KOLAR Document ID: 1348437

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 # 33856
Name: White Exploration, Inc.
Address 1: 1635 N. WATERFRONT PKWY
Address 2: SUITE 100
City: WICHITA State: KS Zip: 67206 + 3966
Contact Person: Kenneth S. White
Phone: (316) 682-6300
CONTRACTOR: License # 30606
Name: Murfin Drilling Co., Inc.
Wellsite Geologist: Andrew White
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 #:

02/22/2017 Spud Date or Recompletion Date
03/06/2017 Date Reached TD
03/07/2017 Completion Date or Recompletion Date

API No.: 15-081-22154-00-00
Spot Description:
NW - NE - SE - NW Sec. 1 Twp. 30 S. R. 31 ☐ East ☑ West
1530 Feet from ☑ North / ☐ South Line of Section
2245 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: Haskell
Lease Name: JACOBS-WOOD Well #: 2
Field Name: wildcat
Producing Formation: none
Elevation: Ground: 2833 Kelly Bushing: 2844
Total Vertical Depth: 6787 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1782 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: 11200 ppm Fluid volume: 1240 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: Max Papay, LLC
Lease Name: I.B. Regier #1 License #: 34021
Quarter NE Sec. 17 Twp. 33 S. R. 27 ☐ East ☑ West
County: Meade Permit #: D21232

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: 04/11/2017
☑ **Confidential Release Date:** 04/11/2019
☑ **Wireline Log Received** ☐ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** Karen Ritter **Date:** 04/12/2017

Operator Name: White Exploration, Inc. Lease Name: JACOBS-WOOD Well #: 2

Sec. 1 Twp. 30 S. R. 31 ☐ East ☑ West County: Haskell

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
Attached	Attached	Attached

CASING RECORD ☑ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1782	See attachment	625	See attachment

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	White Exploration, Inc.
Well Name	JACOBS-WOOD 2
Doc ID	1348437

All Electric Logs Run

Compensated Density Neutron Log
Dual Induction Log
Micro Log
Sonic Log

Form	ACO1 - Well Completion
Operator	White Exploration, Inc.
Well Name	JACOBS-WOOD 2
Doc ID	1348437

Tops

Name	Top	Datum
Heebner	4171	-1327
Lansing	4271	-1427
Stark Shale	4665	-1821
Marmaton	4833	-1989
Morrow	5216	-2372
Mississippi-St. Gen	5410	-2566
Viola	6476	-3632
Arbuckle	6710	-3866

Form	ACO1 - Well Completion
Operator	White Exploration, Inc.
Well Name	JACOBS-WOOD 2
Doc ID	1348437

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	1782	See attachment	625	See attachment

DRILL STEM TEST REPORT

White Exploration, Inc.

1635 N. Waterfront PKWY Suite 100 Wichita, KS 67206

ATTN: Andy White

1/30/31

Jacobs-Wood 2

Job Ticket: 59457 **DST#: 1**

Test Start: 2017.03.02 @ 03:20:02

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:38:45
Time Test Ended: 12:46:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Chris Hagman
Unit No: 75

Interval: 5170.00 ft (KB) To 5270.00 ft (KB) (TVD)
Total Depth: 5270.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

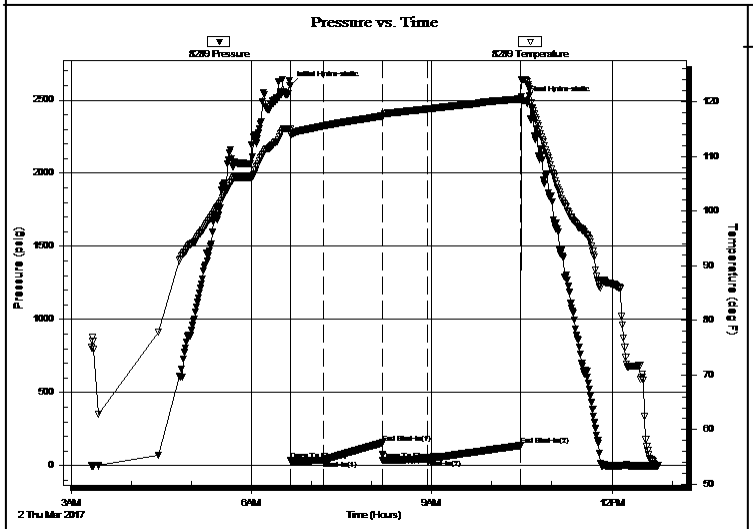
Reference Elevations: 2842.00 ft (KB)
2832.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8289 **Inside**

Press@RunDepth: 44.12 psig @ 5202.00 ft (KB)
Start Date: 2017.03.02 End Date: 2017.03.02
Start Time: 03:20:02 End Time: 12:46:00

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2017.03.02 @ 06:38:15
Time Off Btm: 2017.03.02 @ 10:30:45

TEST COMMENT: IF: 2.5 inches in 30 min., w eak building blow
ISI: No blow back
FF: 4 inches in 45 min., fair building blow
FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2598.62	115.01	Initial Hydro-static
1	33.71	114.20	Open To Flow (1)
34	37.11	115.61	Shut-In(1)
93	154.87	117.42	End Shut-In(1)
93	35.33	117.38	Open To Flow (2)
138	44.12	118.69	Shut-In(2)
231	136.60	120.53	End Shut-In(2)
233	2498.43	124.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	oil spotted mud 100%M	0.07

Gas Rates

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

DRILL STEM TEST REPORT

White Exploration, Inc.

1635 N. Waterfront PKWY Suite 100 Wichita, KS 67206

ATTN: Andy White

1/30/31

Jacobs-Wood 2

Job Ticket: 59457 **DST#: 1**

Test Start: 2017.03.02 @ 03:20:02

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:38:45
Time Test Ended: 12:46:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Chris Hagman
Unit No: 75

Interval: 5170.00 ft (KB) To 5270.00 ft (KB) (TVD)
Total Depth: 5270.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

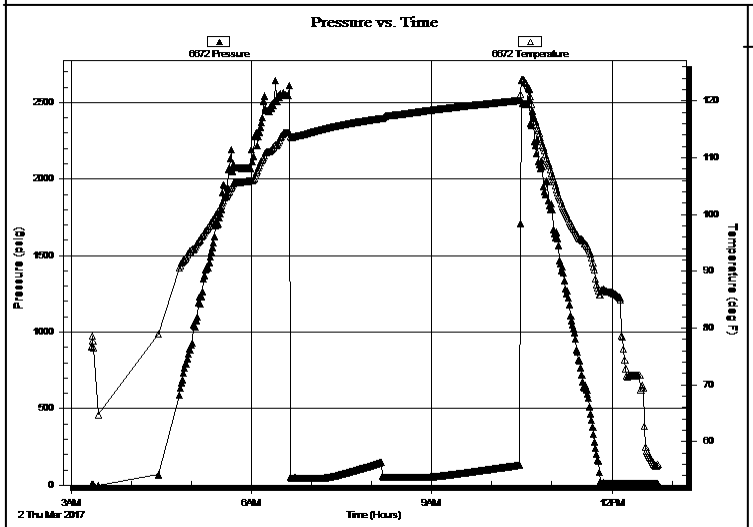
Reference Elevations: 2842.00 ft (KB)
2832.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6672 **Outside**

Press@RunDepth: psig @ 5202.00 ft (KB)
Start Date: 2017.03.02 End Date: 2017.03.02
Start Time: 03:20:02 End Time: 12:46:04

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

TEST COMMENT: IF: 2.5 inches in 30 min., w eak building blow
ISI: No blow back
FF: 4 inches in 45 min., fair building blow
FSI: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	oil spotted mud 100%M	0.07

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

White Exploration, Inc.

1635 N. Waterfront PKWY Suite 100 Wichita, KS 67206

ATTN: Andy White

1/30/31

Jacobs-Wood 2

Job Ticket: 59457 **DST#: 1**

Test Start: 2017.03.02 @ 03:20:02

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:	4200 ppm
Viscosity:	59.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.00 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1600.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	oil spotted mud 100%M	0.074

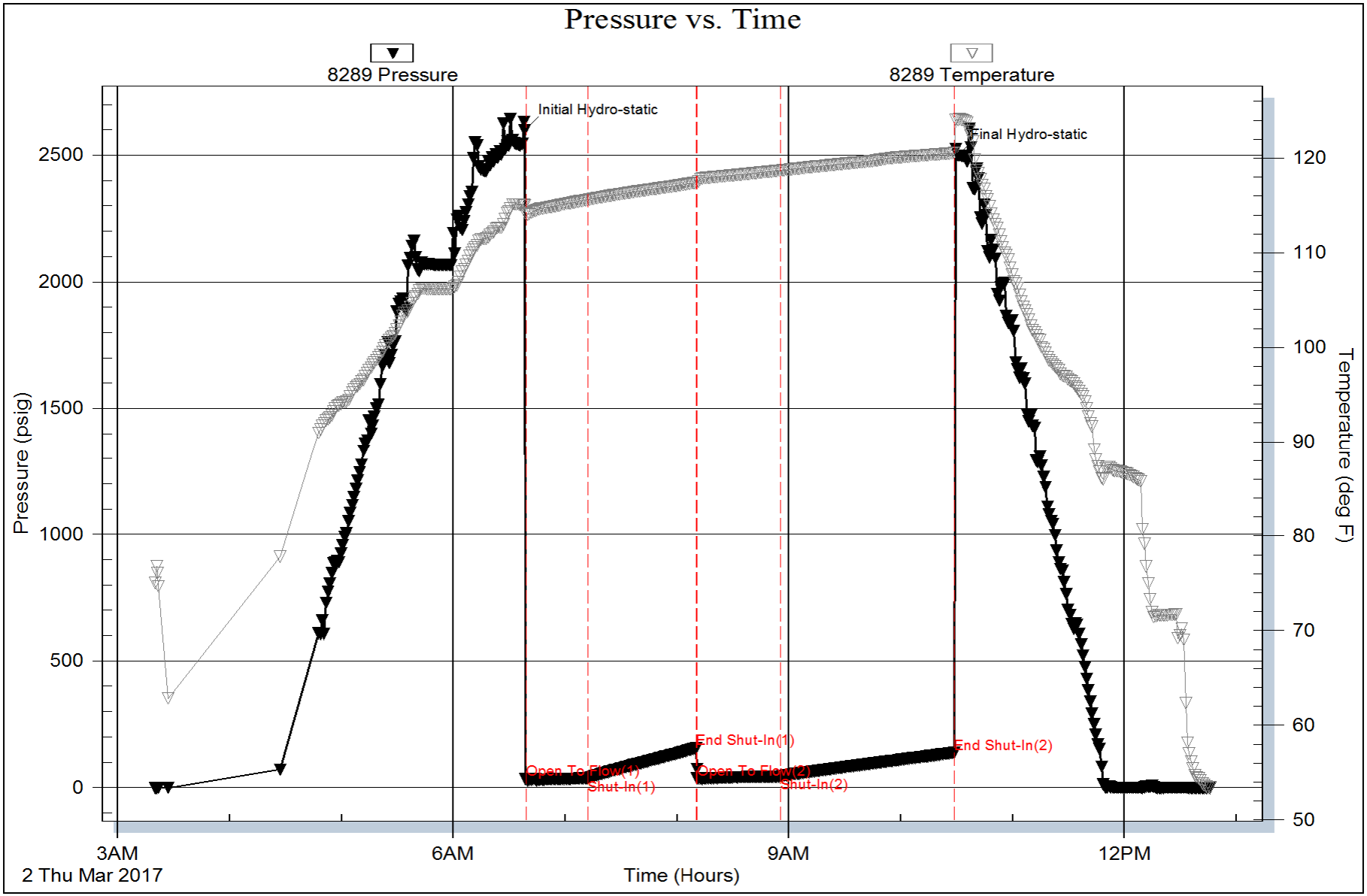
Total Length: 15.00 ft Total Volume: 0.074 bbl

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

Laboratory Name: Laboratory Location:

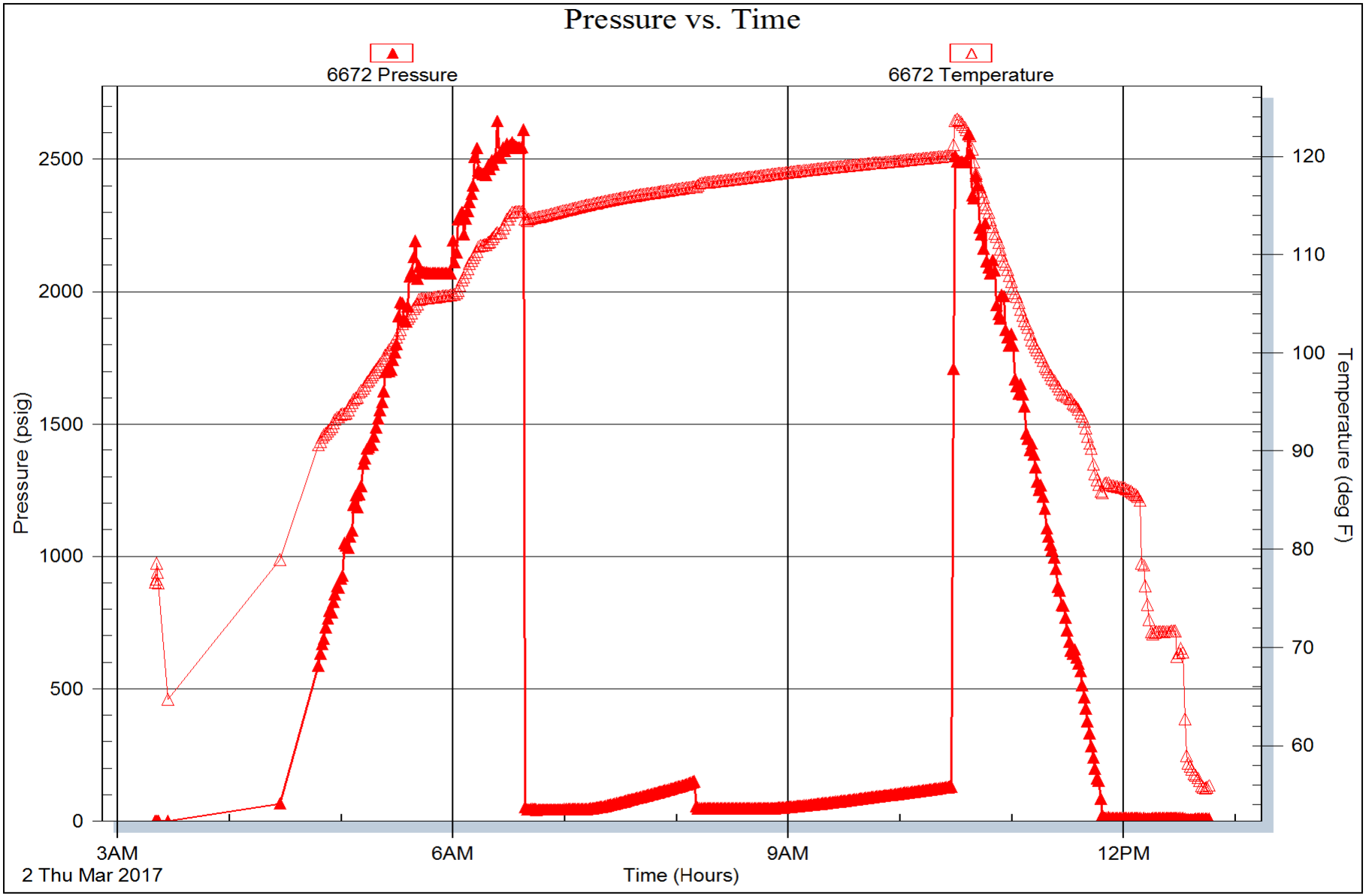
Recovery Comments: RW=1.362@73F

Serial #: 8289 **Inside** White Exploration, Inc. Jacobs-Wood 2 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 59457 Printed: 2017.03.02 @ 13:33:15

