottom:	6537				
Drill Pipe:	Size: 0	Weight:	0				
Tubing:	Size: 0	Weight:	0	Grade:	0	TD (ft):	6550
Open Hole:	Size: 7 7/8	T.D. (ft):	6550				
Perforations	From (ft): 0	To:	0	Packer Depth(ft):	0		
CEMENT DATA							
Spacer Type:	12BBL MUD FLUSH						
Amt.		Sks Yield		$ft^3/_{sk}$		Density (PPG)	
LEAD:	65/35 POZ 2ND STAGE					Excess	
Amt.	175	Sks Yield		$ft^3/_{sk}$	1.91	Density (PPG)	12.57
TAIL:	CLASS H 2ND STAGE					Excess	
Amt.	100	Sks Yield		$ft^3/_{sk}$	1.65	Density (PPG)	14.8
WATER:							
Lead:	43.7	gals/sk:	10.5	Tail:	17.3	gals/sk:	17.3	Total (bbls):	61
Pump Trucks Used:	110, DP7						
Bulk Equipment:	217, FB11						
Disp. Fluid Type:	WATER / MUD	Amt. (Bbls.)	117.9	Weight (PPG):	8.3		
Mud Type:				Weight (PPG):			

COMPANY REPRESENTATIVE: Greg Klaus **CEMENTER:** Max Ball

TIME	PRESSURES PSI			FLUID PUMPED DATA		REMARKS
AM/PM	Casing	Tubing	ANNULUS	TOTAL	RATE	
8:13PM	310			59.5slurry	6.7	PUMP 175SX LEAD @ 12.5#
8:26PM	90			29.3slurry	4.0	PUMP 100SX TAIL @ 14.8#
8:38PM						SHUTDOWN / DROP PLUG / WP
8:43PM	200			10	7	DISPLACE WITH H2O 41.6BBL
	240			41.6	7.6	SWITCH TO MUD 76.3BBL
	200			50	7	
	410			70	7	
	570			90	6.6	
	690			100	6.1	
9:03PM	870			107	5.7	SLOW RATE TO 2.3BPM @ 730PSI
9:07PM	810			117.9	2.1	LAND PLUG / PRESSURE UP TO 1590PSI
9:10PM						RELEASE BACK --- PLUG HELD
9:12PM						DROP OPENING TOOL FOR 3RD STAGE
9:28PM	830					PUMP OPENING TOOL W/ 830PSI
9:39PM						CIRCULATE / GOT APPROX 20BBL CEMENT
1:11AM						PLUG RAT & MOUSE
1:22AM	150			10	3.2	PUMP 10BBL SPACER
1:27AM	180			153slurry	4.7	PUMP 450SX LEAD @ 12.5#
2:23AM	90			14.1slurry	4.5	PUMP 50SX TAIL @ 14.8#
2:32AM						SHUTDOWN / DROP PLUG / WP
2:36AM	300			10	6	DISPLACE

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Form 185-2f

4/22/20
CEMENTING JOB LOG

CEMENTING JOB LOG

Company:	Berexco, Inc.			**Well Name:**	Patterson KGS #5-25		
Type Job:	Cement - DV Tool			**AFE #:**	0		
CASING DATA							
Size:	5 1/2	Grade:	J-55	Weight:	15.5		
Casing Depths	Top: 0	Bottom:	6537				
Drill Pipe:	Size: 0	Weight:	0				
Tubing:	Size: 0	Weight:	0	Grade:	0	TD (ft):	6550
Open Hole:	Size: 7 7/8	T.D. (ft):	6550				
Perforations	From (ft): 0	To:	0	Packer Depth(ft):	0		

CEMENT DATA									
Spacer Type:	10BBL WATER								
Amt.		Sks Yield		ft $^3/_{sk}$			Density (PPG)		
LEAD:	65/35 POZ 3RD STAGE						Excess		
Amt.	450	Sks Yield		ft $^3/_{sk}$	1.91		Density (PPG)	12.57	
TAIL:	CLASS H 3RD STAGE						Excess		
Amt.	50	Sks Yield		ft $^3/_{sk}$	1.59		Density (PPG)	14.8	
WATER:									
Lead:	112.5	gals/sk:	10.5	Tail:	8.4	gals/sk:	7.1	Total (bbls):	12.9
Pump Trucks Used:	110, DP7								
Bulk Equipment:	217, FB11								
Disp. Fluid Type:	WATER		Amt. (Bbls.)		76.3		Weight (PPG):	8.3	
Mud Type:							Weight (PPG):		

COMPANY REPRESENTATIVE: Greg Klaus **CEMENTER:** Max Ball

TIME	PRESSURES PSI			FLUID PUMPED DATA		REMARKS
AM/PM	Casing	Tubing	ANNULUS	TOTAL	RATE	
	460			32	5	32BBL IN CEMENT RETURNS
	75.0			50	5.3	
2:57AM	1030			66	4.5	SLOW RATE TO 2.5BPM @ 940PSI
	980			70	2.4	
3:02	1040			76.3	2.4	LAND CLOSING PLUG PRESSURE UP TO
						1680PSI
						RELEASE BACK DID NOT HOLD
						PRESSURE UP TO 2450PSI / DID NOT HOLD
3:10AM						PRESSURE UP TO 2550PSI
3:12AM						RELEASE BACK PLUG HELD
						JOB COMPLETE
						1ST STAGE 6537' 350SX TAIL 50/50 H, POZ
						2ND STAGE 4957' 175SX LEAD 65/35 C, POZ
						2ND STAGE TAIL 100SX H
						3RD STAGE 3209' 450SX LEAD 65/35 C, POZ
						3RD STAGE TAIL 50SX H
						50 SX RAT & MOUSE

DRILL STEM TEST REPORT

Berexco, LLC

2020 N Bramblew ood
Wichita, Ks 67206

ATTN: Ed Grieves

25 22s 38w Kearney, Ks

Patterson KGS #5-25

Job Ticket: 66190 **DST#: 1**

Test Start: 2020.03.30 @ 04:34:00

GENERAL INFORMATION:

Formation: **Lower Mississippian**
Deviated: No Whipstock: ft (KB)
Time Tool Opened:
Time Test Ended: 08:35:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Bradley Walter
Unit No: 78

Interval: 5379.00 ft (KB) To 5439.00 ft (KB) (TVD)
Total Depth: 5439.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

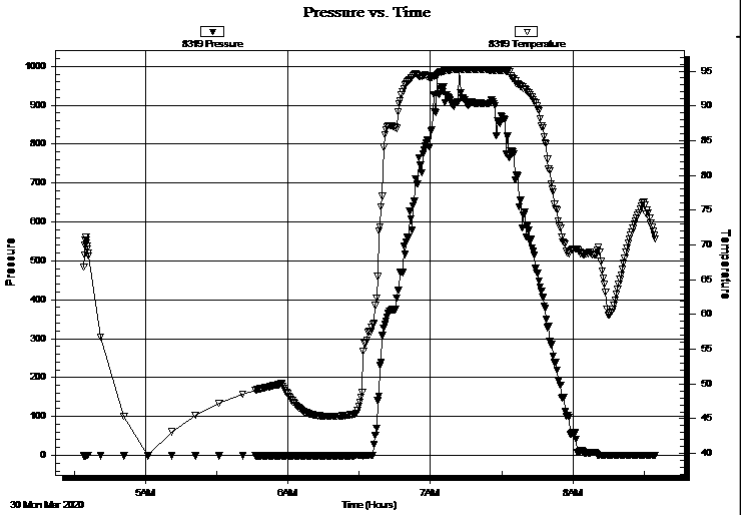
Reference Elevations: 3329.00 ft (KB)
3317.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8319

Press@RunDepth: psig @ ft (KB)
Start Date: 2020.03.30 End Date: 2020.03.30
Start Time: 04:34:05 End Time: 08:35:00

Capacity: 8000.00 psig
Last Calib.: 2020.03.31
Time On Btm:
Time Off Btm:

TEST COMMENT: Tool hit bridge on the w ay in the hole. - Misrun



PRESSURE SUMMARY

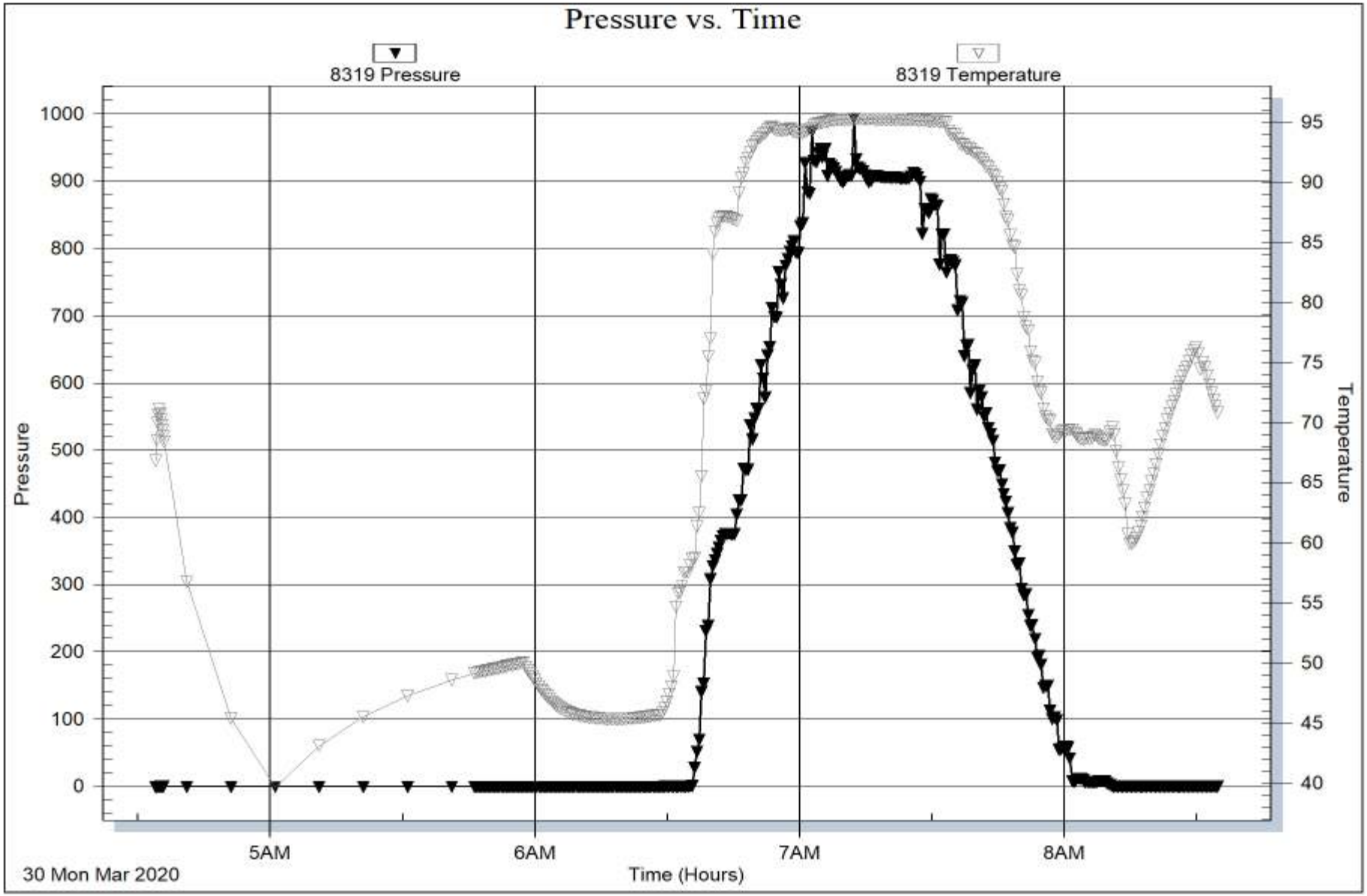
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

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


Pressure vs. Time
8319 Pressure
8319 Temperature
Pressure
Temperature
1000
900
800
700
600
500
400
300
200
100
0
95
90
85
80
75
70
65
60
55
50
45
40
5AM
6AM
7AM
8AM
30 Mon Mar 2020
Time (Hours)

DRILL STEM TEST REPORT

Berexco, LLC

2020 N Bramblew ood
Wichita, Ks 67206

ATTN: Ed Grieves

25 22s 38w Kearney, Ks

Patterson KGS #5-25

Job Ticket: 66191 **DST#: 2**

Test Start: 2020.03.30 @ 16:22:00

GENERAL INFORMATION:

Formation: **Lwr Missippian Res.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:59:15
Time Test Ended: 01:35:45

Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78

Interval: 5379.00 ft (KB) To 5439.00 ft (KB) (TVD)
Total Depth: 5439.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

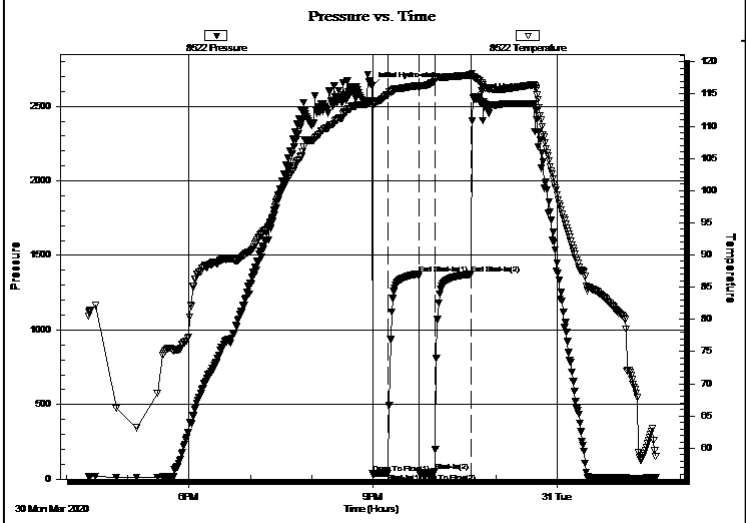
Reference Elevations: 3329.00 ft (KB)
3317.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8522 **Inside**

Press@RunDepth: 50.10 psig @ 5380.00 ft (KB)
Start Date: 2020.03.30 End Date: 2020.03.31
Start Time: 16:22:05 End Time: 01:35:45

Capacity: 8000.00 psig
Last Calib.: 2020.03.31
Time On Btm: 2020.03.30 @ 20:58:45
Time Off Btm: 2020.03.30 @ 22:37:45

TEST COMMENT: 15- IF 1 1/4" blow .
30- ISI: No return.
15- FF: 1/2" blow .
30- FSI: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2635.18	113.95	Initial Hydro-static
1	35.90	113.05	Open To Flow (1)
16	40.89	114.75	Shut-In(1)
46	1376.08	116.32	End Shut-In(1)
47	41.45	115.98	Open To Flow (2)
62	50.10	117.13	Shut-In(2)
97	1374.17	117.94	End Shut-In(2)
99	2558.04	117.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	mud 100m	0.56

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Berexco, LLC

2020 N Bramblew ood
Wichita, Ks 67206

ATTN: Ed Grieves

25 22s 38w Kearney, Ks

Patterson KGS #5-25

Job Ticket: 66191 **DST#: 2**

Test Start: 2020.03.30 @ 16:22:00

GENERAL INFORMATION:

Formation: **Lwr Missippian Res.**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:59:15
Time Test Ended: 01:35:45

Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78

Interval: 5379.00 ft (KB) To 5439.00 ft (KB) (TVD)
Total Depth: 5439.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

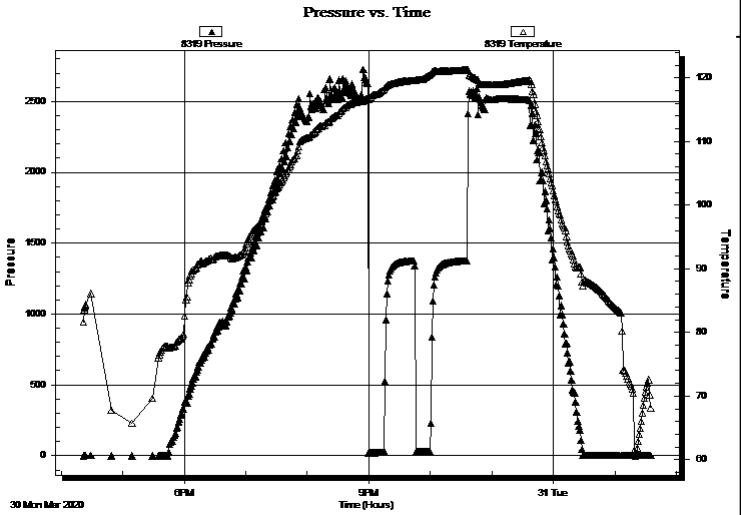
Reference Elevations: 3329.00 ft (KB)
3317.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8319 **Outside**

Press@RunDepth: psig @ 5380.00 ft (KB)
Start Date: 2020.03.30 End Date: 2020.03.31
Start Time: 16:22:05 End Time: 01:35:15

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm:
Time Off Btm:

TEST COMMENT: 15- IF 1 1/4" blow .
30- ISI: No return.
15- FF: 1/2" blow .
30- FSI: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
40.00	mud 100m	0.56

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC

2020 N Bramblew ood
Wichita, Ks 67206

ATTN: Ed Grieves

25 22s 38w Kearney, Ks

Patterson KGS #5-25

Job Ticket: 66191 **DST#: 2**

Test Start: 2020.03.30 @ 16:22:00

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:	0 ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.60 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3800.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

