

Sec. _____ Twp. _____ S. R. _____ ☐ East ☐ West County: _____

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 <i>(Attach Additional Sheets)</i>	☐ Yes	☐ No	☐ Log	Formation (Top), Depth and Datum	☐ Sample
Samples Sent to Geological Survey	☐ Yes	☐ No	Name	Top	Datum
Cores Taken	☐ Yes	☐ No			
Electric Log Run	☐ Yes	☐ No			
Geologist Report / Mud Logs	☐ Yes	☐ No			
List All E. Logs Run:					

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

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 <i>(If vented, Submit ACO-18.)</i>	☐ Open Hole ☐ Perf. ☐ Dually Comp. ☐ Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	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:	
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Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	A. WASINGER 9
Doc ID	1677016

All Electric Logs Run

Compensated Density Neutron Log
Dual Induction Log
Micro Log
Cement Bond Log

Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	A. WASINGER 9
Doc ID	1677016

Tops

Name	Top	Datum
Anhydrite	1169'	(+846)
Topeka	2964'	(-949)
Heebner	3244'	(-1229)
Toronto	3266'	(-1251)
Lansing	3290'	(-1275)
Base/KC	3543'	(-1528)
Arbuckle	3590'	(-1575)
L.T.D.	3692'	(-1677)

Form	ACO1 - Well Completion
Operator	Farmer, John O., Inc.
Well Name	A. WASINGER 9
Doc ID	1677016

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	1171	80/20 Pozmix	450	3% C.C., 2% gel
Production	7.875	5.50	14	3691	Common	130	10% salt, 5% gilsonite



**Discovery
Drilling**

P.O. Box 763 • Hays, KS 67601 • OFFICE (785) 623-2920 • CELLULAR (785) 635-1511

DRILLER'S LOG

Operator: John O. Farmer, Inc. Lic# 5135 Contractor: Discovery Drilling Co., Inc. LIC#31548
370 West Wichita Avenue - P.O. Box 352 PO Box 763
Russell, KS 67665 + 0352 Hays, KS 67601

Lease: A. Wasinger # 9 Location: 890 FSL & 430 FEL
SW/NE/SE/SE
Section 15/ 15S/ 18W
Ellis County, KS

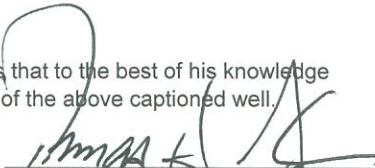
Loggers Total Depth: 3692' API#15- 051-27,045-00-00
 Rotary Total Depth: 3692' Elevation: 2009 GI - 2017 KB
 Commenced: 9/1/2022 Completed: 9/8/2022
 Casing: 8 5/8" @ 1171'W/450sks Status: Oil Well
5.5" @ 3691.33'W/130sks

DEPTHS & FORMATIONS (All from KB)

Surface, Sand & Shales	<u>0'</u>	Shale	<u>1205'</u>
Dakota Sand	<u>343'</u>	Shale & Lime	<u>1865'</u>
Shale	<u>458'</u>	Shale	<u>2368'</u>
Cader Hill Sand	<u>578'</u>	Shale & Lime	<u>2680'</u>
Red Bed Shale	<u>814'</u>	Lime & Shale	<u>3289'</u>
Anhydrite	<u>1162'</u>	RTD	<u>3692'</u>
Base Anhydrite	<u>1205'</u>		

STATE OF KANSAS))
) ss
 COUNTY OF ELLIS)

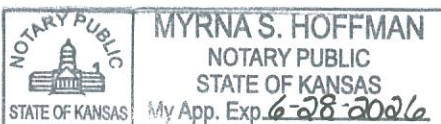
Thomas H. Alm of Discovery Drilling states that to the best of his knowledge the above and foregoing is a true and correct log of the above captioned well.


 Thomas H. Alm

Subscribed and sworn to before me on 9-15-2022

My Commission expires: 6-28-2026

(Place stamp or seal below)




 Notary Public

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

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

No. 3125

Date	9-22-22	Sec.	15	Twp.	15	Range	18	County	Ellis	State	KS	On Location		Finish	9:15 AM
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Location HAYS 85 1 E 1/2 N

Lease	<u>A. WASSINGER</u>		Well No.	<u>9</u>	Owner		
Contractor	<u>DISCOVERY</u>				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	<u>SURFACE</u>						
Hole Size	<u>12 1/2</u>		T.D.	<u>1172</u>	Charge To	<u>J.O. FORMER, INC</u>	
Csg.	<u>8 5/8</u>		Depth		Street		
Tbg. Size			Depth		City	State	
Tool			Depth		The above was done to satisfaction and supervision of owner agent or contractor.		
Cement Left in Csg.	<u>42.66</u>		Shoe Joint	<u>42.66</u>	Cement Amount Ordered	<u>450 8 5/8 3 x 2</u>	
Meas Line			Displace	<u>74</u>			

EQUIPMENT

Pumptrk	<u>16</u>	No.	Cementer	<u>BILL</u>	Common	<u>360</u>
			Helper		Poz. Mix	<u>90</u>
Bulktrk		No.	Driver	<u>MIKE</u>	Gel.	<u>9</u>
			Driver		Calcium	<u>16</u>
Bulktrk	<u>21</u>	No.	Driver	<u>TIM</u>		
			Driver			

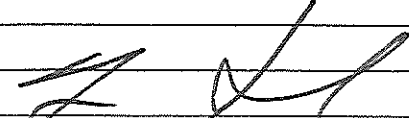
JOB SERVICES & REMARKS

Remarks:		Hulls	
Rat Hole		Salt	
Mouse Hole		Flowseal	
Centralizers		Kol-Seal	
Baskets		Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	
<u>SURFACE SET @ 1171</u>		Sand	
		Handling	<u>475</u>
		Mileage	

Cement w/ 450 lbs
pump plug w/ 74 bbls
Cement did CIRE

FLOAT EQUIPMENT

	Guide Shoe	
	Centralizer	
	Baskets	
	AFU Inserts	
	Float Shoe	
	Latch Down	
	<u>1- Baffle Plate</u>	
	<u>Plug - Rubber - 8 5/8</u>	
	Pumptrk Charge	<u>Long Surface</u>
	Mileage	<u>15 (min)</u>

Signature		Tax	
		Discount	
		Total Charge	

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-1071
Cell 785-324-1041

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

No. 2398

Date	9-8-22	Sec.	15	Twp.	15	Range	18	County	Ellis	State	Ks	On Location		Finish	2:45 AM
Lease								Location							
A. Wasinger								Hays - 5 to Chetolah Gold Rd							
Well No. 9								Owner 1 E 1/8 N W/1 into							
Contractor Discovery #2								To Quality Oilwell Cementing, Inc.							
Type Job Long string								You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Hole Size 7 7/8"								Charge To John O Farmer							
Csg. 5 1/2" 14#								Depth 3691.33'							
Tbg. Size								Depth							
Tool								Depth							
Cement Left in Csg. 42.26'								Shoe Joint 42.26'							
Meas Line								Displace 89 BBLs							
EQUIPMENT								Common 175							
Pumptrk 16 No. Cementer David								Poz. Mix							
Bulktrk 14 No. Driver Robert								Gel.							
Bulktrk P.U. No. Driver Rick								Calcium KCL 2							
JOB SERVICES & REMARKS								Hulls							
Remarks:								Salt 14							
Rat Hole 30 SX								Flowseal							
Mouse Hole 15 SX								Kol-Seal 750 #							
Centralizers 1, 3, 5, 7, 9, 11								Mud CLR 48							
Baskets 1, 11								CFL-117 or CD110 CAF 38							
D/V or Port Collar pipe on bottom break								Sand							
Circulation pump 500 gal mud								Handling 191							
Clear 48, pump 20 BLS KCL								Mileage							
Flush plug Rat & mousehole's								FLOAT EQUIPMENT							
Cement 5 1/2" w/ 130 SX Cement								Guide Shoe 2 - limit Clamps							
Shut down wash pump + 1 Pres								Centralizer 6							
Displaced plug w/ 89 BLS								Baskets 2							
Released + float held.								AFU Inserts							
Lift pressure 700 #								Float Shoe 1							
Land plug to 1500 #								Latch Down 1							
Rotating head															
Pumptrk Charge prod string															
Mileage 15															
Signature								Tax							
								Discount							
								Total Charge							

