KOLAR Document ID: 1590640

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 # 34655
Name: Bird Dog Oil, LLC
Address 1: 1801 BROADWAY, STE #200
Address 2:
City: DENVER State: CO Zip: 80202 + 3840
Contact Person: Matthew Stewart
Phone: (303) 534-1686
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Jeff Lawler
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 #:

03/01/2021	03/09/2021	03/10/2021
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No.: 15-185-24075-00-00
Spot Description:
NE - SW - SW - NW Sec. 14 Twp. 22 S. R. 14 ☐ East ☑ West
2190 Feet from ☑ North / ☐ South Line of Section
375 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: Stafford
Lease Name: W. GATES-LEA Well #: 1-14
Field Name:
Producing Formation: N/A
Elevation: Ground: 1931 Kelly Bushing: 1941
Total Vertical Depth: 3880 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 429 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: 5200 ppm Fluid volume: 960 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: Bob's Hauling Service
Lease Name: Rogers (SWD) License #: 33779
Quarter NW Sec. 34 Twp. 23 S. R. 13 ☐ East ☑ West
County: Stafford Permit #: D-23360

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:** 09/16/2021

Operator Name: Bird Dog Oil, LLC Lease Name: W. GATES-LEA Well #: 1-14

Sec. 14 Twp. 22 S. R. 14 ☐ East ☑ West County: Stafford

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
Topeka	2998	-1057
Heebner	3302	-1361
LKC	3443	-1502
Arbuckle	3805	-1864

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	23	429	60/40 Poz	450	3% CC 2% Gel

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	Bird Dog Oil, LLC
Well Name	W. GATES-LEA 1-14
Doc ID	1590640

All Electric Logs Run

DI
CDNL
Micro
Sonic

Form	ACO1 - Well Completion
Operator	Bird Dog Oil, LLC
Well Name	W. GATES-LEA 1-14
Doc ID	1590640

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	23	429	60/40 Poz	450	3% CC 2% Gel

OPERATOR

Company:	BIRD DOG OIL, LLC		
Address:	1801 BROADWAY STE #200 DENVER, CO 80202		
Contact Geologist:	MATTHEW STEWART		
Contact Phone Nbr:	(303) 534-1686		
Well Name:	W. GATES - LEA #1-14		
Location:	NE SW SW NW Sec. 14 - 22S - 14W		
API:	15-185-24075		
Pool:		Field:	N/A
State:	Kansas	Country:	USA

BIRD DOG OIL, LLC

Scale 1:240 Imperial

Well Name:	W. GATES - LEA #1-14		
Surface Location:	NE SW SW NW Sec. 14 - 22S - 14W		
Bottom Location:			
API:	15-185-24075		
License Number:	34655		
Spud Date:	3/1/2021	Time:	2:30 PM
Region:	STAFFORD COUNTY		
Drilling Completed:	3/8/2021	Time:	12:27 PM
Surface Coordinates:	2190' FNL & 375' FWL		
Bottom Hole Coordinates:			
Ground Elevation:	1931.00ft		
K.B. Elevation:	1941.00ft		
Logged Interval:	2900.00ft	To:	3880.00ft
Total Depth:	3880.00ft		
Formation:	LANSING-KANSAS CITY; VIOLA;ARBUCKLE		
Drilling Fluid Type:	Chemical/Fresh Water Gel		

SURFACE CO-ORDINATES

Well Type:	Vertical
Longitude:	-98.837861
Latitude:	38.139061
N/S Co-ord:	2190' FNL
E/W Co-ord:	375' FWL

LOGGED BY

BIG CREEK CONSULTING

Company:	BIG CREEK CONSULTING, INC
Address:	3504 DUNCAN ST ST. JOE, MO 64507
Phone Nbr:	(785) 259-3737

Logged By:	Geologist	Name:	JEFF LAWLER

CONTRACTOR

Contractor:	SOUTHWIND DRILLING		
Rig #:	1		
Rig Type:	MUD ROTARY		
Spud Date:	3/1/2021	Time:	2:30 PM
TD Date:	3/8/2021	Time:	12:27 PM
Rig Release:	3/9/2021	Time:	9:00 AM

ELEVATIONS

K.B. Elevation:	1941.00ft	Ground Elevation:	1931.00ft
K.B. to Ground:	10.00ft		

NOTES

AFTER LOG ANALYSIS AND LACK OF ECONOMICAL RECOVERY DECISION WAS MADE TO PLUG AND ABANDON THE W. GATES - LEA #1-14.

RESPECTFULLY SUBMITTED,
JEFF LAWLER

WELL COMPARISON SHEET

	W. GATES - LEA #1-14				¤ HIGH PLAINS PRODUCTION CO. HARMS C #1 NE SE NE 15-22-14				¤ LD DRILLING MORTON #1 E/2 SW SE 15-22-14				¤ GRIGGS OIL, INC. SMITH #1 NE SW NW 14-22-14				¤ ICER ADDIS CLINTON SMITH #1 SE SW NW 14-22-14			
	KB	1941	GL	1931	KB	1945			KB	1942			KB	1946			KB	1941		
	LOG TOPS		SAMPLE TOPS		LOG		LOG	SMPL.	COMP. CARD		LOG	SMPL.	LOGS		LOG	SMPL.	COMP. CARD		LOG	SMPL.
FORMATION	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.
ANHYDRITE TOP			853	1088	826	1119		- 31	830	1112		- 24								
BASE			870	1071																
TOPEKA					3004	-1059														
HEEBNER SHALE			3302	-1361	3304	-1359		- 2	3320	-1378		+ 17	3304	-1358		- 3	3299	-1358		- 3
TORONTO			3325	-1384	3325	-1380		- 4												
BROWN LIME			3430	-1489	3430	-1485		- 4	3449	-1507		+ 18	3432	-1486		- 3	3427	-1486		- 3
LKC			3443	-1502	3440	-1495		- 7	3461	-1519		+ 17	3444	-1498		- 4	3437	-1496		- 6
BKC			3670	-1729					3682	-1740		+ 11	3651	-1705		- 24	3667	-1726		- 3
VIOLA			3711	-1770					3762	-1820		+ 50	3719	-1773		+ 3	3712	-1771		+ 1
SIMPSON			3755	-1814					3805	-1863		+ 49	3751	-1805		- 9	3750	-1809		- 5
ARBUCKLE			3805	-1864					3849	-1907		+ 43	3806	-1860		- 4	3804	-1863		- 1
TOTAL DEPTH			3880	-1939	3660	-1715		- 224	3869	-1927		- 12	3825	-1879		- 60	3813	-1872		- 67

DST #1 LKC H - I 3553' - 3595'

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Bird Dog Oil

1801 Broadway, STE#200
Denver Co, 80202

ATTN: Jeff Lawler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47695 **DST#: 1**

Test Start: 2021.03.06 @ 11:24:00

GENERAL INFORMATION:

Formation: **LKC - I**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:54:30
Time Test Ended: 17:51:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Royal Fisher
Unit No: #77

Interval: 3553.00 ft (KB) To 3595.00 ft (KB) (TVD)
Total Depth: 3595.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

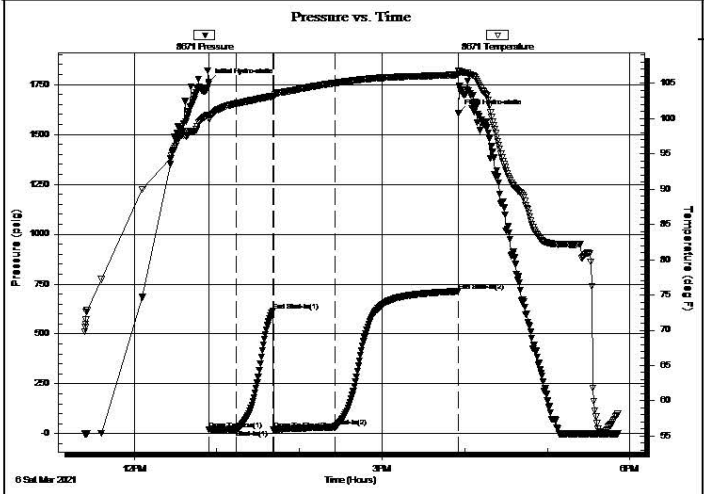
Reference Elevations: 1941.00 ft (KB)
1931.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8671 **Outside**
Press@RunDepth: 32.97 psig @ 3554.00 ft (KB)
Start Date: 2021.03.06 End Date: 2021.03.06
Start Time: 11:24:05 End Time: 17:50:59

Capacity: 8000.00 psig
Last Calib.: 2021.03.06
Time On Btm: 2021.03.06 @ 12:54:15
Time Off Btm: 2021.03.06 @ 15:55:30

TEST COMMENT: 15 - IF - Blow slowly built up to 4"

30 - ISI - No Retun
45 - FF - Blow slow ly builtl to 1.5"
90 - FSI - No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1762.52	100.50	Initial Hydro-static
1	20.12	99.90	Open To Flow (1)
20	22.81	102.14	Shut-In(1)
47	614.82	103.19	End Shut-In(1)
47	19.49	103.11	Open To Flow (2)
92	32.97	105.05	Shut-In(2)
181	713.38	106.23	End Shut-In(2)
182	1608.37	106.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	OCM - 3%o - 97%m	0.36

Gas Rates

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

Trilobite Testing, Inc Ref. No: 47695 Printed: 2021.03.07 @ 08:12:16

DST #2 LKC J-L 3590' - 3670'

DRILL STEM TEST REPORT

Bird Dog Oil

1801 Broadw ay, STE#200
Denver Co, 80202

ATTN: Jeff Law ler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47696 **DST#: 2**

Test Start: 2021.03.07 @ 02:48:43

GENERAL INFORMATION:

Formation: **JKL**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:39:43
Time Test Ended: 09:10:43

Test Type: Conventional Bottom Hole (Initial)
Tester: Royal Fisher
Unit No: #77

Interval: 3590.00 ft (KB) To 3670.00 ft (KB) (TVD)
Total Depth: 3670.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

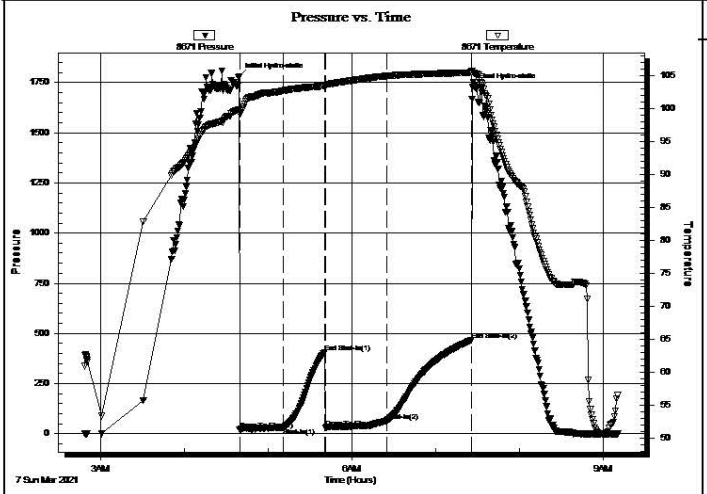
Reference Elevations: 1941.00 ft (KB)
1931.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8671
Press@RunDepth: 63.72 psig @ ft (KB)
Start Date: 2021.03.07 End Date: 2021.03.07
Start Time: 02:48:48 End Time: 09:10:42

Capacity: 8000.00 psig
Last Calib.: 2021.03.07
Time On Btm: 2021.03.07 @ 04:39:28
Time Off Btm: 2021.03.07 @ 07:26:28

TEST COMMENT: 30 - IF - Blow built up to 2 1/2"
30 - ISI - No Return

45 - FF - Blow built up to 1 3/4
60 - FSI - No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1781.06	99.86	Initial Hydro-static
1	21.40	99.21	Open To Flow (1)
32	31.60	102.74	Shut-In(1)
61	406.28	103.45	End Shut-In(1)
62	29.49	103.51	Open To Flow (2)
106	63.72	104.97	Shut-In(2)
167	466.04	105.51	End Shut-In(2)
167	1726.85	105.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	OSWM - 40%w - 60%m - Oil Spots	585896.73

Gas Rates

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

Trilobite Testing, Inc Ref. No: 47696 Printed: 2021.03.07 @ 13:02:29

DST #3 VIOLA 3658' - 3760'

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Bird Dog Oil

1801 Broadway, STE#200
Denver Co, 80202

ATTN: Jeff Lawler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47697 **DST#: 3**

Test Start: 2021.03.07 @ 20:30:00

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:14:30
Time Test Ended: 02:50:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Royal Fisher
Unit No: #77

Interval: 3658.00 ft (KB) To 3760.00 ft (KB) (TVD)
Total Depth: 3760.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1941.00 ft (KB)
1931.00 ft (CF)
KB to GR/CF: 10.00 ft