Serial #: 6672 **Outside** White Exploration, Inc. Jacobs-Wood 2 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 59457 Printed: 2017.03.02 @ 13:33:15

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

White Exploration, Inc.

1635 N. Waterfront PKWY Suite 100 Wichita, KS 67206

ATTN: Andy White

1/30/31

Jacobs-Wood 2

Job Ticket: 59458 **DST#: 2**

Test Start: 2017.03.03 @ 06:57:00

GENERAL INFORMATION:

Formation: **St. Louis**
Deviated: No Whipstock: 2842.00 ft (KB)
Time Tool Opened: 09:12:50
Time Test Ended: 14:42:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Chris Hagman
Unit No: 75

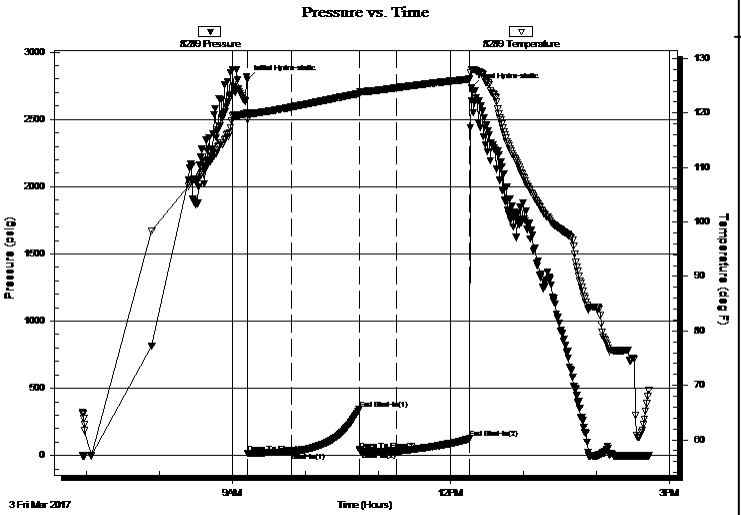
Interval: **ft (KB) To** **ft (KB) (TVD)**
Total Depth: 5530.00 ft (KB) (TVD)
Hole Diameter: 7.78 inches Hole Condition: Good

Reference Elevations: 2842.00 ft (KB)
2832.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8289 **Inside**
Press@RunDepth: 34.59 psig @ 5527.00 ft (KB)
Start Date: 2017.03.03 End Date: 2017.03.03
Start Time: 06:57:02 End Time: 14:42:45

Capacity: 8000.00 psig
Last Calib.: 1899.12.30
Time On Btm: 2017.03.03 @ 09:12:40
Time Off Btm: 2017.03.03 @ 12:17:00

TEST COMMENT: IF: Week surface blow , died 20 min.
ISI: No blow back
FF: Weak surface blow , died 5 min., flushed tool no change
FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2796.39	120.01	Initial Hydro-static
1	18.97	118.66	Open To Flow (1)
36	25.52	121.05	Shut-In(1)
92	345.17	123.55	End Shut-In(1)
92	42.40	123.36	Open To Flow (2)
123	34.59	124.61	Shut-In(2)
183	125.74	126.22	End Shut-In(2)
185	2733.67	127.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Oil Spotted Mud	0.07

Gas Rates

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

White Exploration, Inc.

1635 N. Waterfront PKWY Suite 100 Wichita, KS 67206

ATTN: Andy White

1/30/31

Jacobs-Wood 2

Job Ticket: 59458 **DST#: 2**

Test Start: 2017.03.03 @ 06:57:00

GENERAL INFORMATION:

Formation: **St. Louis**
Deviated: No Whipstock: 2842.00 ft (KB)
Time Tool Opened: 09:12:50
Time Test Ended: 14:42:45

Test Type: Conventional Bottom Hole (Initial)
Tester: Chris Hagman
Unit No: 75

Interval: **ft (KB) To** **ft (KB) (TVD)**
Total Depth: 5530.00 ft (KB) (TVD)
Hole Diameter: 7.78 inches Hole Condition: Good

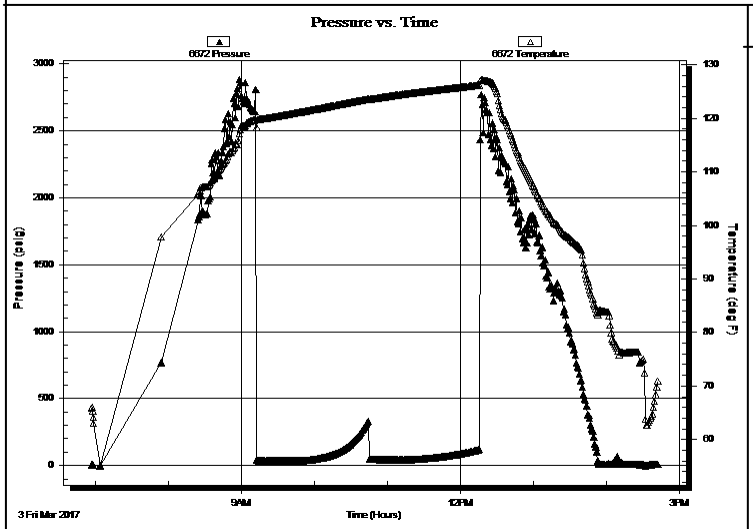
Reference Elevations: 2842.00 ft (KB)
2832.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6672 **Outside**

Press@RunDepth: psig @ 5527.00 ft (KB)
Start Date: 2017.03.03 End Date: 2017.03.03
Start Time: 06:57:02 End Time: 14:42:15

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

TEST COMMENT: IF: Week surface blow , died 20 min.
ISI: No blow back
FF: Weak surface blow , died 5 min., flushed tool no change
FSI: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Oil Spotted Mud	0.07

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

White Exploration, Inc.

1635 N. Waterfront PKWY Suite 100 Wichita, KS 67206

ATTN: Andy White

1/30/31

Jacobs-Wood 2

Job Ticket: 59458 **DST#: 2**

Test Start: 2017.03.03 @ 06:57:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	4100 ppm
Viscosity:	58.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.19 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2050.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Oil Spotted Mud	0.074

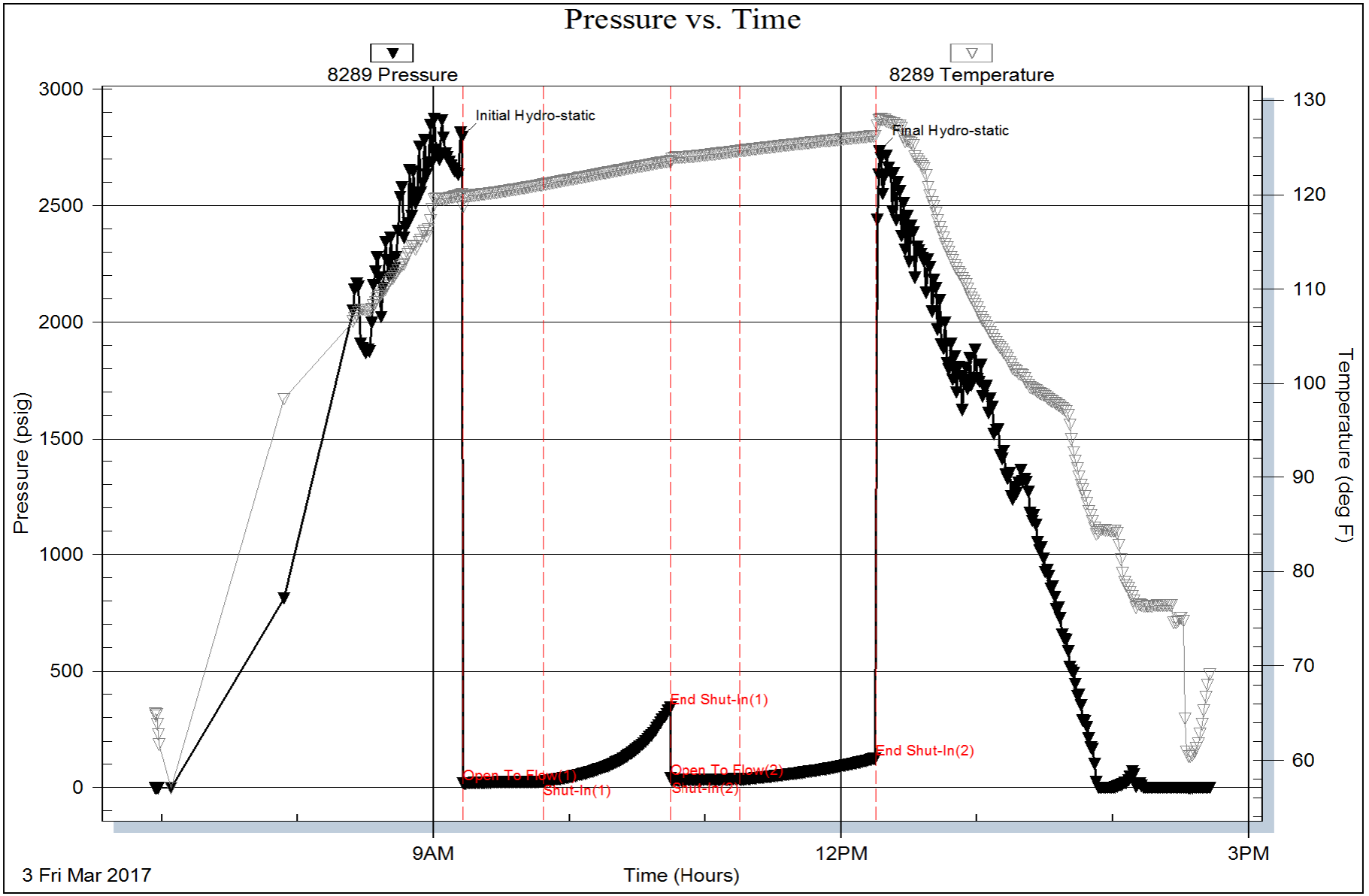
Total Length: 15.00 ft Total Volume: 0.074 bbl

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

Laboratory Name: Laboratory Location:

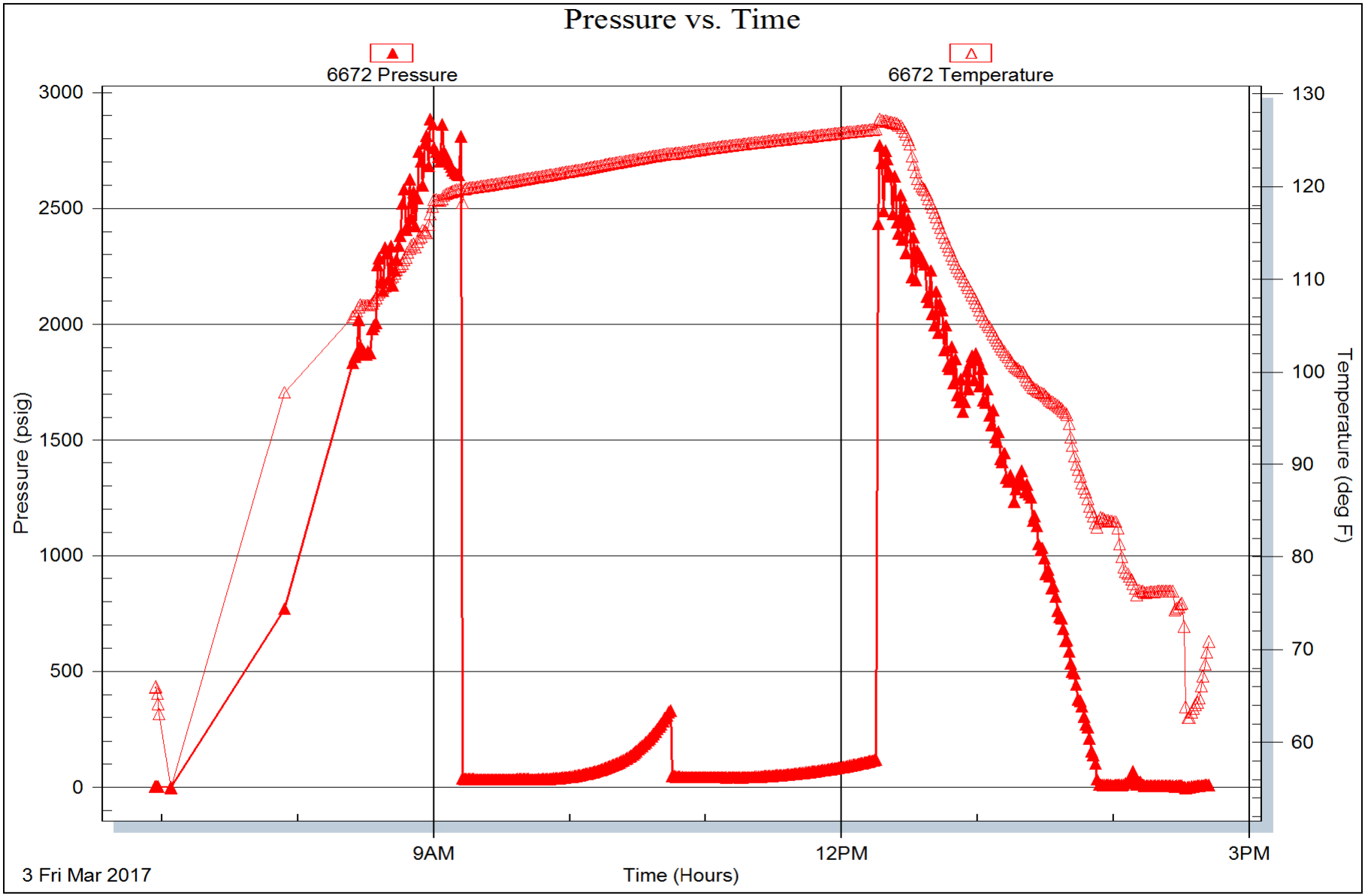
Recovery Comments: RW=1.360@74F

Serial #: 8289 **Inside** White Exploration, Inc. Jacobs-Wood 2 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 59458 Printed: 2017.03.03 @ 16:57:14