Thanks



DRILL STEM TEST REPORT

Prepared For: **John O. Farmer, Inc**

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

A. Wasinger #9

15-15s-18w Ellis,KS

Start Date: 2022.09.05 @ 09:03:00

End Date: 2022.09.05 @ 14:29:15

Job Ticket #: 69022 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.09.08 @ 13:43:59



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

John O. Farmer, Inc

15-15s-18w Ellis,KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69022

DST#: 1

ATTN: Austin Klaus

Test Start: 2022.09.05 @ 09:03:00

GENERAL INFORMATION:

Formation: **LKC B**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:56:45

Time Test Ended: 14:29:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Dustin Day

Unit No: 70

Interval: 3303.00 ft (KB) To 3325.00 ft (KB) (TVD)

Reference Elevations: 2015.00 ft (KB)

Total Depth: 3325.00 ft (KB) (TVD)

2007.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 8.00 ft

Serial #: 8652 Outside

Press@RunDepth: 87.54 psig @ 3304.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.09.05

End Date:

2022.09.05

Last Calib.:

2022.09.05

Start Time: 09:03:05

End Time:

14:29:14

Time On Btm:

2022.09.05 @ 10:56:30

Time Off Btm:

2022.09.05 @ 12:31:30

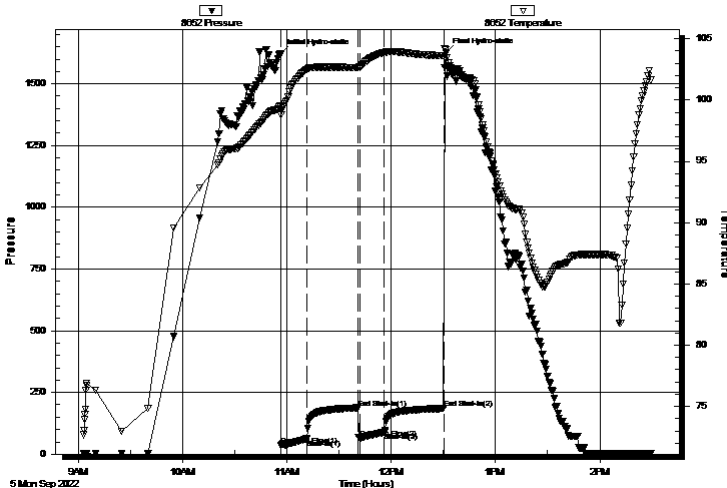
TEST COMMENT: IF-15- BOB in 3 min, Built to 47 3/4"

SI1-30- Non return

FF-15- BOB in 3 min, Built to 35 1/2"

SI2-30- Weak surface blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1619.99	99.56	Initial Hydro-static
1	36.52	98.78	Open To Flow (1)
15	61.39	102.48	Shut-In(1)
45	187.48	102.67	End Shut-In(1)
46	63.48	102.68	Open To Flow (2)
60	87.54	103.89	Shut-In(2)
94	185.13	103.61	End Shut-In(2)
95	1624.09	104.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	SMCW 5% mud 95% water	1.48
30.00	OSWCM 5% water 95% mud	0.42
0.00	538' GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

John O. Farmer, Inc

15-15s-18w Ellis,KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69022

DST#: 1

ATTN: Austin Klaus

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Tester: Dustin Day

Unit No: 70

Interval: 3303.00 ft (KB) To 3325.00 ft (KB) (TVD)

Reference Elevations: 2015.00 ft (KB)

Total Depth: 3325.00 ft (KB) (TVD)

2007.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 8.00 ft

Serial #: 6625 Inside

Press@RunDepth: psig @ 3304.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.09.05

End Date:

2022.09.05

Last Calib.:

2022.09.05

Start Time: 09:03:05

End Time:

14:29:14

Time On Btm:

Time Off Btm:

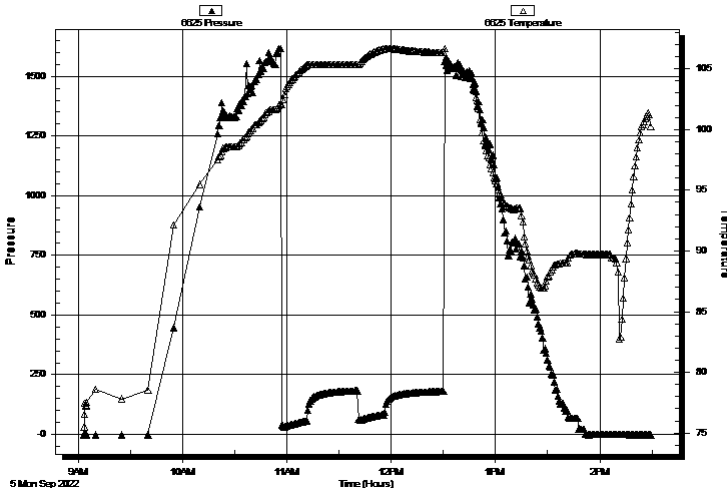
TEST COMMENT: IF-15- BOB in 3 min, Built to 47 3/4"

SI1-30- Non return

FF-15- BOB in 3 min, Built to 35 1/2"

SI2-30- Weak surface blow

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
125.00	SMCW 5% mud 95% water	1.48
30.00	OSWCM 5% water 95% mud	0.42
0.00	538' GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O. Farmer, Inc

15-15s-18w Ellis,KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69022

DST#: 1

ATTN: Austin Klaus

Test Start: 2022.09.05 @ 09:03:00

Tool Information

Drill Pipe:	Length:	3253.00 ft	Diameter:	3.80 inches	Volume:	45.63 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	55000.00 lb
					Total Volume:	45.78 bbl	Tool Chased	ft
Drill Pipe Above KB:		6.00 ft					String Weight: Initial	45000.00 lb
Depth to Top Packer:		3303.00 ft					Final	45000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		22.00 ft						
Tool Length:		48.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00		3278.00	
shut In Tool	5.00		3283.00	
hydraulic tool	5.00		3288.00	
EM Tool	3.00		3291.00	
safety Joint	3.00		3294.00	
Packer	5.00		3299.00	26.00 Bottom Of Top Packer
Packer	4.00		3303.00	
Stubb	1.00		3304.00	
Recorder	0.00	6625 Inside	3304.00	
Recorder	0.00	8652 Outside	3304.00	
perforations	17.00		3321.00	
Bullnose	4.00		3325.00	22.00 Bottom Packers & Anchor

Total Tool Length: 48.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

John O. Farmer, Inc

15-15s-18w Ellis,KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69022

DST#: 1

ATTN: Austin Klaus

Test Start: 2022.09.05 @ 09:03:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 7.19 in³

Resistivity: ohm.m

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity: 33000 ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	SMCW 5% mud 95% water	1.480
30.00	OSWCM 5% water 95% mud	0.421
0.00	538' GIP	0.000