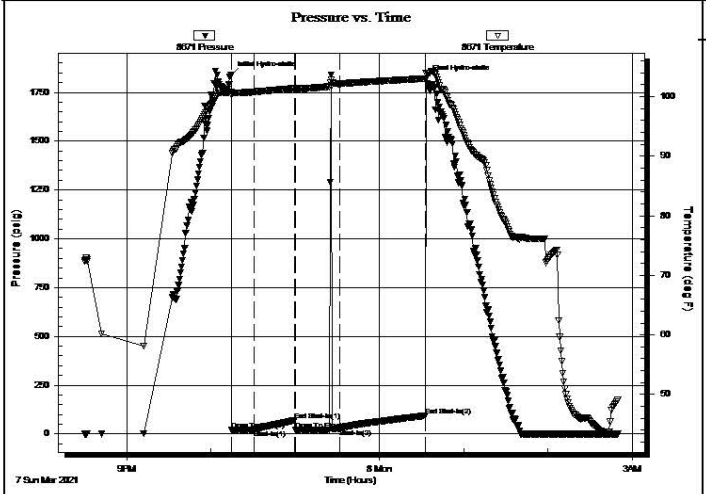
Serial #: 8671 **Outside**

Press@RunDepth: 27.01 psig @ 3659.00 ft (KB)
Start Date: 2021.03.07 End Date: 2021.03.08
Start Time: 20:30:05 End Time: 02:49:59

Capacity: 8000.00 psig
Last Calib.: 2021.03.08
Time On Btm: 2021.03.07 @ 22:14:15
Time Off Btm: 2021.03.08 @ 00:33:00

TEST COMMENT: 15 - IF - Blow slowly built up to 3/4"
30 - ISI - No Return
30 - FF - No blow for the first 15mins flushed tool weak blow
60 - FSI - No Return

60 - FSI - No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1841.25	100.83	Initial Hydro-static
1	20.65	100.28	Open To Flow (1)
17	21.73	100.78	Shut-In(1)
46	69.34	101.39	End Shut-In(1)
46	22.79	101.36	Open To Flow (2)
77	27.01	102.16	Shut-In(2)
138	93.71	103.03	End Shut-In(2)
139	1819.71	103.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud - 100%m	0.05

Gas Rates

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

Trilobite Testing, Inc Ref. No: 47697 Printed: 2021.03.08 @ 07:23:47

ROCK TYPES

Cht, Dolprim, Dolsec, Lmst fw7>, shale, grn, shale, gry, Carbon Sh, shale, red, Shcol

ACCESSORIES

MINERAL
- Sandy

STRINGER
- Chert
- Sandstone

OTHER SYMBOLS

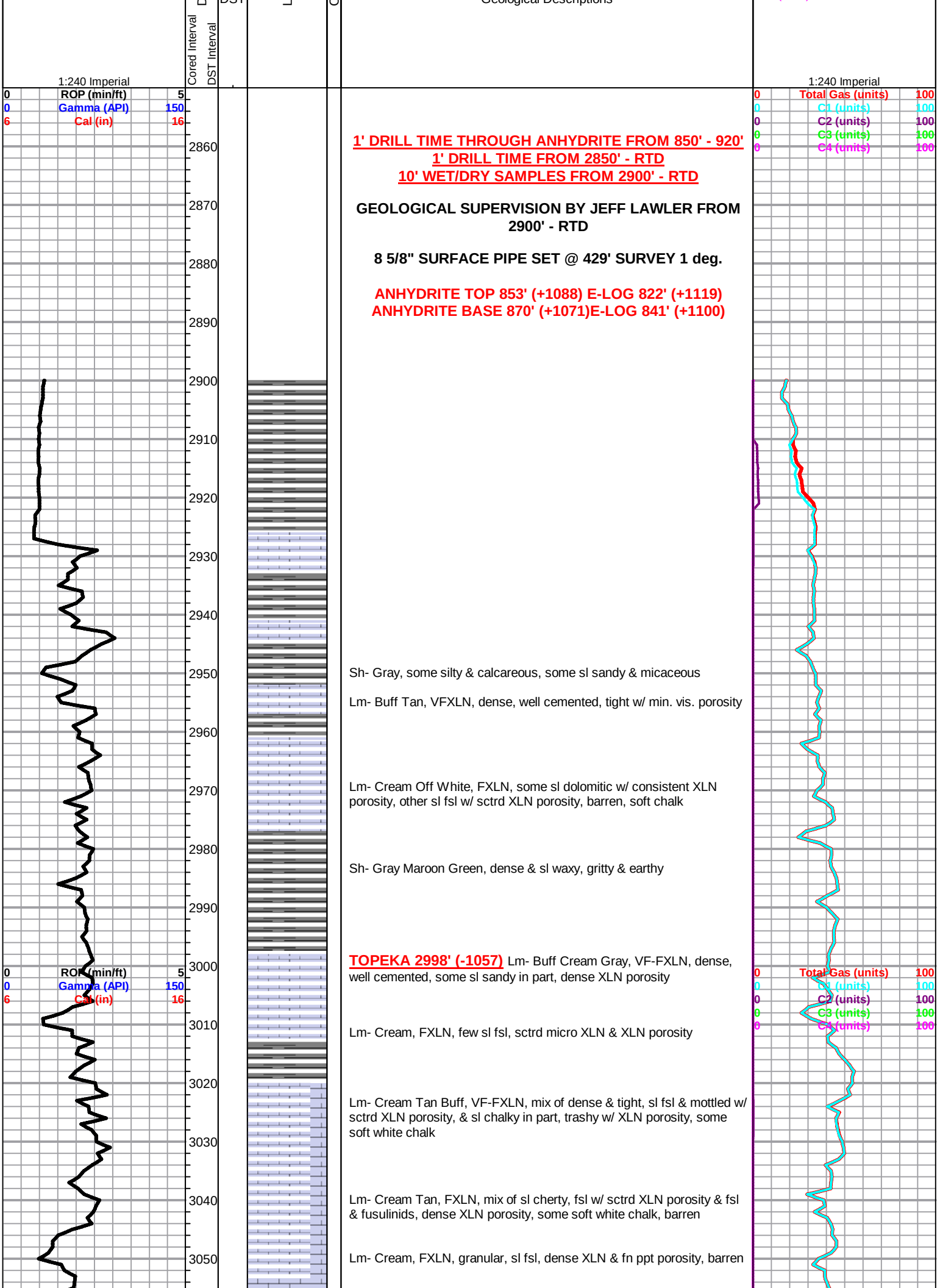
MISC
- Daily Report
- Digital Photo
- Document
- Folder
- Link
- Vertical Log File
- Horizontal Log File
- Core Log File
- Drill Cuttings Rpt

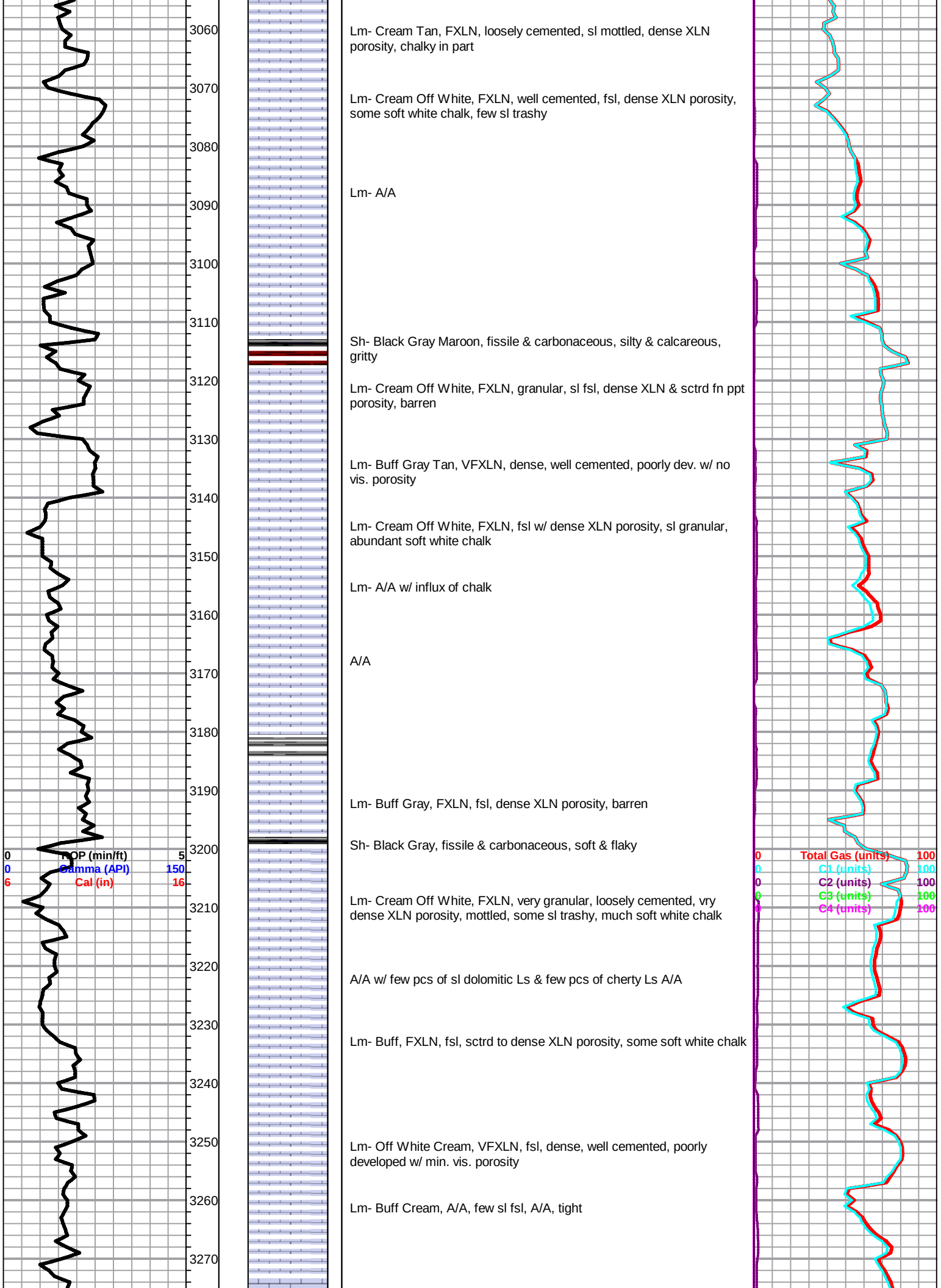
DST
- DST Int
- DST alt
- Core

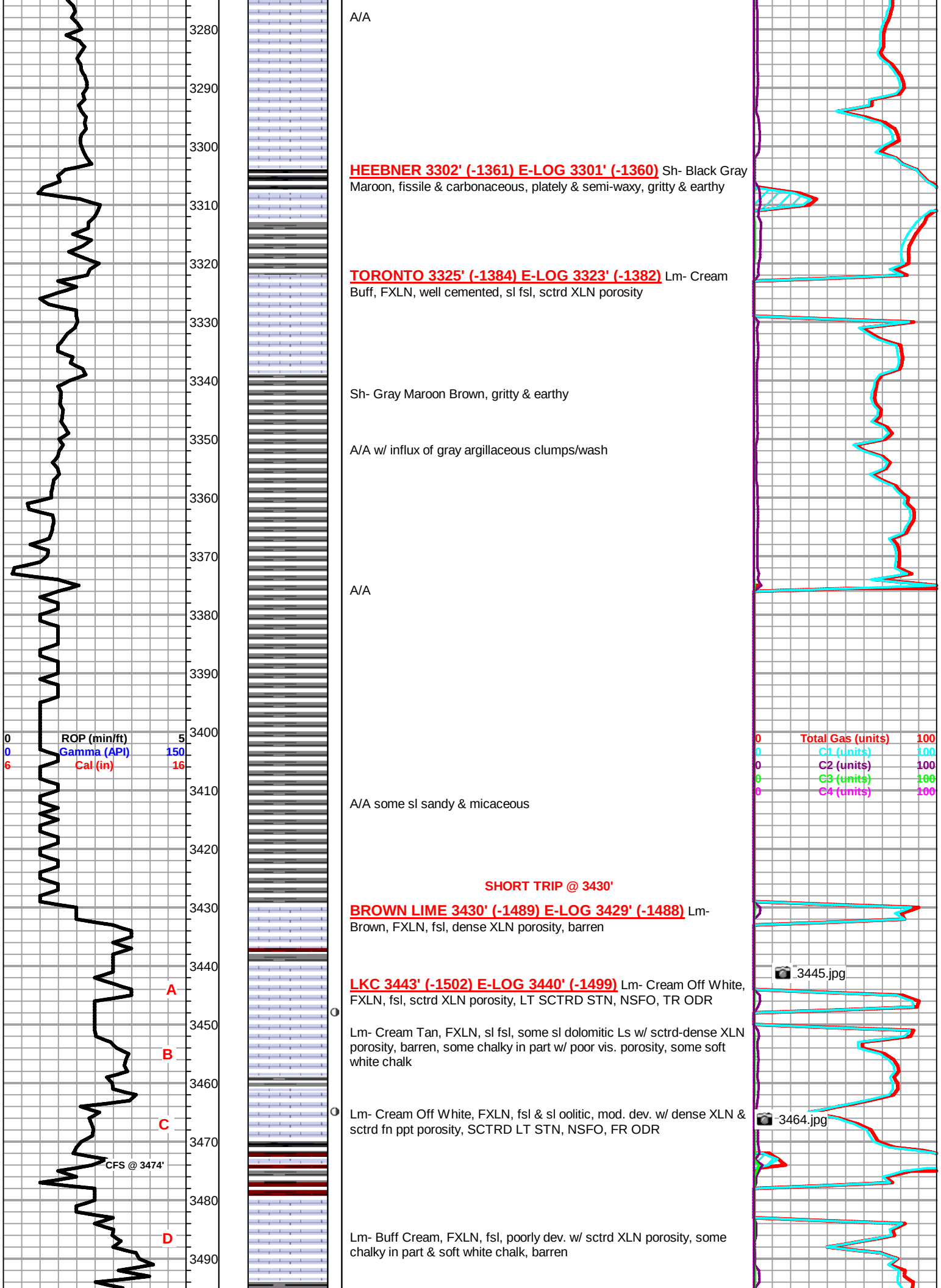
Curve Track #1
- ROP (min/ft)
- Gamma (API)
- Cal (in)