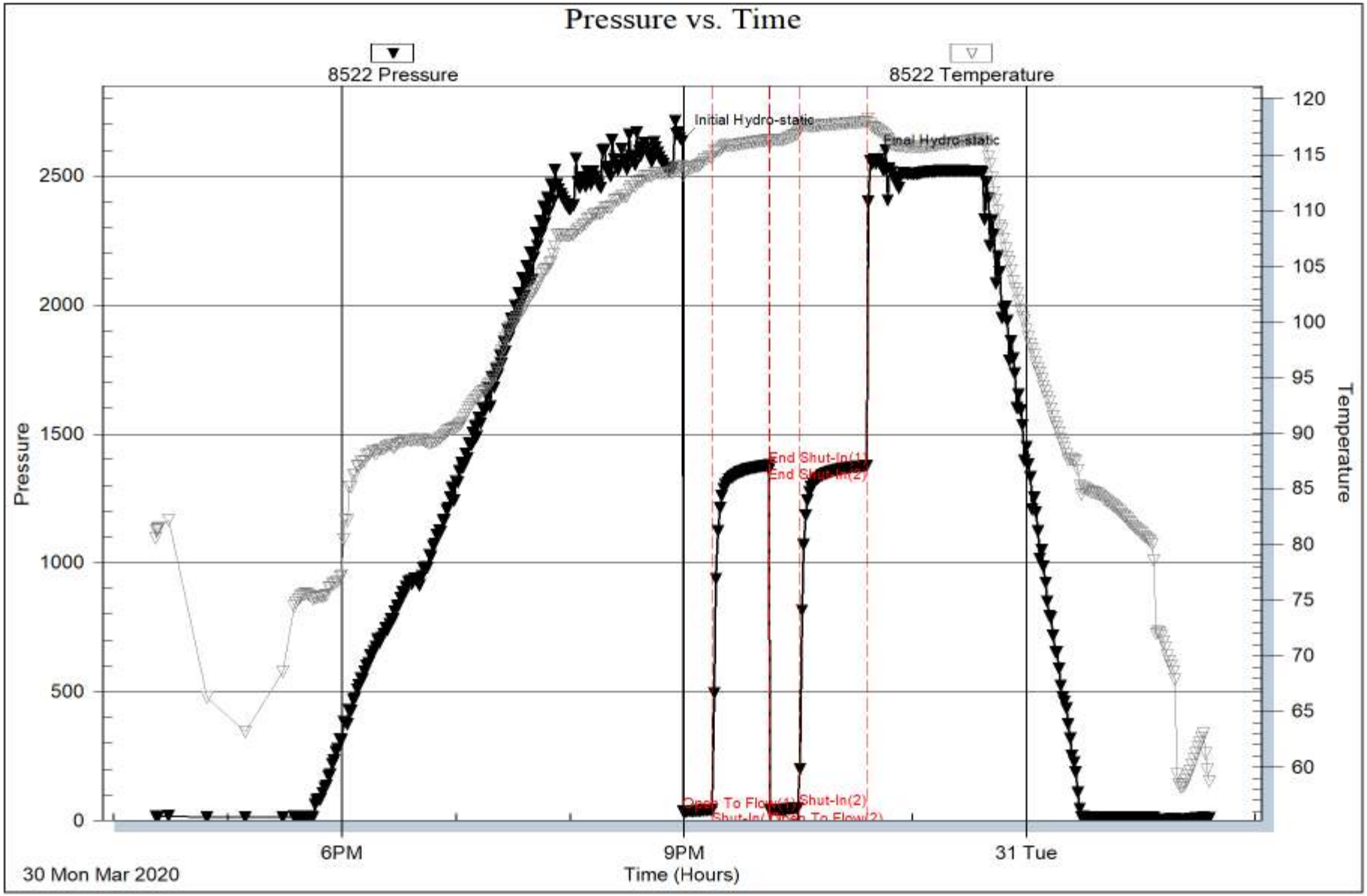
Recovery Table

Length ft	Description	Volume bbl
40.00	mud 100m	0.561

Total Length: 40.00 ft Total Volume: 0.561 bbl

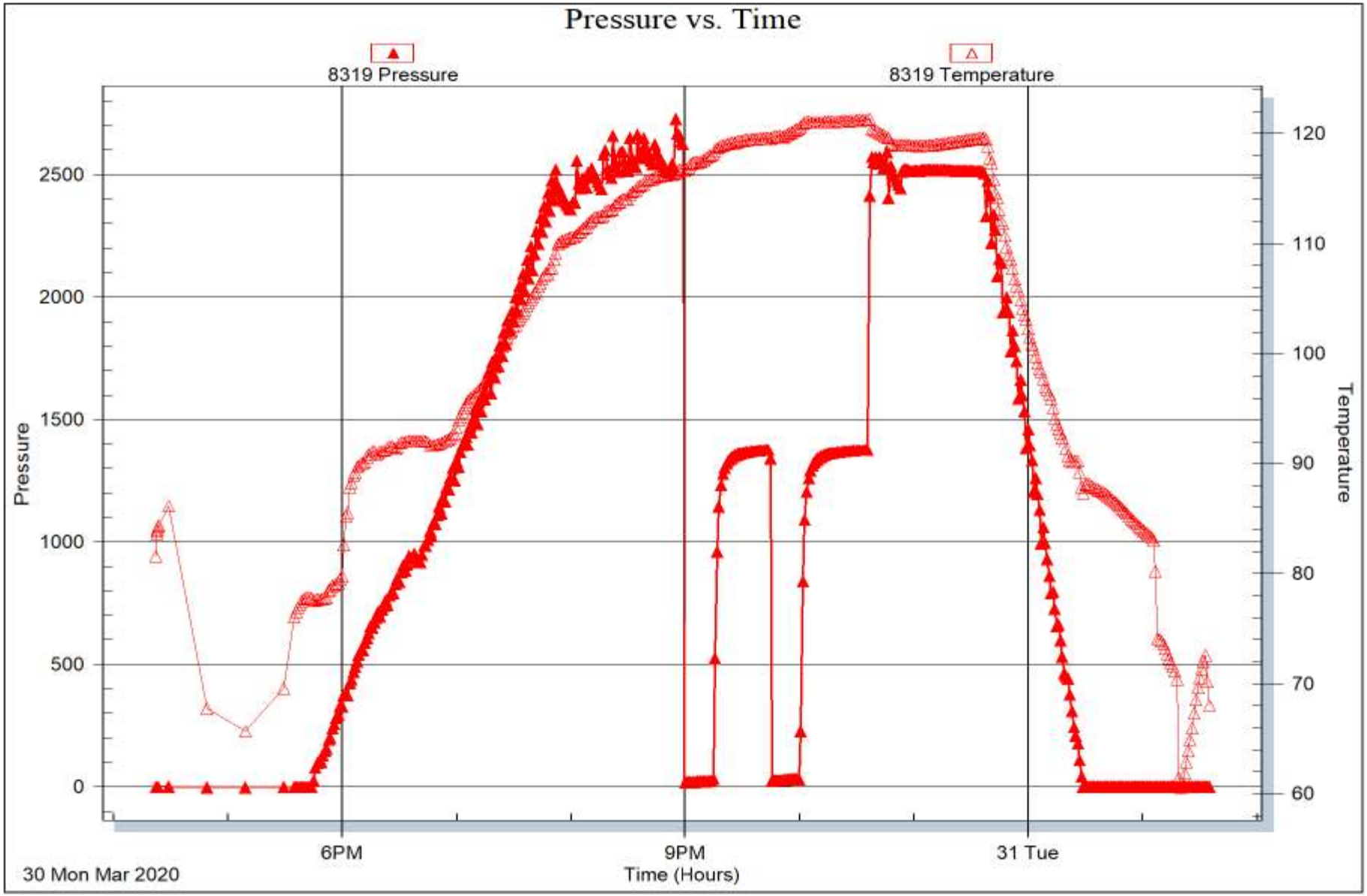
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8522 **Inside** Berexco, LLC Patterson KGS #5-25 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 66191 Printed: 2020.03.31 @ 07:21:23

Serial #: 8319 **Outside** Berexco, LLC Patterson KGS #5-25 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 66191 Printed: 2020.03.31 @ 07:21:24

DRILL STEM TEST REPORT

Berexco, LLC

2020 N Bramblew ood
Wichita, Ks 67206

ATTN: Ed Grieves

25 22s 38w Kearney, Ks

Patterson KGS #5-25

Job Ticket: 66192 **DST#: 3**

Test Start: 2020.04.02 @ 09:55:00

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:30:30
Time Test Ended: 18:20:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78

Interval: 5640.00 ft (KB) To 5710.00 ft (KB) (TVD)
Total Depth: 5719.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

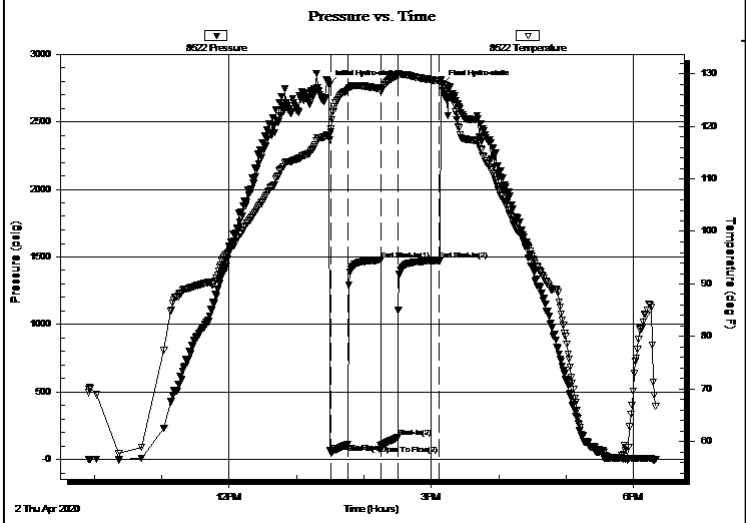
Reference Elevations: 3329.00 ft (KB)
3317.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8522 **Inside**

Press@RunDepth: 164.26 psig @ 5641.00 ft (KB)
Start Date: 2020.04.02 End Date: 2020.04.02
Start Time: 09:55:05 End Time: 18:20:14

Capacity: 8000.00 psig
Last Calib.: 2020.04.02
Time On Btm: 2020.04.02 @ 13:29:15
Time Off Btm: 2020.04.02 @ 15:09:45

TEST COMMENT: 15- IF: 10 1/2" blow .
30- ISI: No return.
15- FF: 9 1/2" blow .
30- FSI: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2778.17	118.45	Initial Hydro-static
2	51.93	118.97	Open To Flow (1)
17	115.43	127.06	Shut-In(1)
46	1476.59	127.18	End Shut-In(1)
46	104.04	126.60	Open To Flow (2)
61	164.26	129.79	Shut-In(2)
98	1474.31	128.68	End Shut-In(2)
101	2775.72	128.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	mcw 5m 95w	4.21

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Berexco, LLC

2020 N Bramblew ood
Wichita, Ks 67206

ATTN: Ed Grieves

25 22s 38w Kearney, Ks

Patterson KGS #5-25

Job Ticket: 66192 **DST#: 3**

Test Start: 2020.04.02 @ 09:55:00

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:30:30
Time Test Ended: 18:20:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78

Interval: 5640.00 ft (KB) To 5710.00 ft (KB) (TVD)
Total Depth: 5719.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

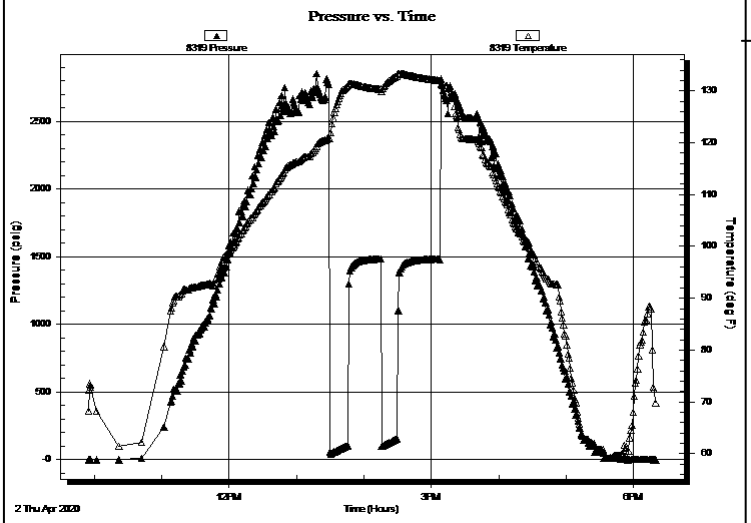
Reference Elevations: 3329.00 ft (KB)
3317.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8319 **Outside**

Press@RunDepth: psig @ 5641.00 ft (KB)
Start Date: 2020.04.02 End Date: 2020.04.02
Start Time: 09:55:05 End Time: 18:20:14

Capacity: 8000.00 psig
Last Calib.: 2020.04.02
Time On Btm:
Time Off Btm:

TEST COMMENT: 15- IF: 10 1/2" blow .
30- ISI: No return.
15- FF: 9 1/2" blow .
30- FSI: No return.



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
300.00	mcw 5m 95w	4.21

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC

2020 N Bramblew ood
Wichita, Ks 67206

ATTN: Ed Grieves

25 22s 38w Kearney, Ks

Patterson KGS #5-25

Job Ticket: 66192 **DST#: 3**

Test Start: 2020.04.02 @ 09:55:00

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:	19000 ppm
Viscosity:	59.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	5.60 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4300.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
300.00	mcw 5m 95w	4.208

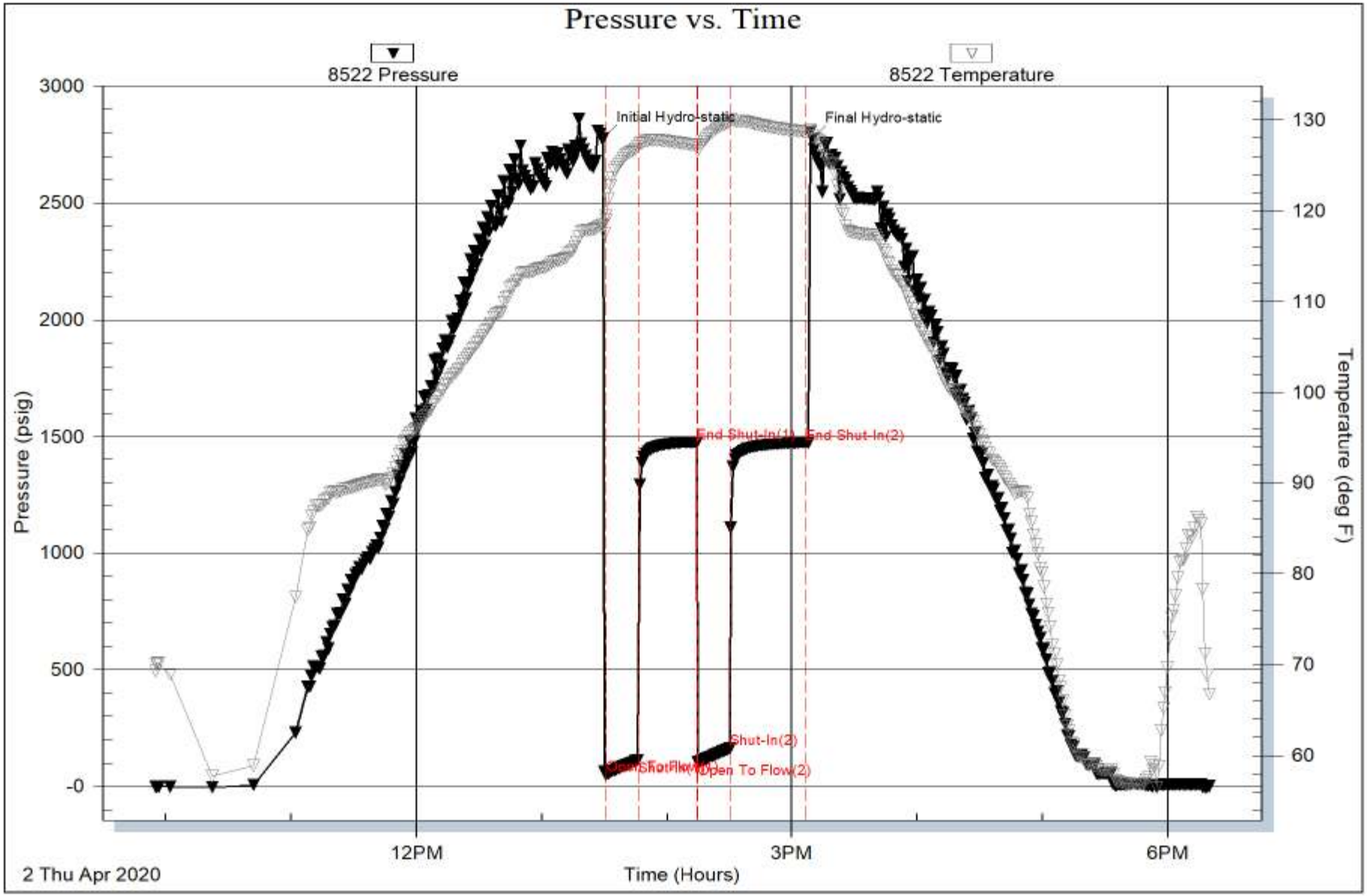
Total Length: 300.00 ft Total Volume: 4.208 bbl

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

Laboratory Name: Laboratory Location:

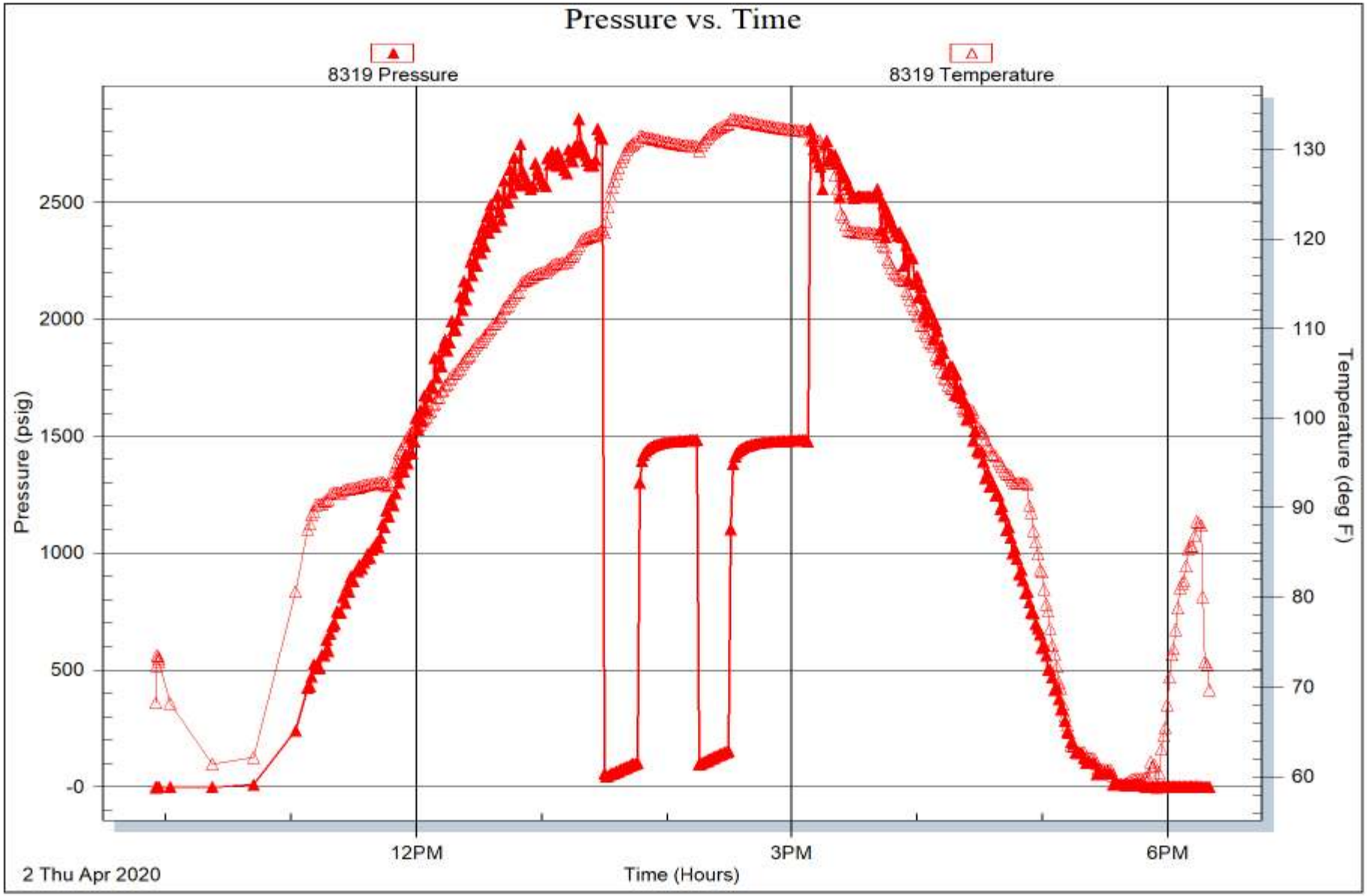
Recovery Comments: rw is .625 @ 38f = 19000ppm

Serial #: 8522 **Inside** Berexco, LLC Patterson KGS #5-25 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 66192 Printed: 2020.04.02 @ 19:29:37

Serial #: 8319 **Outside** Berexco, LLC Patterson KGS #5-25 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 66192 Printed: 2020.04.02 @ 19:29:37

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

Well Name:	KGS Patterson # 5-25		
Well Id:			
Location:	Sec 25 T22S R38W, Kearny County, Kansas		
License Number:	15-093-21979-00	Region:	Patterson
Spud Date:	March 07, 2020	Drilling Completed:	April 18, 2020
Surface Coordinates:	100' FSL & 860' FEL / SE SW SE SE		
Bottom Hole Coordinates:			
Ground Elevation (ft):	3317'	K.B. Elevation (ft):	3329'
Logged Interval (ft):	3600' To: 6550'	Total Depth (ft):	6550'
Formation:	Morrow, Viola , Arbuckle, Granite Wash		
Type of Drilling Fluid:	Natural Chemical		

OPERATOR

Company:	BEREXCO LLC
Address:	2020 N. BRAMBLEWOOD WICHITA, KANSAS 67206 CO. ENG: Mr. Dana Wreath

GEOLOGIST

Name:	Edwin H. Grieves/Tim Hedrick
Company:	GRIEVES AND CO.
Address:	PO Box 3125 Edmond, Oklahoma, 74083-3125 Cell: 405-826-9027/Cell:580-754-0062

CORE #1

Contractor:	DEVILBLISS CORING		
Core #:	1		
Formation:	CHEROKEE		
Core Interval:	From: 4616	Cut:	60'
	To: 4676	Recovered:	60'
Bit type:	SHORT C240 /SERIAL H463 IN AT 4615'		
Size:	7 7/8'		
Coring Time:	14:47		

CORING SECTION 2

CORE #2 4676' TO 4736' - CUT 60', RECOVERED 60' CORE/ BIT 7 7/8' BIT, SHORT C240/SER.# H463-(CORE TIME 13 HR 40 MIN.)

CORE #3 4736' TO 4796' -CUT 60' -RECOVERED 60'/ BIT 7 7/8" ,SHORT CZ308, SER# F265 - (CORE TIME 6HRS 40 MIN.)