Total Length: 155.00 ft

Total Volume: 1.901 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2# LCM

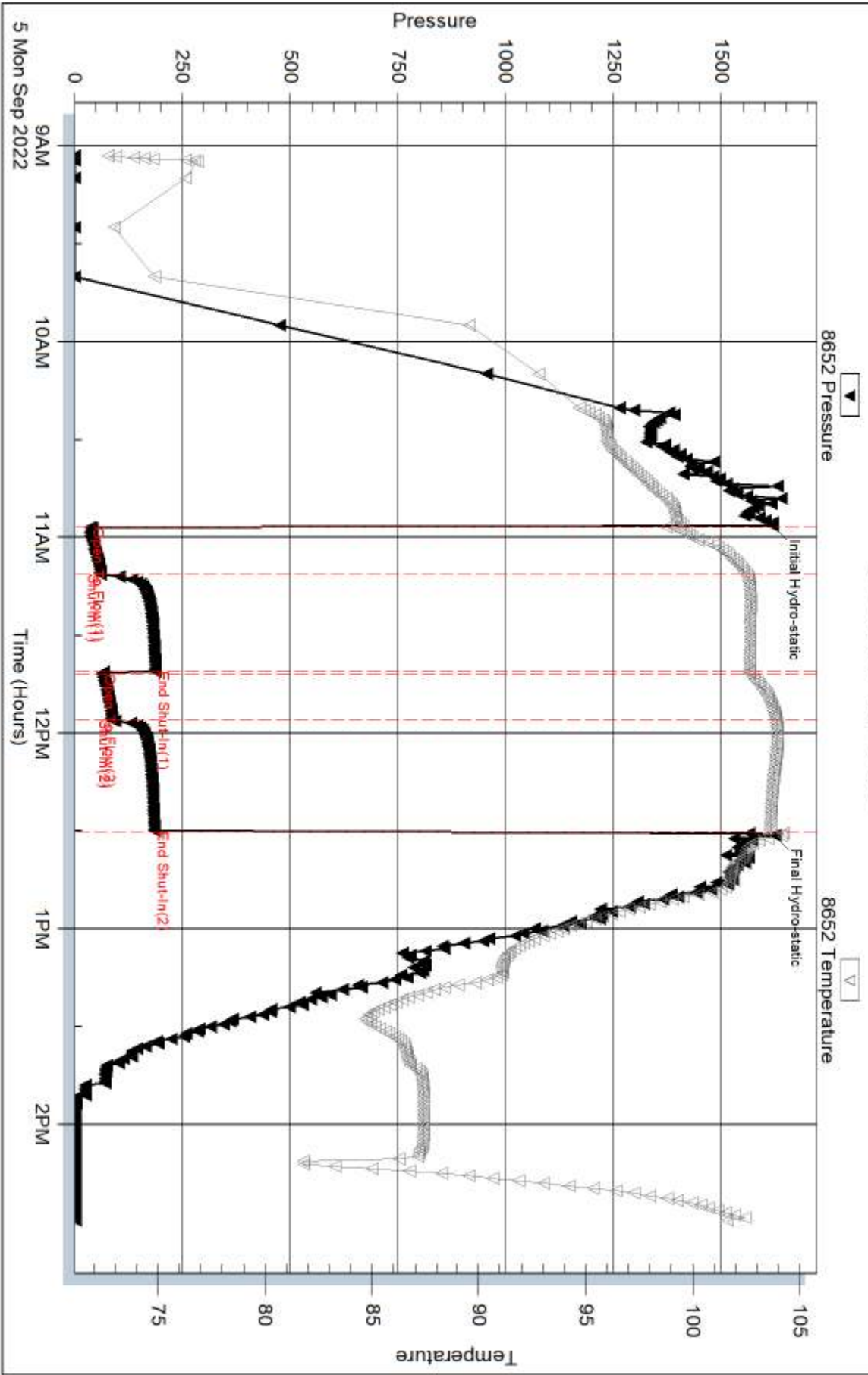
Serial #: 8652

Outside John O. Farmer, Inc

A. Wasinger #9

DST Test Number: 1

Pressure vs. Time



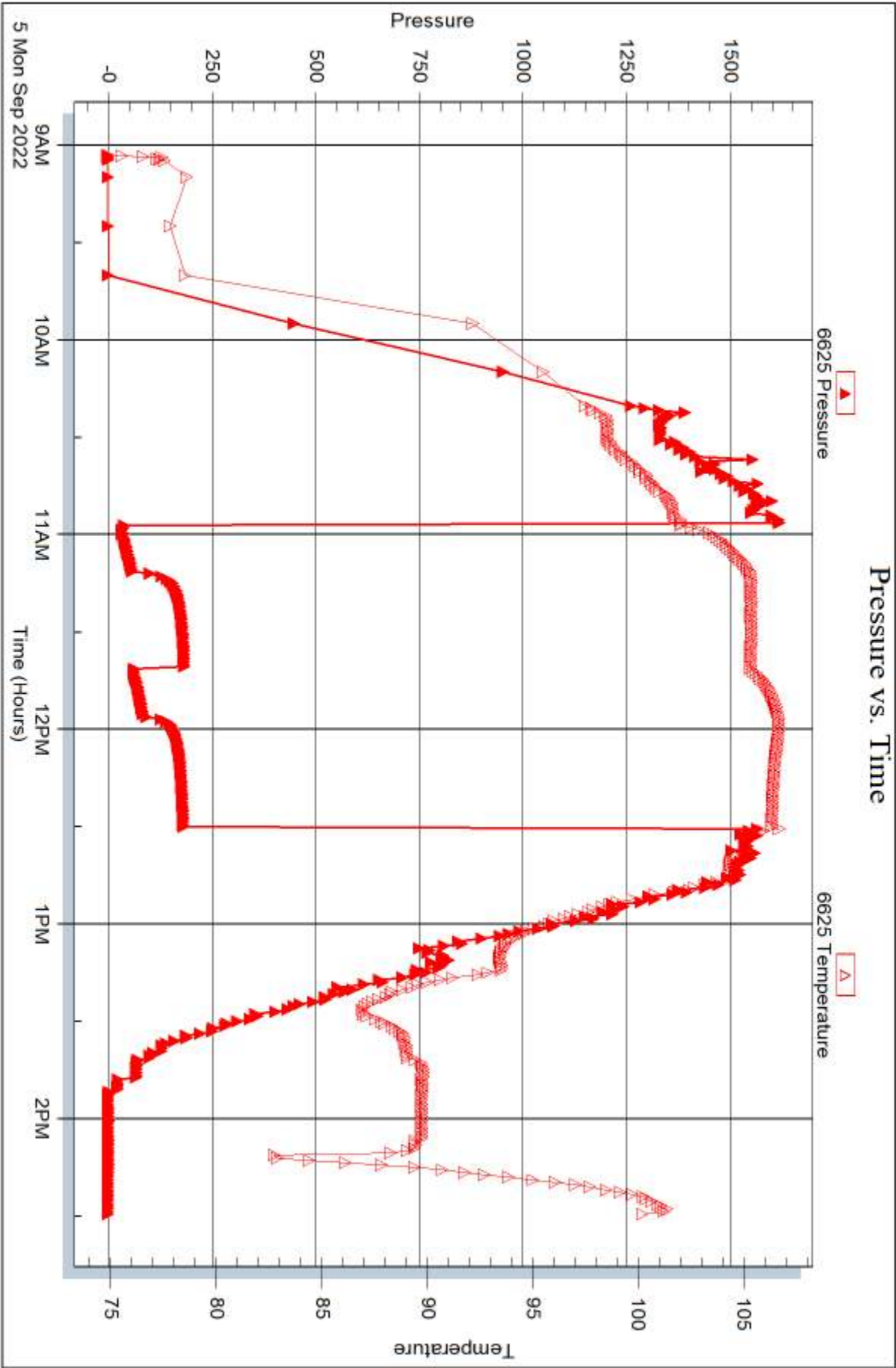
Serial #: 6625

Inside

John O. Farmer, Inc

A. Wasinger #9

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **John O. Farmer, Inc**

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

A. Wasinger #9

15-15s-18w Ellis,KS

Start Date: 2022.09.05 @ 23:25:00

End Date: 2022.09.06 @ 05:31:00

Job Ticket #: 69023 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.09.08 @ 13:43:31