Depth | Intervals | DST | Lithology | Oil Show | Geological Descriptions

TG, C1 - C5
- Total Gas (units)
- C1 (units)
- C2 (units)
- C3 (units)
- C4 (units)


1:240 Imperial
Cored Interval
DST Interval
Geological Descriptions
1:240 Imperial
0 ROP (min/ft) 5
0 Gamma (API) 150
6 Cal (in) 16
0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100
0 C4 (units) 100
1' DRILL TIME THROUGH ANHYDRITE FROM 850' - 920'
1' DRILL TIME FROM 2850' - RTD
10' WET/DRY SAMPLES FROM 2900' - RTD
GEOLOGICAL SUPERVISION BY JEFF LAWLER FROM 2900' - RTD
8 5/8" SURFACE PIPE SET @ 429' SURVEY 1 deg.
ANHYDRITE TOP 853' (+1088) E-LOG 822' (+1119)
ANHYDRITE BASE 870' (+1071)E-LOG 841' (+1100)
2860
2870
2880
2890
2900
2910
2920
2930
2940
2950
2960
2970
2980
2990
3000
3010
3020
3030
3040
3050
Sh- Gray, some silty & calcareous, some sl sandy & micaceous
Lm- Buff Tan, VFXLN, dense, well cemented, tight w/ min. vis. porosity
Lm- Cream Off White, FXLN, some sl dolomitic w/ consistent XLN porosity, other sl fsl w/ sctrd XLN porosity, barren, soft chalk
Sh- Gray Maroon Green, dense & sl waxy, gritty & earthy
TOPEKA 2998' (-1057) Lm- Buff Cream Gray, VF-FXLN, dense, well cemented, some sl sandy in part, dense XLN porosity
Lm- Cream, FXLN, few sl fsl, sctrd micro XLN & XLN porosity
Lm- Cream Tan Buff, VF-FXLN, mix of dense & tight, sl fsl & mottled w/ sctrd XLN porosity, & sl chalky in part, trashy w/ XLN porosity, some soft white chalk
Lm- Cream Tan, FXLN, mix of sl cherty, fsl w/ sctrd XLN porosity & fsl & fusulinids, dense XLN porosity, some soft white chalk, barren
Lm- Cream, FXLN, granular, sl fsl, dense XLN & fn ppt porosity, barren


3060
3070
3080
3090
3100
3110
3120
3130
3140
3150
3160
3170
3180
3190
3200
3210
3220
3230
3240
3250
3260
3270
0 ROP (min/ft) 5
0 Gamma (API) 150
6 Cal (in) 16
0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100
0 C4 (units) 100
Lm- Cream Tan, FXLN, loosely cemented, sl mottled, dense XLN porosity, chalky in part
Lm- Cream Off White, FXLN, well cemented, fsl, dense XLN porosity, some soft white chalk, few sl trashy
Lm- A/A
Sh- Black Gray Maroon, fissile & carbonaceous, silty & calcareous, gritty
Lm- Cream Off White, FXLN, granular, sl fsl, dense XLN & sctrd fn ppt porosity, barren
Lm- Buff Gray Tan, VFXLN, dense, well cemented, poorly dev. w/ no vis. porosity
Lm- Cream Off White, FXLN, fsl w/ dense XLN porosity, sl granular, abundant soft white chalk
Lm- A/A w/ influx of chalk
A/A
Lm- Buff Gray, FXLN, fsl, dense XLN porosity, barren
Sh- Black Gray, fissile & carbonaceous, soft & flaky
Lm- Cream Off White, FXLN, very granular, loosely cemented, vry dense XLN porosity, mottled, some sl trashy, much soft white chalk
A/A w/ few pcs of sl dolomitic Ls & few pcs of cherty Ls A/A
Lm- Buff, FXLN, fsl, sctrd to dense XLN porosity, some soft white chalk
Lm- Off White Cream, VFXLN, fsl, dense, well cemented, poorly developed w/ min. vis. porosity
Lm- Buff Cream, A/A, few sl fsl, A/A, tight



A/A

HEEBNER 3302' (-1361) E-LOG 3301' (-1360) Sh- Black Gray Maroon, fissile & carbonaceous, plately & semi-waxy, gritty & earthy

TORONTO 3325' (-1384) E-LOG 3323' (-1382) Lm- Cream Buff, FXLN, well cemented, sl fsl, sctrd XLN porosity

Sh- Gray Maroon Brown, gritty & earthy

A/A w/ influx of gray argillaceous clumps/wash

A/A

A/A some sl sandy & micaceous

SHORT TRIP @ 3430'

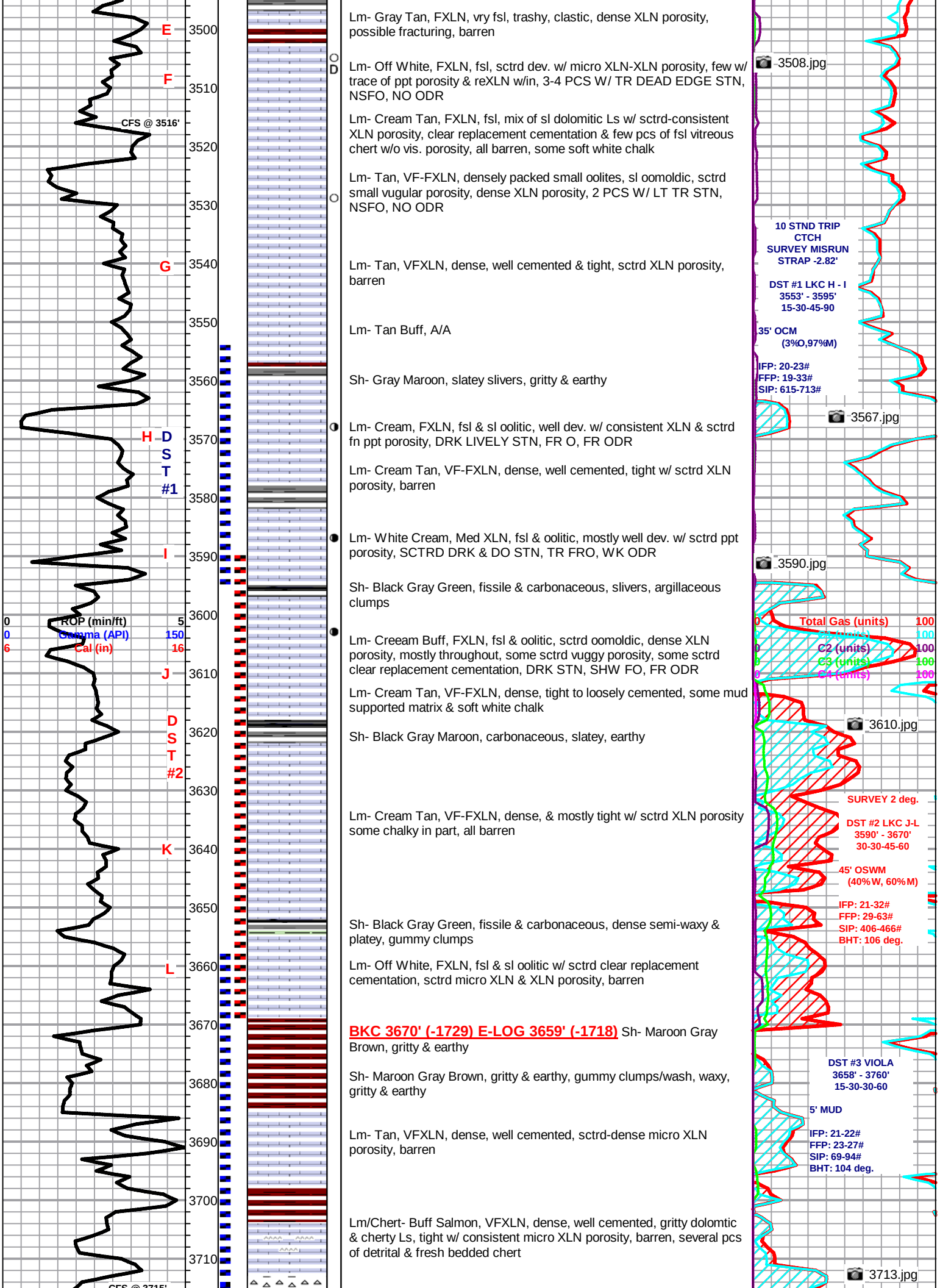
BROWN LIME 3430' (-1489) E-LOG 3429' (-1488) Lm- Brown, FXLN, fsl, dense XLN porosity, barren

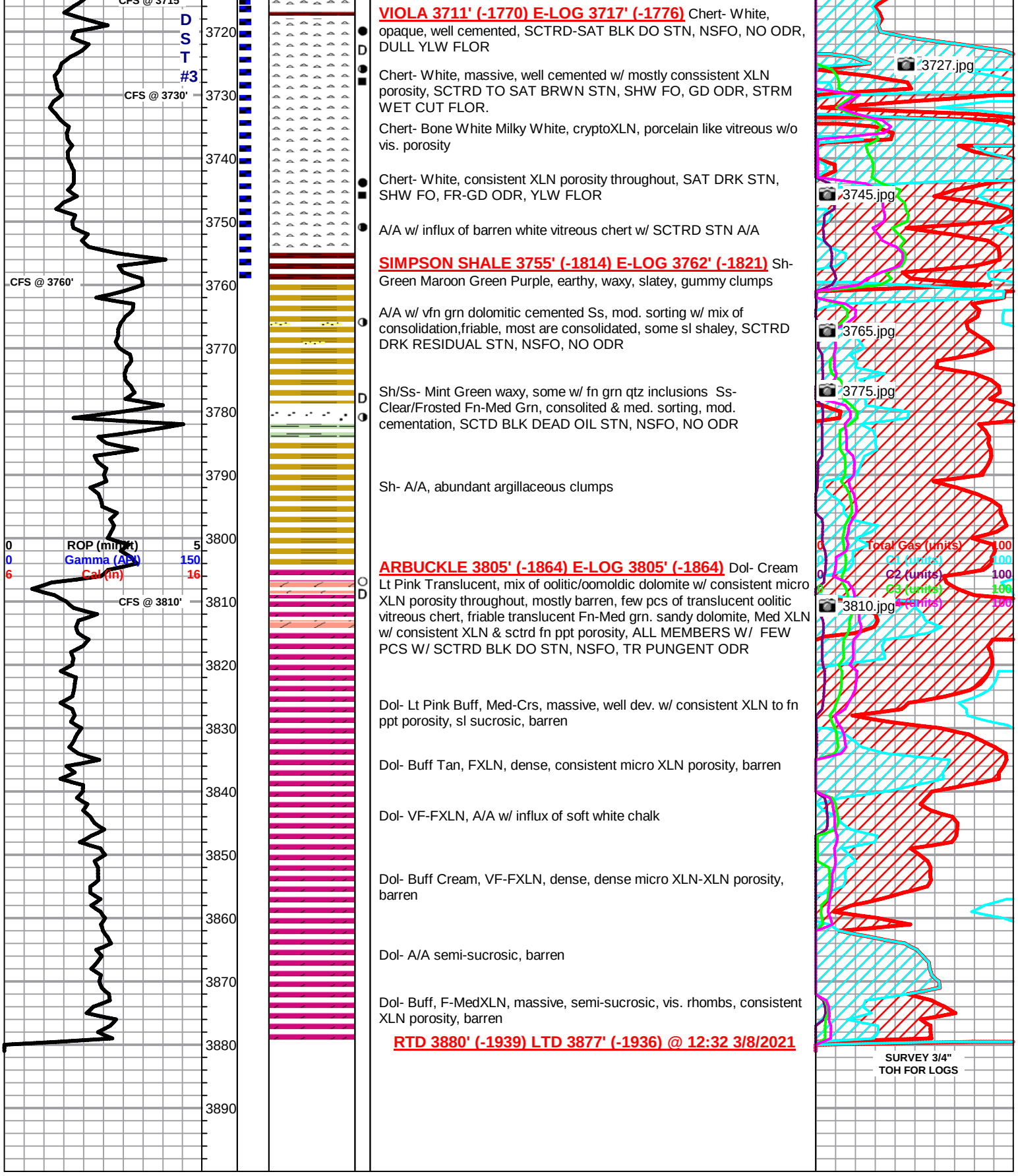
LKC 3443' (-1502) E-LOG 3440' (-1499) Lm- Cream Off White, FXLN, fsl, sctrd XLN porosity, LT SCTRD STN, NSFO, TR ODR