CORE #4 4880' TO 4897' CUT 17' -RECOVERED 17'/ BIT- 7 7//8" SHORT CZ 410, SER.#H422 IN @ 4880

CORE#5 4897 TO 4957' CUT 60' RECOVERED 60' / BIT- 7 7//8" SHORT CZ 410, SER.#H422 IN @ 4897', OUT @ 4957'

CORE #6 5380' TO 5440' , CUT 60', RECOVERED 60' /BIT- 7 7//8" SHORT CZ 410, SER.#H422 IN @ 5380', OUT @ 5440'

CORE #7 5640 TO 5670' CUT 30', CORE JAMMED, RECOVERED 28.5' CORE, BIT-7 7/8 SHORT 22410, SER.QO46 IN @ 5640'

CORE#8 5670-5719' CUT 49' CORE, JAMMED, RECOVERED 49' /BIT 7 7/8" SHORT 22410 SER. QO46 IN AT 5640' OUT @ 5719'
CORE#9 5780-5811' CUT 31' CORE, RECOVERED 27' CORE,BIT 7 7/8" SHORT 22410 SER. QO46 IN AT 5780, OUT AT 5811,

CORING SECTION 3

CORE#10 5811'-5826, CUT 15' RECOVERED 15' CORE,BIT 7 7/8" SHORT 22410 SER. QO46 IN AT 5811, OUT 5826'

5850' CORE ATTEMPT, LOST CIRC AND WOB DROPPED TO ZERO UPON ATTEMPT TO CORE/RECOVERED 6" OF CORE. DOLO& CHERT,MOVE CORE 11 TO NEXT CORE POINT

CORE #11- 5959' TO 6019' CUT 60' CORE, RECOVERED 60' CORE / BIT #1 SHORT CZ410 SER. H463/RI IN AT 5959'

CORE #12- 6019' TO 6042' CUT 23' CORE RECOVERED 23' CORE / BIT #1 SHORT CZ410 SER. H463/RI IN AT 6019'

CORE #13- 6042' TO 6102' , CUT 60' RECOVERED 60' / BIT #1 SHORT CZ410 SER. H463/RI IN AT 6042'

CORE #14 - 6102' TO 6162' , CUT 60' CORE RECOVER 60' / BIT #1 SHORT CZ410 SER. H463/RI IN AT 6102'

CORE #15- 6162' TO 6222' CUT 60'/ RECOVERED 60' / BIT #1 SHORT CZ410 SER. H463/RI IN AT 6162'

CORE #16- 6222' TO 6273' CUT 51'/ RECOVERED 51' / BIT #2 SHORT CZ410 SER. H222/RI IN AT 6222'

ATTEMPTED CORE @ 6273' CORE JAMMED @ 6273.3 RECOVERED 3" OF CORE, INCLUDED IN CORE #17 IN TOP OF BOX, TOP OF BASEMENT

CORE #17 -6278' TO 6300' / CUT 22' RECOVERED 20.5' / BIT #3 SMITH 7 7/8" D42CR SER. 504452 IN @ 6278' OUT @ 6300'

TOTAL FOOTAGE CORED 778' DURING DRILLING PROCESS
TOTAL FOOTAGE RECOVERED FROM CORES 771.3'

LOST CIRULATION RECORD

1ST RECORD OF LOST CIRC @ 5826' - LOST 1200' WITH 12#

LOST CIRC OF 80 BBLS ON ATTEMPT TO CORE AT 5850' ALSO SEEPING WITH 20# HULLS/ ABANDON CORE 11

FOUGHT LOST CIRCULATION UNTIL WE BUILT TO 30# HULLS THEN THE HOLE HELD WITH NO LOSSES FROM 5850 TO 5959'(CORE #12 POINT)

WE HAVE LOST ONLY TRACES OF MUD SINCE REGAINING CIRC PRIOR TO CORE #11 AS OF 4/09/2020

4/17/2020 NO MORE LOST CIRC SINCE 4/09/2020, BACKED HULLS OFF TO 15# FROM 20# FOR CORE #17

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Berexco, LLC

2020 N Bramblewood
Wichita, Ks 67206

ATTN: Bi Graves

26 22s 38w Kearney, Ks

Patterson KGS #5-26

Job Ticket: 68191 DST#: 2

Test Start: 2020.03.30 @ 18:22:00

GENERAL INFORMATION:

Formation: Lwr Mississippian Res.
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:58:15
Time Test Ended: 01:35:45

Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 76

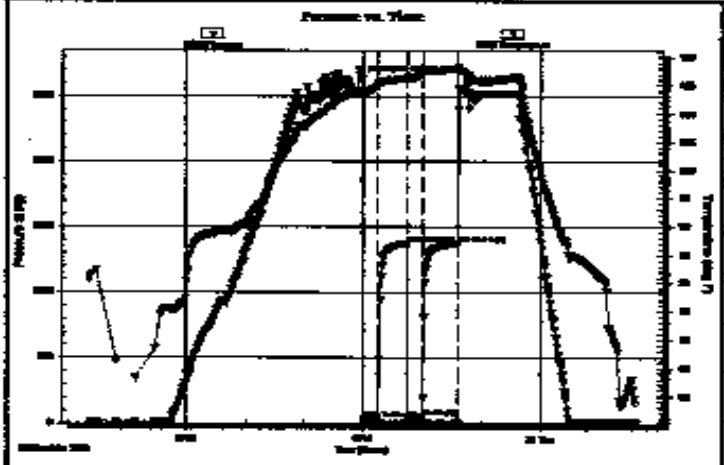
Interval: 5378.00 ft (KB) To 5439.00 ft (KB) (TVD)
Total Depth: 5439.00 ft (KB) (TVD)
Hole Diameter: 7.88 Inches Hole Condition: Good

Reference Elevations: 3329.00 ft (KB)
3317.00 ft (CF)
KB to GRCF: 12.00 ft

Serial #: 8822 Inside
Press@RunDepth: 60.10 psig @ 5380.00 ft (KB)
Start Date: 2020.03.30 End Date: 2020.03.31
Start Time: 18:22:05 End Time: 01:35:45

Capacity: 8000.00 psig
Last Calib.: 2020.03.31
Time On Btm: 2020.03.30 @ 20:56:45
Time Off Btm: 2020.03.30 @ 22:37:45

TEST COMMENT: 15- IF 1 1/4" blow.
30- ISI No return.
15- FF: 1/2" blow.
30- FSI No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2635.18	113.95	Initial Hydro-static
1	35.90	113.06	Open To Flow (1)
16	40.89	114.75	Shut-In(1)
46	1376.06	116.32	End Shut-In(1)
47	41.45	115.86	Open To Flow (2)
82	60.10	117.13	Shut-In(2)
97	1374.17	117.84	End Shut-In(2)
99	2558.04	117.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	mud 100m	0.56

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Berexco, LLC

2020 N Bramblewood
Wichita, Ks 67206

ATTN: Ed Grieves

25 22s 38w Kearney, Ks

Patterson KGS #5-25

Job Ticket: 66192 DST#: 3

Test Start: 2020.04.02 @ 09:55:00

GENERAL INFORMATION:

Formation: Viola
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:30:30
Time Test Ended: 18:20:15

Test Type: Conventional Bottom Hole (Reset)
Tester: Bradley Walter
Unit No: 78

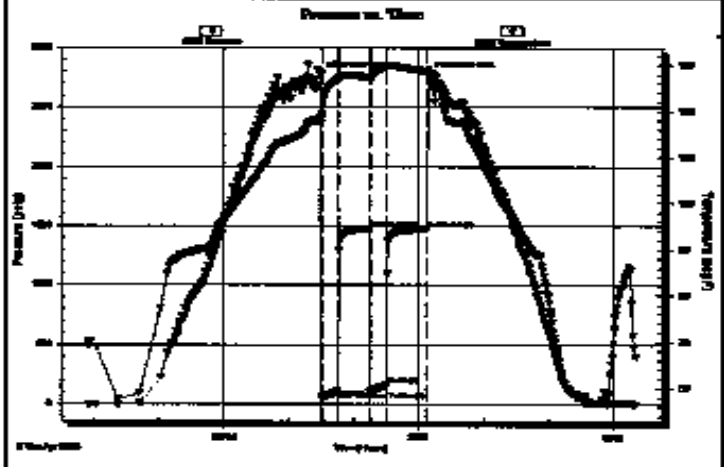
Interval: 5640.00 ft (KB) To 5719.00 ft (KB) (TVD)
Total Depth: 5719.00 ft (KB) (TVD)
Hole Diameter: 7.88 Inches Hole Condition: Good

Reference Elevations: 3329.00 ft (KB)
3317.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8622 Inside
Press@RunDepth: 164.26 psig @ 5641.00 ft (KB)
Start Date: 2020.04.02 End Date: 2020.04.02
Start Time: 09:55:00 End Time: 18:20:16

Capacity: 8000.00 psig
Last Calib.: 2020.04.02
Time On Btm: 2020.04.02 @ 13:29:15
Time Off Btm: 2020.04.02 @ 15:09:45

TEST COMMENT: 15- IF: 10 1/2" blow.
30- ISI: No return.
15- FF: 9 1/2" blow.
30- FSI: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2778.17	116.45	Initial Hydro-static
2	51.93	116.97	Open To Flow (1)
17	115.43	127.08	Shut-In(1)
46	1476.59	127.18	End Shut-In(1)
46	104.04	126.80	Open To Flow (2)
61	164.26	129.79	Shut-In(2)
99	1474.31	128.68	End Shut-In(2)
101	2775.72	128.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	mcw 5m 95w	4.21

* Recovery from multiple tests

Gas Rates

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

7 AM DEPTHS

3-16-2020 2991' DRILLING
3-17-2020 3440' DRILLING
3-18-2020 3940' DRILLING
3-19-2020 4336' DRILLING
3-20-2020 4615' DRILLING
3-21-2020 4615' PREP TO CORE
3-22-2020 4623' START CORING @ 4:30 AM
3-23-2020 4684' DRILLING
3-24-2020 4773' DRILLING
3-25-2020 4782' PREP TO CORE
3-26-2020 4935' CORING
3-27-2020 5101 DRILLING CONV.
3-28-2020 5380' PREP FOR CORE 6
3-29-2020 5380' REAMING/ START CORING @ 10:40 AM
3-30-2020 5440' CORING/FINISH CORE @ 11:30 PM
3-31-2020 5440' TRIPPING IN TO DRILL
4-01-2020 5640' PREP FOR CORE #7 (VIOLA)
4-02-2020 5719' DST # 3 (VIOLA)
4-03-2020 5780' PREP TO CORE #9
4-04-2020 5816' CORING #10 (LOST CIRC)
4-05-2020 5829' WORKING ON LOST CIRC 30# HULLS
4-06-2020 5850' LOST CIRC
4-07-2020 5865' DRILLING CONV.
4-08-2020 5959' START CORING #11 @ 7:30 AM
4-09-2020 6019' PREP FOR CORE #12
4-10-2020 6070' CORING #13
4-11-2020 6124' CORING # 14
4-12-2020 6211' CORING # 15
4-13-2020 6273' CORING # 16
4-14-2020 6278' PREP FOR CORE #17
4-15-2020 6285' CORING # 17
4-16-2020 6300' FINISH CORE # 17
4-17-2020 6379' DRILLING CONV.
4-18-2020 6504' DRILLING CONV. / R.T.D. @ 2:54 PM
4-19-2020 LOGGING 1ST RUN
4-20-2020 LOGGING 3RD RUN / COMPLETE LOGS 2:12 PM

CIRC. POINTS & DEVIATION SURVEYS

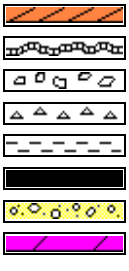
CIRCULATIONS	DEVIATIONS
1. 4615'	1. 1979' =4 DEG.
2. 4880'	2. 2102' =4 DEG.
3. 5380'	3. 2117' =4 DEG.
4. 5640'	4. 2180 MISRUN
5. 5780'	5. 2243' =4.5 DEG
6. 5959'	6. 2290' = 4 DEG.
7. 6278'	7. 2295' = 3.5 DEG.
8. 6550'	8. 2453' = .75 DEG
	9. 2494' = 1.75 DEG
	10. 3945' = .75 DEG
	11. 4880' = .25 DEG
	12. 5640' = 1.0 DEG
	13. 6550' = 2.0 DEG

DATE	DEPTH	WT	VIS	PV	YP	GS	P H	CAKE	CHLOR	CALCIUM	LCM
16-Mar	3048	9.3	36	4	6	4/7	7	0	17,700	HVY	1
17-Mar	3490	8.5	77	24	25	23/62	12	1	300	10	1
18-Mar	3990	9	44	13	14	11/36	11	1	1800	10	1.5
19-Mar	4372	9	50	18	16	15/43	11	1	1900	10	2
20-Mar	4615	9.1	47	16	15	6/17	10.5	1	1800	20	3
21-Mar	4615	9.1	48	16	15	12/35	10.5	1	2200	20	4
21-Mar	4634	9.2	54	16	19	14/37	10	1	2500	20	4
23-Mar	4690	9.1	47	15	15	6/17	10	1	2600	20	4
24-Mar	4780	9.1	56	17	20	7/18	10	1	2800	20	4
25-Mar	4880	9.1	57	17	21	7/19	10.5	1	3000	20	4
26-Mar	4946	9.1	58	17	21	7/19	10	1	3400	20	4
27-Mar	5110	9.2	61	18	22	15/38	10	1	3600	40	3
3/28/2020	5380	9.2	48	15	16	12 34	10	1	3400	40	3
3/29/2020	5380	9.2	49	15	16	12 34	10	1	3500	40	3
3/30/2020	5439	9.3	54	16	19	14 37	10.5	1	3800	40	4
3/31/2020	5439	9.2	53	16	19	14 36	10.5	1	4000	40	4
4/1/2020	5640	9.2	70	19	23	16 44	11	1	4200	40	12
4/2/2020	5719	9.2	59	17	21	14 40	11.5	1	4300	40	10
4/3/2020	5780	9.2	55	16	20	14 36	11	1	4200	40	10
4/4/2020	5823	9.1	56	16	21	14 36	10.5	1	4400	40	12
4/5/2020	5829	8.7	54	16	19	14 35	10.5	1	3600	40	20
4/6/2020	5850	8.5	63	23	19	14 39	10.5	1	1700	20	18
4/7/2020	5873	8.5	48	16	14	13 40	10.5	1	2400	20	22
4/8/2020	5669	8.6	56	14	16	14 42	9.5	1	3700	60	21
4/9/2020	6020	8.6	56	14	16	17 49	9.5	1	3900	80	20
4/10/2020	6076	8.6	53	17	16	16 44	10.5	1	3800	60	20
4/11/2020	6136	8.8	55	16	17	18 47	11	1	4650	60	18
4/12/2020	6222	8.9	60	21	22	18 55	11	1	5000	60	19
4/13/2020	6274	8.8	50	15	16	15 43	10.5	1	5200	40	13
4/14/2020	6278	8.8	64	18	16	17 45	11	1	4100	50	18
4/15/2020	6287	8.8	52	17	16	16 43	11	1	5800	80	15
4/16/2020	6300	9	51	14	15	14 41	11	1	6300	40	14
4/17/2020	6392	8.8	53	16	17	17 43	11	1	4600	40	14
4/18/2020	6505	8.9	61	19	22	18 51	11	1	4400	30	16

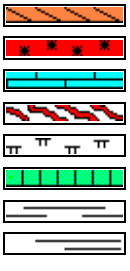
E - LOG FORMATION TOPS

FORMATION	DEPTH	SUB SEA
BASE HEEBNER	3804'	-475'
TORONTO	3818'	-489'
LANSING	3860'	-531'
KANSAS CITY	4188'	-859'
BASE K.C.	4306'	-977'
PAWNEE	4433'	-1104'
FT. SCOTT	4476'	-1147'
CHEROKEE	4486'	-1157'
MORROW SS	4550'	-1221'
MISSISSIPPI	4807'	-1478'
VIOLA	5552'	-2223'
ARBUCKLE	5826'	-2497'
BASEMENT	6277'	-2948'
E - LOG TD	6554'	

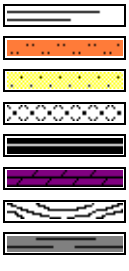
ROCK TYPES



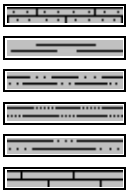
Anhy
Bent
Brec
Cht
Clyst
Coal
Congl
Dol



Gyp
Igne
Lmst
Meta
Mrlst
Salt
Shale
Shcol



Shgy
Sltst
Ss
Till
Carb sh
Dol
Dtd
Gry sh



Sandylms
Shale
Sltstn
Shlyslts
Sltysh
Lms

ACCESSORIES

MINERAL

Anhy
Arggrn
Arg
Bent
Bit
Brecfrag
Calc
Carb
Chtdk
Chtlt
Dol
Feldspar
Ferrpel
Ferr
Glau
Gyp
Hvymin
Kaol
Marl
Minxl
Nodule
Phos
Pyr
Salt
Sandy
Silt
Sil
Sulphur
Tuff
Chlorite
Dol
Sand
Slty

FOSSIL

Algae
Amph
Belm
Bioclst
Brach
Bryozoa
Cephal
Coral
Crin
Echin
Fish
Foram
Fossil
Gastro
Oolite
Ostra
Pelec
Pellet
Pisolite
Plant
Strom
Fuss
Oomold

STRINGER

Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Sltstrg
Ssstrg
Carbsh
Clystn
Dol
Grysh
Grysltt
Lms
Sandylms
Sh
Sltstn

TEXTURE

Boundst
Chalky
Cryxln
Earthy
Finexln
Grainst
Lithogr
Microxln
Mudst
Packst
Wackest