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

John O. Farmer, Inc

15-15s-18w Ellis,KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69023

DST#: 2

ATTN: Austin Klaus

Test Start: 2022.09.05 @ 23:25:00

GENERAL INFORMATION:

Formation: **LKC C-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:44:30

Time Test Ended: 05:31:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Dustin Day

Unit No: 70

Interval: 3332.00 ft (KB) To 3377.00 ft (KB) (TVD)

Reference Elevations: 2015.00 ft (KB)

Total Depth: 3377.00 ft (KB) (TVD)

2007.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8652 Outside

Press@RunDepth: 280.90 psig @ 3333.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.09.05

End Date:

2022.09.06

Last Calib.:

2022.09.06

Start Time: 23:25:05

End Time:

05:30:59

Time On Btm:

2022.09.06 @ 00:42:30

Time Off Btm:

2022.09.06 @ 02:07:30

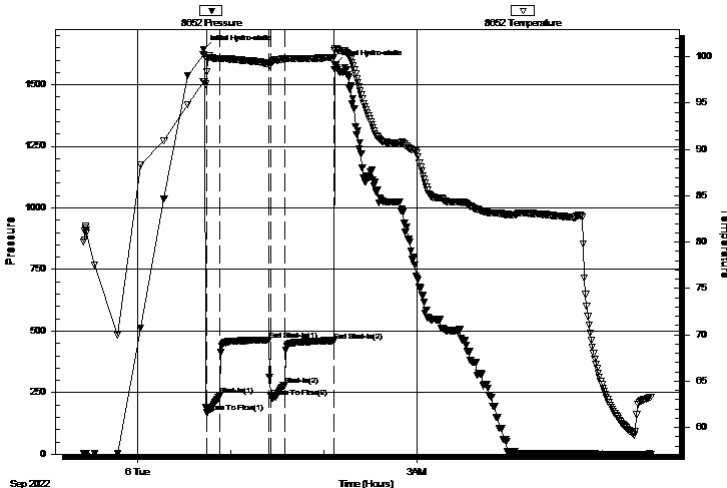
TEST COMMENT: IF-10- BOB in 15 sec, Built passed 800", opened choke to 1/4"

SI1-30- BOB in 5 min, Built to 35"

FF-10- BOB immediatly, Built passed 800" opened choke to 3/8" gauged gas, caught gas sample

SI2-30- BOB in 1 min, built to 268"

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1643.74	97.35	Initial Hydro-static
2	168.61	98.35	Open To Flow (1)
11	237.55	99.79	Shut-In(1)
43	464.05	99.21	End Shut-In(1)
44	232.71	99.36	Open To Flow (2)
53	280.90	99.76	Shut-In(2)
84	460.81	99.95	End Shut-In(2)
85	1583.11	100.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
251.00	SWMCOG 60%gas 15%oil 5%w ater 20%	3.25
126.00	HGO 45%gas 55%oil	1.77
640.00	OG 70%gas 30%oil	8.98
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	6.60	30.94
Last Gas Rate	0.38	37.10	175.19
Max. Gas Rate	0.38	37.10	175.19

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

John O. Farmer, Inc

15-15s-18w Ellis, KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69023

DST#: 2

ATTN: Austin Klaus

Test Start: 2022.09.05 @ 23:25:00

GENERAL INFORMATION:

Formation: **LKC C-F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:44:30

Time Test Ended: 05:31:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Dustin Day

Unit No: 70

Interval: 3332.00 ft (KB) To 3377.00 ft (KB) (TVD)

Total Depth: 3377.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2015.00 ft (KB)

2007.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6625 Inside

Press@RunDepth: psig @ 3333.00 ft (KB)

Start Date: 2022.09.05

End Date:

2022.09.06

Start Time: 23:25:05

End Time:

05:30:44

Capacity: 8000.00 psig

Last Calib.:

2022.09.06

Time On Btm:

Time Off Btm:

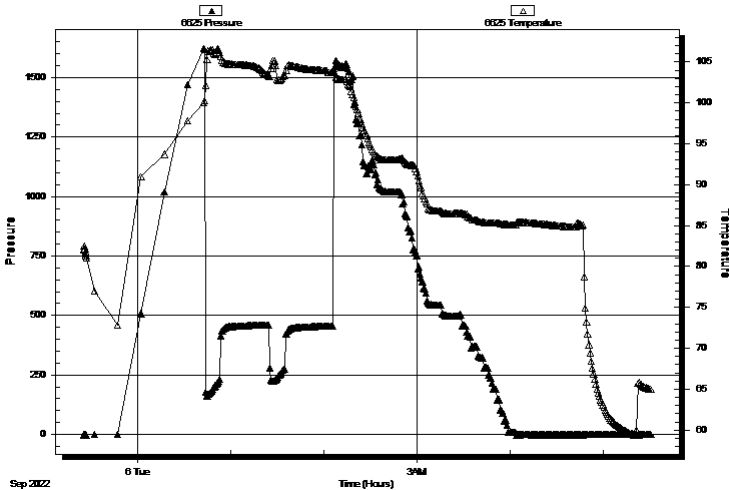
TEST COMMENT: IF-10- BOB in 15 sec, Built passed 800", opened choke to 1/4"

SI1-30- BOB in 5 min, Built to 35"

FF-10- BOB immediatly, Built passed 800" opened choke to 3/8" gauged gas, caught gas sample

SI2-30- BOB in 1 min, built to 268"

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
251.00	SWMCOG 60%gas 15%oil 5%water 20%	3.25
126.00	HGO 45%gas 55%oil	1.77
640.00	OG 70%gas 30%oil	8.98
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	6.60	30.94
Last Gas Rate	0.38	37.10	175.19
Max. Gas Rate	0.38	37.10	175.19

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O. Farmer, Inc

15-15s-18w Ellis,KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69023

DST#: 2

ATTN: Austin Klaus

Test Start: 2022.09.05 @ 23:25:00

Tool Information

Drill Pipe:	Length:	3284.00 ft	Diameter:	3.80 inches	Volume:	46.07 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	56000.00 lb
					Total Volume:	46.22 bbl	Tool Chased	ft
Drill Pipe Above KB:		8.00 ft					String Weight: Initial	45000.00 lb
Depth to Top Packer:		3332.00 ft					Final	47000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		45.00 ft						
Tool Length:		71.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3307.00	
shut In Tool	5.00			3312.00	
hydraulic tool	5.00			3317.00	
EM Tool	3.00			3320.00	
safety Joint	3.00			3323.00	
Packer	5.00			3328.00	26.00 Bottom Of Top Packer
Packer	4.00			3332.00	
Stubb	1.00			3333.00	
Recorder	0.00	6625	Inside	3333.00	
Recorder	0.00	8652	Outside	3333.00	
perforations	6.00			3339.00	
change Over Sub	1.00			3340.00	
drill Pipe	32.00			3372.00	
change Over Sub	1.00			3373.00	
Bullnose	4.00			3377.00	45.00 Bottom Packers & Anchor

Total Tool Length: 71.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

John O. Farmer, Inc

15-15s-18w Ellis,KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69023

DST#: 2

ATTN: Austin Klaus

Test Start: 2022.09.05 @ 23:25:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 7.99 in³

Resistivity: ohm.m

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
251.00	SWMCOG 60%gas 15%oil 5%water 20%mud	3.248
126.00	HGO 45%gas 55%oil	1.767
640.00	OG 70%gas 30%oil	8.978
0.00	GTS	0.000