Serial #: 6672 **Outside** White Exploration, Inc. Jacobs-Wood 2 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 59458 Printed: 2017.03.03 @ 16:57:14

WHITE
EXPLORATION, INC

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

Well Name:	Jacobs-Wood #2		
Location:	1-30S-31W		
License Number:	API: 15-081-22154	**Region:**	Haskell Co., KS
Spud Date:	02/22/17	**Drilling Completed:**	03/07/17
Surface Coordinates:	1530' FNL, 2245' FWL		
Bottom Hole Coordinates:			
Ground Elevation (ft):	2833	**K.B. Elevation (ft):**	2844
Logged Interval (ft):	4100 To: 6785	**Total Depth (ft):**	6785
Formation:	Arbuckle		
Type of Drilling Fluid:	Chemical		

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

OPERATOR

Company: White Exploration, Inc.
Address: 1635 N. Waterfront Pkwy
Ste. 100
Wichita, KS, 67206

GEOLOGIST

Name: Andrew White
Company: White Exploration, Inc.
Address:

Remarks

Based on analysis of samples, Logs, and DST results, the decision to plug and abandon the Jacobs-Wood #2 was made.

General Info

Drilling Contractor: Murfin Rig 21

Logs: ELI Wireline Services
Compensated Density/Neutron, Dual, Micro, Sonic

Drilling Mud: Mudco/Service Mud, Inc.

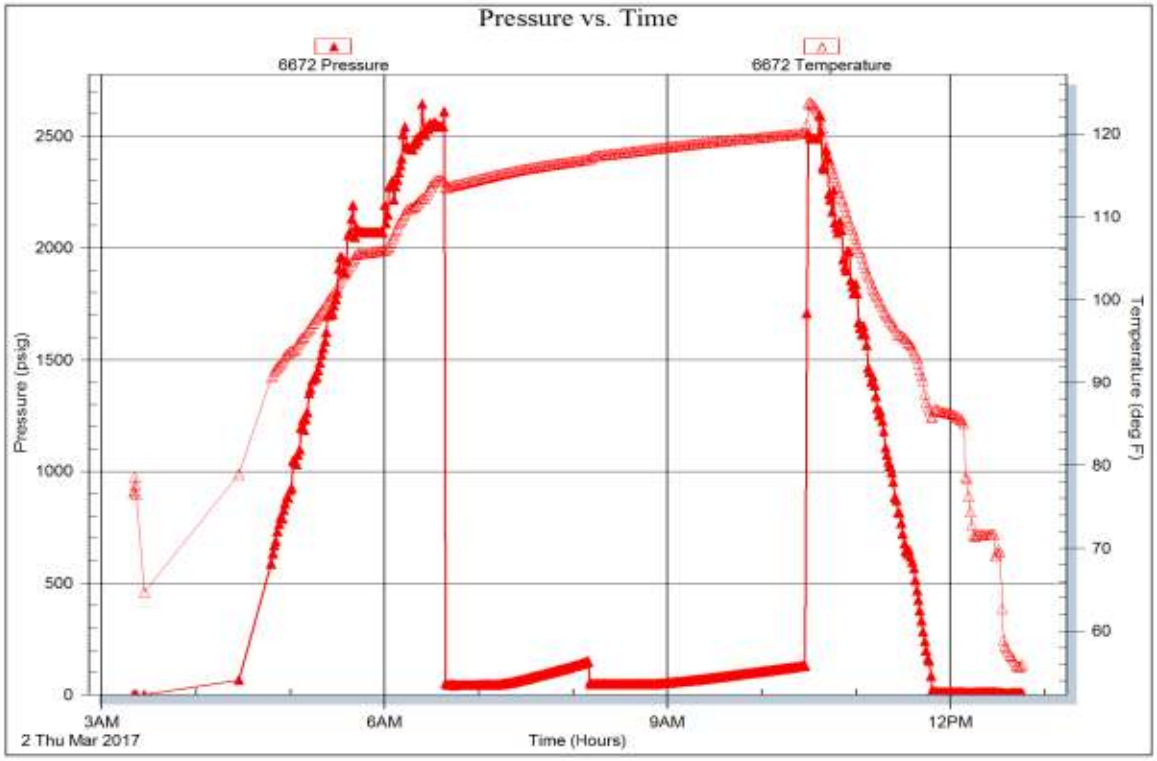
Surveys: 683'-1, 969'-.75, 1200'-.8, 1782'-.5, 2081'-.8, 3066'-.8, 3572'-.3, 4074'-1, 4450'-.5, 5016'-.4, 5270'-.2, 5530'-.9, 6114',.9, 6785'-.9

Daily Status

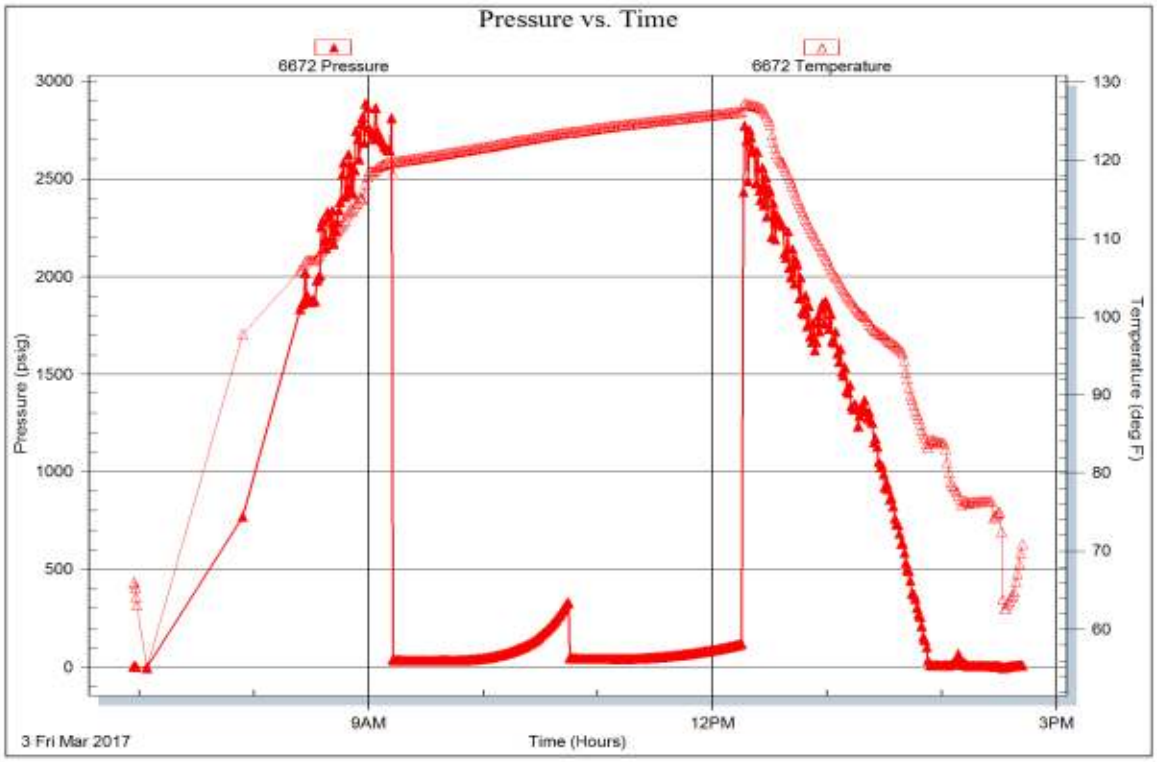
02/22/17: Spud well @ 3:15 p.m.
02/23/17: Drilling surface hole @ 875'
02/24/17: Drilling Surface hole @ 1659'. Drill to 1782', run 44 joints new 8-5/8" 24# surface casing. cemented with 400 sacks H-Con Cment with 6% gel and 3% CC and 1/4# sack Pheno-seal. followed by 225 sacks of Common Cement with 2% CC and 1/4# sack of Pheno-seal.
02/25/17: Waiting on cement
02/26/17: Drilling ahead @ 2585'
02/27/17: Drilling ahead @ 3405'
02/28/17: Drilling ahead @ 4007'
03/01/17: Drilling ahead @ 4846'
03/02/17: Running DST #1 @ 5270'
03/03/17: Running DST #2 @ 5530'
03/04/17: Drilling ahead @ 5814'
03/05/17: Drilling ahead @ 6201'
03/06/17: Circulating @ 6700'
03/07/17: Logging, plug well with 210 sacks of 60/40 Poz Mix with 4% gel, and 1/4# Floseal/sack.

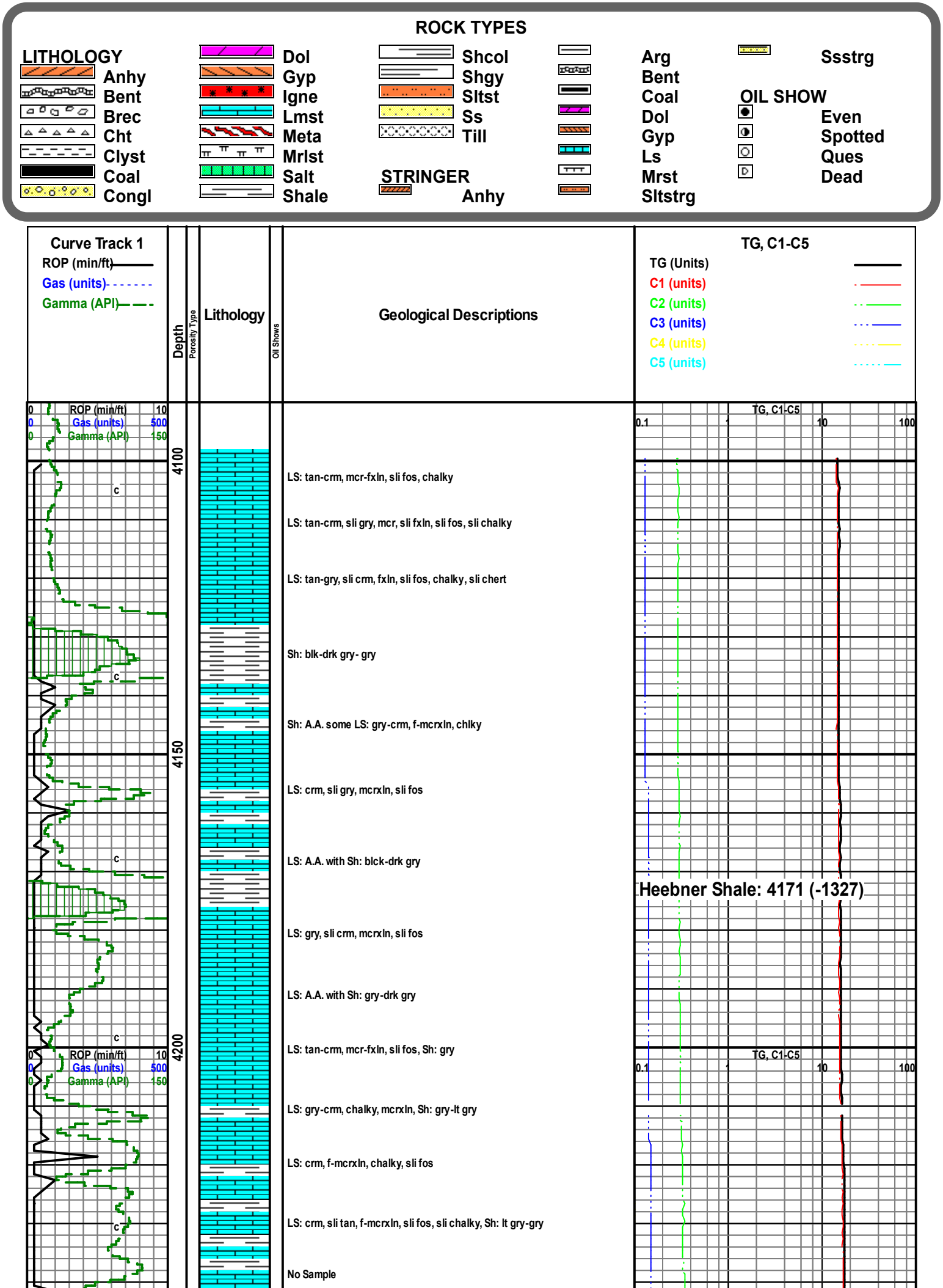
	White Ex			First Nat.	Abercrombie
	Jacobs-Wood #2			Wood-Jacobs #1	Marilyn Wood #1
	1-30S-31W			1-30S-31W	36-29S-31W
	1530' FNL, 2245' FWL				
	KB: 2844			KB: 2837	KB: 2840
	Sample	Log	Datum	Relationship	Relationship
B. Stone Corral	1780	1780	1064	+3	+18
Heebner	4171	4171	-1327	+3	+3
Lansing	4271	4271	-1427	+4	+9
Stark	4670	4665	-1821	+6	+12
Marmaton	4834	4833	-1989	+2	+3
Morrow	5214	5216	-2372	-3	+4
St. Gen	5415	5410	-2566	+7	+25
Viola	6466	6476	-3632	NDE	NDE
Arbuckle	6705	6710	-3866	NDE	NDE