OTHER SYMBOLS

POROSITY TYPE

Earthy
Fenest
Fracture
Inter
Moldic
Organic
Pinpoint
Vuggy

SORTING

Well
Moderate
Poor

ROUNDING

Rounded
Subrnd
Subang
Angular

OIL SHOWS

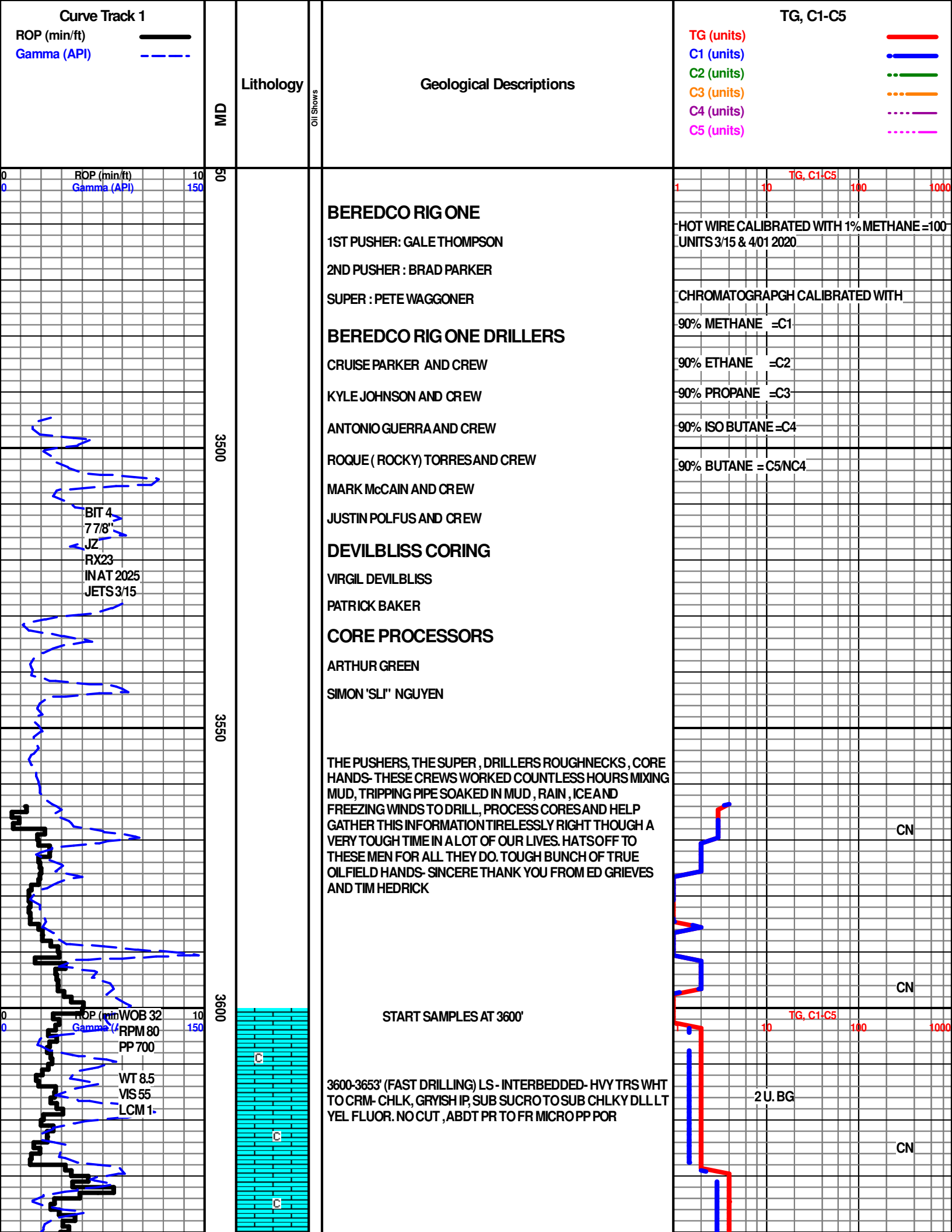
Even
Spotted
Ques
Dead
Gas show

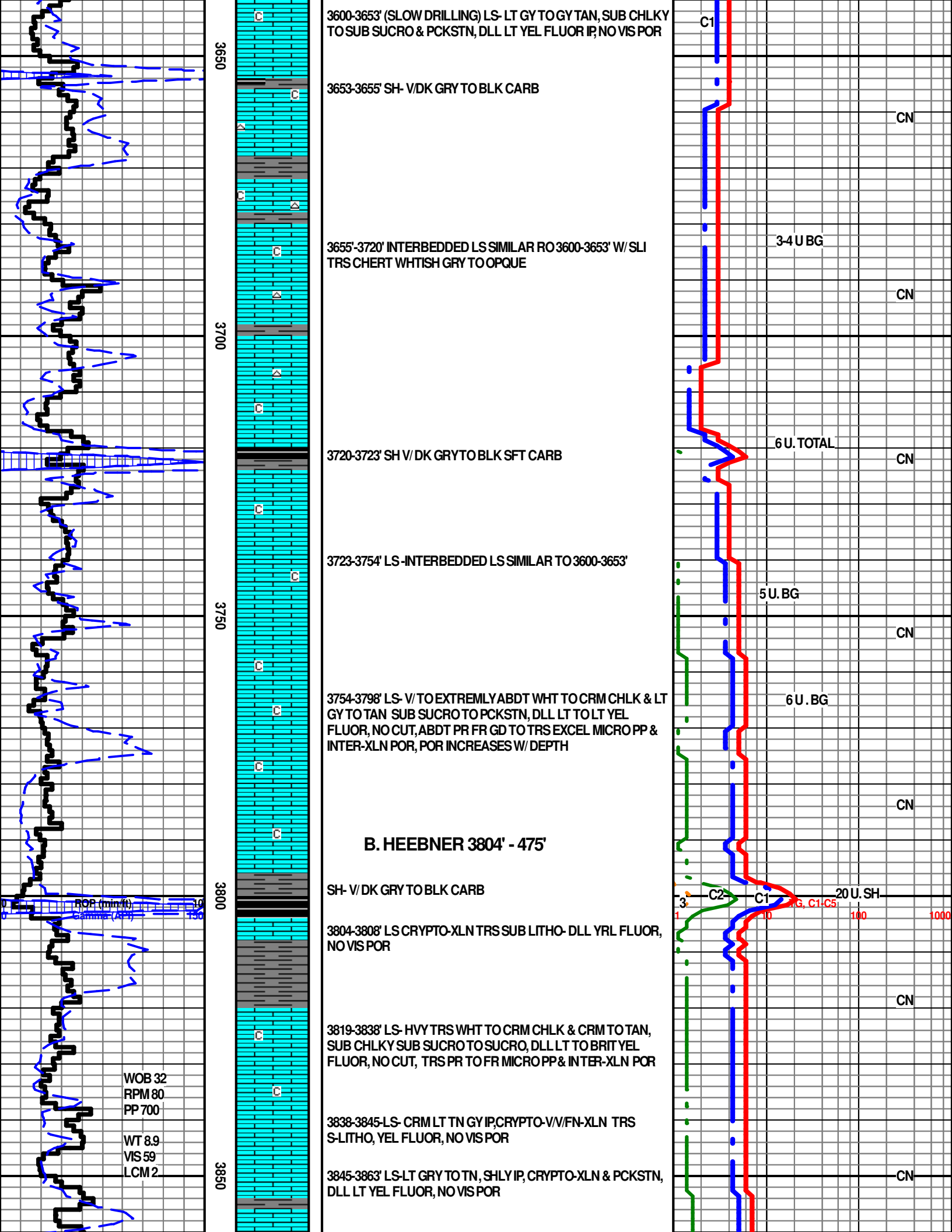
INTERVALS

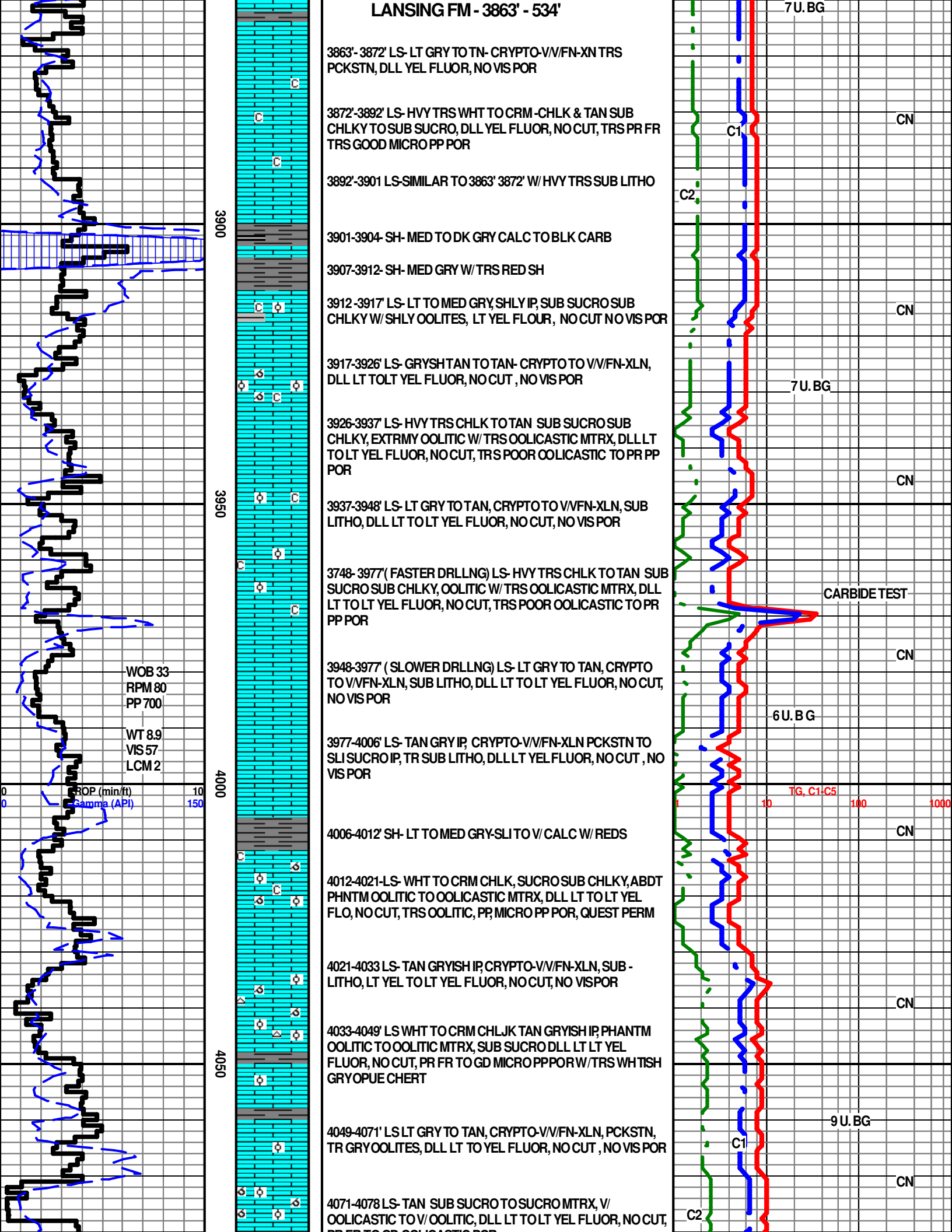
Core
Dst
Dst

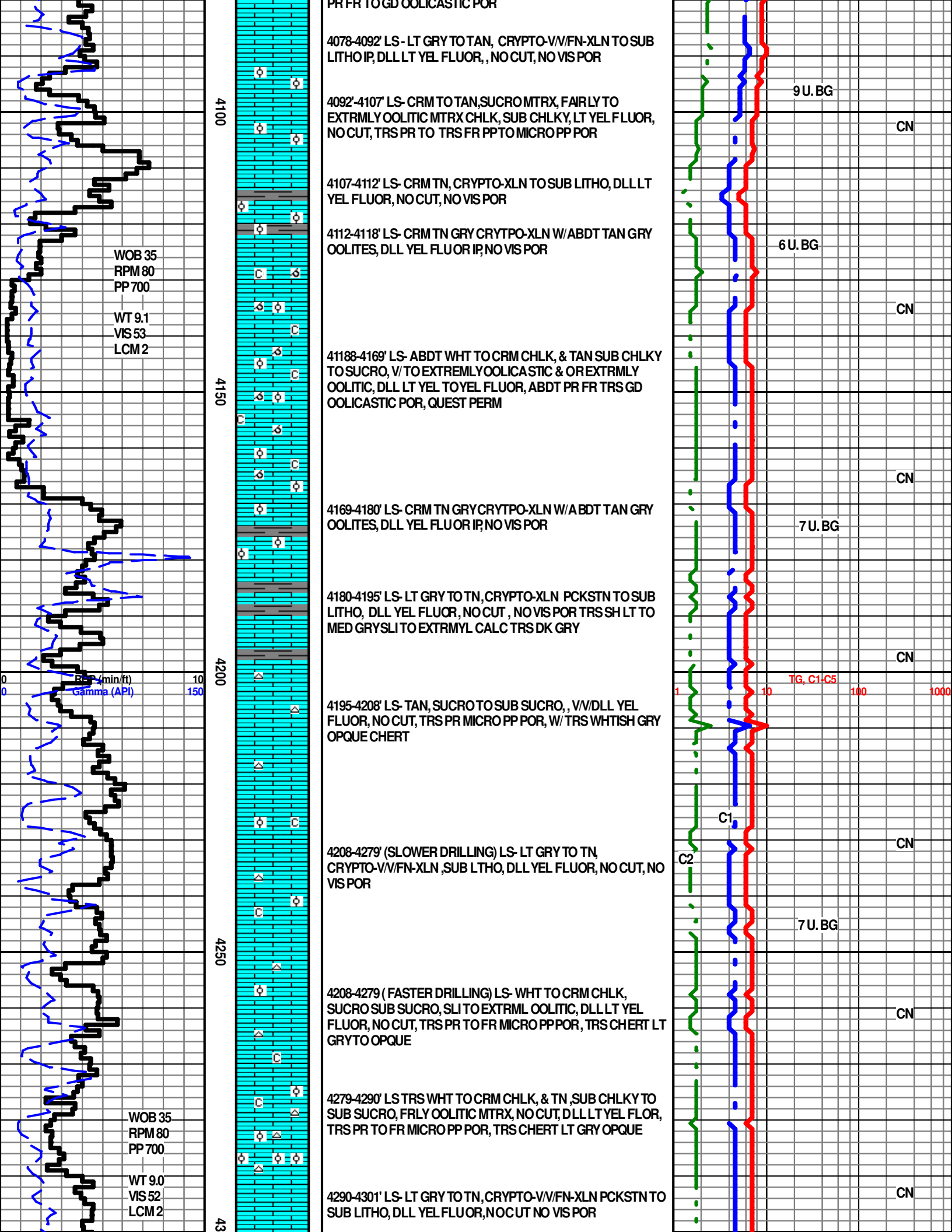
EVENTS

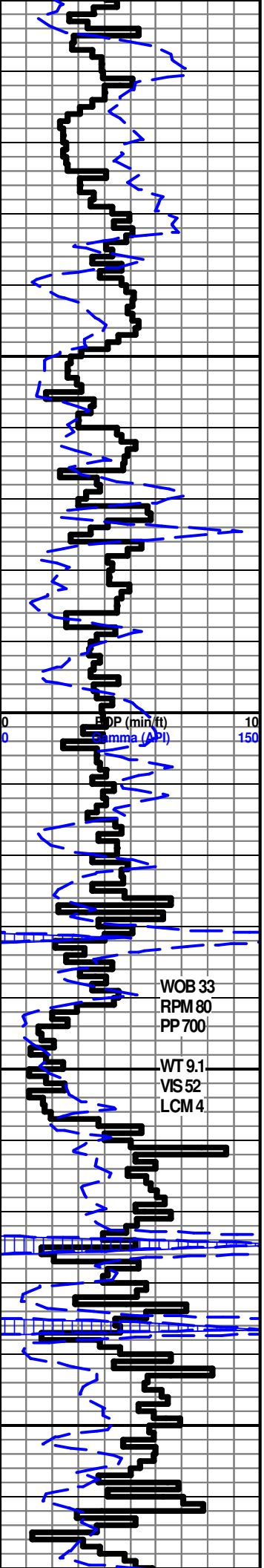
Rft
Sidewall

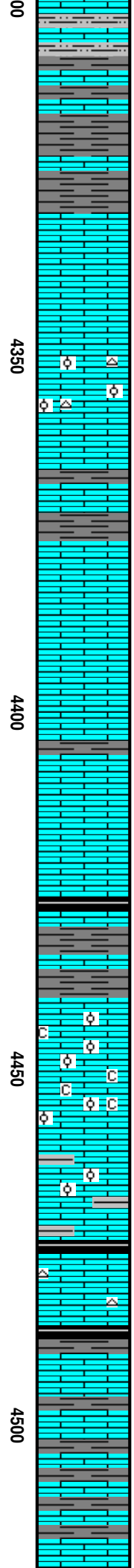

Curve Track 1
ROP (min/ft)
Gamma (API)
MD
Lithology
Oil Shows
Geological Descriptions
TG, C1-C5
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)
0
ROP (min/ft)
10
0
Gamma (API)
150
3500
3550
3600
BIT 4
7 7/8"
JZ
RX23
IN AT 2025
JETS 3/15
WOB 32
RPM 80
PP 700
WT 8.5
VIS 55
LCM 1
BEREDCO RIG ONE
1ST PUSHER: GALE THOMPSON
2ND PUSHER : BRAD PARKER
SUPER : PETE WAGGONER
BEREDCO RIG ONE DRILLERS
CRUISE PARKER AND CREW
KYLE JOHNSON AND CREW
ANTONIO GUERRA AND CREW
ROQUE (ROCKY) TORRES AND CREW
MARK McCAIN AND CREW
JUSTIN POLFUS AND CREW
DEVILBLISS CORING
VIRGIL DEVILBLISS
PATRICK BAKER
CORE PROCESSORS
ARTHUR GREEN
SIMON 'SLI" NGUYEN
THE PUSHERS, THE SUPER , DRILLERS ROUGHNECKS , CORE HANDS- THESE CREWS WORKED COUNTLESS HOURS MIXING MUD, TRIPPING PIPE SOAKED IN MUD , RAIN , ICE AND FREEZING WINDS TO DRILL, PROCESS CORES AND HELP GATHER THIS INFORMATION TIRELESSLY RIGHT THOUGH A VERY TOUGH TIME IN A LOT OF OUR LIVES. HATS OFF TO THESE MEN FOR ALL THEY DO. TOUGH BUNCH OF TRUE OILFIELD HANDS- SINCERE THANK YOU FROM ED GRIEVES AND TIM HEDRICK
START SAMPLES AT 3600'
3600-3653' (FAST DRILLING) LS - INTERBEDDED- HVY TRS WHT TO CRM- CHLK, GRYISH IP, SUB SUCRO TO SUB CHLKY DLL LT YEL FLUOR. NO CUT , ABDT PR TO FR MICRO PP POR
C
C
C
TG, C1-C5
1
10
100
1000
HOT WIRE CALIBRATED WITH 1% METHANE =100 UNITS 3/15 & 4/01 2020
CHROMATOGRAPGH CALIBRATED WITH
90% METHANE =C1
90% ETHANE =C2
90% PROPANE =C3
90% ISO BUTANE =C4
90% BUTANE = C5/NC4
CN
CN
TG, C1-C5
1
10
100
1000
2 U. BG
CN


3600-3653' (SLOW DRILLING) LS- LT GY TO GY TAN, SUB CHLKY TO SUB SUCRO & PCKSTN, DLL LT YEL FLUOR IP, NO VIS POR
3653-3655' SH- V/DK GRY TO BLK CARB
3655'-3720' INTERBEDDED LS SIMILAR RO 3600-3653' W/ SLI TRS CHERT WHTISH GRY TO OPQUE
3720-3723' SH V/ DK GRY TO BLK SFT CARB
3723-3754' LS -INTERBEDDED LS SIMILAR TO 3600-3653'
3754-3798' LS- V/ TO EXTREMLY ABDT WHT TO CRM CHLK & LT GY TO TAN SUB SUCRO TO PCKSTN, DLL LT TO LT YEL FLUOR, NO CUT, ABDT PR FR GD TO TRS EXCEL MICRO PP & INTER-XLN POR, POR INCREASES W/ DEPTH
B. HEEBNER 3804' - 475'
SH- V/ DK GRY TO BLK CARB
3804-3808' LS CRYPTO-XLN TRS SUB LITHO- DLL YRL FLUOR, NO VIS POR
3819-3838' LS- HVY TRS WHT TO CRM CHLK & CRM TO TAN, SUB CHLKY SUB SUCRO TO SUCRO, DLL LT TO BRIT YEL FLUOR, NO CUT, TRS PR TO FR MICRO PP & INTER-XLN POR
3838-3845-LS- CRM LT TN GY IP,CRYPTO-V/V/FN-XLN TRS S-LITHO, YEL FLUOR, NO VIS POR
3845-3863' LS-LT GRY TO TN, SHLY IP, CRYPTO-XLN & PCKSTN, DLL LT YEL FLUOR, NO VIS POR
3650
3700
3750
3800
3850
ROP (min/ft)
Gamma (API)
WOB 32
RPM 80
PP 700
WT 8.9
VIS 59
LCM 2
C1
CN
3-4 U BG
6 U. TOTAL
5 U. BG
6 U . BG
20 U. SH
C2
C1
3
1
10
100
1000
C1-C5


LANSING FM - 3863' - 534'
3863'- 3872' LS- LT GRY TO TN- CRYPTO-V/V/FN-XN TRS PCKSTN, DLL YEL FLUOR, NO VIS POR
3872'-3892' LS- HVY TRS WHT TO CRM -CHLK & TAN SUB CHLKY TO SUB SUCRO, DLL YEL FLUOR, NO CUT, TRS PR FR TRS GOOD MICRO PP POR
3892'-3901 LS-SIMILAR TO 3863' 3872' W/ HVY TRS SUB LITHO
3901-3904- SH- MED TO DK GRY CALC TO BLK CARB
3907-3912- SH- MED GRY W/ TRS RED SH
3912 -3917' LS- LT TO MED GRY, SHLY IP, SUB SUCRO SUB CHLKY W/ SHLY OOLITES, LT YEL FLOUR , NO CUT NO VIS POR
3917-3926' LS- GRYSH TAN TO TAN- CRYPTO TO V/V/FN-XLN, DLL LT TOLT YEL FLUOR, NO CUT , NO VIS POR
3926-3937' LS- HVY TRS CHLK TO TAN SUB SUCRO SUB CHLKY, EXTRMY OOLITIC W/ TRS OOLICASTIC MTRX, DLL LT TO LT YEL FLUOR, NO CUT, TR S POOR OOLICASTIC TO PR PP POR
3937-3948' LS- LT GRY TO TAN, CRYPTO TO V/VFN-XLN, SUB LITHO, DLL LT TO LT YEL FLUOR, NO CUT, NO VIS POR
3748- 3977'(FASTER DRLLNG) LS- HVY TRS CHLK TO TAN SUB SUCRO SUB CHLKY, OOLITIC W/ TRS OOLICASTIC MTRX, DLL LT TO LT YEL FLUOR, NO CUT, TRS POOR OOLICASTIC TO PR PP POR
3948-3977' (SLOWER DRLLNG) LS- LT GRY TO TAN, CRYPTO TO V/VFN-XLN, SUB LITHO, DLL LT TO LT YEL FLUOR, NO CUT, NO VIS POR
3977-4006' LS- TAN GRY IP, CRYPTO-V/V/FN-XLN PCKSTN TO SLI SUCRO IP, TR SUB LITHO, DLL LT YEL FLUOR, NO CUT , NO VIS POR
4006-4012' SH- LT TO MED GRY-SLI TO V/ CALC W/ REDS
4012-4021-LS- WHT TO CRM CHLK, SUCRO SUB CHLKY, ABDT PHNTM OOLITIC TO OOLICASTIC MTRX, DLL LT TO LT YEL FLO, NO CUT, TRS OOLITIC, PP, MICRO PP POR, QUEST PERM
4021-4033 LS- TAN GRYISH IP, CRYPTO-V/V/FN-XLN, SUB - LITHO, LT YEL TO LT YEL FLUOR, NO CUT, NO VIS POR
4033-4049' LS WHT TO CRM CHLJK TAN GRYISH IP, PHANTM OOLITIC TO OOLITIC MTRX, SUB SUCRO DLL LT LT YEL FLUOR, NO CUT, PR FR TO GD MICRO PP POR W/ TRS WH TISH GRY OPUE CHERT
4049-4071' LS LT GRY TO TAN, CRYPTO-V/V/FN-XLN, PCKSTN, TR GRY OOLITES, DLL LT TO YEL FLUOR, NO CUT , NO VIS POR
4071-4078 LS- TAN SUB SUCRO TO SUCRO MTRX, V/ OOLICASTIC TO V/ OOLITIC, DLL LT TO LT YEL FLUOR, NO CUT,
WOB 33
RPM 80
PP 700
WT 8.9
VIS 57
LCM 2
ROP (min/ft)
Gamma (API)
3900
3950
4000
4050
7 U. BG
CN
C1
C2
7 U. BG
CN
CARBIDE TEST
CN
6 U. B G
TG, C1-C5
CN
CN
9 U. BG
C1
CN
C2