Total Length: 1017.00 ft

Total Volume: 13.993 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

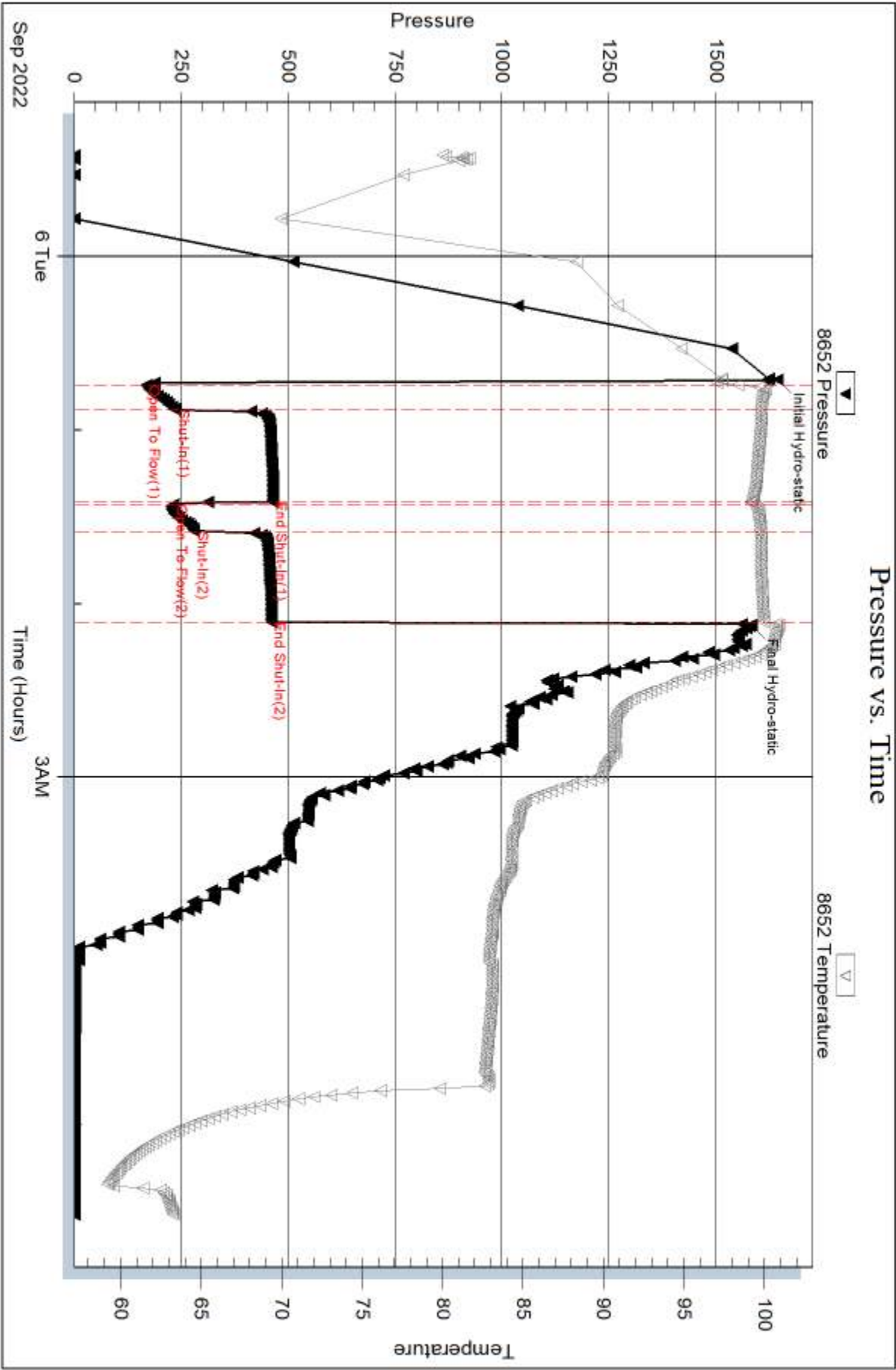
Recovery Comments: 1 1/2# LCM

Serial #: 8652

Outside John O. Farmer, Inc

A. Wasinger #9

DST Test Number: 2



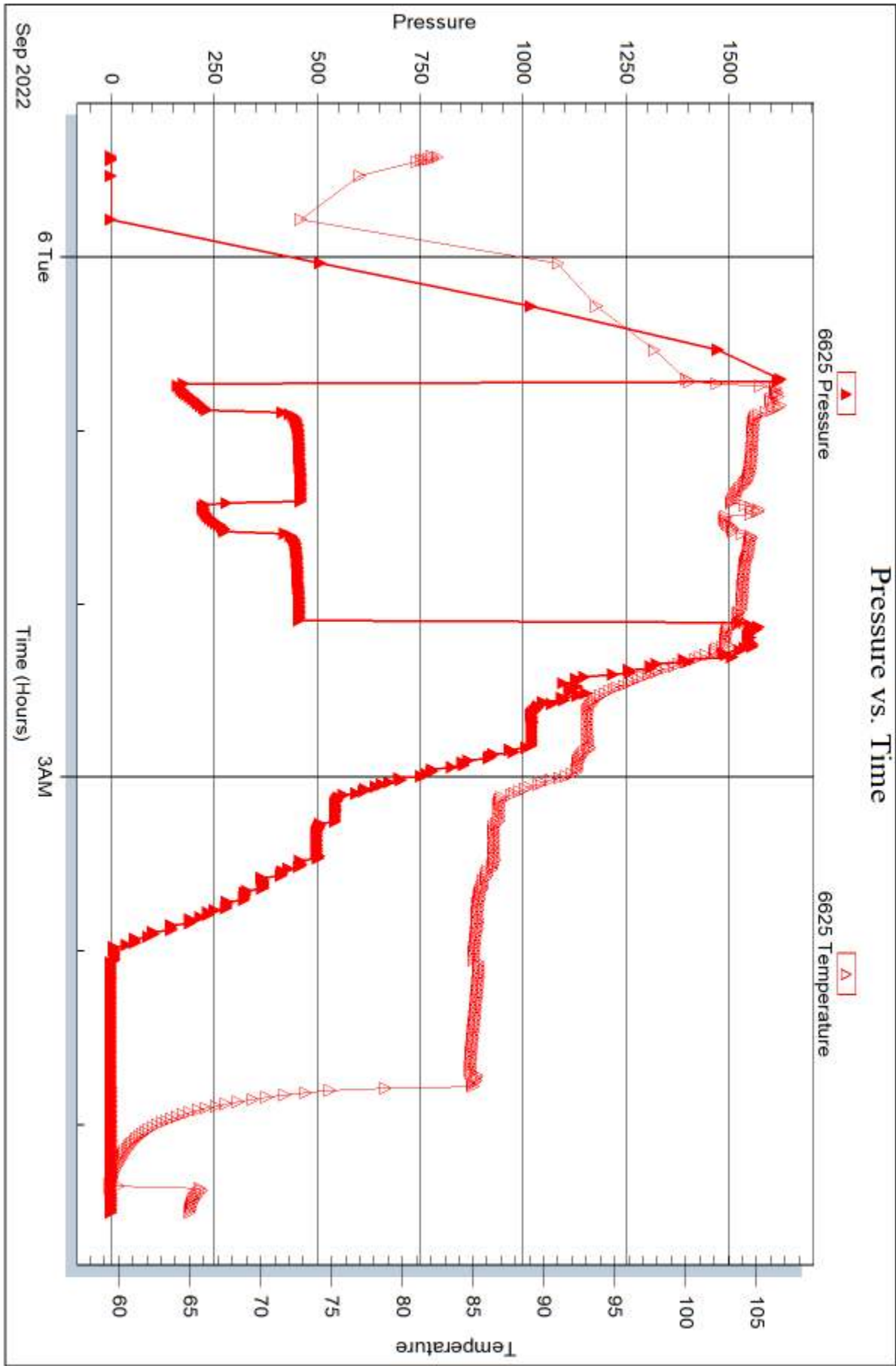
Serial #: 6625

Inside

John O. Farmer, Inc

A. Wasinger #9

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **John O. Farmer, Inc**

PO Box 352
Russell, KS 67665

ATTN: Austin Klaus

A. Wasinger #9

15-15s-18w Ellis,KS

Start Date: 2022.09.06 @ 18:47:00

End Date: 2022.09.06 @ 23:50:15

Job Ticket #: 69024 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.09.08 @ 13:42:56