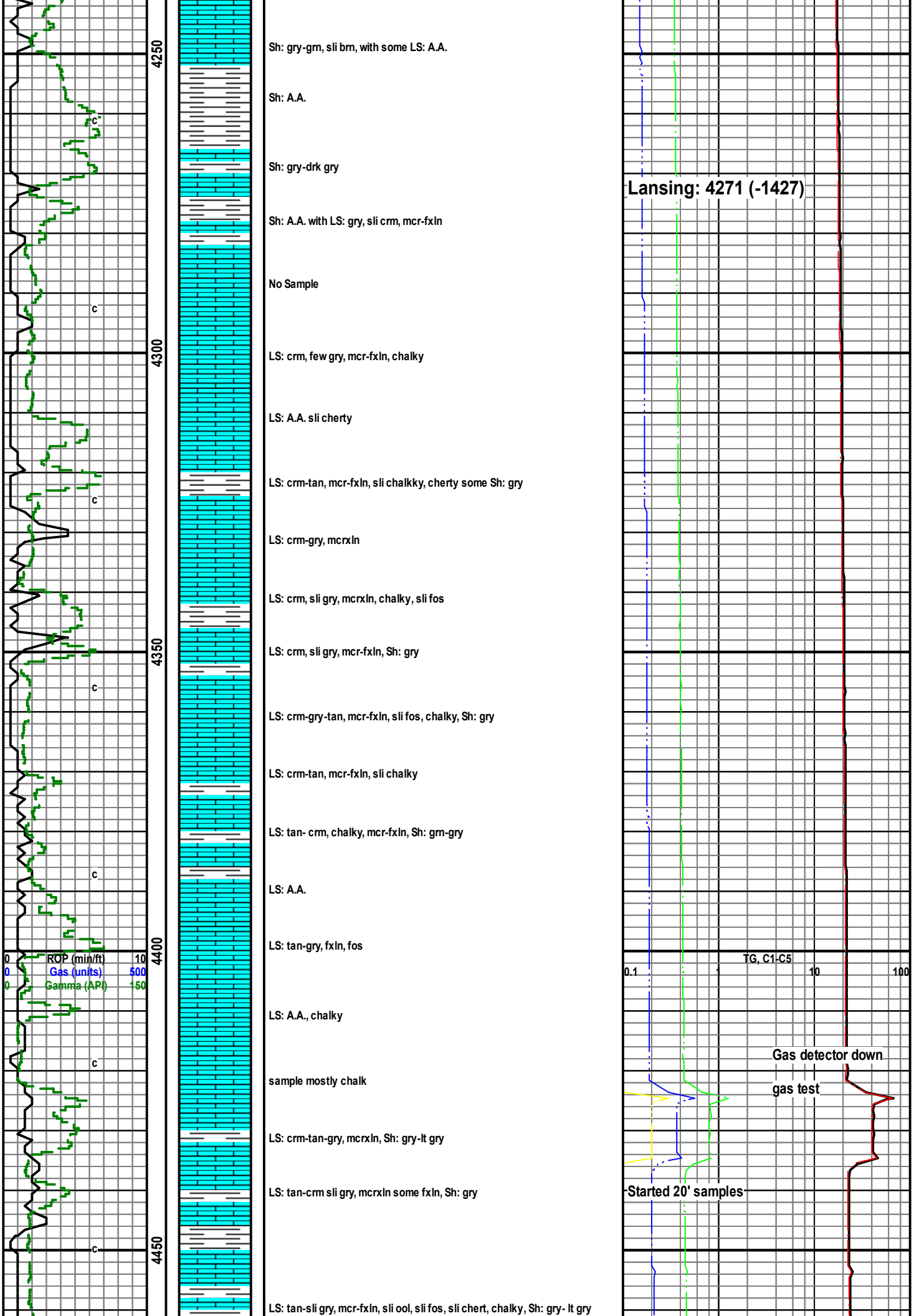
Serial #: 6672 **Outside** White Exploration, Inc. Jacobs-Wood 2 DST Test Number: 1

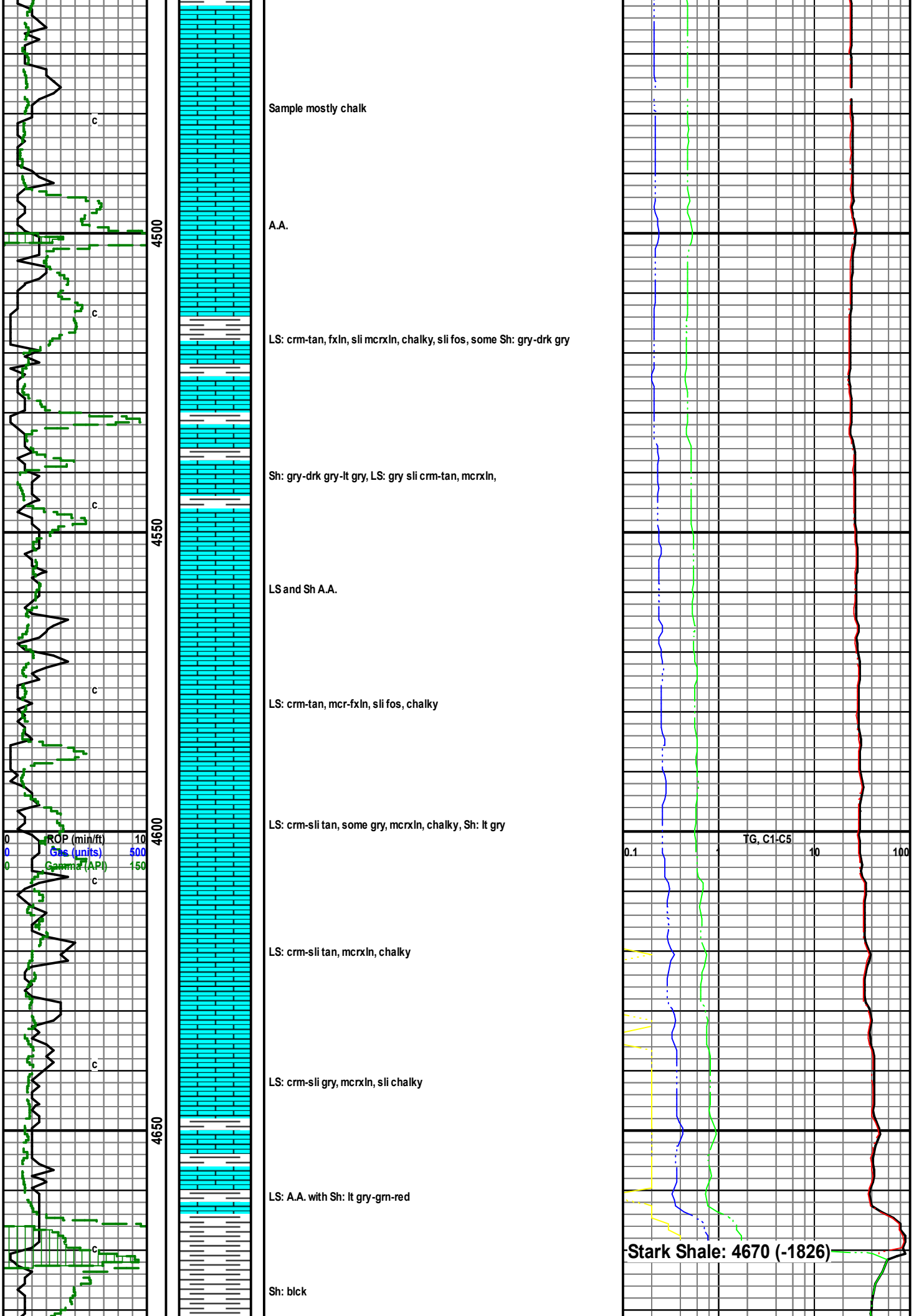


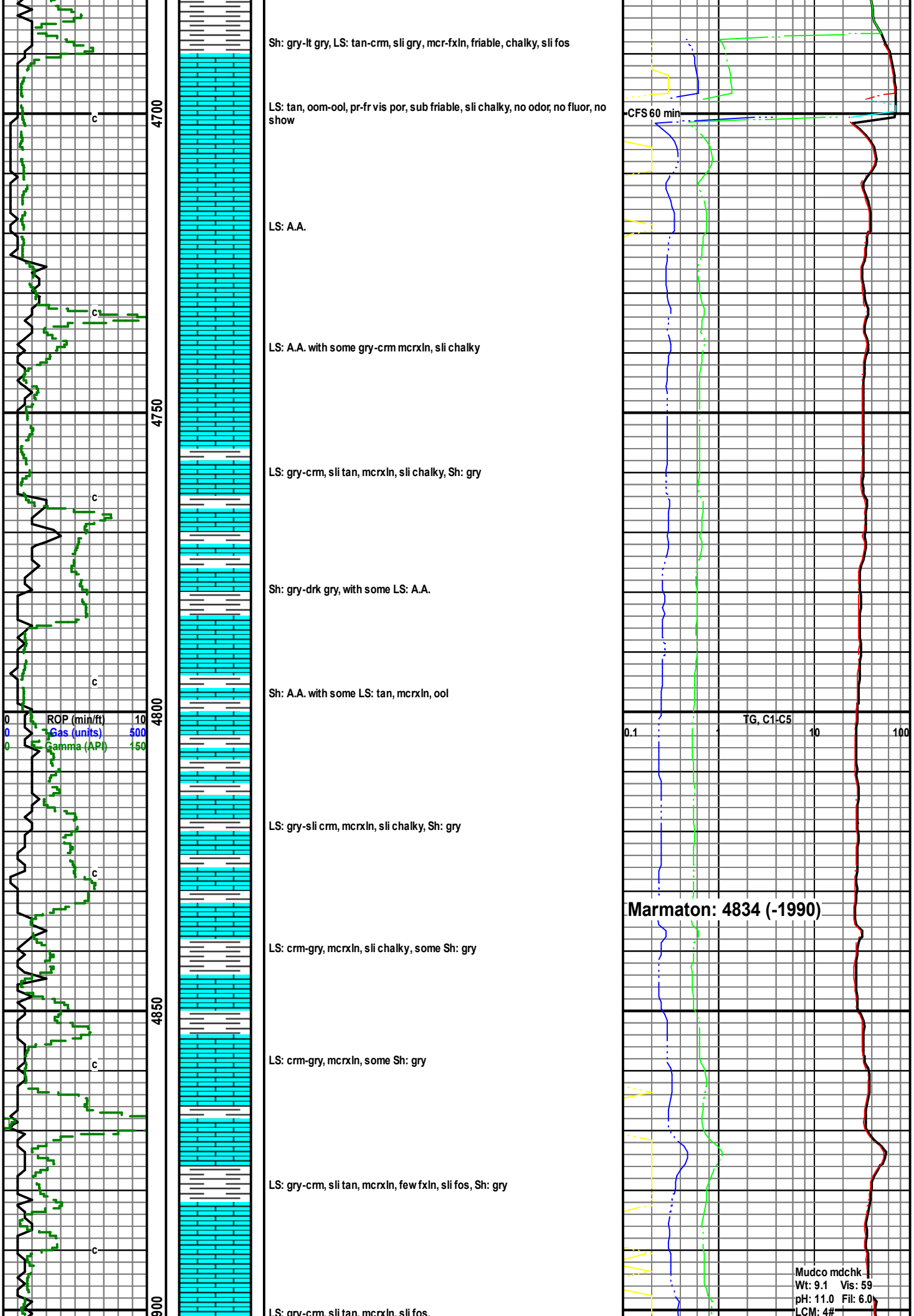
Serial #: 6672 **Outside** White Exploration, Inc. Jacobs-Wood 2 DST Test Number: 2