Lm- Cream Tan, FXLN, sl fsl, some sl dolomitic Ls w/ sctrd-dense XLN porosity, barren, some chalky in part w/ poor vis. porosity, some soft white chalk

Lm- Cream Off White, FXLN, fsl & sl oolitic, mod. dev. w/ dense XLN & sctrd fn ppt porosity, SCTRD LT STN, NSFO, FR ODR

Lm- Buff Cream, FXLN, fsl, poorly dev. w/ sctrd XLN porosity, some chalky in part & soft white chalk, barren


E
F
G
H
DST #1
I
DST #2
J
K
L
CFS @ 3516'
CFS @ 3715'
3500
3510
3520
3530
3540
3550
3560
3570
3580
3590
3600
3610
3620
3630
3640
3650
3660
3670
3680
3690
3700
3710
0 ROP (min/ft) 5
0 Gamma (API) 150
6 Cal (in) 16
Lm- Gray Tan, FXLN, vry fsl, trashy, clastic, dense XLN porosity, possible fracturing, barren
Lm- Off White, FXLN, fsl, sctrd dev. w/ micro XLN-XLN porosity, few w/ trace of ppt porosity & reXLN w/in, 3-4 PCS W/ TR DEAD EDGE STN, NSFO, NO ODR
Lm- Cream Tan, FXLN, fsl, mix of sl dolomitic Ls w/ sctrd-consistent XLN porosity, clear replacement cementation & few pcs of fsl vitreous chert w/o vis. porosity, all barren, some soft white chalk
Lm- Tan, VF-FXLN, densely packed small oolites, sl oomoldic, sctrd small vugular porosity, dense XLN porosity, 2 PCS W/ LT TR STN, NSFO, NO ODR
Lm- Tan, VFXLN, dense, well cemented & tight, sctrd XLN porosity, barren
Lm- Tan Buff, A/A
Sh- Gray Maroon, slatey slivers, gritty & earthy
Lm- Cream, FXLN, fsl & sl oolitic, well dev. w/ consistent XLN & sctrd fn ppt porosity, DRK LIVELY STN, FR O, FR ODR
Lm- Cream Tan, VF-FXLN, dense, well cemented, tight w/ sctrd XLN porosity, barren
Lm- White Cream, Med XLN, fsl & oolitic, mostly well dev. w/ sctrd ppt porosity, SCTRD DRK & DO STN, TR FRO, WK ODR
Sh- Black Gray Green, fissile & carbonaceous, slivers, argillaceous clumps
Lm- Creeam Buff, FXLN, fsl & oolitic, sctrd oomoldic, dense XLN porosity, mostly throughout, some sctrd vuggy porosity, some sctrd clear replacement cementation, DRK STN, SHW FO, FR ODR
Lm- Cream Tan, VF-FXLN, dense, tight to loosely cemented, some mud supported matrix & soft white chalk
Sh- Black Gray Maroon, carbonaceous, slatey, earthy
Lm- Cream Tan, VF-FXLN, dense, & mostly tight w/ sctrd XLN porosity some chalky in part, all barren
Sh- Black Gray Green, fissile & carbonaceous, dense semi-waxy & platey, gummy clumps
Lm- Off White, FXLN, fsl & sl oolitic w/ sctrd clear replacement cementation, sctrd micro XLN & XLN porosity, barren
BKC 3670' (-1729) E-LOG 3659' (-1718) Sh- Maroon Gray Brown, gritty & earthy
Sh- Maroon Gray Brown, gritty & earthy, gummy clumps/wash, waxy, gritty & earthy
Lm- Tan, VFXLN, dense, well cemented, sctrd-dense micro XLN porosity, barren
Lm/Chert- Buff Salmon, VFXLN, dense, well cemented, gritty dolomtic & cherty Ls, tight w/ consistent micro XLN porosity, barren, several pcs of detrital & fresh bedded chert
3508.jpg
10 STND TRIP CTCH
SURVEY MISRUN STRAP -2.82'
DST #1 LKC H - I
3553' - 3595'
15-30-45-90
35' OCM
(3%O,97%M)
IFP: 20-23#
FFP: 19-33#
SIP: 615-713#
3567.jpg
3590.jpg
0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100
0 C4 (units) 100
3610.jpg
SURVEY 2 deg.
DST #2 LKC J-L
3590' - 3670'
30-30-45-60
45' OSWM
(40%W, 60%M)
IFP: 21-32#
FFP: 29-63#
SIP: 406-466#
BHT: 106 deg.
DST #3 VIOLA
3658' - 3760'
15-30-30-60
5' MUD
IFP: 21-22#
FFP: 23-27#
SIP: 69-94#
BHT: 104 deg.
3713.jpg



VIOLA 3711' (-1770) E-LOG 3717' (-1776) Chert- White, opaque, well cemented, SCTRD-SAT BLK DO STN, NSFO, NO ODR, DULL YLW FLOR

Chert- White, massive, well cemented w/ mostly conssistent XLN porosity, SCTRD TO SAT BRWN STN, SHW FO, GD ODR, STRM WET CUT FLOR.

Chert- Bone White Milky White, cryptoXLN, porcelain like vitreous w/o vis. porosity

Chert- White, consistent XLN porosity throughout, SAT DRK STN, SHW FO, FR-GD ODR, YLW FLOR

A/A w/ influx of barren white vitreous chert w/ SCTRD STN A/A

SIMPSON SHALE 3755' (-1814) E-LOG 3762' (-1821) Sh- Green Maroon Green Purple, earthy, waxy, slatey, gummy clumps

A/A w/ vfn grn dolomitic cemented Ss, mod. sorting w/ mix of consolidation,friable, most are consolidated, some sl shaley, SCTRD DRK RESIDUAL STN, NSFO, NO ODR

Sh/Ss- Mint Green waxy, some w/ fn grn qtz inclusions Ss- Clear/Frosted Fn-Med Grn, consolited & med. sorting, mod. cementation, SCTD BLK DEAD OIL STN, NSFO, NO ODR

Sh- A/A, abundant argillaceous clumps

ARBUCKLE 3805' (-1864) E-LOG 3805' (-1864) Dol- Cream Lt Pink Translucent, mix of oolitic/oomoldic dolomite w/ consistent micro XLN porosity throughout, mostly barren, few pcs of translucent oolitic vitreous chert, friable translucent Fn-Med grn. sandy dolomite, Med XLN w/ consistent XLN & sctrd fn ppt porosity, ALL MEMBERS W/ FEW PCS W/ SCTRD BLK DO STN, NSFO, TR PUNGENT ODR

Dol- Lt Pink Buff, Med-Crs, massive, well dev. w/ consistent XLN to fn ppt porosity, sl sucrosic, barren

Dol- Buff Tan, FXLN, dense, consistent micro XLN porosity, barren

Dol- VF-FXLN, A/A w/ influx of soft white chalk

Dol- Buff Cream, VF-FXLN, dense, dense micro XLN-XLN porosity, barren

Dol- A/A semi-sucrosic, barren

Dol- Buff, F-MedXLN, massive, semi-sucrosic, vis. rhombs, consistent XLN porosity, barren

RTD 3880' (-1939) LTD 3877' (-1936) @ 12:32 3/8/2021

3445.jpg

3445'