PR FR TO GD OOLICASTIC POR
4078-4092' LS - LT GRY TO TAN, CRYPTO-V/V/FN-XLN TO SUB LITHO IP, DLL LT YEL FLUOR, , NO CUT, NO VIS POR
4092'-4107' LS- CRM TO TAN,SUCRO MTRX, FAIRLY TO EXTRMLY OOLITIC MTRX CHLK, SUB CHLKY, LT YEL FLUOR, NO CUT, TRS PR TO TRS FR PP TO MICRO PP POR
4107-4112' LS- CRM TN, CRYPTO-XLN TO SUB LITHO, DLL LT YEL FLUOR, NO CUT, NO VIS POR
4112-4118' LS- CRM TN GRY CRYTPO-XLN W/ ABDT TAN GRY OOLITES, DLL YEL FLUOR IP, NO VIS POR
41188-4169' LS- ABDT WHT TO CRM CHLK, & TAN SUB CHLKY TO SUCRO, V/ TO EXTREMLY OOLICASTIC & OR EXTRMLY OOLITIC, DLL LT YEL TO YEL FLUOR, ABDT PR FR TRS GD OOLICASTIC POR, QUEST PERM
4169-4180' LS- CRM TN GRY CRYTPO-XLN W/ A BDT TAN GRY OOLITES, DLL YEL FLUOR IP, NO VIS POR
4180-4195' LS- LT GRY TO TN, CRYPTO-XLN PCKSTN TO SUB LITHO, DLL YEL FLUOR, NO CUT , NO VIS POR TRS SH LT TO MED GRY SLI TO EXTRMYL CALC TRS DK GRY
4195-4208' LS- TAN, SUCRO TO SUB SUCRO, , V/V/DLL YEL FLUOR, NO CUT, TRS PR MICRO PP POR, W/ TRS WHTISH GRY OPQUE CHERT
4208-4279' (SLOWER DRILLING) LS- LT GRY TO TN, CRYPTO-V/V/FN-XLN ,SUB LTHO, DLL YEL FLUOR, NO CUT, NO VIS POR
4208-4279 (FASTER DRILLING) LS- WHT TO CRM CHLK, SUCRO SUB SUCRO, SLI TO EXTRML OOLITIC, DLL LT YEL FLUOR, NO CUT, TRS PR TO FR MICRO PP POR , TRS CHERT LT GRY TO OPQUE
4279-4290' LS TRS WHT TO CRM CHLK, & TN ,SUB CHLKY TO SUB SUCRO, FRLY OOLITIC MTRX, NO CUT, DLL LT YEL FLOR, TRS PR TO FR MICRO PP POR, TRS CHERT LT GRY OPQUE
4290-4301' LS- LT GRY TO TN, CRYPTO-V/V/FN-XLN PCKSTN TO SUB LITHO, DLL YEL FLUOR, NO CUT NO VIS POR
9 U. BG
6 U. BG
7 U. BG
7 U. BG
CN
CN
CN
CN
CN
CN
WOB 35
RPM 80
PP 700
WT 9.1
VIS 53
LCM 2
WOB 35
RPM 80
PP 700
WT 9.0
VIS 52
LCM 2
4100
4150
4200
4250
ROP (min/ft)
Gamma (API)
0
10
0
150
TG, C1-C5
1
10
100
1000
C1
C2





BKC 4301' -972'

4301-4329' LS -LT TO MED GRY-, CRYPTO-V/V/FN-XLN S-CHLKY TO V/ SHLY IP'S GRADING TOSH LT TOMED GRY, TR LT YEL FLO, NO CUT , NO VIS POR, TRS SILTST FN GRN SH FILLED

MARMATON 4329' -1000'

4329-4349' LS-LT GRY TO TN , CRYPTO- V/V/FN-XLN, TR PCKSTN, TR S-LITHO, DLL LT YEL FLUOR, NO CUT, NO VISPOR

4349-4360' LS - LT GRY TO TN,SUCROTOS-SUCRO SLI TO V/ OOLITIC MTRX DLL YEL FLUOR, NO VIS POR , TRS CHERT TAN OPQUE

4360-4427 SH- MED TO V/ DK GRY , CALC TO BLK CARB LOOKING

4360-4427' LS- LT TO MED GRY TO TN, CRYPTO-V/V/FN-XLN PACKSTN TO S-LITHO, TRS DLL YEL FLUOR. NO CUT, NO VIS POR

PAWNEE 4428' -1099'

4427' -4428' SH- V/ DK GRY TO BLK CARB

4428'-4440' SH- MED TO V/ DK GRY SLI TO V/ CAL TO LS LT GRY TO TN CRYPTO-XLN PCKSTN TRS OOLITIC, TRS DLL YEL FLUOR, NO CUT , NO VIS POR

4440-4451' LS- A BDT WHT TO CRM CHLK W/LT GRY OOLITES IP, ABDT TAN OOLITES, SUB SUCRO TO SUB CHLKT MTRX, DLL LT YEL FLUOR, NO CUT, HVY TR S PR FR GD TO EXCEL MICRO PP POR

4457-4475' LS-LT GRY SLI TO FRLY SHLY CRYPTO-XLN PCKSTN, TR PHNTM OOLITES, DLL LT YEL FLUOR, NO CUT NO VIS POR

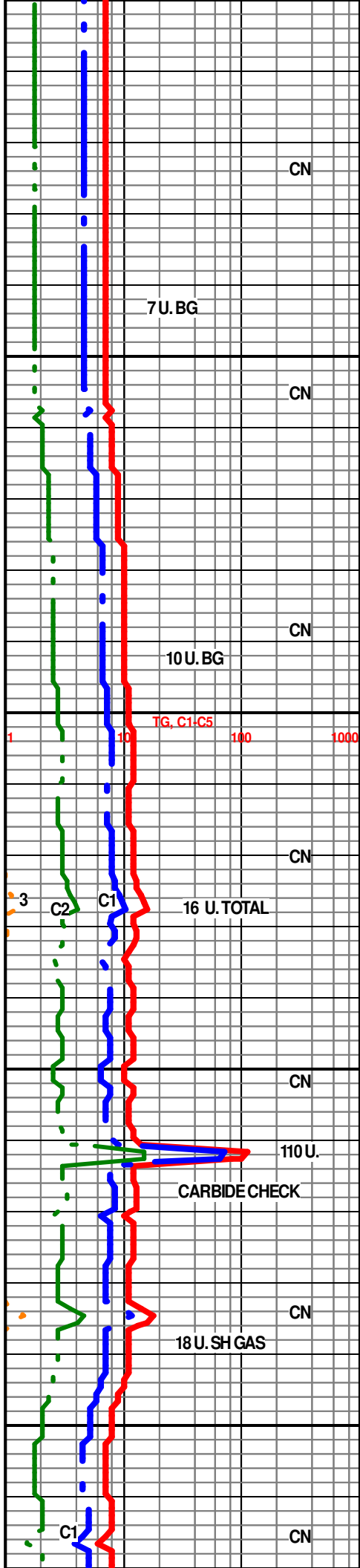
4475-4477 SH- V/DK GRY TO BLK CARB

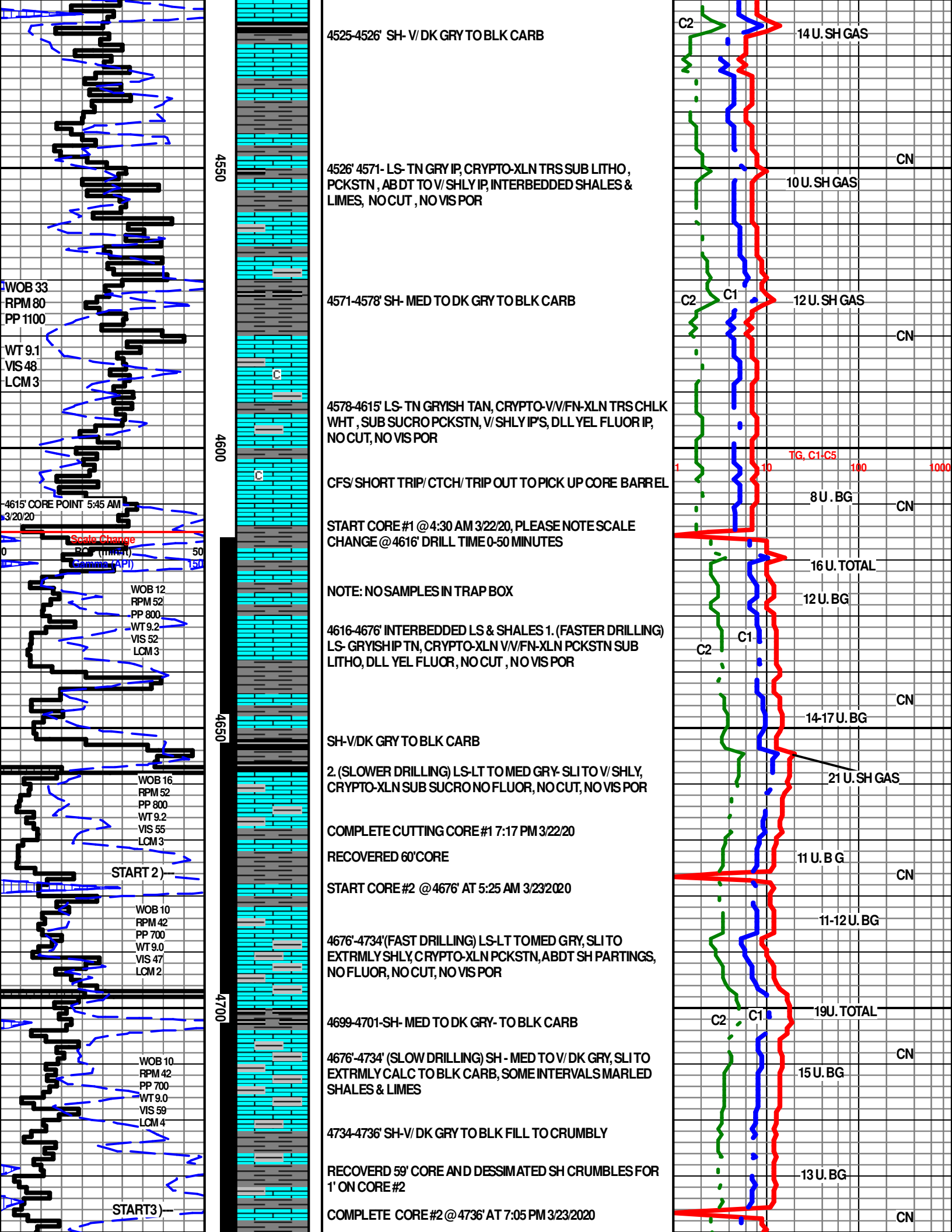
4477-4485' LS- SIMILAR TO 4457-4475, W/ TRS GRY CHERT

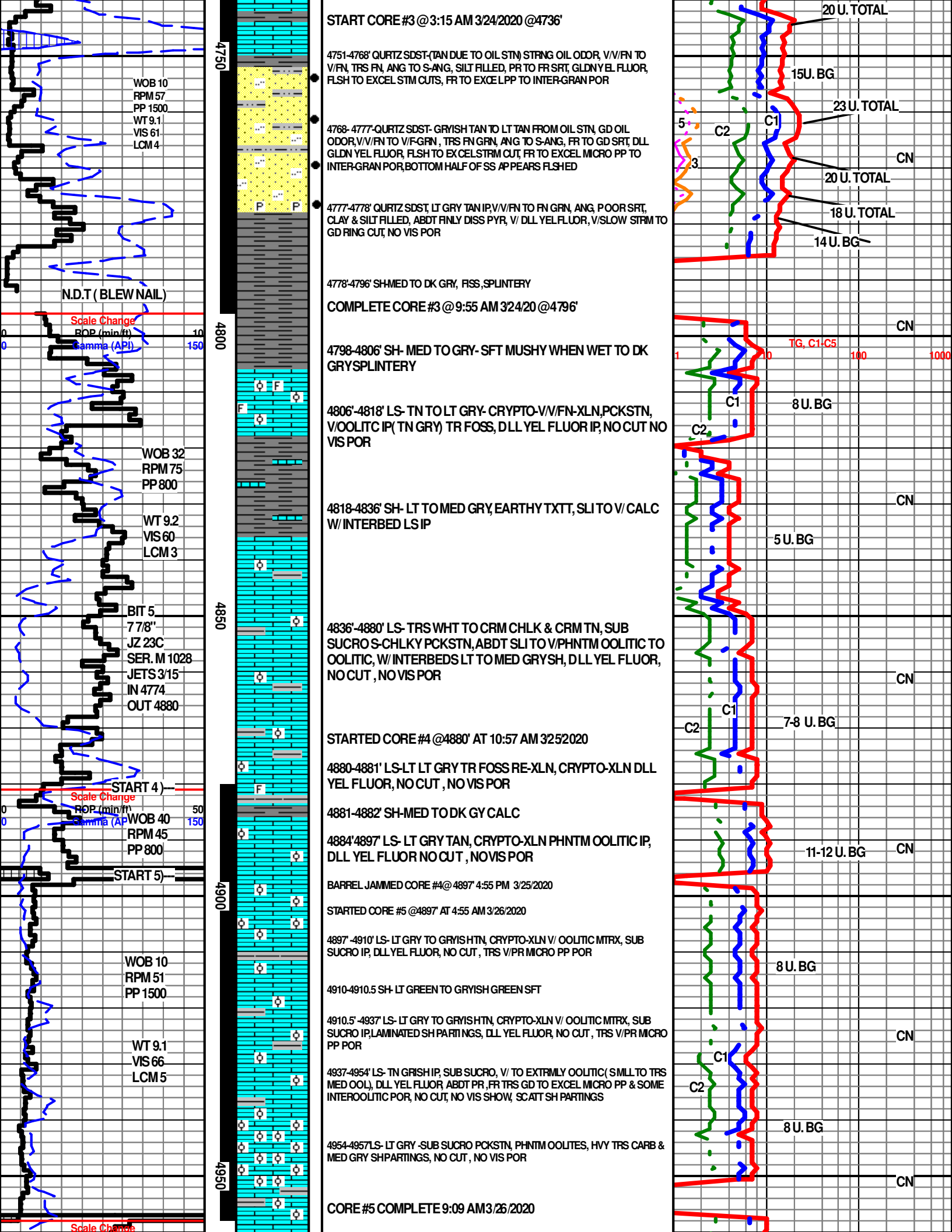
4585'-4590 SH- V/ DK GRY TO BLK CARB

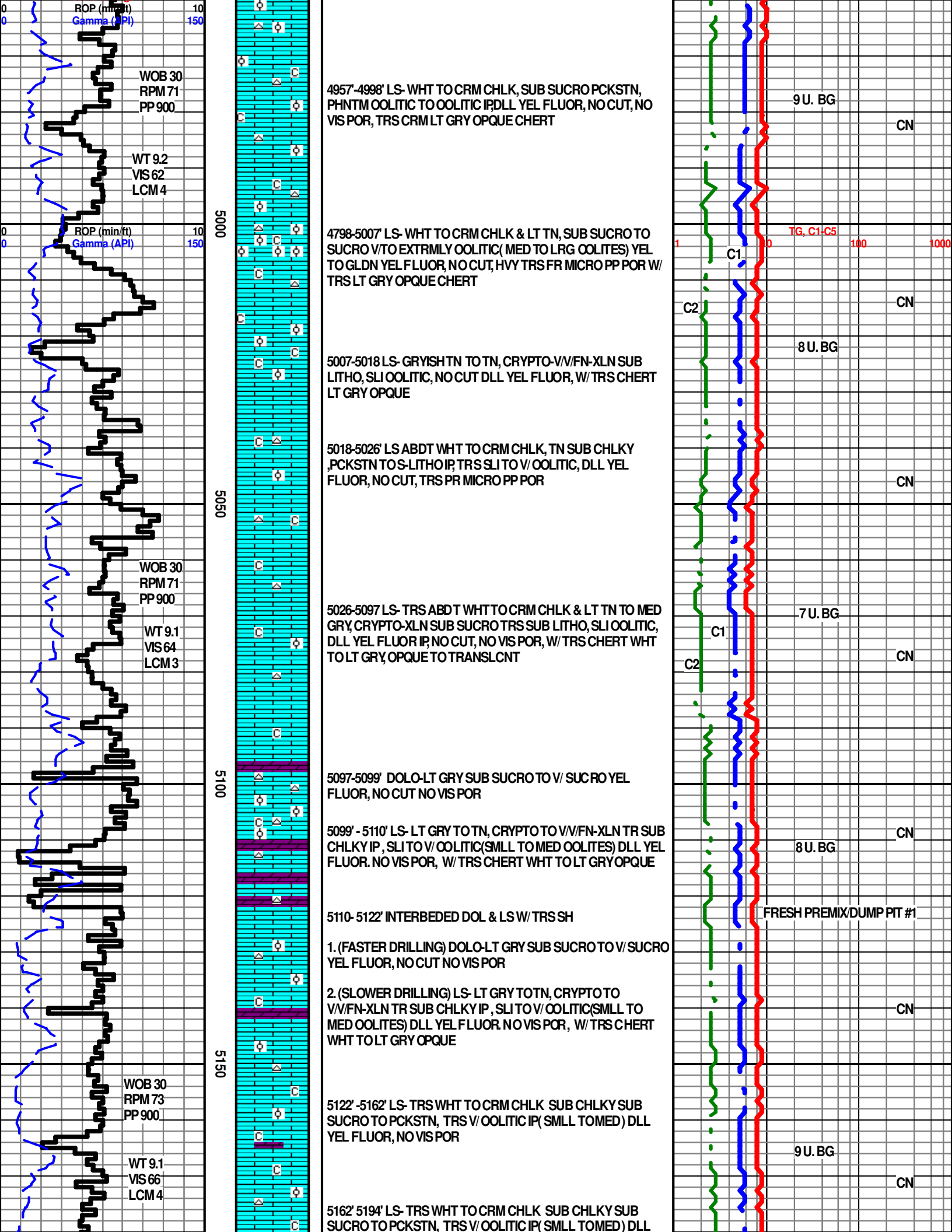
CHEROKEE 4485' -1156'