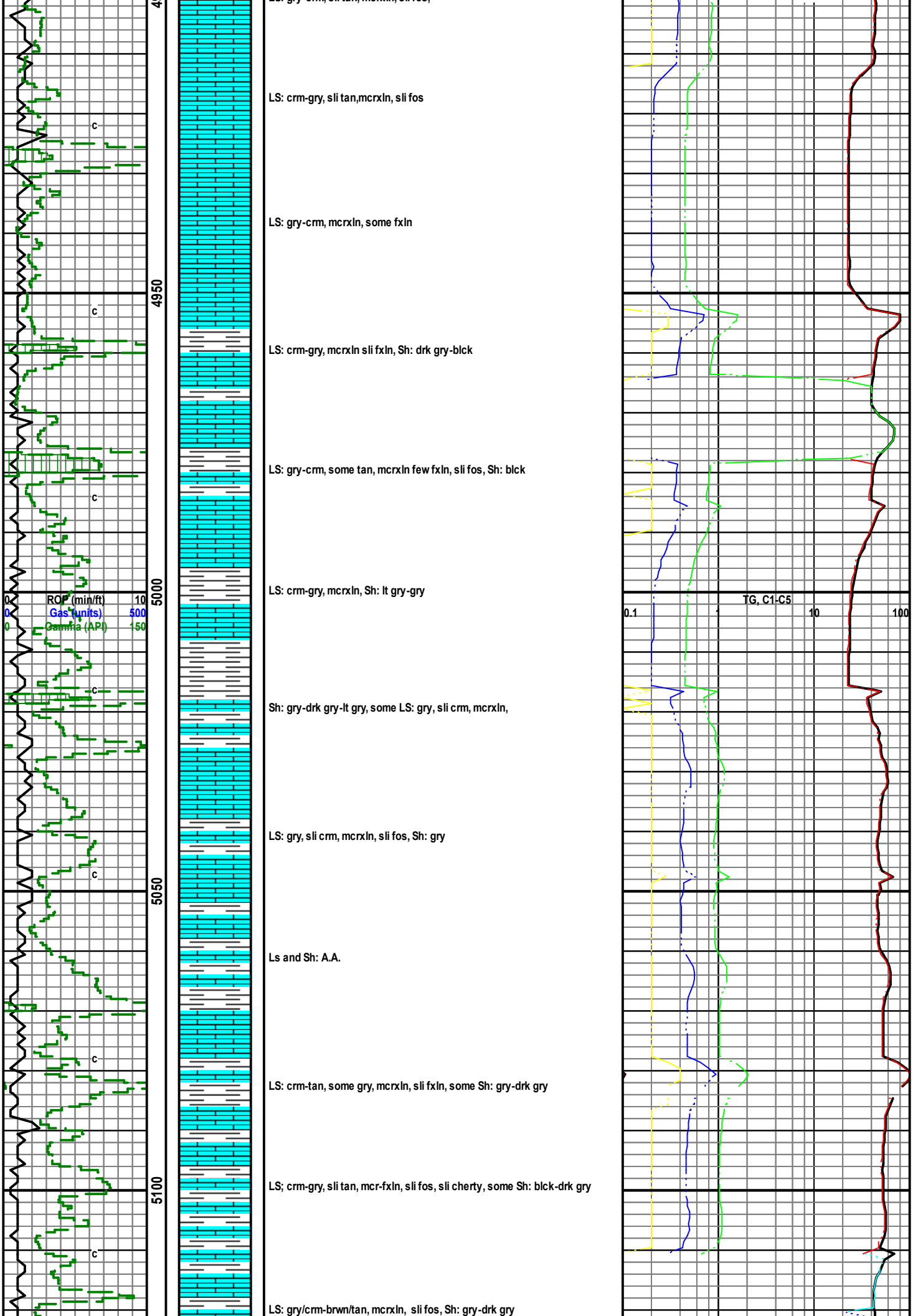


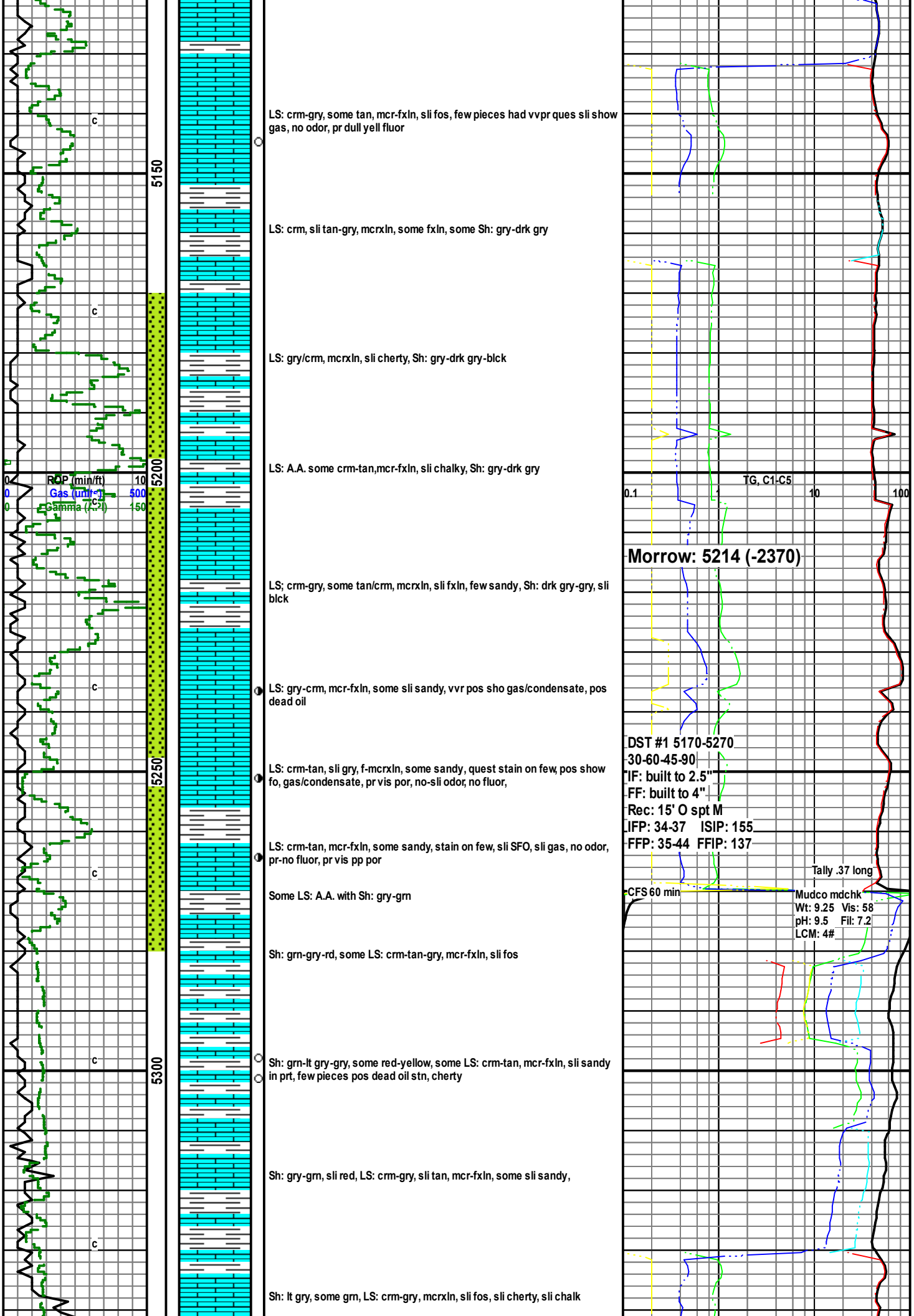

ROCK TYPES
LITHOLOGY
Anhy
Bent
Brec
Cht
Clyst
Coal
Congl
Dol
Gyp
Igne
Lmst
Meta
Mrlst
Salt
Shale
Shcol
Shgy
Sltst
Ss
Till
STRINGER
Anhy
Arg
Bent
Coal
Dol
Gyp
Ls
Mrst
Sltstrg
Ssstrg
OIL SHOW
Even
Spotted
Ques
Dead
Curve Track 1
ROP (min/ft)
Gas (units)
Gamma (API)
Depth
Porosity Type
Lithology
Oil Shows
Geological Descriptions
TG, C1-C5
TG (Units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
C5 (units)
0 ROP (min/ft) 10
0 Gas (units) 500
0 Gamma (API) 150
4100
4150
4200
LS: tan-crm, mcr-fxln, sli fos, chalky
LS: tan-crm, sli gry, mcr, sli fxln, sli fos, sli chalky
LS: tan-gry, sli crm, fxln, sli fos, chalky, sli chert
Sh: blk-drk gry- gry
Sh: A.A. some LS: gry-crm, f-mcrxln, chlky
LS: crm, sli gry, mcrxln, sli fos
LS: A.A. with Sh: blck-drk gry
Heebner Shale: 4171 (-1327)
LS: gry, sli crm, mcrxln, sli fos
LS: A.A. with Sh: gry-drk gry
LS: tan-crm, mcr-fxln, sli fos, Sh: gry
LS: gry-crm, chalky, mcrxln, Sh: gry-lt gry
LS: crm, f-mcrxln, chalky, sli fos
LS: crm, sli tan, f-mcrxln, sli fos, sli chalky, Sh: lt gry-gry
No Sample
0.1
1
10
100

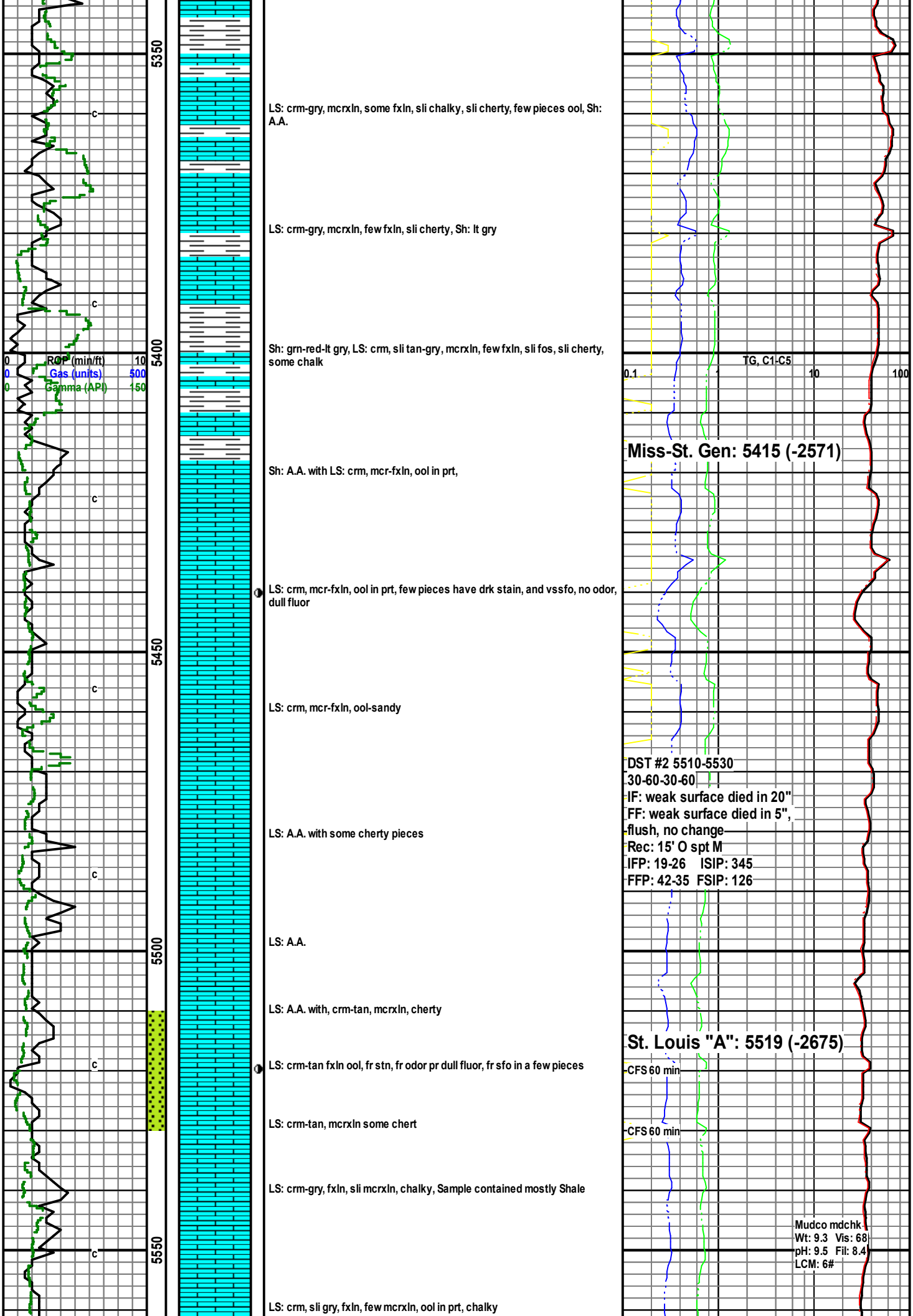

4250
4300
4350
4400
4450
0 ROP (min/ft) 10
0 Gas (units) 500
0 Gamma (API) 150
Sh: gry-grn, sli brn, with some LS: A.A.
Sh: A.A.
Sh: gry-drk gry
Lansing: 4271 (-1427)
Sh: A.A. with LS: gry, sli crm, mcr-fxln
No Sample
LS: crm, few gry, mcr-fxln, chalky
LS: A.A. sli cherty
LS: crm-tan, mcr-fxln, sli chalkky, cherty some Sh: gry
LS: crm-gry, mcrxln
LS: crm, sli gry, mcrxln, chalky, sli fos
LS: crm, sli gry, mcr-fxln, Sh: gry
LS: crm-gry-tan, mcr-fxln, sli fos, chalky, Sh: gry
LS: crm-tan, mcr-fxln, sli chalky
LS: tan- crm, chalky, mcr-fxln, Sh: grn-gry
LS: A.A.
LS: tan-gry, fxln, fos
TG, C1-C5
0.1
1
10
100
LS: A.A., chalky
Gas detector down
sample mostly chalk
gas test
LS: crm-tan-gry, mcrxln, Sh: gry-lt gry
LS: tan-crm sli gry, mcrxln some fxln, Sh: gry
Started 20' samples
LS: tan-sli gry, mcr-fxln, sli ool, sli fos, sli chert, chalky, Sh: gry- lt gry