3464.jpg

3464

3508.jpg

3508

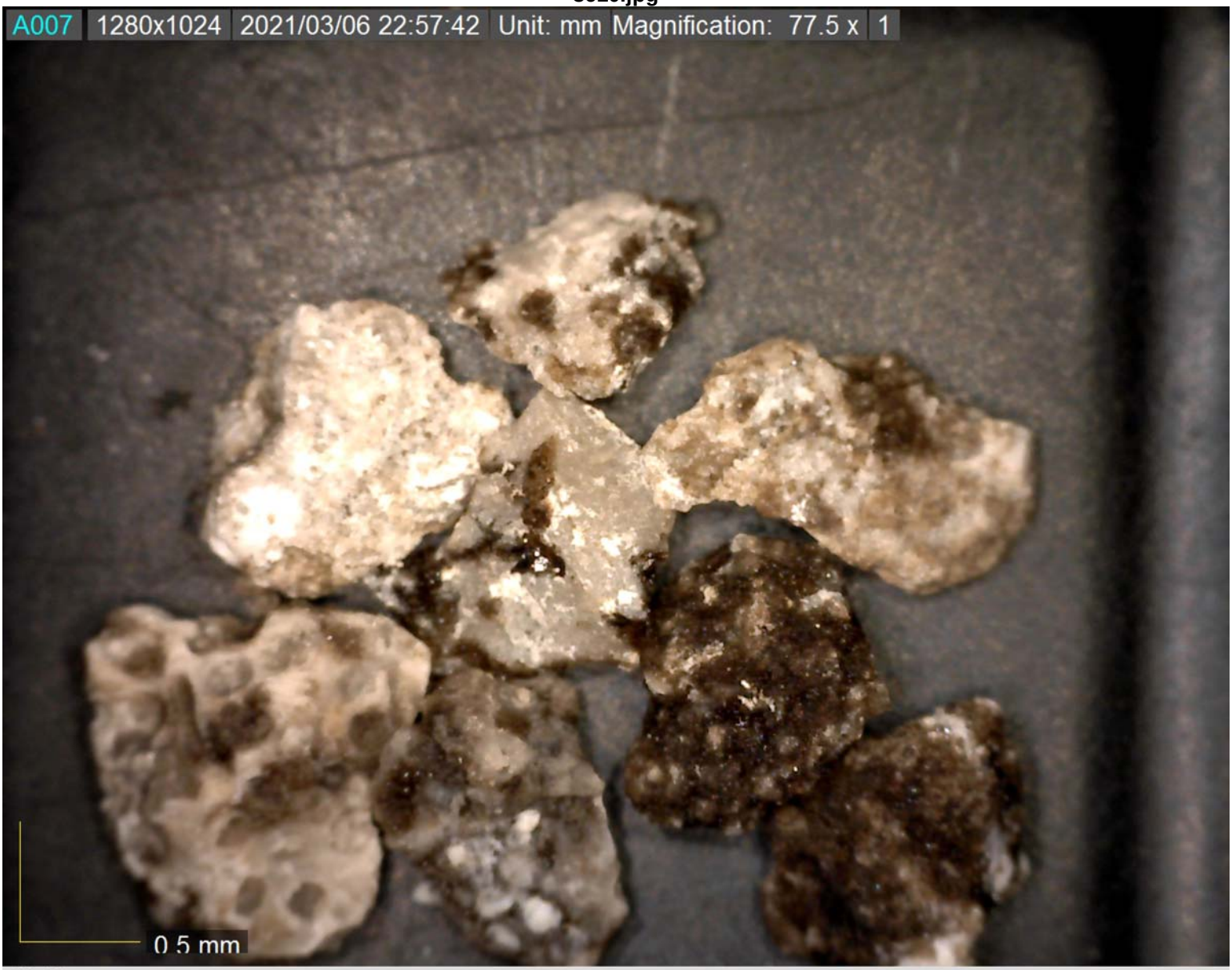
3567.jpg

3567

3590.jpg

3590

3610.jpg

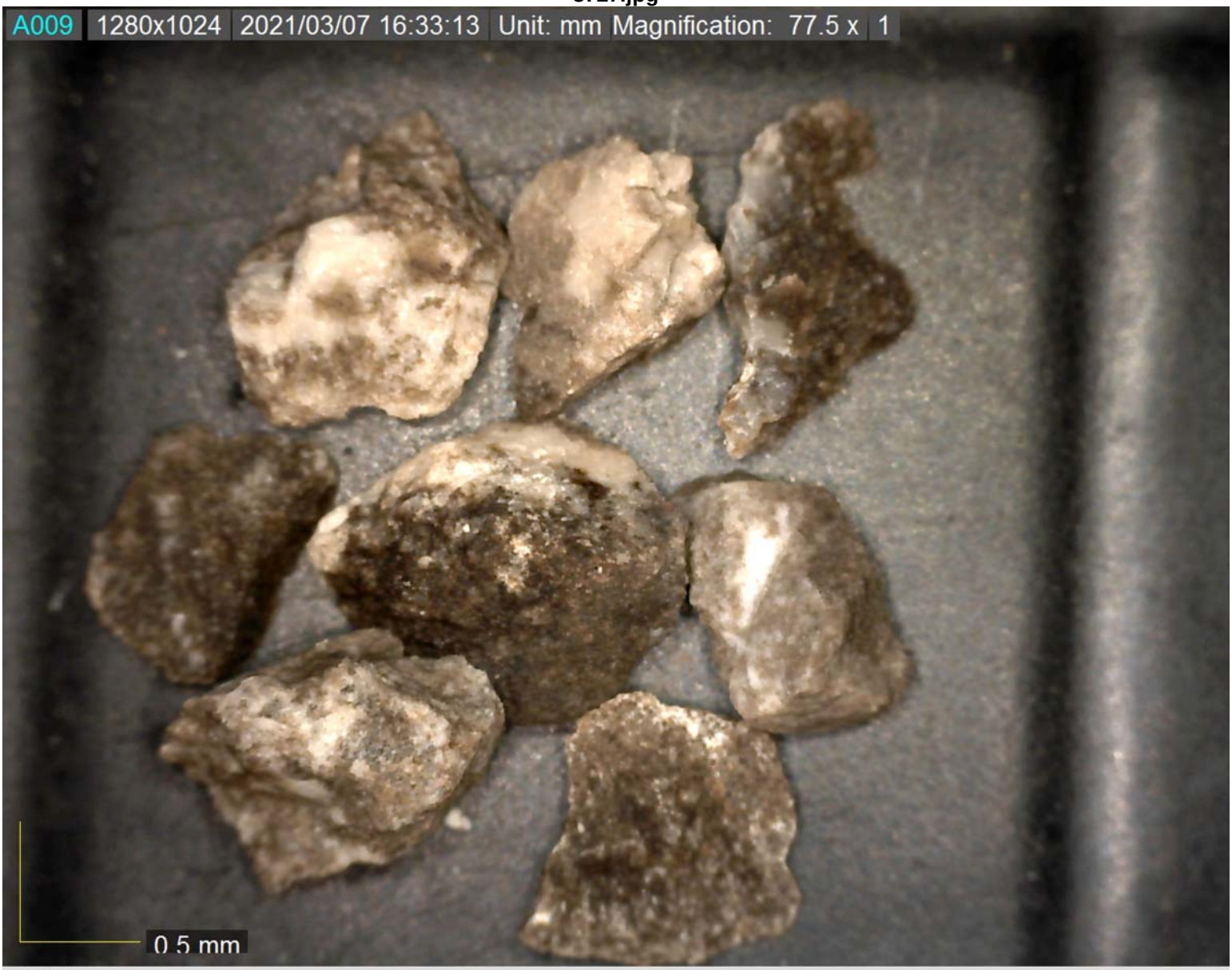


3610

3713.jpg

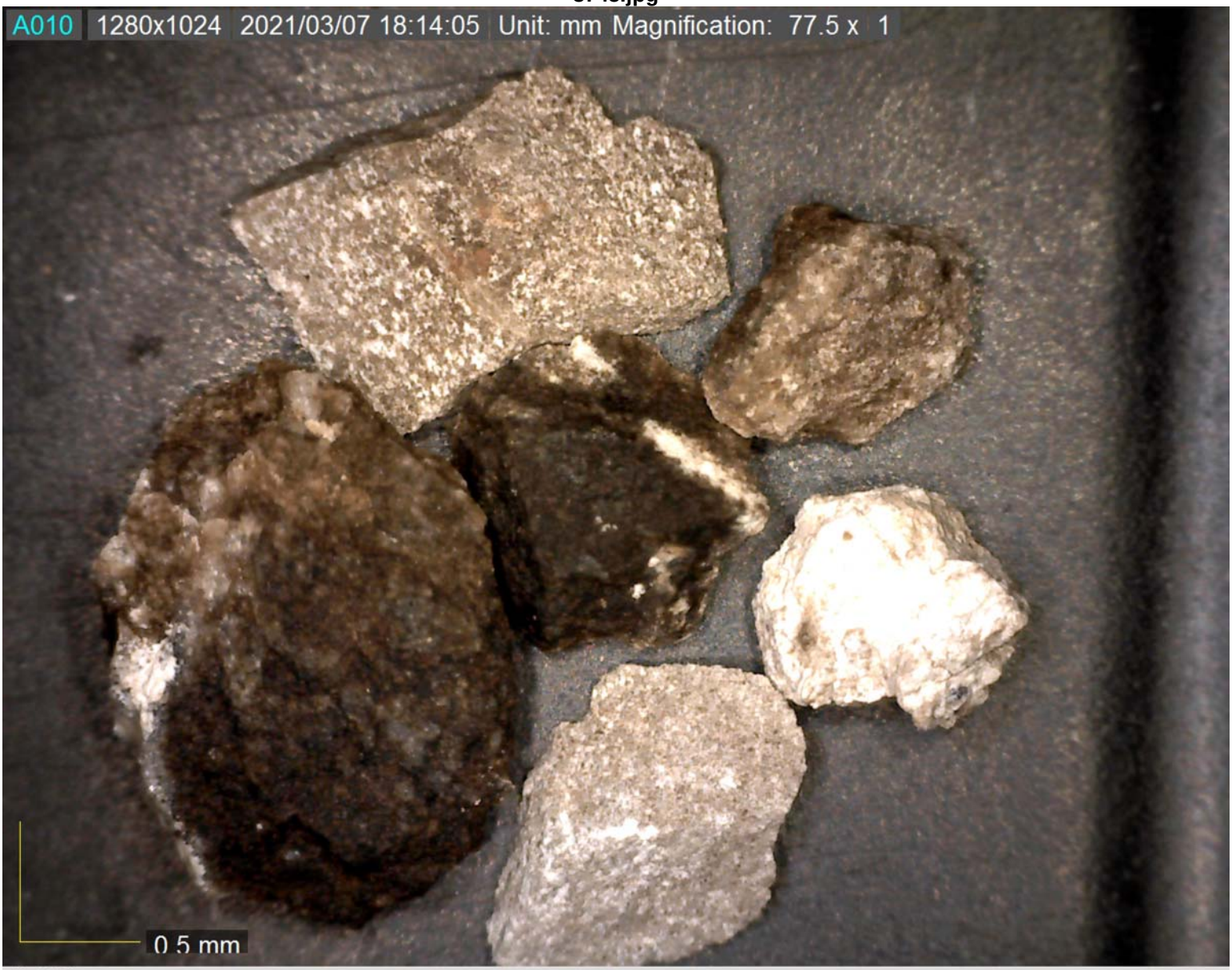
3713

3727.jpg



3727'

3745.jpg

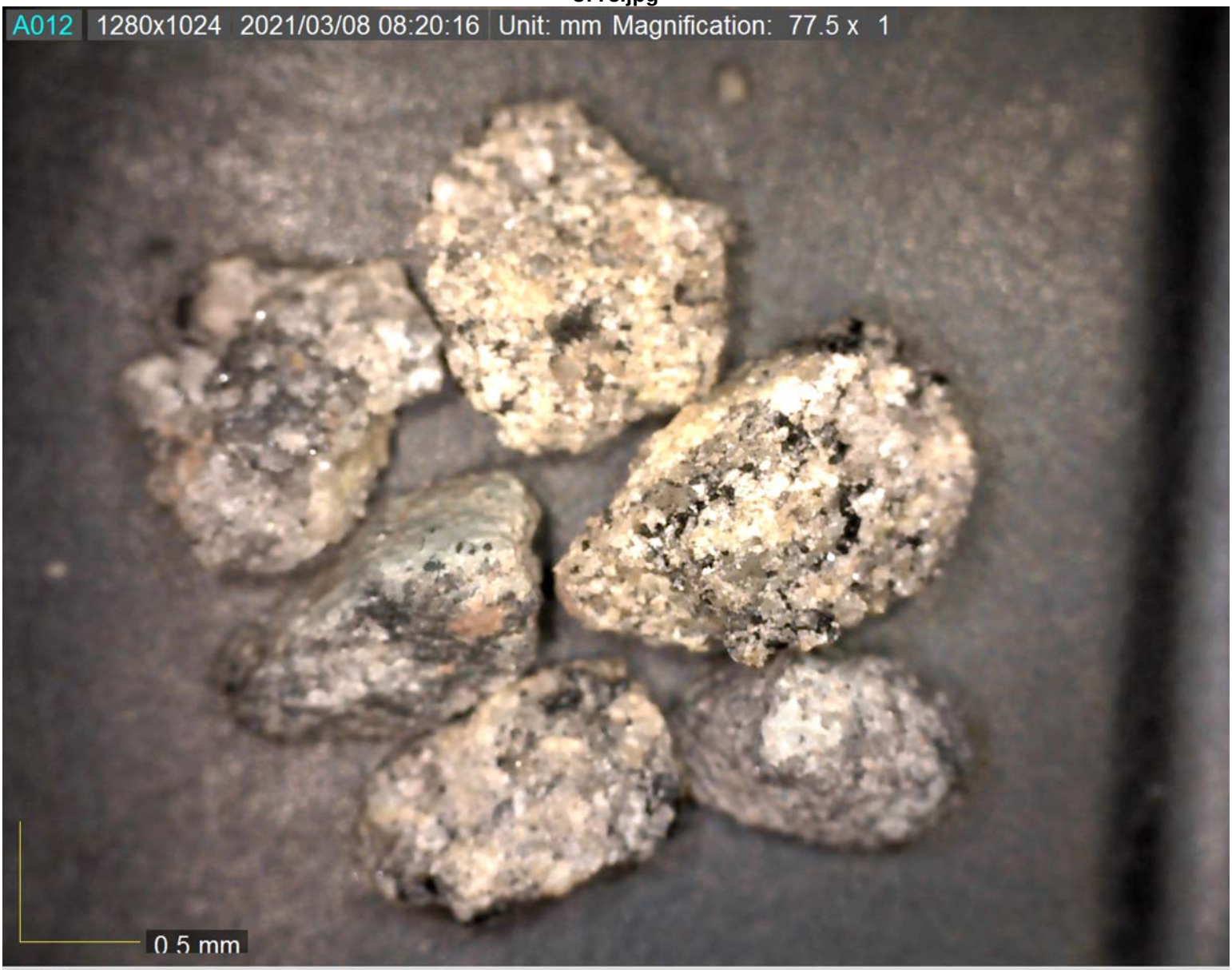


3755'

3765.jpg

3765'

3775.jpg



3775'

3810.jpg

3810'

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

785-483-1071
785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 2099

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3/1/2021	14	22	14	Stafford	Kansas		10:30 PM

Location 281 & Hwy 19 5W To 50Rd 1.35 E into

Lease W. Gates-Lea Well No. 1-14

Contractor Southwind Drilling

Type Job Surface

Hole Size 12 1/4 T.D. 430

Csg. 8 5/8 Depth 429.83

Tbg. Size Depth

Tool Depth

Cement Left in Csg. 30 Shoe Joint 30

Meas Line Displace 25.5

EQUIPMENT

Pumptrk 13 No. Cementer Helper Tim

Bulktrk 9 No. Driver Driver David

Bulktrk 15 No. Driver Driver Doug

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Ran 8 5/8 and est. Circulation
Cemented 8 5/8 with 450 sks
Displaced 25.5 barrel

Cement Did Circulate

X Signature Trent L. Rance

Owner

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To Bird Dog Oil Inc

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 450 sx 3% cc 2% gel ¼# flow

Common	360
Poz. Mix	90
Gel.	9
Calcium	16
Hulls	
Salt	
Flowseal	225 lb
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	475
Mileage	

FLOAT EQUIPMENT

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

Pumptrk Charge Surface

Mileage 26

Tax

Discount

Total Charge

Thanks

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071 Home Office P.O. Box 32 Russell, KS 67665 No. 2203

Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
3/9/2021	14	22	14	Stafford	Kansas		9:00AM

Location 281 & Hwy 19 5W to 50Rd L 3S E into

Lease W. Gates-Lea Well No. 1-14

Owner

Contractor Southwind Drilling

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Type Job Plug

Hole Size 7 7/8 T.D.

Charge To Bird Dog Oil Inc

Csg. Depth

Street

Tbg. Size Drillpipe Depth 3805'

City State

Tool Depth

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. Shoe Joint

Cement Amount Ordered 220 60/40 4% gel 1/4# Flow

Meas Line Displace

EQUIPMENT

Pumptrk 5 No. Cementer Helper Tim

Bulktrk 14 No. Driver Tom Driver

Bulktrk P.U. No. Driver David Driver

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

3805' - 50 sks

900' - 50 sks

450' - 50 sks

60' - 20 sks

Rat hole - 30 sks

Mouse hole - 20 sks

Cement Did Circulate

Common	132
Poz. Mix	88
Gel.	8
Calcium	
Hulls	
Salt	
Flowseal	50#
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	228
Mileage	
FLOAT EQUIPMENT	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	plug
Mileage	26
Tax	
Discount	
Total Charge	

x Signature Frank J. Reese

Thanks

DRILL STEM TEST REPORT

Bird Dog Oil

1801 Broadway, STE #200
Denver Co, 80202

ATTN: Jeff Lawler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47695 **DST#: 1**

Test Start: 2021.03.06 @ 11:24:00

GENERAL INFORMATION:

Formation: **LKC - I**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:54:30
Time Test Ended: 17:51:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Royal Fisher
Unit No: #77

Interval: 3553.00 ft (KB) To 3595.00 ft (KB) (TVD)
Total Depth: 3595.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

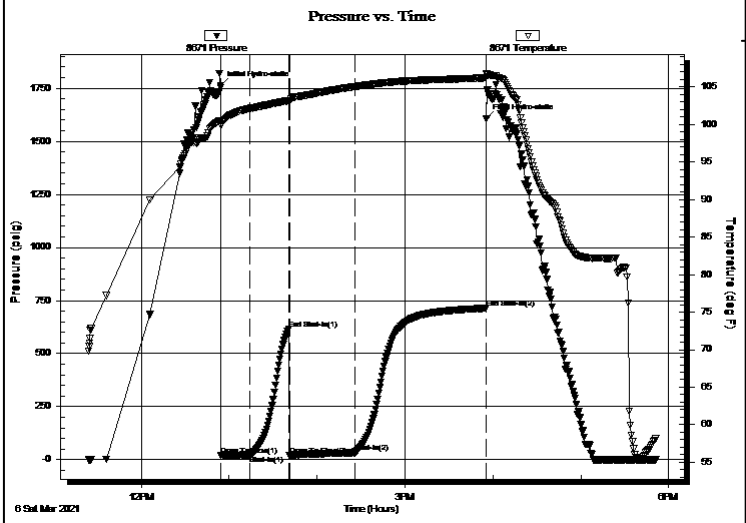
Reference Elevations: 1941.00 ft (KB)
1931.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8671 **Outside**