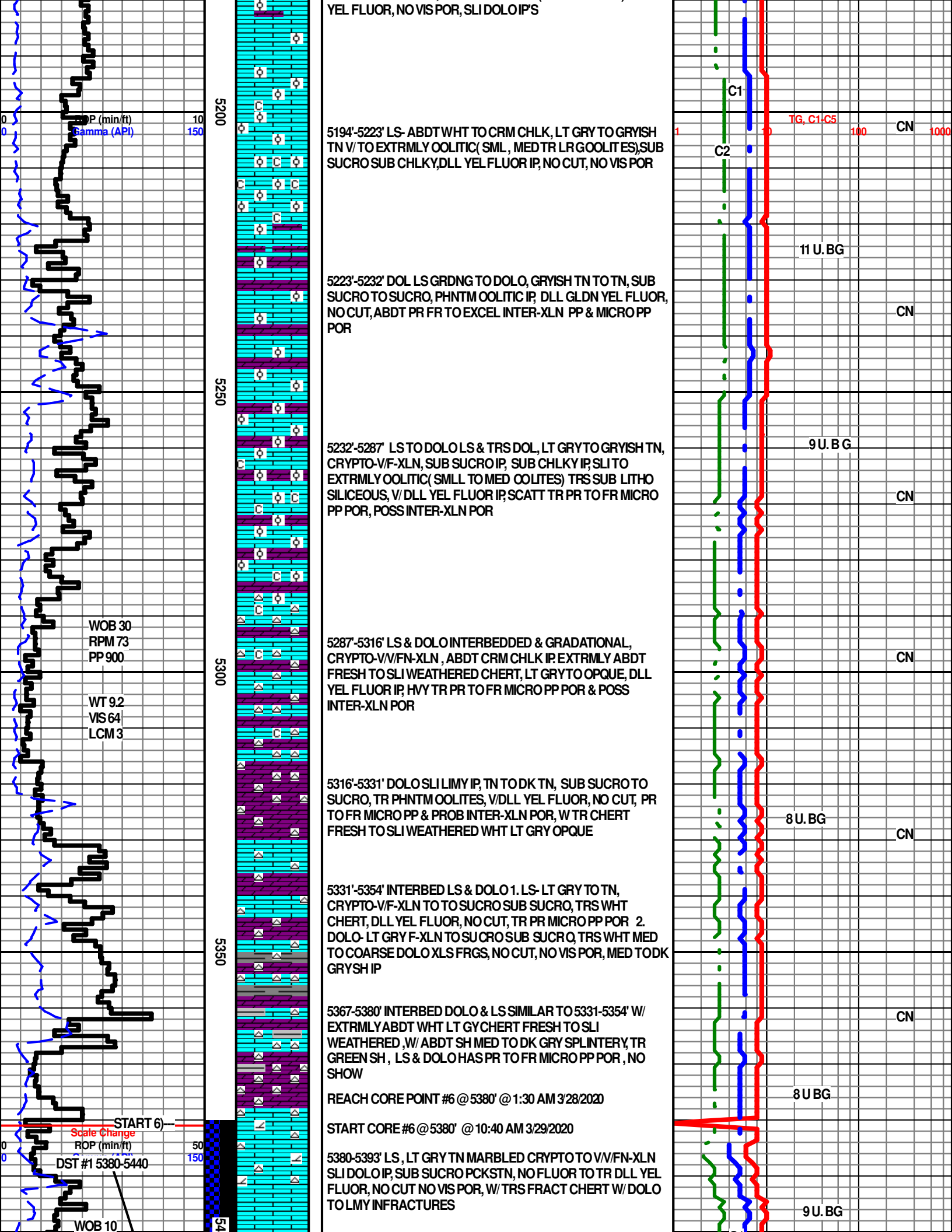
4490-4525 LS-LT TO MED GRY, SLI TO EXTRMY SHLY GRDING TO CALC SHALES LT TO MED GRY, SUB SUCRO TO PCKSTN, NO FLUOR TO TR DLL YEL FLUOR IP, NO CUT NO VIS SHOW




4550
4600
4650
4700
WOB 33
RPM 80
PP 1100
WT 9.1
VIS 48
LCM 3
4615' CORE POINT 5:45 AM 3/20/20
Scale Change
ROP (min/ft)
0
50
Gamma (API)
150
WOB 12
RPM 52
PP 800
WT 9.2
VIS 52
LCM 3
WOB 16
RPM 52
PP 800
WT 9.2
VIS 55
LCM 3
START 2)---
WOB 10
RPM 42
PP 700
WT 9.0
VIS 47
LCM 2
WOB 10
RPM 42
PP 700
WT 9.0
VIS 59
LCM 4
START3)---
C
C
4525-4526' SH- V/ DK GRY TO BLK CARB
4526' 4571- LS- TN GRY IP, CRYPTO-XLN TRS SUB LITHO , PCKSTN , AB DT TO V/ SHLY IP, INTERBEDDED SHALES & LIMES, NO CUT , NO VIS POR
4571-4578' SH- MED TO DK GRY TO BLK CARB
4578-4615' LS- TN GRYISH TAN, CRYPTO-V/V/FN-XLN TRS CHLK WHT , SUB SUCRO PCKSTN, V/ SHLY IP'S, DLL YEL FLUOR IP, NO CUT, NO VIS POR
CFS/ SHORT TRIP/ CTCH/ TRIP OUT TO PICK UP CORE BARREL
START CORE #1 @ 4:30 AM 3/22/20, PLEASE NOTE SCALE CHANGE @ 4616' DRILL TIME 0-50 MINUTES
NOTE: NO SAMPLES IN TRAP BOX
4616-4676' INTERBEDDED LS & SHALES 1. (FASTER DRILLING) LS- GRYISH IP TN, CRYPTO-XLN V/V/FN-XLN PCKSTN SUB LITHO, DLL YEL FLUOR , NO CUT , NO VIS POR
SH-V/DK GRY TO BLK CARB
2. (SLOWER DRILLING) LS-LT TO MED GRY- SLI TO V/ SHLY, CRYPTO-XLN SUB SUCRO NO FLUOR, NO CUT, NO VIS POR
COMPLETE CUTTING CORE #1 7:17 PM 3/22/20
RECOVERED 60'CORE
START CORE #2 @ 4676' AT 5:25 AM 3/23/2020
4676'-4734'(FAST DRILLING) LS-LT TO MED GRY, SLI TO EXTRMLY SHLY, CRYPTO-XLN PCKSTN, ABDT SH PARTINGS, NO FLUOR, NO CUT, NO VIS POR
4699-4701-SH- MED TO DK GRY- TO BLK CARB
4676'-4734' (SLOW DRILLING) SH - MED TO V/ DK GRY, SLI TO EXTRMLY CALC TO BLK CARB, SOME INTERVALS MARLED SHALES & LIMES
4734-4736' SH-V/ DK GRY TO BLK FILL TO CRUMBLY
RECOVERD 59' CORE AND DESSIMATED SH CRUMBLES FOR 1' ON CORE #2
COMPLETE CORE #2 @ 4736' AT 7:05 PM 3/23/2020
C2
14 U. SH GAS
CN
10 U. SH GAS
C2
C1
12 U. SH GAS
CN
TG, C1-C5
1
10
100
1000
8 U . BG
CN
16 U. TOTAL
12 U. BG
C1
C2
CN
14-17 U. BG
21 U. SH GAS
11 U. B G
CN
11-12 U. BG
19U. TOTAL
C2
C1
CN
15 U. BG
13 U. BG
CN


WOB 10
RPM 57
PP 1500
WT 9.1
VIS 61
LCM 4
N.D.T (BLEW NAIL)
Scale Change
ROP (min/ft)
Gamma (API)
WOB 32
RPM 75
PP 800
WT 9.2
VIS 60
LCM 3
BIT 5
7 7/8"
JZ 23C
SER. M 1028
JETS 3/15
IN 4774
OUT 4880
START 4)---
Scale Change
ROP (min/ft)
Gamma (API
WOB 40
RPM 45
PP 800
START 5)---
WOB 10
RPM 51
PP 1500
WT 9.1
VIS 66
LCM 5
Scale Change
4750
4800
4850
4900
4950
START CORE #3 @ 3:15 AM 3/24/2020 @4736'
4751-4768' QURTZ SDST-(TAN DUE TO OIL STN) STRNG OIL ODOR, V/V/FN TO V/FN, TRS FN, ANG TO S-ANG, SILT FILLED, PR TO FR SRT, GLDNY EL FLUOR, FLSH TO EXCEL STM CUTS, FR TO EXCE LPP TO INTER-GRAN POR
4768- 4777'-QURTZ SDST- GRYISH TAN TO LT TAN FROM OIL STN, GD OIL ODOR,V/V/FN TO V/F-GRN , TRS FN GRN, ANG TO S-ANG, FR TO GD SRT, DLL GLDN YEL FLUOR, FLSH TO EXCELSTRM CUT, FR TO EXCEL MICRO PP TO INTER-GRAN POR,BOTTOM HALF OF SS APPEARS FLSHED
4777'-4778' QURTZ SDST, LT GRY TAN IP,V/V/FN TO FN GRN, ANG, POOR SRT, CLAY & SILT FILLED, ABDT FINLY DISS PYR, V/ DLL YEL FLUOR, V/SLOW STRM TO GD RING CUT, NO VIS POR
4778'-4796' SH-MED TO DK GRY, FISS,SPLINTERY
COMPLETE CORE #3 @ 9:55 AM 3/24/20 @4796'
4798-4806' SH- MED TO GRY- SFT MUSHY WHEN WET TO DK GRY SPLINTERY
4806'-4818' LS- TN TO LT GRY- CRYPTO-V/V/FN-XLN,PCKSTN, V/OOLITC IP(TN GRY) TR FOSS, DLL YEL FLUOR IP, NO CUT NO VIS POR
4818-4836' SH- LT TO MED GRY, EARTHY TXTT, SLI TO V/ CALC W/ INTERBED LS IP
4836'-4880' LS- TRS WHT TO CRM CHLK & CRM TN, SUB SUCRO S-CHLKY PCKSTN, ABDT SLI TO V/PHNTM OOLITIC TO OOLITIC, W/ INTERBEDS LT TO MED GRY SH, DLL YEL FLUOR, NO CUT , NO VIS POR
STARTED CORE #4 @4880' AT 10:57 AM 3'25'2020
4880-4881' LS-LT LT GRY TR FOSS RE-XLN, CRYPTO-XLN DLL YEL FLUOR, NO CUT , NO VIS POR
4881-4882' SH-MED TO DK GY CALC
4884'4897' LS- LT GRY TAN, CRYPTO-XLN PHNTM OOLITIC IP, DLL YEL FLUOR NO CUT , NO VIS POR
BARREL JAMMED CORE #4@ 4897' 4:55 PM 3/25/2020
STARTED CORE #5 @4897' AT 4:55 AM 3/26/2020
4897' -4910' LS- LT GRY TO GRYISHTN, CRYPTO-XLN V/ OOLITIC MTRX, SUB SUCRO IP, DLL YEL FLUOR, NO CUT , TRS V/PR MICRO PP POR
4910-4910.5 SH- LT GREEN TO GRYISH GREEN SFT
4910.5' -4937' LS- LT GRY TO GRYISHTN, CRYPTO-XLN V/ OOLITIC MTRX, SUB SUCRO IP,LAMINATED SH PARTINGS, DLL YEL FLUOR, NO CUT , TRS V/PR MICRO PP POR
4937-4954' LS- TN GRISH IP, SUB SUCRO, V/ TO EXTRMLY OOLITIC(SMLL TO TRS MED OOL), DLL YEL FLUOR, ABDT PR ,FR TRS GD TO EXCEL MICRO PP & SOME INTEROOLITIC POR, NO CUT, NO VIS SHOW, SCATT SH PARTINGS
4954-4957'LS- LT GRY -SUB SUCRO PCKSTN, PHNTM OOLITES, HVY TRS CARB & MED GRY SH PARTINGS, NO CUT , NO VIS POR
CORE #5 COMPLETE 9:09 AM 3/26/2020
20 U. TOTAL
15U. BG
23 U. TOTAL
5
C2
C1
3
CN
20 U. TOTAL
18 U. TOTAL
14 U. BG
CN
TG, C1-C5
1
10
100
1000
C1
8 U. BG
C2
CN
5 U. BG
CN
C1
C2
7-8 U. BG
CN
11-12 U. BG
8 U. BG
CN
C1
C2
8 U. BG
CN


0
ROP (min/ft)
10
0
Gamma (API)
150
WOB 30
RPM 71
PP 900
WT 9.2
VIS 62
LCM 4
5000
4957'-4998' LS- WHT TO CRM CHLK, SUB SUCRO PCKSTN, PHNTM OOLITIC TO OOLITIC IP,DLL YEL FLUOR, NO CUT, NO VIS POR, TRS CRM LT GRY OPQUE CHERT
9 U. BG
CN
4798-5007' LS- WHT TO CRM CHLK & LT TN, SUB SUCRO TO SUCRO V/TO EXTRMLY OOLITIC(MED TO LRG COLITES) YEL TO GLDN YEL FLUOR, NO CUT, HVY TRS FR MICRO PP POR W/ TRS LT GRY OPQUE CHERT
TG, C1-C5
1
10
100
1000
C1
C2
CN
5007-5018 LS- GRYISH TN TO TN, CRYPTO-V/V/FN-XLN SUB LITHO, SLI OOLITIC, NO CUT DLL YEL FLUOR, W/ TRS CHERT LT GRY OPQUE
8 U. BG
5018-5026' LS ABDT WHT TO CRM CHLK, TN SUB CHLKY ,PCKSTN TO S-LITHO IP, TRS SLI TO V/ OOLITIC, DLL YEL FLUOR, NO CUT, TRS PR MICRO PP POR
CN
5050
WOB 30
RPM 71
PP 900
WT 9.1
VIS 64
LCM 3
5026-5097 LS- TRS ABDT WHT TO CRM CHLK & LT TN TO MED GRY, CRYPTO-XLN SUB SUCRO TRS SUB LITHO, SLI OOLITIC, DLL YEL FLUOR IP, NO CUT, NO VIS POR, W/ TRS CHERT WHT TO LT GRY, OPQUE TO TRANSLCNT
7 U. BG
C1
C2
CN
5097-5099' DOLO-LT GRY SUB SUCRO TO V/ SUCRO YEL FLUOR, NO CUT NO VIS POR
5100
5099' - 5110' LS- LT GRY TO TN, CRYPTO TO V/V/FN-XLN TR SUB CHLKY IP , SLI TO V/ COLITIC(SMLL TO MED OOLITES) DLL YEL FLUOR. NO VIS POR, W/ TRS CHERT WHT TO LT GRY OPQUE
CN
8 U. BG
5110- 5122' INTERBEDED DOL & LS W/ TRS SH
FRESH PREMIX/DUMP PIT #1
1. (FASTER DRILLING) DOLO-LT GRY SUB SUCRO TO V/ SUCRO YEL FLUOR, NO CUT NO VIS POR
2. (SLOWER DRILLING) LS- LT GRY TO TN, CRYPTO TO V/V/FN-XLN TR SUB CHLKY IP , SLI TO V/ COLITIC(SMLL TO MED OOLITES) DLL YEL FLUOR. NO VIS POR , W/ TRS CHERT WHT TO LT GRY OPQUE
CN
5150
WOB 30
RPM 73
PP 900
WT 9.1
VIS 66
LCM 4
5122' -5162' LS- TRS WHT TO CRM CHLK SUB CHLKY SUB SUCRO TO PCKSTN, TRS V/ OOLITIC IP(SMLL TO MED) DLL YEL FLUOR, NO VIS POR
9 U. BG
CN
5162' 5194' LS- TRS WHT TO CRM CHLK SUB CHLKY SUB SUCRO TO PCKSTN, TRS V/ OOLITIC IP(SMLL TO MED) DLL



YEL FLUOR, NO VIS POR, SLI DOLO IP'S

5194'-5223' LS- ABDT WHT TO CRM CHLK, LT GRY TO GRYISH TN V/ TO EXTRMLY OOLITIC(SML , MED TR LRG OOLITES),SUB SUCRO SUB CHLKY,DLL YEL FLUOR IP, NO CUT, NO VIS POR

5223'-5232' DOL LS GRDNG TO DOLO, GRYISH TN TO TN, SUB SUCRO TO SUCRO, PHNTM OOLITIC IP, DLL GLDN YEL FLUOR, NO CUT, ABDT PR FR TO EXCEL INTER-XLN PP & MICRO PP POR

5232'-5287' LS TO DOLO LS & TRS DOL, LT GRY TO GRYISH TN, CRYPTO-V/F-XLN, SUB SUCRO IP, SUB CHLKY IP, SLI TO EXTRMLY OOLITIC(SMLL TO MED OOLITES) TRS SUB LITHO SILICEOUS, V/ DLL YEL FLUOR IP, SCATT TR PR TO FR MICRO PP POR, POSS INTER-XLN POR

5287'-5316' LS & DOLO INTERBEDDED & GRADATIONAL, CRYPTO-V/V/FN-XLN , ABDT CRM CHLK IP. EXTRMLY ABDT FRESH TO SLI WEATHERED CHERT, LT GRY TO OPQUE, DLL YEL FLUOR IP, HVY TR PR TO FR MICRO PP POR & POSS INTER-XLN POR

5316'-5331' DOLO SLI LIMY IP, TN TO DK TN, SUB SUCRO TO SUCRO, TR PHNTM OOLITES, V/DLL YEL FLUOR, NO CUT, PR TO FR MICRO PP & PROB INTER-XLN POR, W TR CHERT FRESH TO SLI WEATHERED WHT LT GRY OPQUE

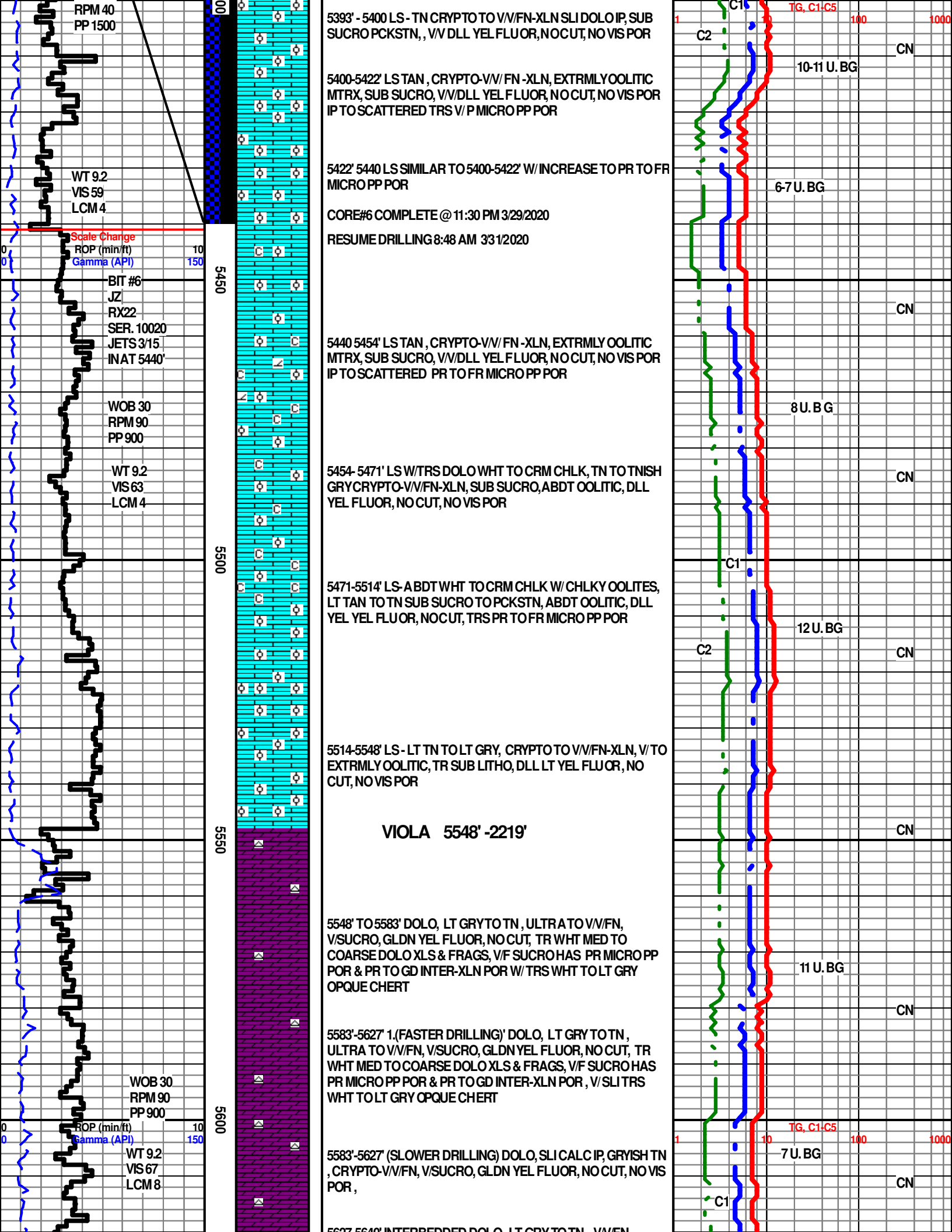
5331'-5354' INTERBED LS & DOLO 1. LS- LT GRY TO TN, CRYPTO-V/F-XLN TO TO SUCRO SUB SUCRO, TRS WHT CHERT, DLL YEL FLUOR, NO CUT, TR PR MICRO PP POR 2. DOLO- LT GRY F-XLN TO SUCRO SUB SUCRO, TRS WHT MED TO COARSE DOLO XLS FRGS, NO CUT, NO VIS POR, MED TO DK GRYSH IP