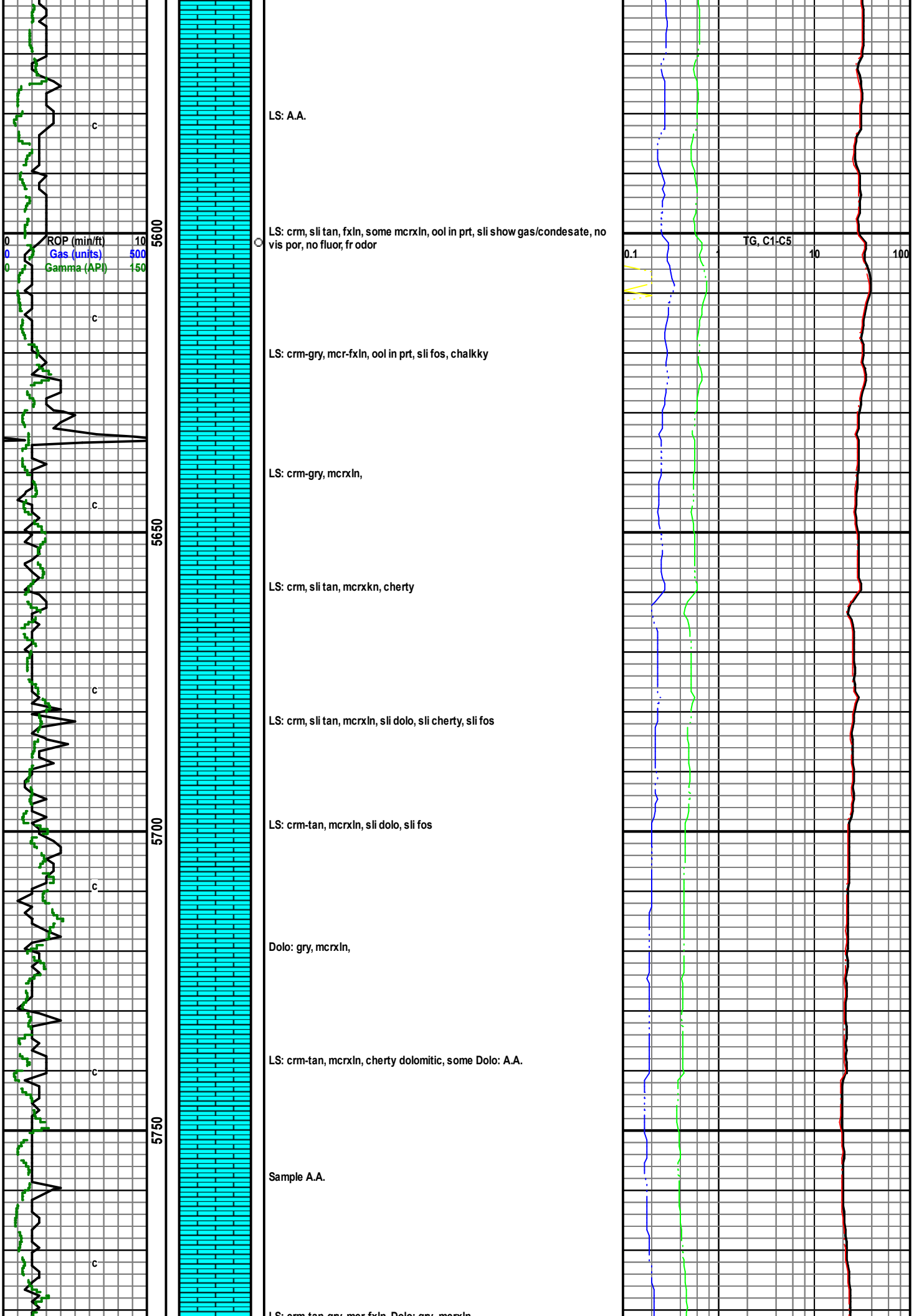

4500
4550
4600
4650
0
ROP (min/ft)
10
0
Gas (units)
500
0
Gamma (API)
150
c
Sample mostly chalk
A.A.
LS: crm-tan, fxln, sli mcrxln, chalky, sli fos, some Sh: gry-drk gry
Sh: gry-drk gry-lt gry, LS: gry sli crm-tan, mcrxln,
LS and Sh A.A.
LS: crm-tan, mcr-fxln, sli fos, chalky
LS: crm-sli tan, some gry, mcrxln, chalky, Sh: lt gry
TG, C1-C5
0.1
1
10
100
LS: crm-sli tan, mcrxln, chalky
LS: crm-sli gry, mcrxln, sli chalky
LS: A.A. with Sh: lt gry-grn-red
Stark Shale: 4670 (-1826)
Sh: blck

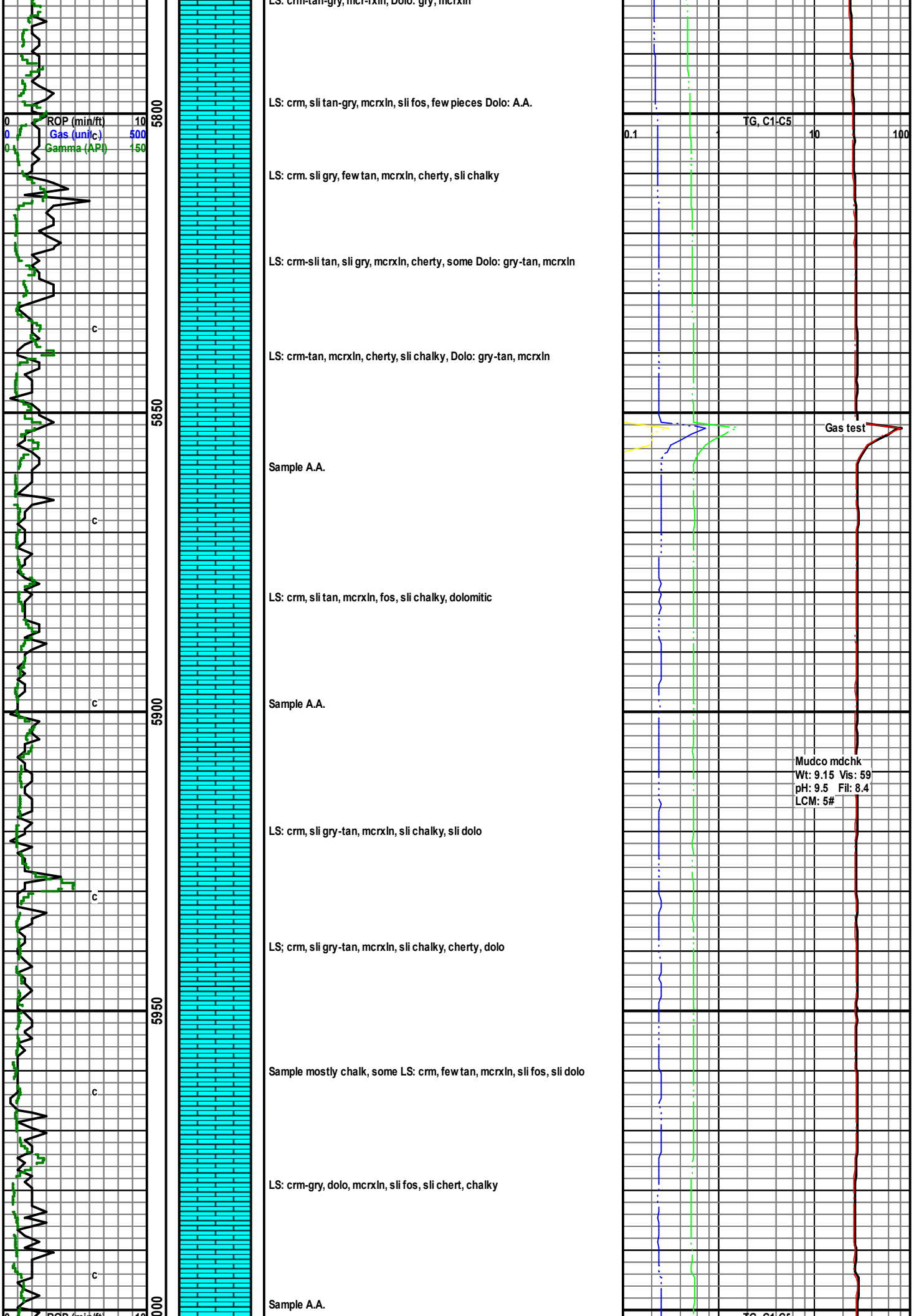

4700
4750
4800
4850
4900
ROP (min/ft) 10
Gas (units) 500
Gamma (API) 150
Sh: gry-lt gry, LS: tan-crm, sli gry, mcr-fxln, friable, chalky, sli fos
LS: tan, oom-ool, pr-fr vis por, sub friable, sli chalky, no odor, no fluor, no show
LS: A.A.
LS: A.A. with some gry-crm mcrxln, sli chalky
LS: gry-crm, sli tan, mcrxln, sli chalky, Sh: gry
Sh: gry-drk gry, with some LS: A.A.
Sh: A.A. with some LS: tan, mcrxln, ool
LS: gry-sli crm, mcrxln, sli chalky, Sh: gry
LS: crm-gry, mcrxln, sli chalky, some Sh: gry
LS: crm-gry, mcrxln, some Sh: gry
LS: gry-crm, sli tan, mcrxln, few fxln, sli fos, Sh: gry
LS: gry-crm, sli tan, mcrxln, sli fos,
CFS 60 min
TG, C1-C5
0.1
1
10
100
Marmaton: 4834 (-1990)
Mudco mdchk
Wt: 9.1 Vis: 59
pH: 11.0 Fil: 6.0
LCM: 4#

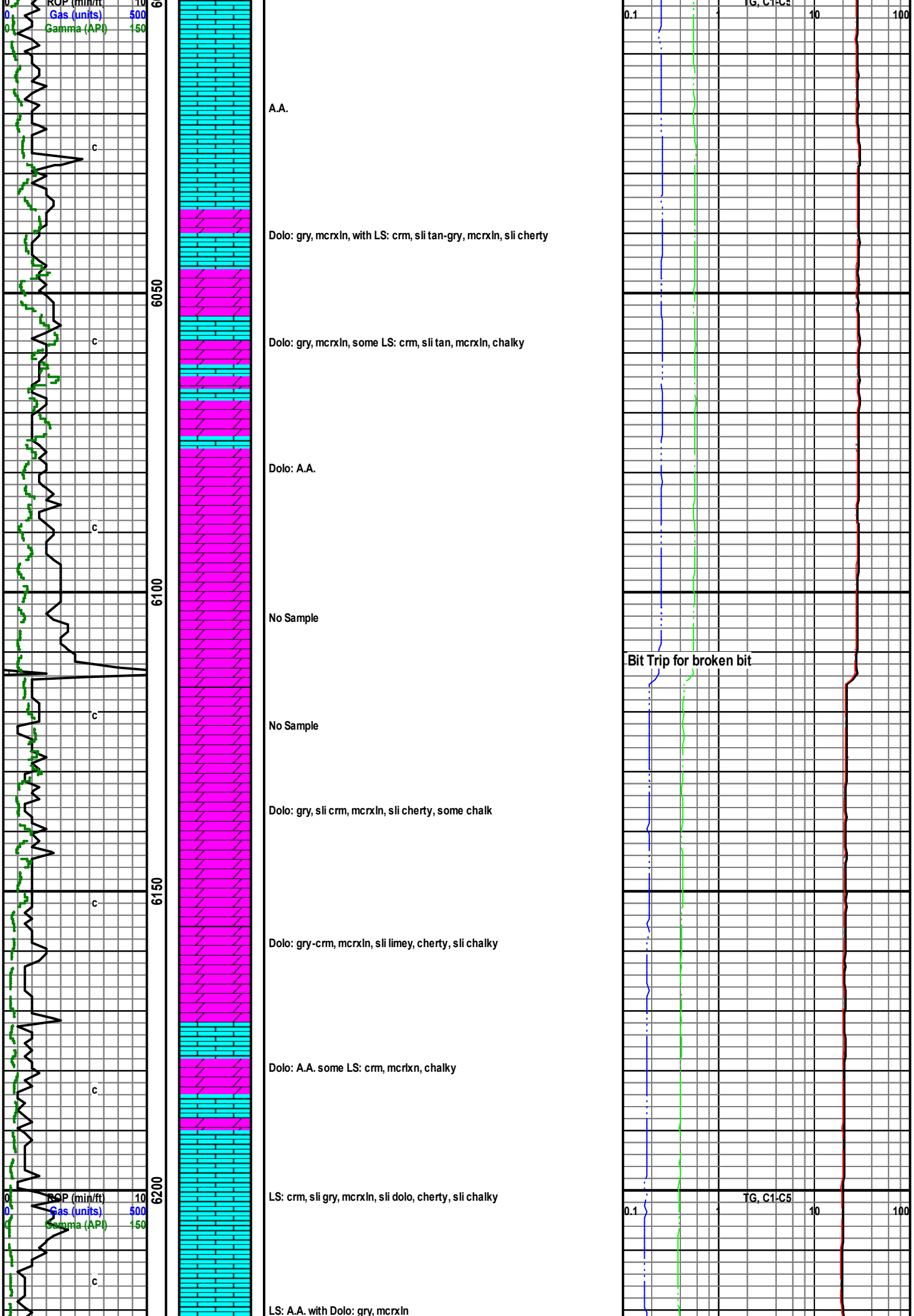

4950
5000
5050
5100
ROP (min/ft)
0
10
Gas (units)
0
500
Gamma (API)
0
150
TG, C1-C5
0.1
1
10
100
LS: crm-gry, sli tan,mcrxln, sli fos
LS: gry-crm, mcrxln, some fxln
LS: crm-gry, mcrxln sli fxln, Sh: drk gry-blck
LS: gry-crm, some tan, mcrxln few fxln, sli fos, Sh: blck
LS: crm-gry, mcrxln, Sh: lt gry-gry
Sh: gry-drk gry-lt gry, some LS: gry, sli crm, mcrxln,
LS: gry, sli crm, mcrxln, sli fos, Sh: gry
Ls and Sh: A.A.
LS: crm-tan, some gry, mcrxln, sli fxln, some Sh: gry-drk gry
LS; crm-gry, sli tan, mcr-fxln, sli fos, sli cherty, some Sh: blck-drk gry
LS: gry/crm-brwn/tan, mcrxln, sli fos, Sh: gry-drk gry