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

John O. Farmer, Inc

15-15s-18w Ellis,KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69024

DST#: 3

ATTN: Austin Klaus

Test Start: 2022.09.06 @ 18:47:00

GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:41:00

Time Test Ended: 23:50:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Dustin Day

Unit No: 70

Interval: 3407.00 ft (KB) To 3477.00 ft (KB) (TVD)

Total Depth: 3477.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2015.00 ft (KB)

2007.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 8652 Outside

Press@RunDepth: 24.50 psig @ 3408.00 ft (KB)

Start Date: 2022.09.06

End Date:

2022.09.06

Start Time: 18:47:05

End Time:

23:50:14

Capacity: 8000.00 psig

Last Calib.: 2022.09.06

Time On Btm: 2022.09.06 @ 20:40:45

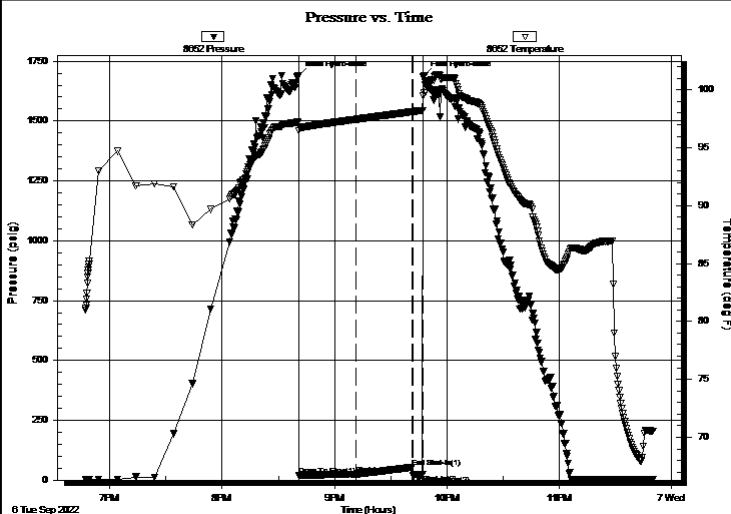
Time Off Btm: 2022.09.06 @ 21:48:00

TEST COMMENT: IF-30- Weak surface blow , died in 16 min.

SI1-30- No return

FF- opened tool, no blow , pulled it

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1688.88	97.22	Initial Hydro-static
1	20.37	96.48	Open To Flow (1)
31	24.50	97.46	Shut-In(1)
61	53.72	98.12	End Shut-In(1)
62	21.33	98.13	Open To Flow (2)
67	23.29	98.24	Shut-In(2)
68	1690.78	99.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	mud 100%	0.01

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

John O. Farmer, Inc

15-15s-18w Ellis,KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69024

DST#: 3

ATTN: Austin Klaus

Test Start: 2022.09.06 @ 18:47:00

GENERAL INFORMATION:

Formation: **LKC H-J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:41:00

Time Test Ended: 23:50:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Dustin Day

Unit No: 70

Interval: 3407.00 ft (KB) To 3477.00 ft (KB) (TVD)

Total Depth: 3477.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2015.00 ft (KB)

2007.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6625 Inside

Press@RunDepth: psig @ 3408.00 ft (KB)

Start Date: 2022.09.06

End Date:

2022.09.06

Capacity: 8000.00 psig

Last Calib.:

2022.09.06

Start Time: 18:47:05

End Time:

23:50:14

Time On Btm:

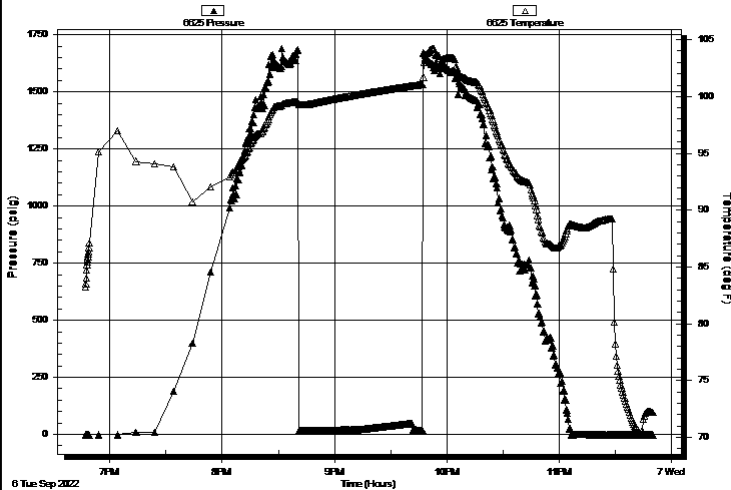
Time Off Btm:

TEST COMMENT: IF-30- Weak surface blow , died in 16 min.

SI1-30- No return

FF- opened tool, no blow , pulled it

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
2.00	mud 100%	0.01

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

John O. Farmer, Inc

15-15s-18w Ellis,KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69024

DST#: 3

ATTN: Austin Klaus

Test Start: 2022.09.06 @ 18:47:00

Tool Information

Drill Pipe:	Length:	3380.00 ft	Diameter:	3.80 inches	Volume:	47.41 bbl	Tool Weight:	2400.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	30.00 ft	Diameter:	2.25 inches	Volume:	0.15 bbl	Weight to Pull Loose:	58000.00 lb
					Total Volume:	47.56 bbl	Tool Chased	ft
Drill Pipe Above KB:	29.00 ft							
Depth to Top Packer:	3407.00 ft							
Depth to Bottom Packer:	ft							
Interval between Packers:	70.00 ft							
Tool Length:	96.00 ft							
Number of Packers:	2		Diameter:	6.75 inches				
Tool Comments:								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3382.00	
shut In Tool	5.00			3387.00	
hydraulic tool	5.00			3392.00	
EM Tool	3.00			3395.00	
safety Joint	3.00			3398.00	
Packer	5.00			3403.00	26.00 Bottom Of Top Packer
Packer	4.00			3407.00	
Stubb	1.00			3408.00	
Recorder	0.00	6625	Inside	3408.00	
Recorder	0.00	8652	Outside	3408.00	
perforations	1.00			3409.00	
drill Pipe	1.00			3410.00	
drill Pipe	63.00			3473.00	
change Over Sub	1.00			3474.00	
Bullnose	3.00			3477.00	70.00 Bottom Packers & Anchor

Total Tool Length: 96.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

John O. Farmer, Inc

15-15s-18w Ellis,KS

PO Box 352
Russell, KS 67665

A. Wasinger #9

Job Ticket: 69024

DST#: 3

ATTN: Austin Klaus

Test Start: 2022.09.06 @ 18:47:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 7.19 in³

Resistivity: ohm.m

Salinity: 6000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	mud 100%	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1# LCM