Press@RunDepth: 32.97 psig @ 3554.00 ft (KB)
Start Date: 2021.03.06 End Date: 2021.03.06
Start Time: 11:24:05 End Time: 17:50:59

Capacity: 8000.00 psig
Last Calib.: 2021.03.06
Time On Btm: 2021.03.06 @ 12:54:15
Time Off Btm: 2021.03.06 @ 15:55:30

TEST COMMENT: 15 - IF - Blow slowly built up to 4"
30 - ISI - No Retun
45 - FF - Blow slowly buitl to 1.5"
90 - FSI - No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1762.52	100.50	Initial Hydro-static
1	20.12	99.90	Open To Flow (1)
20	22.81	102.14	Shut-In(1)
47	614.82	103.19	End Shut-In(1)
47	19.49	103.11	Open To Flow (2)
92	32.97	105.05	Shut-In(2)
181	713.38	106.23	End Shut-In(2)
182	1608.37	106.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
35.00	OCM - 3%o - 97%m	0.36

Gas Rates

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

DRILL STEM TEST REPORT

Bird Dog Oil

1801 Broadway, STE #200
Denver Co, 80202

ATTN: Jeff Lawler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47695 **DST#: 1**

Test Start: 2021.03.06 @ 11:24:00

GENERAL INFORMATION:

Formation: **LKC - I**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:54:30
Time Test Ended: 17:51:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Royal Fisher
Unit No: #77

Interval: 3553.00 ft (KB) To 3595.00 ft (KB) (TVD)
Total Depth: 3595.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

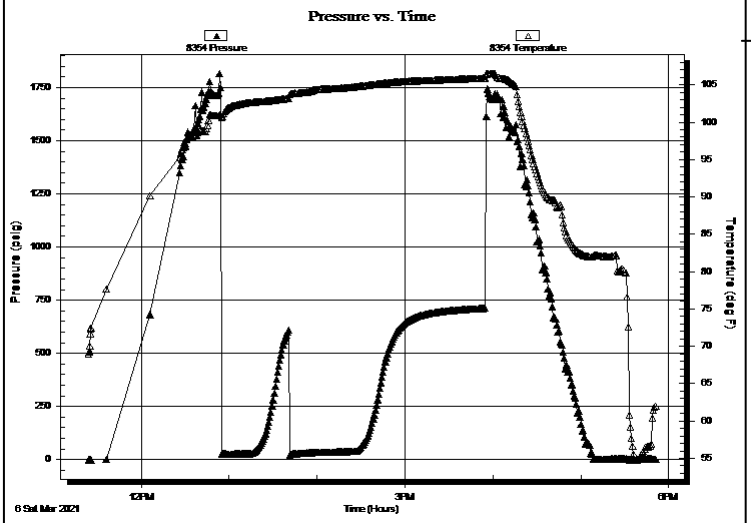
Reference Elevations: 1941.00 ft (KB)
1931.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: psig @ 3554.00 ft (KB)
Start Date: 2021.03.06 End Date: 2021.03.06
Start Time: 11:24:05 End Time: 17:50:59

Capacity: 8000.00 psig
Last Calib.: 2021.03.06
Time On Btm:
Time Off Btm:

TEST COMMENT: 15 - IF - Blow slowly built up to 4"
30 - ISI - No Retun
45 - FF - Blow slowly buitl to 1.5"
90 - FSI - No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
35.00	OCM - 3%o - 97%m	0.36

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Bird Dog Oil

1801 Broadway, STE #200
Denver Co, 80202

ATTN: Jeff Lawler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47695 **DST#: 1**

Test Start: 2021.03.06 @ 11:24:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.60 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3200.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

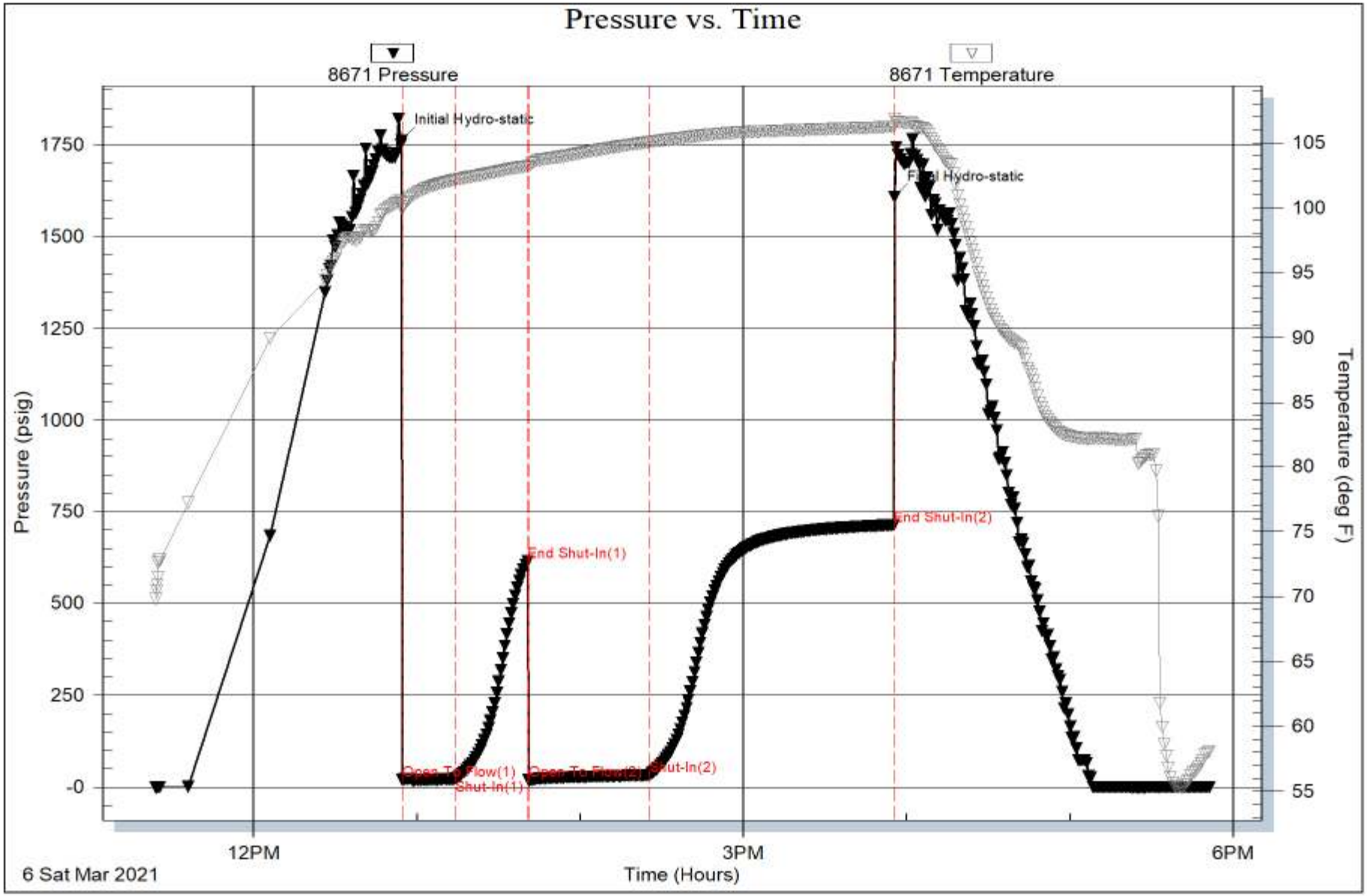
Recovery Table

Length ft	Description	Volume bbl
35.00	OCM - 3%o - 97%m	0.359

Total Length: 35.00 ft Total Volume: 0.359 bbl

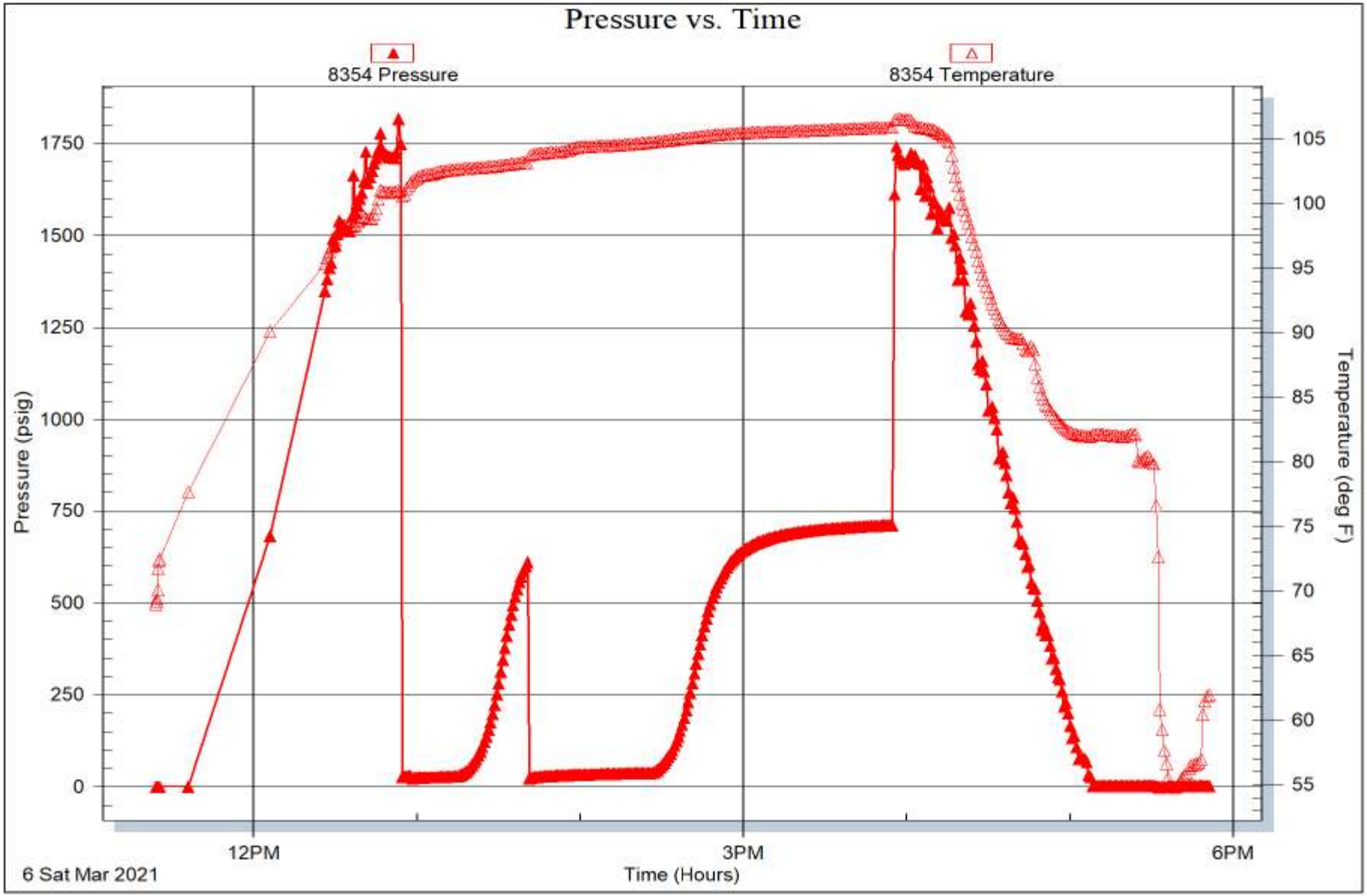
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8671 **Outside** Bird Dog Oil W. Gates - Lea #1-14 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 47695 Printed: 2021.03.07 @ 08:12:17

Serial #: 8354 **Inside** Bird Dog Oil W. Gates - Lea #1-14 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 47695 Printed: 2021.03.07 @ 08:12:17

DRILL STEM TEST REPORT

Bird Dog Oil

1801 Broadway, STE #200
Denver Co, 80202

ATTN: Jeff Lawler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47696 **DST#: 2**

Test Start: 2021.03.07 @ 02:48:43

GENERAL INFORMATION:

Formation: **JKL**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:39:43
Time Test Ended: 09:10:43

Test Type: Conventional Bottom Hole (Initial)
Tester: Royal Fisher
Unit No: #77

Interval: 3590.00 ft (KB) To 3670.00 ft (KB) (TVD)
Total Depth: 3670.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