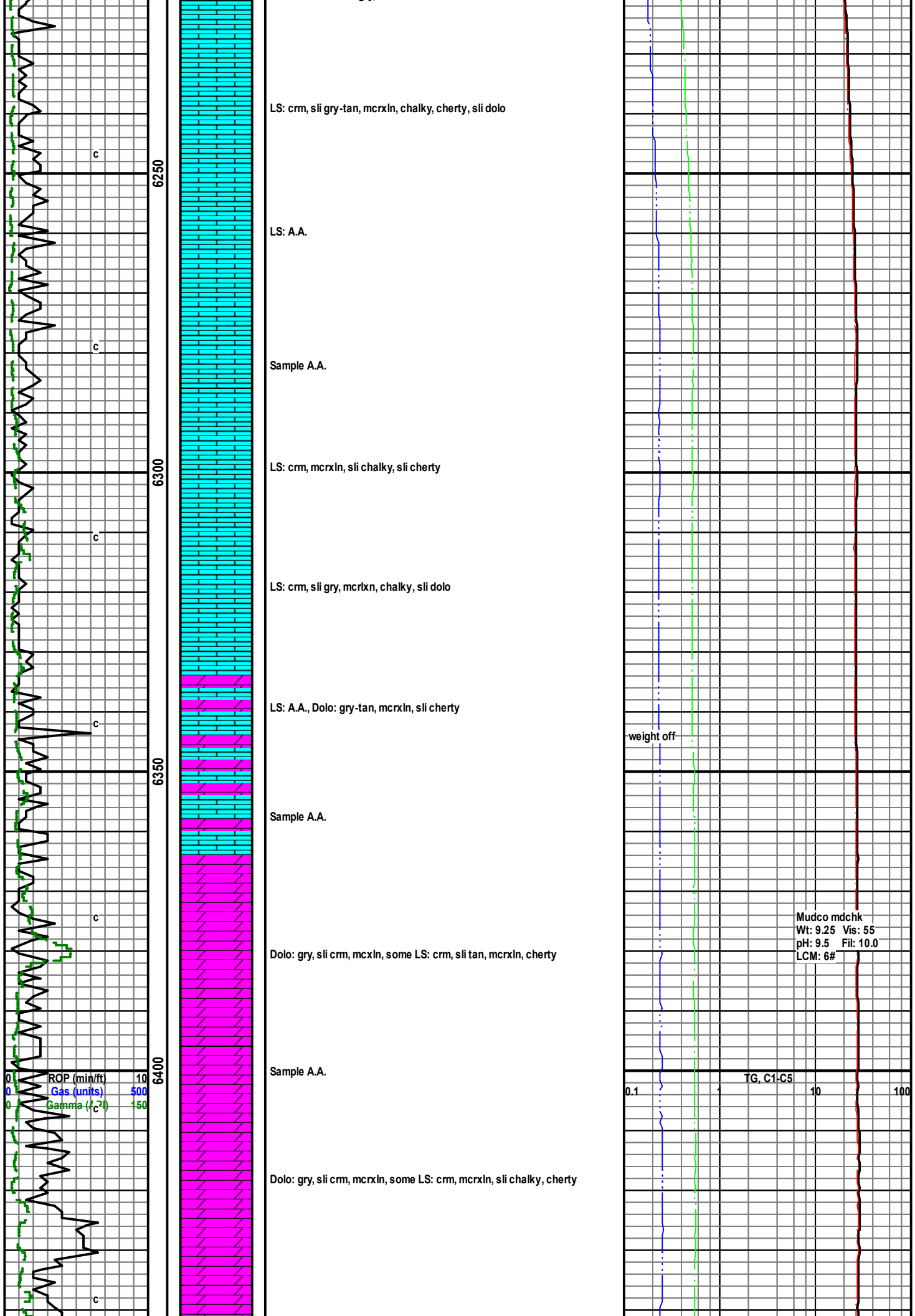

5150
5200
5250
5300
ROP (min/ft) 0 10
Gas (unit-) 0 500
Gamma (API) 0 150
TG, C1-C5
0.1 1 10 100
LS: crm-gry, some tan, mcr-fxln, sli fos, few pieces had vvpr ques sli show gas, no odor, pr dull yell fluor
LS: crm, sli tan-gry, mcrxln, some fxln, some Sh: gry-drk gry
LS: gry/crm, mcrxln, sli cherty, Sh: gry-drk gry-blck
LS: A.A. some crm-tan,mcr-fxln, sli chalky, Sh: gry-drk gry
Morrow: 5214 (-2370)
LS; crm-gry, some tan/crm, mcrxln, sli fxln, few sandy, Sh: drk gry-gry, sli blck
LS: gry-crm, mcr-fxln, some sli sandy, vvr pos sho gas/condensate, pos dead oil
DST #1 5170-5270
30-60-45-90
IF: built to 2.5"
FF: built to 4"
Rec: 15' O spt M
IFP: 34-37 ISIP: 155
FFP: 35-44 FFIP: 137
LS: crm-tan, sli gry, f-mcrxln, some sandy, quest stain on few, pos show fo, gas/condensate, pr vis por, no-sli odor, no fluor,
LS: crm-tan, mcr-fxln, some sandy, stain on few, sli SFO, sli gas, no odor, pr-no fluor, pr vis pp por
Tally .37 long
CFS 60 min
Mudco mdchk
Wt: 9.25 Vis: 58
pH: 9.5 Fil: 7.2
LCM: 4#
Some LS: A.A. with Sh: gry-grn
Sh: grn-gry-rd, some LS: crm-tan-gry, mcr-fxln, sli fos
Sh: grn-lt gry-gry, some red-yellow, some LS: crm-tan, mcr-fxln, sli sandy in prt, few pieces pos dead oil stn, cherty
Sh: gry-grn, sli red, LS: crm-gry, sli tan, mcr-fxln, some sli sandy,
Sh: lt gry, some grn, LS: crm-gry, mcrxln, sli fos, sli cherty, sli chalk

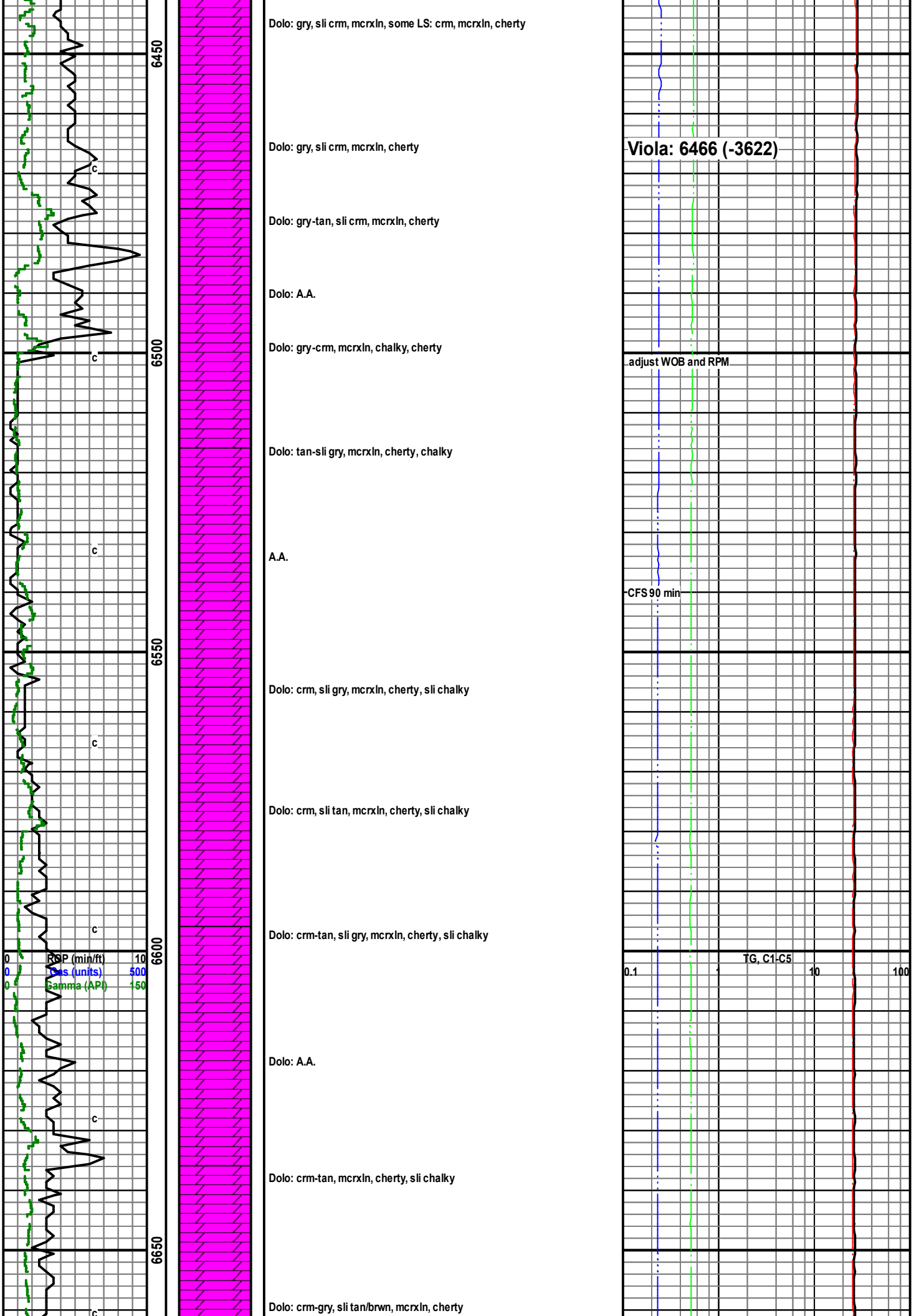

0 ROP (min/ft) 10
0 Gas (units) 500
0 Gamma (API) 150
5350
5400
5450
5500
5550
C
LS: crm-gry, mcrxln, some fxln, sli chalky, sli cherty, few pieces ool, Sh: A.A.
LS: crm-gry, mcrxln, few fxln, sli cherty, Sh: lt gry
Sh: grn-red-lt gry, LS: crm, sli tan-gry, mcrxln, few fxln, sli fos, sli cherty, some chalk
Sh: A.A. with LS: crm, mcr-fxln, ool in prt,
LS: crm, mcr-fxln, ool in prt, few pieces have drk stain, and vssfo, no odor, dull fluor
LS: crm, mcr-fxln, ool-sandy
LS: A.A. with some cherty pieces
LS: A.A.
LS: A.A. with, crm-tan, mcrxln, cherty
LS: crm-tan fxln ool, fr stn, fr odor pr dull fluor, fr sfo in a few pieces
LS: crm-tan, mcrxln some chert
LS: crm-gry, fxln, sli mcrxln, chalky, Sample contained mostly Shale
LS: crm, sli gry, fxln, few mcrxln, ool in prt, chalky
TG, C1-C5
0.1
1
10
100
Miss-St. Gen: 5415 (-2571)
DST #2 5510-5530
30-60-30-60
IF: weak surface died in 20"
FF: weak surface died in 5", flush, no change
Rec: 15' O spt M
IFP: 19-26 ISIP: 345
FFP: 42-35 FSIP: 126
St. Louis "A": 5519 (-2675)
CFS 60 min
CFS 60 min
Mudco mdchk
Wt: 9.3 Vis: 68
pH: 9.5 Fil: 8.4
LCM: 6#

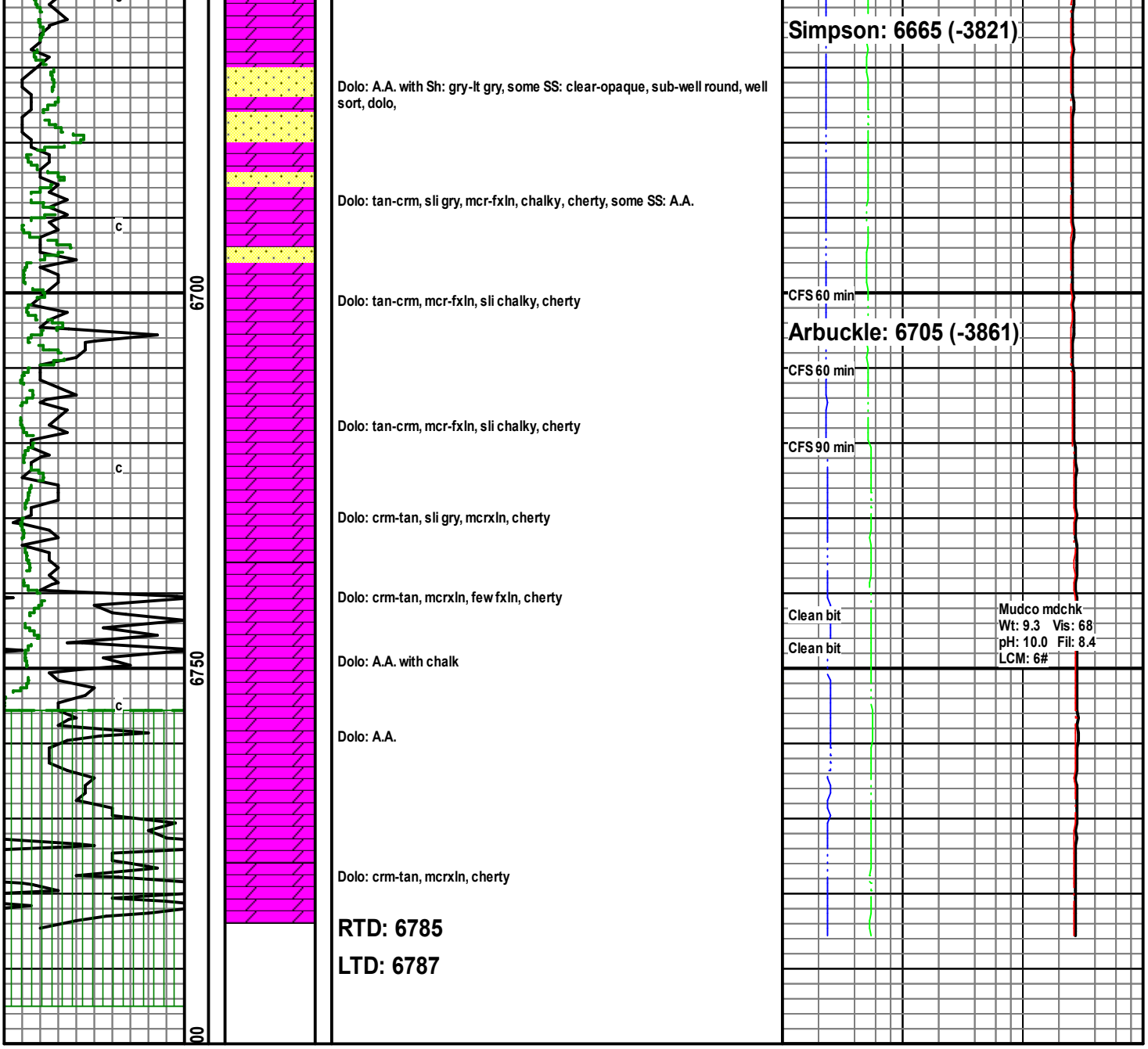

0
ROP (min/ft)
10
0
Gas (units)
500
0
Gamma (API)
150
5600
5650
5700
5750
c
LS: A.A.
LS: crm, sli tan, fxln, some mcrxln, ool in prt, sli show gas/condesate, no vis por, no fluor, fr odor
LS: crm-gry, mcr-fxln, ool in prt, sli fos, chalkky
LS: crm-gry, mcrxln,
LS: crm, sli tan, mcrxkn, cherty
LS: crm, sli tan, mcrxln, sli dolo, sli cherty, sli fos
LS: crm-tan, mcrxln, sli dolo, sli fos
Dolo: gry, mcrxln,
LS: crm-tan, mcrxln, cherty dolomitic, some Dolo: A.A.
Sample A.A.
TG, C1-C5
0.1
1
10
100