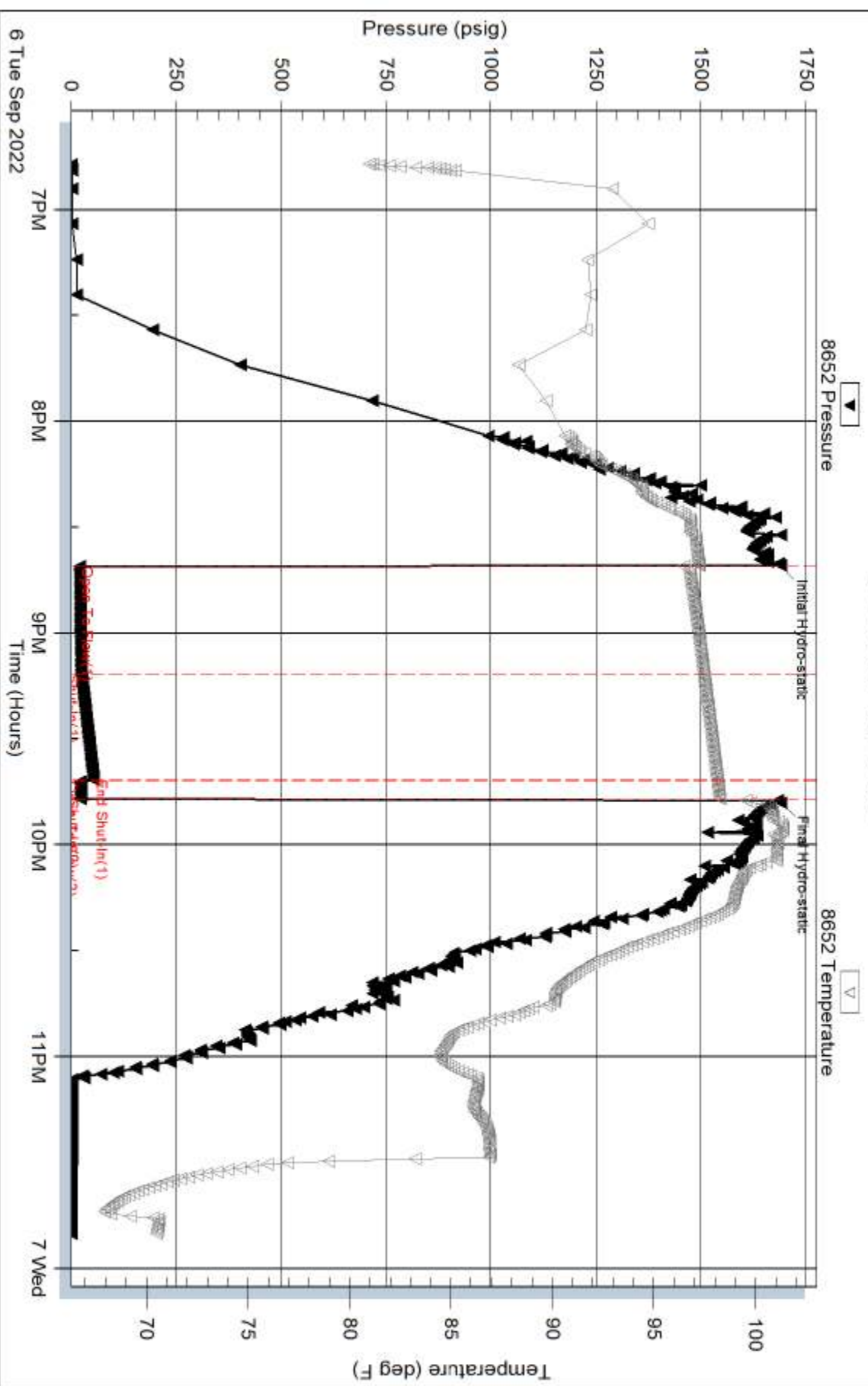
Serial #: 8652

Outside John O. Farmer, Inc

A. Wasinger #9

DST Test Number: 3

Pressure vs. Time



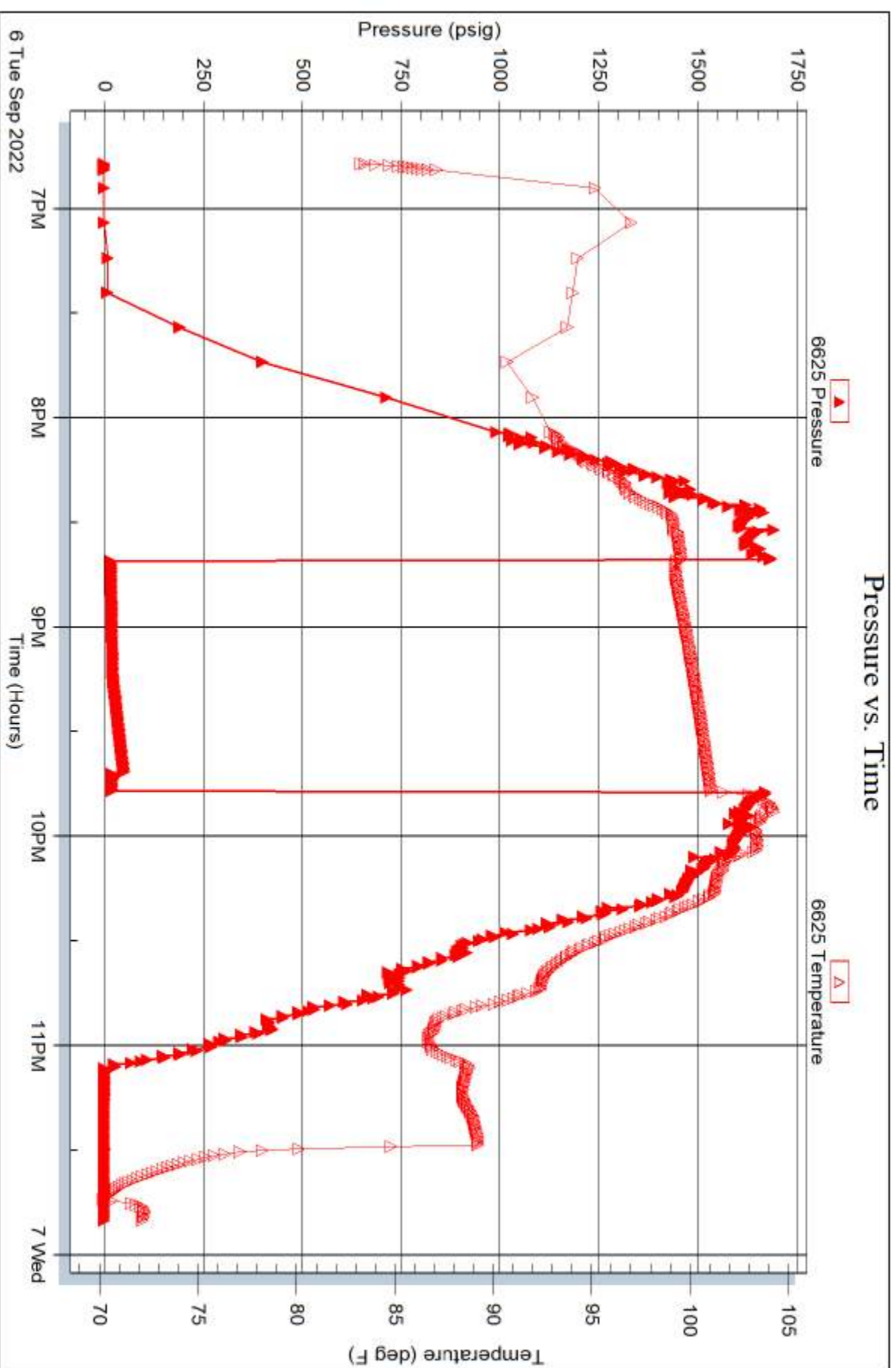
Serial #: 6625

Inside

John O. Farmer, Inc

A. Wasinger #9

DST Test Number: 3





TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **69022**

Well Name & No. A. Wasinger #9 Test No. 1 Date 9/5/22
 Company John O Farmer Inc Elevation 2015 KB 2007 GL
 Address 370 W. Wichita Ave PO Box 352 Russell, KS 67665
 Co. Rep / Geo. Austin Klaus Rig Discovery Rig#2
 Location: Sec. 15 Twp 15 Rge. 18 Co. Ellis State KS