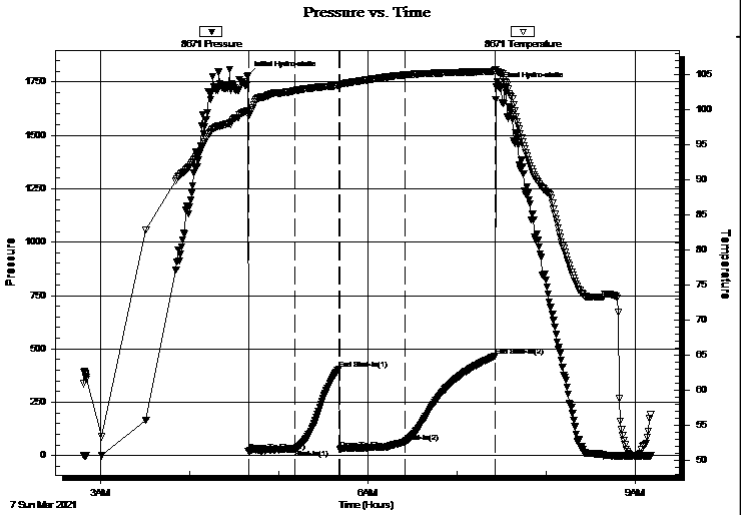
Reference Elevations: 1941.00 ft (KB)
1931.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8671

Press@RunDepth: 63.72 psig @ ft (KB)
Start Date: 2021.03.07 End Date: 2021.03.07
Start Time: 02:48:48 End Time: 09:10:42

Capacity: 8000.00 psig
Last Calib.: 2021.03.07
Time On Btm: 2021.03.07 @ 04:39:28
Time Off Btm: 2021.03.07 @ 07:26:28

TEST COMMENT: 30 - IF - Blow built up to 2 1/2"
30 - ISI - No Return
45 - FF - Blow built up to 1 3/4
60 - FSI - No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1781.06	99.86	Initial Hydro-static
1	21.40	99.21	Open To Flow (1)
32	31.60	102.74	Shut-In(1)
61	406.28	103.45	End Shut-In(1)
62	29.49	103.51	Open To Flow (2)
106	63.72	104.97	Shut-In(2)
167	466.04	105.51	End Shut-In(2)
167	1726.85	105.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	OSWM - 40%w - 60%m - Oil Spots	585896.73

Gas Rates

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

DRILL STEM TEST REPORT

Bird Dog Oil

1801 Broadway, STE #200
Denver Co, 80202

ATTN: Jeff Lawler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47696 **DST#: 2**

Test Start: 2021.03.07 @ 02:48:43

GENERAL INFORMATION:

Formation: **JKL**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:39:43
Time Test Ended: 09:10:43

Test Type: Conventional Bottom Hole (Initial)
Tester: Royal Fisher
Unit No: #77

Interval: 3590.00 ft (KB) To 3670.00 ft (KB) (TVD)
Total Depth: 3670.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

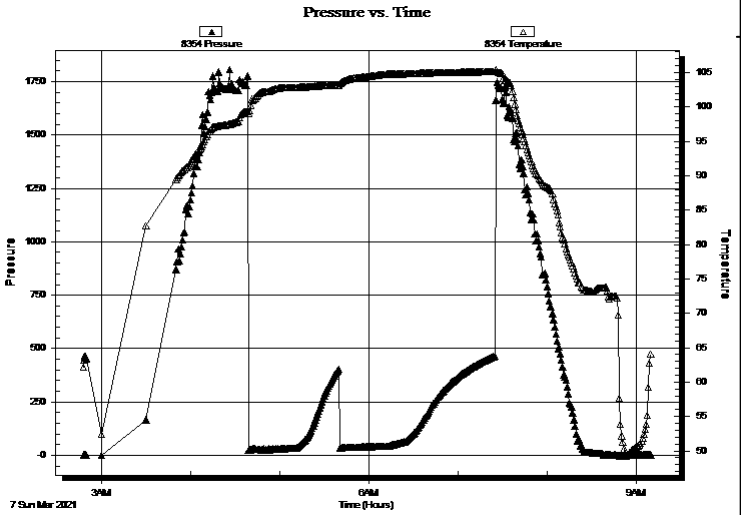
Reference Elevations: 1941.00 ft (KB)
1931.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8354

Press@RunDepth: psig @ ft (KB)
Start Date: 2021.03.07 End Date: 2021.03.07
Start Time: 02:48:05 End Time: 09:09:59

Capacity: 8000.00 psig
Last Calib.: 2021.03.07
Time On Btm:
Time Off Btm:

TEST COMMENT: 30 - IF - Blow built up to 2 1/2"
30 - ISI - No Return
45 - FF - Blow built up to 1 3/4
60 - FSI - No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
45.00	OSWM - 40%w - 60%m - Oil Spots	585896.73

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Bird Dog Oil

1801 Broadway, STE #200
Denver Co, 80202

ATTN: Jeff Lawler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47696 **DST#: 2**

Test Start: 2021.03.07 @ 02:48:43

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	54.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.60 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3200.00 ppm				
Filter Cake:	1.00 inches				

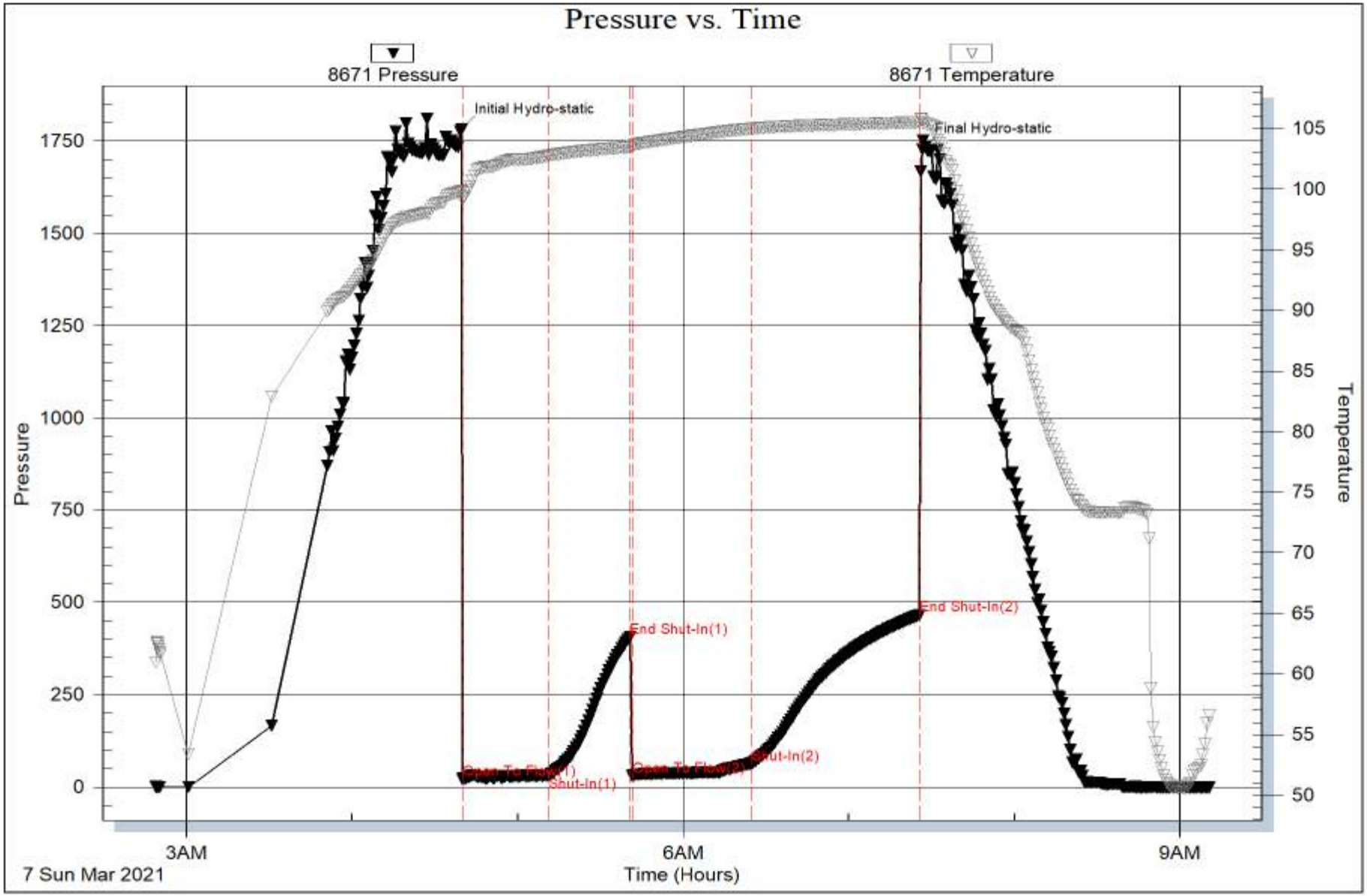
Recovery Information

Recovery Table

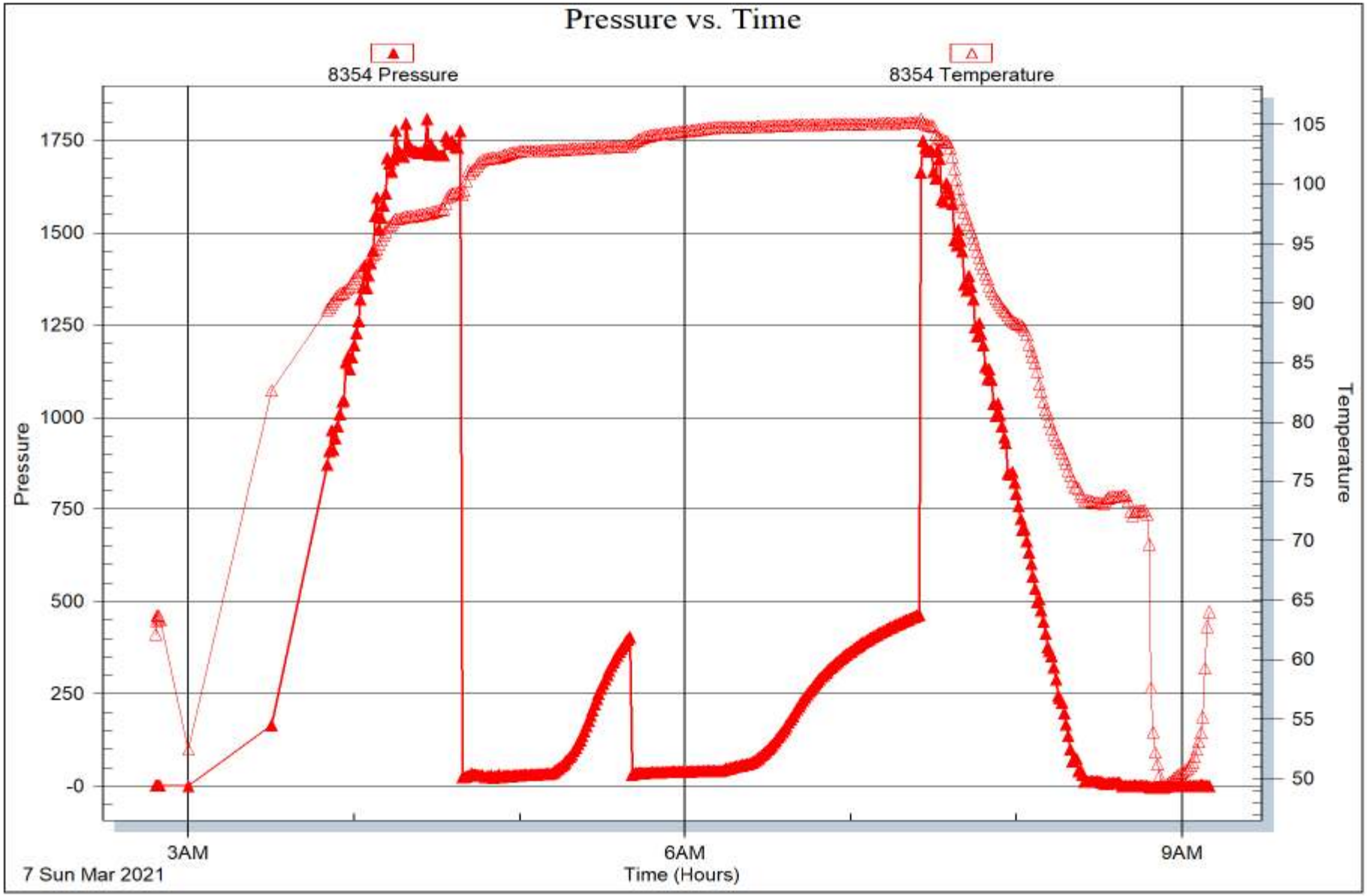
Length ft	Description	Volume bbl
45.00	OSWM - 40%w - 60%m - Oil Spots	585896.726

Total Length: 45.00 ft Total Volume: 585896.726 bbl

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


Pressure vs. Time
8671 Pressure
8671 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Pressure
Temperature
1750
1500
1250
1000
750
500
250
0
105
100
95
90
85
80
75
70
65
60
55
50
3AM
6AM
9AM
7 Sun Mar 2021
Time (Hours)

Serial #: 8354 | Bird Dog Oil | W. Gates - Lea #1-14 | DST Test Number: 2



Trilobite Testing, Inc | Ref. No: 47696 | Printed: 2021.03.07 @ 13:02:29

DRILL STEM TEST REPORT

Bird Dog Oil

1801 Broadway, STE #200
Denver Co, 80202

ATTN: Jeff Lawler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47697 **DST#: 3**

Test Start: 2021.03.07 @ 20:30:00

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:14:30
Time Test Ended: 02:50:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Royal Fisher
Unit No: #77