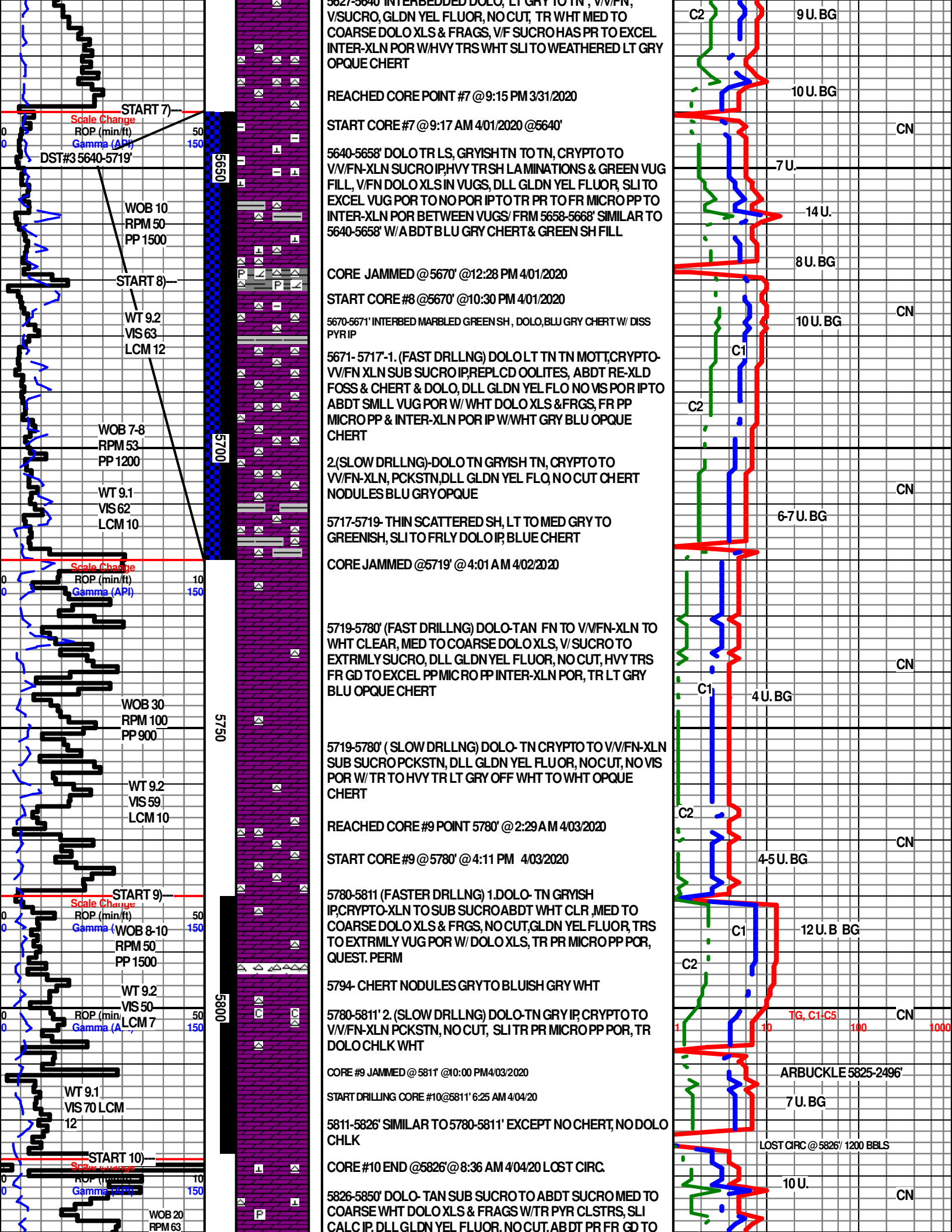
5367-5380' INTERBED DOLO & LS SIMILAR TO 5331-5354' W/ EXTRMLY ABDT WHT LT GY CHERT FRESH TO SLI WEATHERED ,W/ ABDT SH MED TO DK GRY SPLINTERY, TR GREEN SH , LS & DOLO HAS PR TO FR MICRO PP POR , NO SHOW

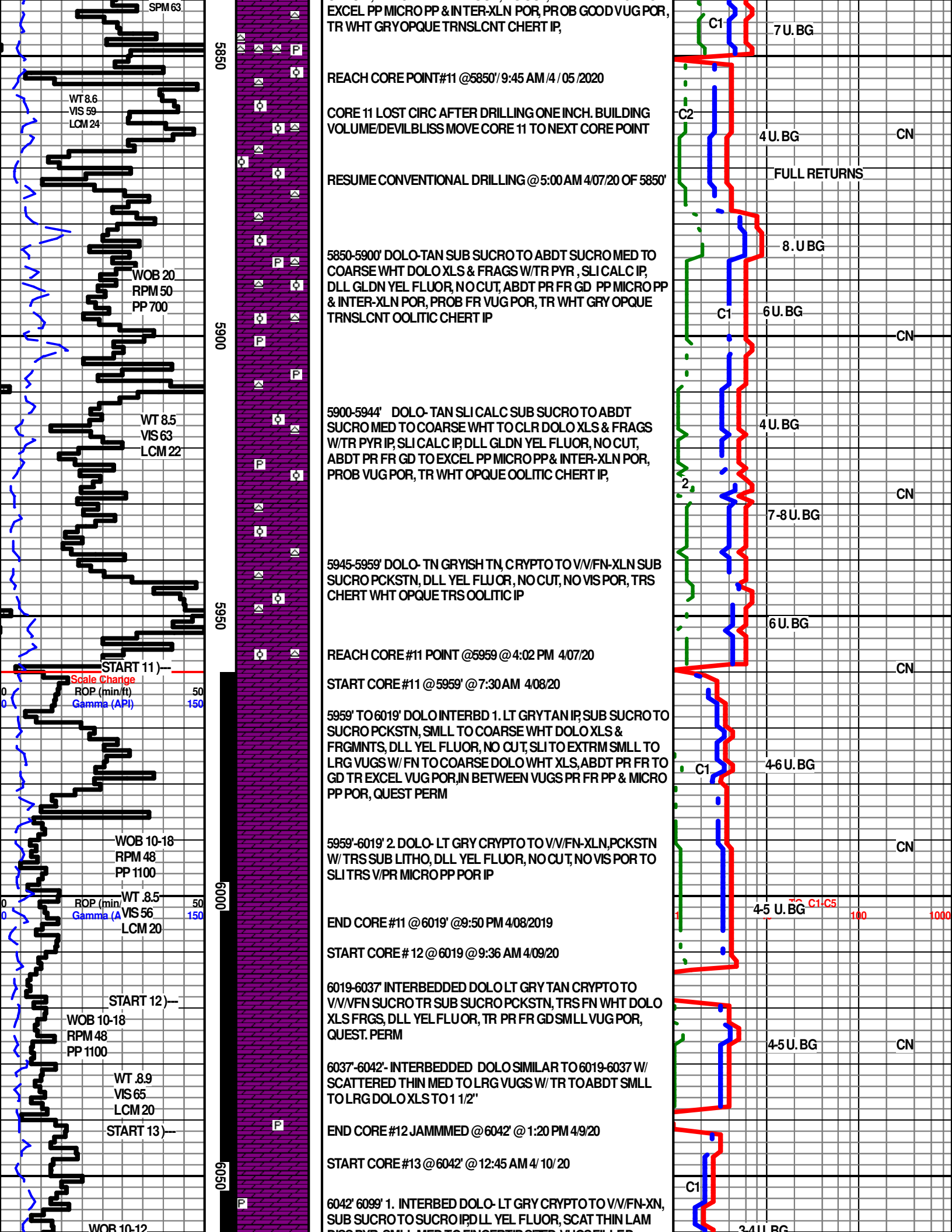
REACH CORE POINT #6 @ 5380' @ 1:30 AM 3/28/2020

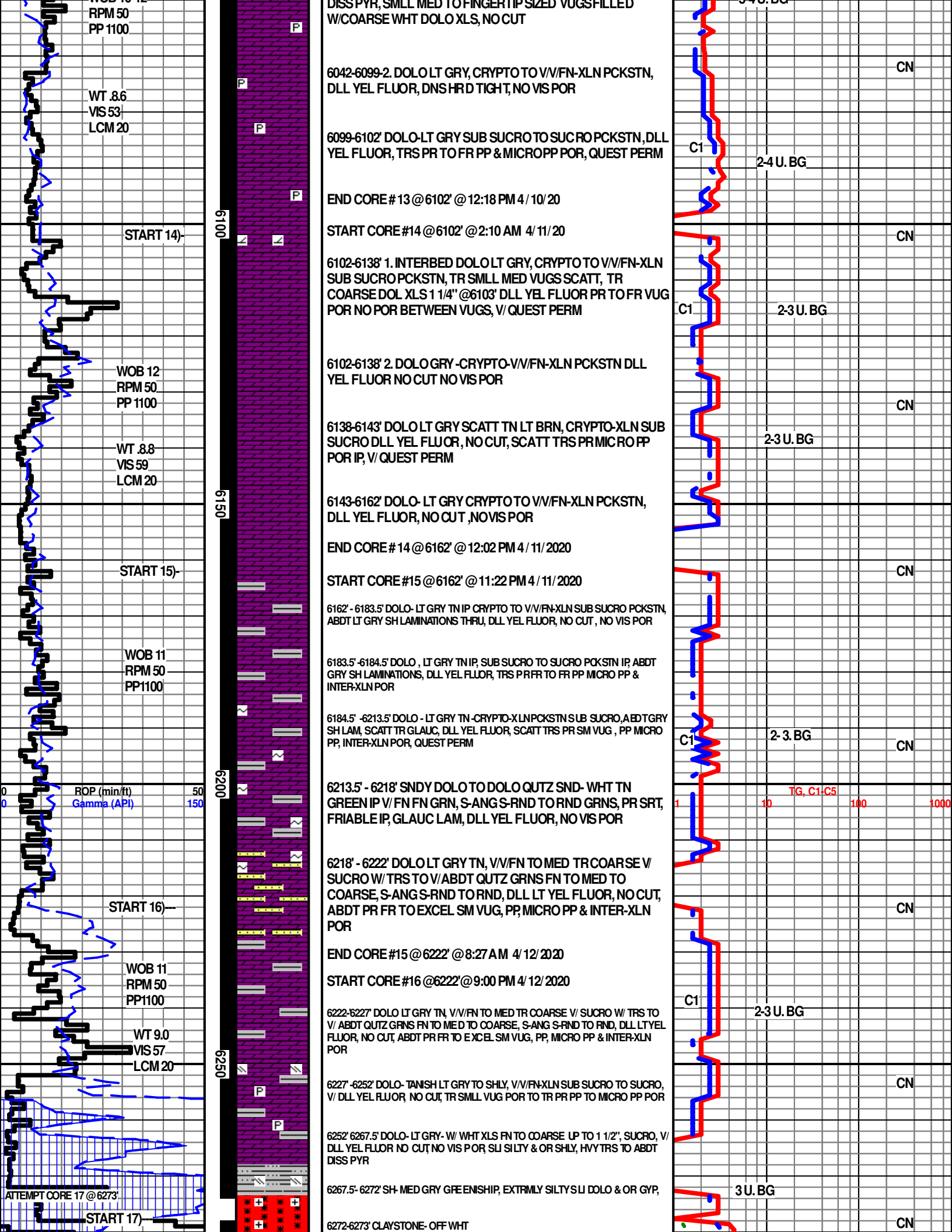
START CORE #6 @ 5380' @ 10:40 AM 3/29/2020

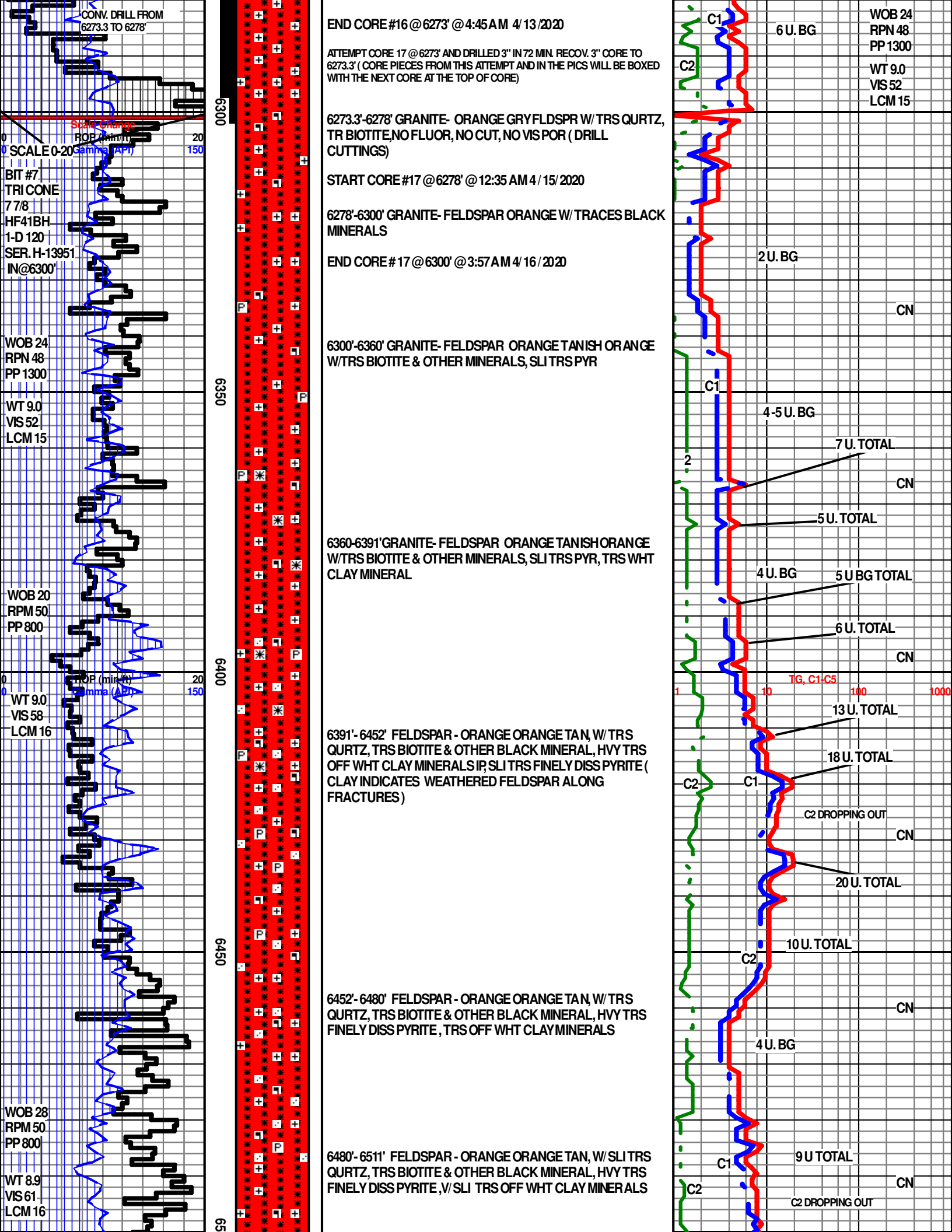
5380-5393' LS , LT GRY TN MARBLED CRYPTO TO V/V/FN-XLN SLI DOLO IP, SUB SUCRO PCKSTN, NO FLUOR TO TR DLL YEL FLUOR, NO CUT NO VIS POR, W/ TRS FRACT CHERT W/ DOLO TO LMY INFRACTURES

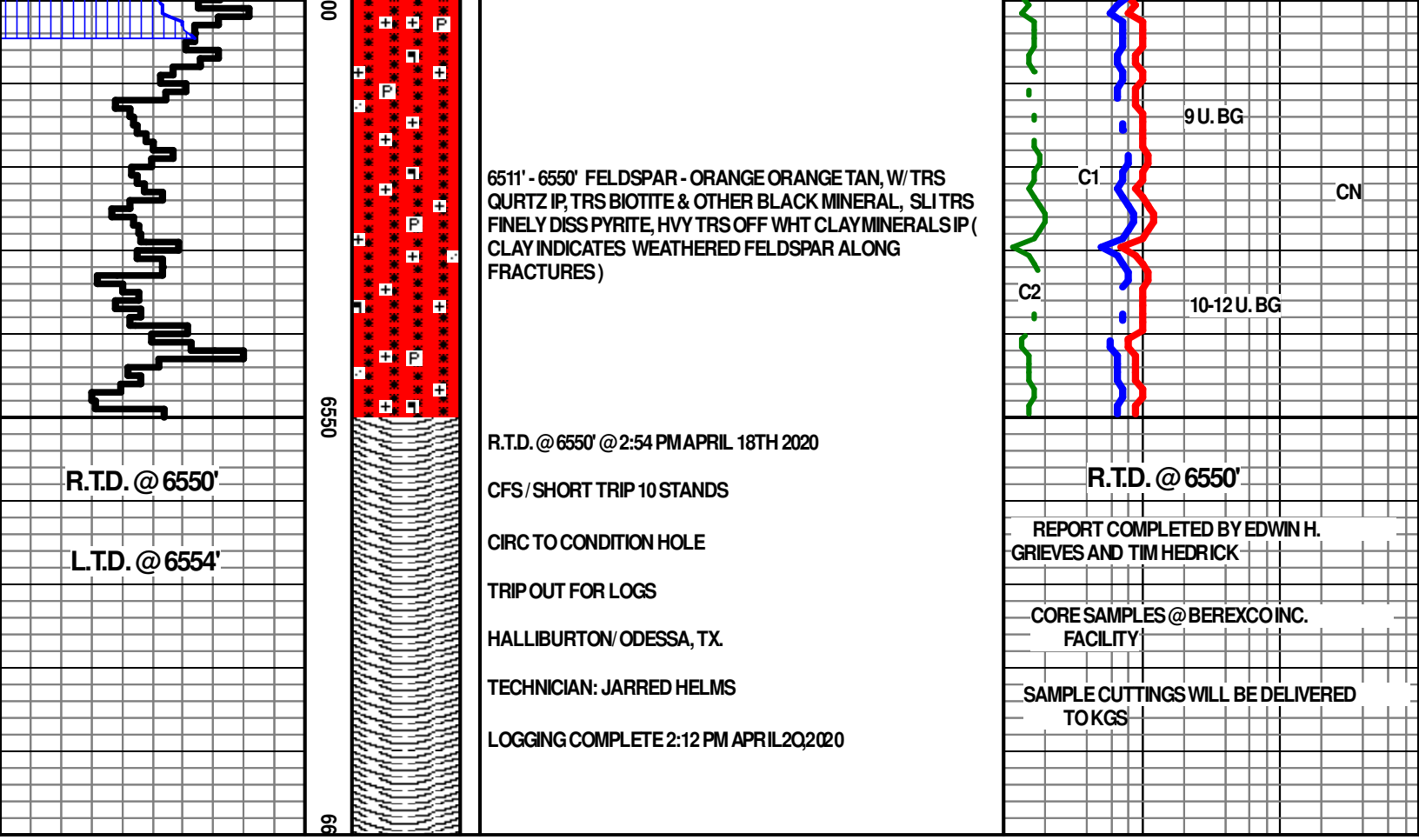

RPM 40
PP 1500
WT 9.2
VIS 59
LCM 4
Scale Change
ROP (min/ft) 10
Gamma (API) 150
BIT #6
JZ
RX22
SER. 10020
JETS 3/15
IN AT 5440'
WOB 30
RPM 90
PP 900
WT 9.2
VIS 63
LCM 4
WOB 30
RPM 90
PP 900
ROP (min/ft) 10
Gamma (API) 150
WT 9.2
VIS 67
LCM 8
5450
5500
5550
5600
5393' - 5400 LS - TN CRYPTO TO V/V/FN-XLN SLI DOLO IP, SUB SUCRO PCKSTN, , V/V DLL YEL FLUOR, NO CUT, NO VIS POR
5400-5422' LS TAN , CRYPTO-V/V/ FN -XLN, EXTRMLY OOLITIC MTRX, SUB SUCRO, V/V/DLL YEL FLUOR, NO CUT, NO VIS POR IP TO SCATTERED TRS V/ P MICRO PP POR
5422' 5440 LS SIMILAR TO 5400-5422' W/ INCREASE TO PR TO FR MICRO PP POR
CORE#6 COMPLETE @ 11:30 PM 3/29/2020
RESUME DRILLING 8:48 AM 3/31/2020
5440 5454' LS TAN , CRYPTO-V/V/ FN -XLN, EXTRMLY OOLITIC MTRX, SUB SUCRO, V/V/DLL YEL FLUOR, NO CUT, NO VIS POR IP TO SCATTERED PR TO FR MICRO PP POR
5454- 5471' LS W/TRS DOLO WHT TO CRM CHLK, TN TO TNISH GRY CRYPTO-V/V/FN-XLN, SUB SUCRO, ABDT OOLITIC, DLL YEL FLUOR, NO CUT, NO VIS POR
5471-5514' LS- ABDT WHT TO CRM CHLK W/ CHLKY OOLITES, LT TAN TO TN SUB SUCRO TO PCKSTN, ABDT OOLITIC, DLL YEL YEL FLUOR, NO CUT, TRS PR TO FR MICRO PP POR
5514-5548' LS - LT TN TO LT GRY, CRYPTO TO V/V/FN-XLN, V/ TO EXTRMLY OOLITIC, TR SUB LITHO, DLL LT YEL FLUOR, NO CUT, NO VIS POR
VIOLA 5548' -2219'
5548' TO 5583' DOLO, LT GRY TO TN , ULTRA TO V/V/FN, V/SUCRO, GLDN YEL FLUOR, NO CUT, TR WHT MED TO COARSE DOLO XLS & FRAGS, V/F SUCRO HAS PR MICRO PP POR & PR TO GD INTER-XLN POR W/ TRS WHT TO LT GRY OPQUE CHERT
5583'-5627' 1.(FASTER DRILLING)' DOLO, LT GRY TO TN , ULTRA TO V/V/FN, V/SUCRO, GLDN YEL FLUOR, NO CUT, TR WHT MED TO COARSE DOLO XLS & FRAGS, V/F SUCRO HAS PR MICRO PP POR & PR TO GD INTER-XLN POR , V/ SLI TRS WHT TO LT GRY OPQUE CHERT
5583'-5627' (SLOWER DRILLING) DOLO, SLI CALC IP, GRYISH TN , CRYPTO-V/V/FN, V/SUCRO, GLDN YEL FLUOR, NO CUT, NO VIS POR ,
TG, C1-C5
1
10
100
1000
C1
C2
CN
10-11 U. BG
6-7 U. BG
8 U. B G
12 U. BG
11 U. BG
7 U. BG