0
ROP (min/ft)
10
0
Gas (unit)
500
0
Gamma (API)
150
TG, C1-C5
0.1
1
10
100
5800
5850
5900
5950
6000
c
LS: crm-tan-gry, mcr-fxln, Dolo: gry, mcrxln
LS: crm, sli tan-gry, mcrxln, sli fos, few pieces Dolo: A.A.
LS: crm. sli gry, few tan, mcrxln, cherty, sli chalky
LS: crm-sli tan, sli gry, mcrxln, cherty, some Dolo: gry-tan, mcrxln
LS: crm-tan, mcrxln, cherty, sli chalky, Dolo: gry-tan, mcrxln
Gas test
Sample A.A.
LS: crm, sli tan, mcrxln, fos, sli chalky, dolomitic
Sample A.A.
Mudco mdchk
Wt: 9.15 Vis: 59
pH: 9.5 Fil: 8.4
LCM: 5#
LS: crm, sli gry-tan, mcrxln, sli chalky, sli dolo
LS; crm, sli gry-tan, mcrxln, sli chalky, cherty, dolo
Sample mostly chalk, some LS: crm, few tan, mcrxln, sli fos, sli dolo
LS: crm-gry, dolo, mcrxln, sli fos, sli chert, chalky
Sample A.A.


ROP (min/ft)
0
10
Gas (units)
0
500
Gamma (API)
0
150
c
6050
6100
6150
6200
A.A.
Dolo: gry, mcrxln, with LS: crm, sli tan-gry, mcrxln, sli cherty
Dolo: gry, mcrxln, some LS: crm, sli tan, mcrxln, chalky
Dolo: A.A.
No Sample
No Sample
Dolo: gry, sli crm, mcrxln, sli cherty, some chalk
Dolo: gry-crm, mcrxln, sli limey, cherty, sli chalky
Dolo: A.A. some LS: crm, mcrlxn, chalky
LS: crm, sli gry, mcrxln, sli dolo, cherty, sli chalky
LS: A.A. with Dolo: gry, mcrxln
TG, C1-C5
0.1
1
10
100
Bit Trip for broken bit


6250
6300
6350
6400
c
ROP (min/ft)
Gas (units)
Gamma (API)
0
10
500
150
LS: crm, sli gry-tan, mcrxln, chalky, cherty, sli dolo
LS: A.A.
Sample A.A.
LS: crm, mcrxln, sli chalky, sli cherty
LS: crm, sli gry, mcrlxn, chalky, sli dolo
LS: A.A., Dolo: gry-tan, mcrxln, sli cherty
weight off
Sample A.A.
Dolo: gry, sli crm, mcxln, some LS: crm, sli tan, mcrxln, cherty
Mudco mdchk
Wt: 9.25 Vis: 55
pH: 9.5 Fil: 10.0
LCM: 6#
Sample A.A.
TG, C1-C5
0.1
1
10
100
Dolo: gry, sli crm, mcrxln, some LS: crm, mcrxln, sli chalky, cherty


6450
6500
6550
6600
6650
c
0
ROP (min/ft)
10
0
Gas (units)
500
0
Gamma (API)
150
Dolo: gry, sli crm, mcrxln, some LS: crm, mcrxln, cherty
Dolo: gry, sli crm, mcrxln, cherty
Dolo: gry-tan, sli crm, mcrxln, cherty
Dolo: A.A.
Dolo: gry-crm, mcrxln, chalky, cherty
Dolo: tan-sli gry, mcrxln, cherty, chalky
A.A.
Dolo: crm, sli gry, mcrxln, cherty, sli chalky
Dolo: crm, sli tan, mcrxln, cherty, sli chalky
Dolo: crm-tan, sli gry, mcrxln, cherty, sli chalky
Dolo: A.A.
Dolo: crm-tan, mcrxln, cherty, sli chalky
Dolo: crm-gry, sli tan/brwn, mcrxln, cherty
Viola: 6466 (-3622)
adjust WOB and RPM
CFS 90 min
TG, C1-C5
0.1
1
10
100


6700
6750
c
c
c
Dolo: A.A. with Sh: gry-lt gry, some SS: clear-opaque, sub-well round, well sort, dolo,
Dolo: tan-crm, sli gry, mcr-fxln, chalky, cherty, some SS: A.A.
Dolo: tan-crm, mcr-fxln, sli chalky, cherty
Dolo: tan-crm, mcr-fxln, sli chalky, cherty
Dolo: crm-tan, sli gry, mcrxln, cherty
Dolo: crm-tan, mcrxln, few fxln, cherty
Dolo: A.A. with chalk
Dolo: A.A.
Dolo: crm-tan, mcrxln, cherty
RTD: 6785
LTD: 6787
Simpson: 6665 (-3821)
CFS 60 min
Arbuckle: 6705 (-3861)
CFS 60 min
CFS 90 min
Clean bit
Clean bit
Mudco mdchk
Wt: 9.3 Vis: 68
pH: 10.0 Fil: 8.4
LCM: 6#

Attached to ACO-1 form for
WHITE EXPLORATION, INC.
JACOBS-WOOD #2
1530’ FNL and 2245’ FWL
Section 1-30S-31W
API # 15-081-22154-00-00

Surface Casing Cement

Cemented with 400 sacks H-Con Cement with 6% gel, 3% CC and ¼#/sack Pheno-seal.
Followed by 225 sacks of Common Cement with 2% CC and ¼#/sack of Pheno-seal.

TREATMENT REPORT

HURRICANE SERVICES INC

Customer:	White Exploration Inc.		Date:	1/26/2017 2/24/17	Ticket No.: 100723
Field Rep:	Terry Baird				
Address:					
City, State:					
County, Zip:					

				Perf Depths (ft)		Perfs
Field Order No.:	100723	Open Hole:				
Well Name:	Jacobs-Wood #2	Casing Depth:	1781'			
Location:	Copeland	Casing Size:	8 5/8 24#			
Formation:		Tubing Depth:				
Type of Service:	Surface	Tubing Size:				
Well Type:	Oil	Liner Depth:				
Age of Well:	New	Liner Size:				
Packer Type:		Liner Top:				
Packer Depth:		Liner Bottom:				
Treatment Via:	Casing	Total Depth:	1782'		Total Perfs	0

TIME	INJECTION RATE FLUID	INJECTION RATE N2/CO2	PRESSURE STP	PRESSURE ANNULUS	REMARKS	PROP (lbs)	HCL (gal)	FLUID (bbls)
7:30 AM					Called Out			
12:00 PM					On Location W/ FE			
1:30 PM					On Location W/ Trucks			
					Hold Safety Meeting Spot & Set Up Trucks			
					Run 44 Joints 8 5/8 24# Casing Set @ 1781'			
					Reg Guide Shoe & AFU Insert First Jt=40.43'			
					Centralizers on Jt's 1/2 way First Jt 30-31			
					Cement Basket On Jt Pin 31			
2:30 PM					Start Casing			
4:20 PM					Casing On Bottom Drop Ball			
4:30 PM					Hook Up To Casing & Break Circulation W Rig			
5:20 PM	5.0		150.0		Start Pumping H20			10.00
5:24 PM	5.0		170.0		Start Mix Lead 400 Sx H-Con 3%C.C.1/4#/Sx Pheno-Seal			
					11.6 #/Gal			
6:07 PM	5.5		220.0		Start Mix Tail 200 Sx Common 2%C.C. 1/4#/Sx Pheno-Seal			291.00
					14.8 #/Gal			
6:02 PM					Shut Down Release 8 5/8 Top Rubber Plug			54.90
6:26 PM	3.0		100.0		Start Displacement H20			
					TOTAL:	-	-	384.22

SUMMARY

Max Fl. Rate	Avg Fl. Rate	Max PSI	Avg PSI
5.5	3.7	1,000.0	328.0

PRODUCTS USED

Treater: Todd Seba

Customer: Terry Baird

TREATMENT REPORT

HURRICANE SERVICES INC

TIME	INJECTION RATE FLUID	INJECTION RATE N2/CO2	PRESSURE STP	PRESSURE ANNULUS	REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbls)
					75 Out Circulate Cement To Pit			
6:45 PM	2.0		1,000.0		Plug Landed			111.00
6:47 PM					Release Psi & Held			
					WOC Cement Fell 21'+-			
9:50 PM	1.5				Top Off 30 Sx Common 2%CC1/4#Pheno-Seal			7.32
					Wash Up & Rack Up Pump Truck			
8:30 PM					Off Location			
					Thank You			
					Please Call Again			
					Todd Jake Chuck David Tony			
					Circulate 70 Sacks Lead To Pit			
					400 Sx H-Con 3 % Calcium Chloride 1/2#/Sx Pheno-Seal			
					225 Sx Common 2% Calcium Chloride 1/2#/Sx Pheno-Seal			
					30 Sx Common 2% Calcium Chloride Top Off			
					Total 650 Sx			

Activity provided on this page is calculated in the summary and totals on page 1

TREATMENT REPORT

HURRICANE SERVICES INC

Customer:	White Exploration Inc.		Date:	3/7/2017	Ticket No.: 100725
Field Rep:	Terry Baird				
Address:					
City, State:					
County, Zip:					

				Perf Depths (ft)		Perfs
Field Order No.:	100725	Open Hole:				
Well Name:	Jacobs-Wood #2	Casing Depth:	6720			
Location:	Copeland	Casing Size:	4 1/2 DP			
Formation:		Tubing Depth:				
Type of Service:	PTA	Tubing Size:				
Well Type:	Oil	Liner Depth:				
Age of Well:	New	Liner Size:				
Packer Type:		Liner Top:				
Packer Depth:		Liner Bottom:				
Treatment Via:	Drill Pipe	Total Depth:	6785'		Total Perfs	0

TIME	INJECTION RATE FLUID	INJECTION RATE N2/CO2	PRESSURE STP	PRESSURE ANNULUS	REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbls)
10:15 AM					Called Out			
2:15 PM					On Location Rig Circulating			
2:20 PM					Hold Safety Meeting Spot & Set Up Trucks			
					1 St Plug @ 6720' 50 Sx 60/40 4 % Gel 1/4 #/Sx PS			
					Hook Up To Drill Pipe			
2:50 PM	4.0		400.0		Start Pumping H20			20.00
	4.0		400.0		Start Mix & Pump 50 sx 60/40 4%Gel1/4#/sxPS @ 13.8			12.65
	4.0		400.0		Start Displacement H20			5.00
3:00 PM					Shut Down Rig Displace w/Mud			87.00
					Rig LDDP			
					2 nd Plug @ 1795' 50 Sx 60/40 4%Gel 1/4#/SxPS @ 13.8			
6:10 PM					Hook Up To Drill Pipe			
6:12 PM	4.0		200.0		Start Pumping H20			
	4.0		200.0		Start Mix & Pump 50 sx 60/40 4%Gel1/4#/sxPS @ 13.8			12.65
	4.0		200.0		Start Displacement H20			22.00
6:24 PM					Shut Down			
					RLDDP			
					3 rd Plug @ 690' 40 Sx 60/40 4%Gel 1/4 #/SxPS			
					TOTAL:	-	-	

Max Fl. Rate	Avg Fl. Rate	Max PSI	Avg PSI
4.0	3.5	400.0	216.7

PRODUCTS USED

Treater: Todd Seba

Customer: Terry Baird

TREATMENT REPORT

HURRICANE SERVICES INC

TIME	INJECTION RATE FLUID	INJECTION RATE N2/CO2	PRESSURE STP	PRESSURE ANNULUS	REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbls)
7:00 PM					Hook Up To Drill Pipe			
7:03 PM	4.0		150.0		Start Pumping H20			
	4.0		150.0		Start Mix & Pump 40 Sx 60/40 4%Gel 1/4#/sxPS @13.8			10.12
	4.0		150.0		Start Displacement H20			7.00
7:11 PM					Shut Down			
					RLDDP			
7:30 PM	2.0		150.0		4 th Plug 60' 20 sx 60/40 4%Gel 1/4#/Sx PS @ 13.8			5.06
	2.0		100.0		Mouse Hole 20 Sx 60/40 4%Gel 1/4 #/Sx PS @13.8			7.59
7:45 PM	2.0		100.0		Rat Hole 30 Sx 60/40 4%Gel 1/4 $/Sx PS @13.8			5.06
					Wash Up Truck & Rack Up Truck			
					Total 210 Sx 60/40 4% Gel 1/4 #/Sx PS			
					Off Location			
					Thank You			
					Please Call Again			
					Todd Tony Dave			

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