Interval: 3658.00 ft (KB) To 3760.00 ft (KB) (TVD)
Total Depth: 3760.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

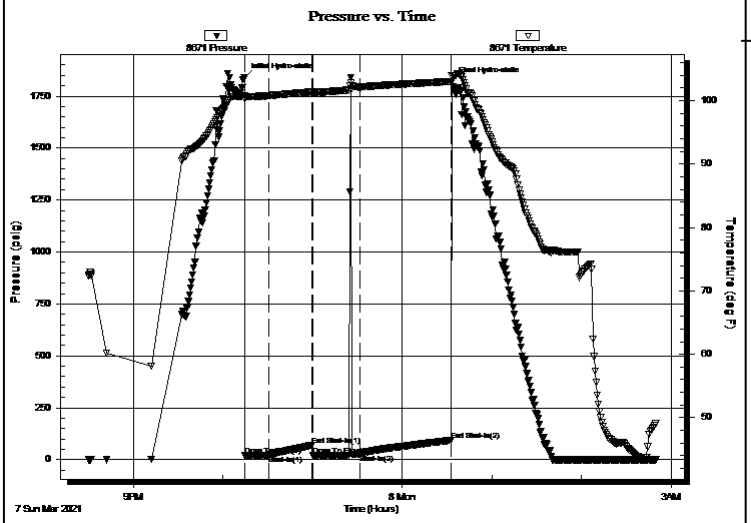
Reference Elevations: 1941.00 ft (KB)
1931.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8671 **Outside**

Press@RunDepth: 27.01 psig @ 3659.00 ft (KB)
Start Date: 2021.03.07 End Date: 2021.03.08
Start Time: 20:30:05 End Time: 02:49:59

Capacity: 8000.00 psig
Last Calib.: 2021.03.08
Time On Btm: 2021.03.07 @ 22:14:15
Time Off Btm: 2021.03.08 @ 00:33:00

TEST COMMENT: 15 - IF - Blow slowly built up to 3/4"
30 - ISI - No Return
30 - FF - No blow for the first 15mins flushed tool weak blow
60 - FSI - No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1841.25	100.83	Initial Hydro-static
1	20.65	100.28	Open To Flow (1)
17	21.73	100.78	Shut-In(1)
46	69.34	101.39	End Shut-In(1)
46	22.79	101.36	Open To Flow (2)
77	27.01	102.16	Shut-In(2)
138	93.71	103.03	End Shut-In(2)
139	1819.71	103.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud - 100%m	0.05

Gas Rates

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

DRILL STEM TEST REPORT

Bird Dog Oil

1801 Broadway, STE #200
Denver Co, 80202

ATTN: Jeff Lawler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47697 **DST#: 3**

Test Start: 2021.03.07 @ 20:30:00

GENERAL INFORMATION:

Formation: **Viola**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:14:30
Time Test Ended: 02:50:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Royal Fisher
Unit No: #77

Interval: 3658.00 ft (KB) To 3760.00 ft (KB) (TVD)
Total Depth: 3760.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

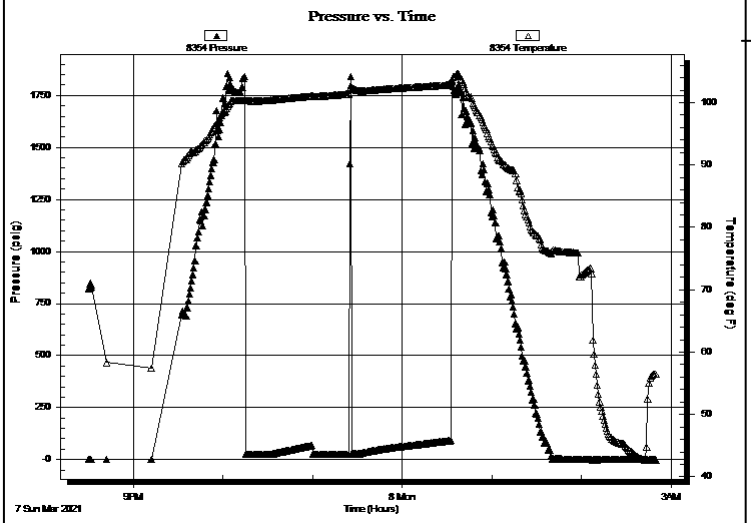
Reference Elevations: 1941.00 ft (KB)
1931.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8354 **Inside**

Press@RunDepth: psig @ 3659.00 ft (KB)
Start Date: 2021.03.07 End Date: 2021.03.08
Start Time: 20:30:05 End Time: 02:49:59

Capacity: 8000.00 psig
Last Calib.: 2021.03.08
Time On Btm:
Time Off Btm:

TEST COMMENT: 15 - IF - Blow slowly built up to 3/4"
30 - ISI - No Return
30 - FF - No blow for the first 15mins flushed tool weak blow
60 - FSI - No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud - 100%m	0.05

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Bird Dog Oil

1801 Broadway, STE #200
Denver Co, 80202

ATTN: Jeff Lawler

14 - 22 - 14

W. Gates - Lea #1-14

Job Ticket: 47697 **DST#: 3**

Test Start: 2021.03.07 @ 20:30:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	64.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.99 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6400.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

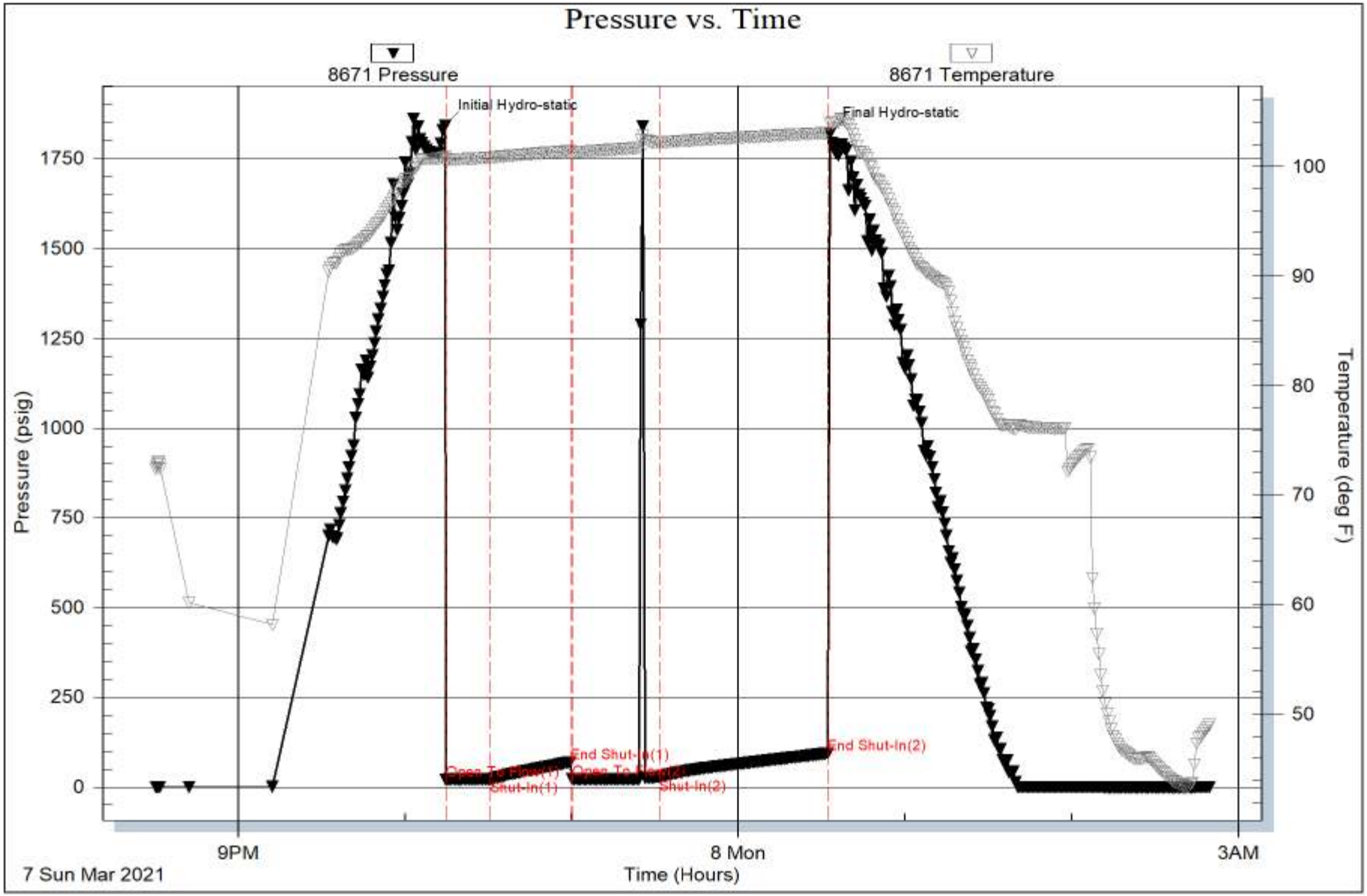
Recovery Table

Length ft	Description	Volume bbl
5.00	Mud - 100%m	0.051

Total Length: 5.00 ft Total Volume: 0.051 bbl

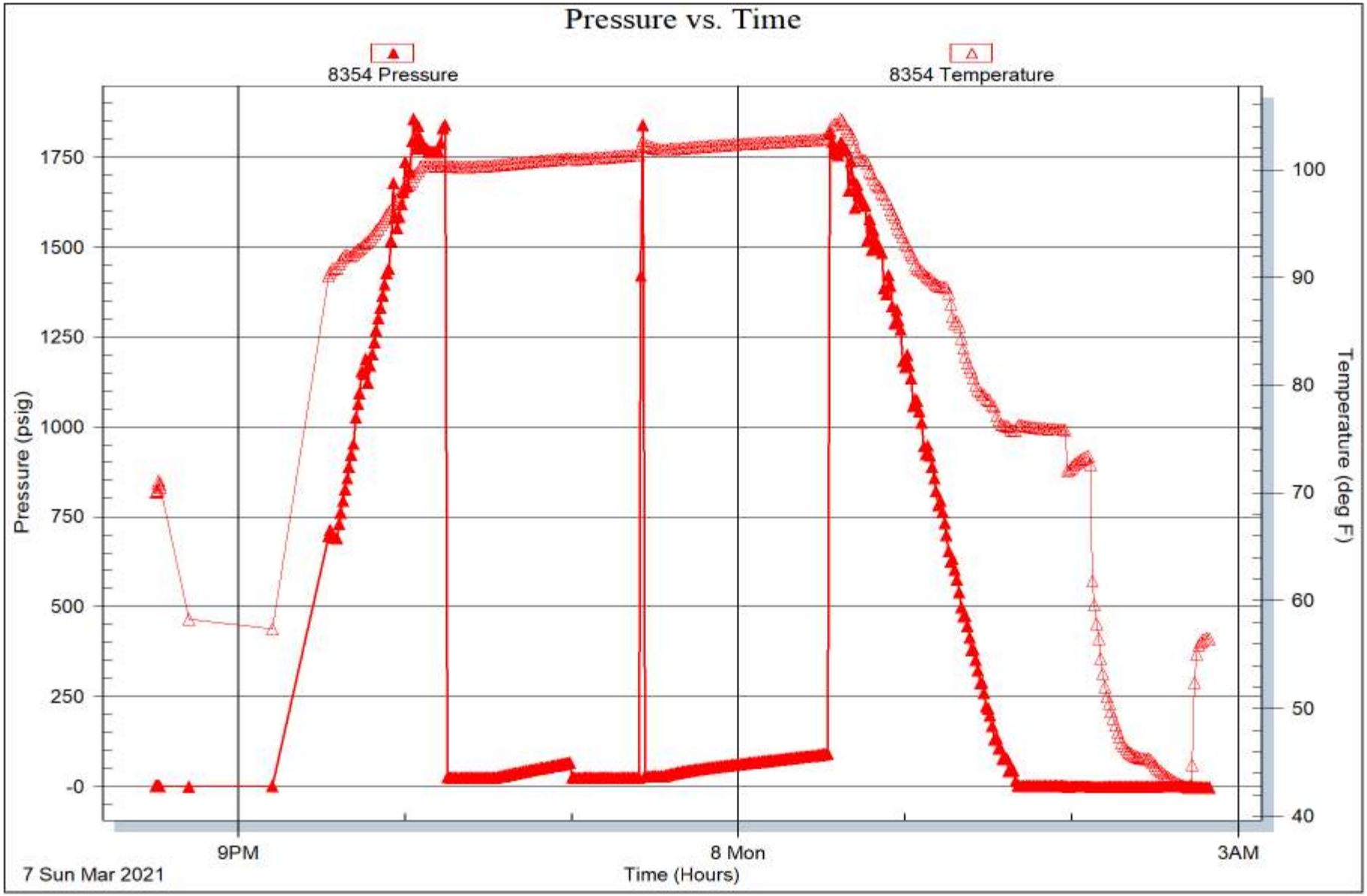
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8671 **Outside** Bird Dog Oil W. Gates - Lea #1-14 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 47697 Printed: 2021.03.08 @ 07:23:47

Serial #: 8354 **Inside** Bird Dog Oil W. Gates - Lea #1-14 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 47697 Printed: 2021.03.08 @ 07:23:47