START 7)---
Scale Change
ROP (min/ft)
Gamma (API)
DST#3 5640-5719'
WOB 10
RPM 50
PP 1500
START 8)---
WT 9.2
VIS 63
LCM 12
WOB 7-8
RPM 53
PP 1200
WT 9.1
VIS 62
LCM 10
Scale Change
ROP (min/ft)
Gamma (API)
WOB 30
RPM 100
PP 900
WT 9.2
VIS 59
LCM 10
START 9)---
Scale Change
ROP (min/ft)
Gamma (API)
WOB 8-10
RPM 50
PP 1500
WT 9.2
VIS 50
LCM 7
WT 9.1
VIS 70 LCM
12
START 10)---
Scale Change
ROP (min/ft)
Gamma (API)
WOB 20
RPM 63
5650
5700
5750
5800
P
C
5627-5640' INTERBEDDED DOLO, LT GRY TO TN , V/V/FN, V/SUCRO, GLDN YEL FLUOR, NO CUT, TR WHT MED TO COARSE DOLO XLS & FRAGS, V/F SUCRO HAS PR TO EXCEL INTER-XLN POR W/HVY TRS WHT SLI TO WEATHERED LT GRY OPQUE CHERT
REACHED CORE POINT #7 @ 9:15 PM 3/31/2020
START CORE #7 @ 9:17 AM 4/01/2020 @5640'
5640-5658' DOLO TR LS, GRYISH TN TO TN, CRYPTO TO V/V/FN-XLN SUCRO IP,HVY TR SH LAMINATIONS & GREEN VUG FILL, V/FN DOLO XLS IN VUGS, DLL GLDN YEL FLUOR, SLI TO EXCEL VUG POR TO NO POR IP TO TR PR TO FR MICRO PP TO INTER-XLN POR BETWEEN VUGS/ FRM 5658-5668' SIMILAR TO 5640-5658' W/ A BDT BLU GRY CHERT & GREEN SH FILL
CORE JAMMED @ 5670' @12:28 PM 4/01/2020
START CORE #8 @5670' @10:30 PM 4/01/2020
5670-5671' INTERBED MARBLED GREEN SH , DOLO,BLU GRY CHERT W/ DISS PYR IP
5671- 5717'-1. (FAST DRLLNG) DOLO LT TN TN MOTT,CRYPTO-VV/FN XLN SUB SUCRO IP,REPLCD OOLITES, ABDT RE-XLD FOSS & CHERT & DOLO, DLL GLDN YEL FLO NO VIS POR IP TO ABDT SMLL VUG POR W/ WHT DOLO XLS & FRGS, FR PP MICRO PP & INTER-XLN POR IP W/WHT GRY BLU OPQUE CHERT
2.(SLOW DRLLNG)-DOLO TN GRYISH TN, CRYPTO TO VV/FN-XLN, PCKSTN,DLL GLDN YEL FLO, NO CUT CHERT NODULES BLU GRY OPQUE
5717-5719- THIN SCATTERED SH, LT TO MED GRY TO GREENISH, SLI TO FRLY DOLO IP, BLUE CHERT
CORE JAMMED @5719' @ 4:01 A M 4/02/2020
5719-5780' (FAST DRILLNG) DOLO-TAN FN TO V/V/FN-XLN TO WHT CLEAR, MED TO COARSE DOLO XLS, V/ SUCRO TO EXTRMLY SUCRO, DLL GLDN YEL FLUOR, NO CUT, HVY TRS FR GD TO EXCEL PP MICRO PP INTER-XLN POR, TR LT GRY BLU OPQUE CHERT
5719-5780' (SLOW DRLLNG) DOLO- TN CRYPTO TO V/V/FN-XLN SUB SUCRO PCKSTN, DLL GLDN YEL FLUOR, NO CUT, NO VIS POR W/ TR TO HVY TR LT GRY OFF WHT TO WHT OPQUE CHERT
REACHED CORE #9 POINT 5780' @ 2:29 A M 4/03/2020
START CORE #9 @ 5780' @ 4:11 PM 4/03/2020
5780-5811 (FASTER DRLLNG) 1.DOLO- TN GRYISH IP,CRYPTO-XLN TO SUB SUCRO ABDT WHT CLR ,MED TO COARSE DOLO XLS & FRGS, NO CUT,GLDN YEL FLUOR, TRS TO EXTRMLY VUG POR W/ DOLO XLS, TR PR MICRO PP POR, QUEST. PERM
5794- CHERT NODULES GRY TO BLUISH GRY WHT
5780-5811' 2. (SLOW DRLLNG) DOLO-TN GRY IP, CRYPTO TO V/V/FN-XLN PCKSTN, NO CUT, SLI TR PR MICRO PP POR, TR DOLO CHLK WHT
CORE #9 JAMMED @ 5811' @10:00 PM 4/03/2020
START DRILLING CORE #10@5811' 6:25 AM 4/04/20
5811-5826' SIMILAR TO 5780-5811' EXCEPT NO CHERT, NO DOLO CHLK
CORE #10 END @5826' @ 8:36 AM 4/04/20 LOST CIRC.
5826-5850' DOLO- TAN SUB SUCRO TO ABDT SUCRO MED TO COARSE WHT DOLO XLS & FRAGS W/TR PYR CLSTRS, SLI CALC IP. DLL GLDN YEL FLUOR. NO CUT. ABDT PR FR GD TO
C2
9 U. BG
10 U. BG
CN
7 U.
14 U.
8 U. BG
CN
10 U. BG
C1
C2
CN
6-7 U. BG
CN
C1
4 U. BG
C2
CN
4-5 U. BG
C1
12 U. B BG
C2
CN
TG, C1-C5
1
10
100
1000
ARBUCKLE 5825-2496'
7 U. BG
LOST CIRC @ 5826'/ 1200 BBLS
10 U.
CN


SPM 63
WT 8.6
VIS 59
LCM 24
WOB 20
RPM 50
PP 700
WT 8.5
VIS 63
LCM 22
START 11)---
Scale Change
ROP (min/ft)
Gamma (API)
WOB 10-18
RPM 48
PP 1100
WT .8.5
VIS 56
LCM 20
START 12)---
WOB 10-18
RPM 48
PP 1100
WT .8.9
VIS 65
LCM 20
START 13)---
WOB 10-12
5850
5900
5950
6000
6050
EXCEL PP MICRO PP & INTER-XLN POR, PR OB GOOD VUG POR, TR WHT GRY OPQUE TRNSLCNT CHERT IP,
REACH CORE POINT#11 @5850'/ 9:45 AM /4 / 05 /2020
CORE 11 LOST CIRC AFTER DRILLING ONE INCH. BUILDING VOLUME/DEVILBLISS MOVE CORE 11 TO NEXT CORE POINT
RESUME CONVENTIONAL DRILLING @ 5:00 AM 4/07/20 OF 5850'
5850-5900' DOLO-TAN SUB SUCRO TO ABDT SUCRO MED TO COARSE WHT DOLO XLS & FRAGS W/TR PYR , SLI CALC IP, DLL GLDN YEL FLUOR, NO CUT, ABDT PR FR GD PP MICRO PP & INTER-XLN POR, PROB FR VUG POR, TR WHT GRY OPQUE TRNSLCNT OOLITIC CHERT IP
5900-5944' DOLO- TAN SLI CALC SUB SUCRO TO ABDT SUCRO MED TO COARSE WHT TO CLR DOLO XLS & FRAGS W/TR PYR IP, SLI CALC IP, DLL GLDN YEL FLUOR, NO CUT, ABDT PR FR GD TO EXCEL PP MICRO PP & INTER-XLN POR, PROB VUG POR, TR WHT OPQUE OOLITIC CHERT IP,
5945-5959' DOLO- TN GRYISH TN, CRYPTO TO V/V/FN-XLN SUB SUCRO PCKSTN, DLL YEL FLUOR, NO CUT, NO VIS POR, TRS CHERT WHT OPQUE TRS OOLITIC IP
REACH CORE #11 POINT @5959 @ 4:02 PM 4/07/20
START CORE #11 @ 5959' @ 7:30 AM 4/08/20
5959' TO 6019' DOLO INTERBD 1. LT GRY TAN IP, SUB SUCRO TO SUCRO PCKSTN, SMLL TO COARSE WHT DOLO XLS & FRGMNTS, DLL YEL FLUOR, NO CUT, SLI TO EXTRM SMLL TO LRG VUGS W/ FN TO COARSE DOLO WHT XLS, ABDT PR FR TO GD TR EXCEL VUG POR, IN BETWEEN VUGS PR FR PP & MICRO PP POR, QUEST PERM
5959'-6019' 2. DOLO- LT GRY CRYPTO TO V/V/FN-XLN, PCKSTN W/ TRS SUB LITHO, DLL YEL FLUOR, NO CUT, NO VIS POR TO SLI TRS V/PR MICRO PP POR IP
END CORE #11 @ 6019' @ 9:50 PM 4/08/2019
START CORE # 12 @ 6019 @ 9:36 AM 4/09/20
6019-6037' INTERBEDDED DOLO LT GRY TAN CRYPTO TO V/V/VFN SUCRO TR SUB SUCRO PCKSTN, TRS FN WHT DOLO XLS FRGS, DLL YEL FLUOR, TR PR FR GD SMLL VUG POR, QUEST. PERM
6037'-6042'- INTERBEDDED DOLO SIMILAR TO 6019-6037 W/ SCATTERED THIN MED TO LRG VUGS W/ TR TO ABDT SMLL TO LRG DOLO XLS TO 1 1/2"
END CORE #12 JAMMMED @ 6042' @ 1:20 PM 4/9/20
START CORE #13 @ 6042' @ 12:45 AM 4/ 10/ 20
6042' 6099' 1. INTERBED DOLO- LT GRY CRYPTO TO V/V/FN-XN, SUB SUCRO TO SUCRO IP, D LL YEL FLUOR, SCAT THIN LAM
C1
7 U. BG
C2
4 U. BG
CN
FULL RETURNS
8 . U BG
C1
6 U. BG
CN
4 U. BG
2
CN
7 -8 U. BG
6 U. BG
CN
C1
4-6 U. BG
CN
C1-C5
4-5 U. BG
1
100
1000
4-5 U. BG
CN
C1
3-4 U. BG


RPM 50
PP 1100
WT .8.6
VIS 53
LCM 20
START 14)-
WOB 12
RPM 50
PP 1100
WT .8.8
VIS 59
LCM 20
START 15)-
WOB 11
RPM 50
PP1100
0
ROP (min/ft)
50
0
Gamma (API)
150
START 16)---
WOB 11
RPM 50
PP1100
WT 9.0
VIS 57
LCM 20
ATTEMPT CORE 17 @6273'
START 17)---
6100
6150
6200
6250
DISS PYR, SMLL MED TO FINGERTIP SIZED VUGS FILLED W/COARSE WHT DOLO XLS, NO CUT
6042-6099-2. DOLO LT GRY, CRYPTO TO V/V/FN-XLN PCKSTN, DLL YEL FLUOR, DNS HRD TIGHT, NO VIS POR
6099-6102' DOLO-LT GRY SUB SUCRO TO SUCRO PCKSTN, DLL YEL FLUOR, TRS PR TO FR PP & MICRO PP POR, QUEST PERM
END CORE # 13 @6102' @12:18 PM 4/10/20
START CORE #14 @6102' @2:10 AM 4/11/20
6102-6138' 1. INTERBED DOLO LT GRY, CRYPTO TO V/V/FN-XLN SUB SUCRO PCKSTN, TR SMLL MED VUGS SCATT, TR COARSE DOL XLS 1 1/4" @6103' DLL YEL FLUOR PR TO FR VUG POR NO POR BETWEEN VUGS, V/ QUEST PERM
6102-6138' 2. DOLO GRY -CRYPTO-V/V/FN-XLN PCKSTN DLL YEL FLUOR NO CUT NO VIS POR
6138-6143' DOLO LT GRY SCATT TN LT BRN, CRYPTO-XLN SUB SUCRO DLL YEL FLUOR, NO CUT, SCATT TRS PR MICRO PP POR IP, V/ QUEST PERM
6143-6162' DOLO- LT GRY CRYPTO TO V/V/FN-XLN PCKSTN, DLL YEL FLUOR, NO CUT ,NO VIS POR
END CORE # 14 @6162' @12:02 PM 4/11/2020
START CORE #15 @6162' @11:22 PM 4/11/2020
6162' - 6183.5' DOLO- LT GRY TN IP CRYPTO TO V/V/FN-XLN SUB SUCRO PCKSTN, ABDT LT GRY SH LAMINATIONS THRU, DLL YEL FLUOR, NO CUT , NO VIS POR
6183.5' -6184.5' DOLO , LT GRY TN IP, SUB SUCRO TO SUCRO PCKSTN IP, ABDT GRY SH LAMINATIONS, DLL YEL FLUOR, TRS PR FR TO FR PP MICRO PP & INTER-XLN POR
6184.5' -6213.5' DOLO - LT GRY TN -CRYPTO-XLN PCKSTN SUB SUCRO, ABDT GRY SH LAM, SCATT TR GLAUC, DLL YEL FLUOR, SCATT TRS PR SM VUG , PP MICRO PP, INTER-XLN POR, QUEST PERM
6213.5' - 6218' SNDY DOLO TO DOLO QUTZ SND- WHT TN GREEN IP V/ FN FN GRN, S-ANG S-RND TO RND GRNS, PR SRT, FRIABLE IP, GLAUC LAM, DLL YEL FLUOR, NO VIS POR
6218' - 6222' DOLO LT GRY TN, V/V/FN TO MED TR COARSE V/ SUCRO W/ TRS TO V/ ABDT QUTZ GRNS FN TO MED TO COARSE, S-ANG S-RND TO RND, DLL LT YEL FLUOR, NO CUT, ABDT PR FR TO EXCEL SM VUG, PP, MICRO PP & INTER-XLN POR
END CORE #15 @6222' @8:27 AM 4/12/2020
START CORE #16 @6222' @9:00 PM 4/12/2020
6222-6227' DOLO LT GRY TN, V/V/FN TO MED TR COARSE V/ SUCRO W/ TRS TO V/ ABDT QUTZ GRNS FN TO MED TO COARSE, S-ANG S-RND TO RND, DLL LT YEL FLUOR, NO CUT, ABDT PR FR TO EXCEL SM VUG, PP, MICRO PP & INTER-XLN POR
6227' -6252' DOLO- TANISH LT GRY TO SHLY, V/V/FN-XLN SUB SUCRO TO SUCRO, V/ DLL YEL FLUOR, NO CUT, TR SMLL VUG POR TO TR PR PP TO MICRO PP POR
6252' 6267.5' DOLO- LT GRY- W/ WHT XLS FN TO COARSE UP TO 1 1/2", SUCRO, V/ DLL YEL FLUOR NO CUT, NO VIS POR, SLI SILTY & OR SHLY, HVY TRS TO ABDT DISS PYR
6267.5'- 6272' SH- MED GRY GREENISH IP, EXTRMLY SILTY SLI DOLO & OR GYP,
6272-6273' CLAYSTONE- OFF WHT
CN
C1
2-4 U. BG
CN
C1
2-3 U. BG
CN
2-3 U. BG
CN
C1
2- 3. BG
CN
TG, C1-C5
1
10
100
1000
CN
C1
2-3 U. BG
CN
3 U. BG
CN


CONV. DRILL FROM 6273.3 TO 6278'
Scale Change
0 ROP (min/ft) 20
0 SCALE 0-20 Gamma (API) 150
BIT #7
TRI CONE
7 7/8
HF41BH
1-D 120
SER. H-13951
IN@6300'
WOB 24
RPN 48
PP 1300
WT 9.0
VIS 52
LCM 15
WOB 20
RPM 50
PP 800
0 ROP (min/ft) 20
0 Gamma (API) 150
WT 9.0
VIS 58
LCM 16
WOB 28
RPM 50
PP 800
WT 8.9
VIS 61
LCM 16
6300
6350
6400
6450
END CORE #16 @ 6273' @ 4:45 AM 4/13/2020
ATTEMPT CORE 17 @ 6273' AND DRILLED 3" IN 72 MIN. RECOV. 3" CORE TO 6273.3' (CORE PIECES FROM THIS ATTEMPT AND IN THE PICS WILL BE BOXED WITH THE NEXT CORE AT THE TOP OF CORE)
6273.3'-6278' GRANITE- ORANGE GRY FLDSPR W/ TRS QURTZ, TR BIOTITE,NO FLUOR, NO CUT, NO VIS POR (DRILL CUTTINGS)
START CORE #17 @ 6278' @ 12:35 AM 4/15/2020
6278'-6300' GRANITE- FELDSPAR ORANGE W/ TRACES BLACK MINERALS
END CORE # 17 @ 6300' @ 3:57 AM 4/16/2020
6300'-6360' GRANITE- FELDSPAR ORANGE TANISH ORANGE W/TRS BIOTITE & OTHER MINERALS, SLI TRS PYR
6360-6391'GRANITE- FELDSPAR ORANGE TANISH ORANGE W/TRS BIOTITE & OTHER MINERALS, SLI TRS PYR, TRS WHT CLAY MINERAL
6391'- 6452' FELDSPAR - ORANGE ORANGE TAN, W/ TRS QURTZ, TRS BIOTITE & OTHER BLACK MINERAL, HVY TRS OFF WHT CLAY MINERALS IP, SLI TRS FINELY DISS PYRITE (CLAY INDICATES WEATHERED FELDSPAR ALONG FRACTURES)
6452'- 6480' FELDSPAR - ORANGE ORANGE TAN, W/ TRS QURTZ, TRS BIOTITE & OTHER BLACK MINERAL, HVY TRS FINELY DISS PYRITE , TRS OFF WHT CLAY MINERALS
6480'- 6511' FELDSPAR - ORANGE ORANGE TAN, W/ SLI TRS QURTZ, TRS BIOTITE & OTHER BLACK MINERAL, HVY TRS FINELY DISS PYRITE ,V/ SLI TRS OFF WHT CLAY MINERALS
C1
C2
6 U. BG
WOB 24
RPN 48
PP 1300
WT 9.0
VIS 52
LCM 15
2 U. BG
CN
C1
4-5 U. BG
2
7 U. TOTAL
CN
5 U. TOTAL
4 U. BG
5 U BG TOTAL
6 U. TOTAL
CN
TG, C1-C5
1
10
100
1000
13 U. TOTAL
18 U. TOTAL
C2
C1
C2 DROPPING OUT
CN
20 U. TOTAL
10 U. TOTAL
C2
CN
4 U. BG
9 U TOTAL
C1
CN
C2
C2 DROPPING OUT


6511' - 6550' FELDSPAR - ORANGE ORANGE TAN, W/ TRS QURTZ IP, TRS BIOTITE & OTHER BLACK MINERAL, SLI TRS FINELY DISS PYRITE, HVY TRS OFF WHT CLAY MINERALS IP (CLAY INDICATES WEATHERED FELDSPAR ALONG FRACTURES)
R.T.D. @ 6550' @ 2:54 PM APRIL 18TH 2020
CFS / SHORT TRIP 10 STANDS
CIRC TO CONDITION HOLE
TRIP OUT FOR LOGS
HALLIBURTON/ ODESSA, TX.
TECHNICIAN: JARRED HELMS
LOGGING COMPLETE 2:12 PM APRIL 20,2020
6550
R.T.D. @ 6550'
L.T.D. @ 6554'
9 U. BG
C1
CN
C2
10-12 U. BG
R.T.D. @ 6550'
REPORT COMPLETED BY EDWIN H. GRIEVES AND TIM HEDRICK
CORE SAMPLES @ BEREXCO INC. FACILITY
SAMPLE CUTTINGS WILL BE DELIVERED TO KGS