Interval Tested 3303-3325 Zone Tested LKC B
 Anchor Length 22 Drill Pipe Run 3253 Mud Wt. 8.6
 Top Packer Depth 3298 Drill Collars Run 30 Vis 53
 Bottom Packer Depth 3303 Wt. Pipe Run 0 WL 7.2
 Total Depth 3325 Chlorides 4000 ppm System LCM 2H

Blow Description IF- BOB in 3 min, built to 47 3/4"
SI2- No return
FF- BOB in 3 min, built to 35 1/2"
SI2- weak surface blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>125</u>	<u>SMCW</u>			<u>95</u>	<u>5</u>
<u>30</u>	<u>OSWCM</u>			<u>5</u>	<u>95</u>
	<u>538' GIP</u>				

Rec Total 155 BHT 104 Gravity _____ API RW .16 @ 94 °F Chlorides 33000 ppm

(A) Initial Hydrostatic <u>1620</u>	☒ Test <u>1800</u>	T-On Location <u>08:10</u>
(B) First Initial Flow <u>37</u>	☐ Jars _____	T-Started <u>09:03</u>
(C) First Final Flow <u>61</u>	☒ Safety Joint _____	T-Open <u>10:57</u>
(D) Initial Shut-In <u>187</u>	☒ Circ Sub <u>N/A</u>	T-Pulled <u>12:27</u>
(E) Second Initial Flow <u>63</u>	☐ Hourly Standby _____	T-Out <u>14:30</u>
(F) Second Final Flow <u>88</u>	☒ Mileage <u>20</u> <u>30</u>	Comments _____
(G) Final Shut-In <u>185</u>	☐ Sampler _____	
(H) Final Hydrostatic <u>1624</u>	☐ Straddle _____	☒ EM Tool _____

Initial Open <u>15</u>	☐ Ruined Shale Packer _____
Initial Shut-In <u>30</u>	☐ Ruined Packer _____
Final Flow <u>15</u>	☐ Extra Copies _____
Final Shut-In <u>30</u>	Sub Total <u>0</u>
	Total <u>1830</u>
	MP/DST Disc't _____
	Sub Total <u>1830</u>

Approved By _____ Our Representative D. J. Fox
 Tribolite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **69023**

Well Name & No. A. Wasinger #9 Test No. 2 Date 9/6/22
 Company John O Farmer, Inc Elevation 2015 KB 2007 GL
 Address 370 W. Wichita PO Box 352 Russel, KS 67665
 Co. Rep / Geo. Austin Klaus Rig Discovery Rig #2
 Location: Sec. 15 Twp 15 Rge. 18 Co. Ellis State KS

Interval Tested 3332-3377 Zone Tested LKC C-F
 Anchor Length 45 Drill Pipe Run 3284 Mud Wt. 9.2
 Top Packer Depth 3327 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3332 Wt. Pipe Run 0 WL 8.0
 Total Depth 3377 Chlorides 6000 ppm System LCM 1 1/2#

Blow Description IF-BOB in 15 sec. built passed 800" opened choke 8min in GTS
SI4-BOB in 5 min. built to 35"
FF-BOB immediately, built passed 800" opened choke to 1/4"-3/8" gauge gas & catch sample
SI2-BOB in 1 min. built to 268"

Rec	Feet of	%gas	%oil	%water	%mud
<u>251</u>	<u>SWMCOG</u>	<u>60%</u>	<u>25%</u>	<u>5%</u>	<u>20%</u>
<u>124</u>	<u>HGO</u>	<u>45%</u>	<u>55%</u>	<u>%</u>	<u>%</u>
<u>640</u>	<u>OG</u>	<u>70%</u>	<u>30%</u>	<u>%</u>	<u>%</u>
<u></u>	<u>GTS</u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
<u></u>	<u></u>	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>

Rec Total 1017 BHT 100 Gravity 39 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic <u>11644</u>	☒ Test <u>1800</u>	T-On Location <u>22:45</u>
(B) First Initial Flow <u>1169</u>	☐ Jars <u></u>	T-Started <u>23:25</u>
(C) First Final Flow <u>238</u>	☒ Safety Joint <u></u>	T-Open <u>00:44</u>
(D) Initial Shut-In <u>4164</u>	☒ Circ Sub <u>N/A</u>	T-Pulled <u>02:04</u>
(E) Second Initial Flow <u>233</u>	☐ Hourly Standby <u></u>	T-Out <u>05:32</u>
(F) Second Final Flow <u>280</u>	☒ Mileage <u>20</u> <u>30</u>	Comments <u></u>
(G) Final Shut-In <u>4161</u>	☐ Sampler <u></u>	
(H) Final Hydrostatic <u>1583</u>	☐ Straddle <u></u>	☒ EM Tool <u></u>

Initial Open <u>10</u>	☐ Shale Packer <u></u>	☐ Ruined Shale Packer <u></u>
Initial Shut-In <u>30</u>	☐ Extra Packer <u></u>	☐ Ruined Packer <u></u>
Final Flow <u>10</u>	☐ Extra Recorder <u></u>	☐ Extra Copies <u></u>
Final Shut-In <u>30</u>	☐ Day Standby <u></u>	Sub Total <u>0</u>
	☐ Accessibility <u></u>	Total <u>1830</u>
	Sub Total <u>1830</u>	MP/DST Disc't <u></u>

Approved By Our Representative DUSTY

Triobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



GAS VOLUME REPORT

2
DST NO.

[illegible]



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **69024**

Well Name & No. A. Wasinger #9 Test No. 3 Date 9/6/22
 Company John D. Farmer, Inc Elevation 2015 KB 2607 GL
 Address 370 W. Wichita PO Box 352 Russell, KS 67165
 Co. Rep / Geo. Austin Klaus Rig Discovery Rig #2
 Location: Sec. 15 Twp 15 Rge. 18 Co. Ellis State KS

Interval Tested 3407-3477 Zone Tested LKC H-J
 Anchor Length 70 Drill Pipe Run 3380 Mud Wt. 9.0
 Top Packer Depth 3402 Drill Collars Run 30 Vis 50
 Bottom Packer Depth 3407 Wt. Pipe Run 8 WL 7.2
 Total Depth 3477 Chlorides 6000 ppm System LCM 1#

Blow Description 1# weak surface blow, died in 16 min

S1A-NO return

FF-NO blow

S12-

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>Mud</u>			<u>100</u>	

Rec Total 2 BHT 100 Gravity 1800 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1689

(B) First Initial Flow 20

(C) First Final Flow 25

(D) Initial Shut-In 54

(E) Second Initial Flow 21

(F) Second Final Flow

(G) Final Shut-In

(H) Final Hydrostatic 1691

Initial Open 30

Initial Shut-In 30

Final Flow 5 pull tool

Final Shut-In

☒ Test 1800

☐ Jars

☒ Safety Joint

☒ Circ Sub N/A

☐ Hourly Standby

☒ Mileage 20x3 (short trip) + lead tools

☐ Sampler 30+30+30

☐ Straddle

☐ Shale Packer

☐ Extra Packer

☐ Extra Recorder

☐ Day Standby

☐ Accessibility

Sub Total 1890

T-On Location 17:50

T-Started 18:47

T-Open 20:41

T-Pulled 21:50

T-Out 23:50

Comments loaded 9/7 call 1:00

☒ EM Tool

☐ Ruined Shale Packer

☐ Ruined Packer

☐ Extra Copies

Sub Total 0

Total 1890

MP/DST Disc't

Approved By

Our Representative DUST D

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



AUSTIN B. KLAUS



Cell 785.650.3629
Work 785.483.3145
Ext 225

PO BOX 352
Russell, KS 67665
austin.klaus@johnofarmer.com

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

Well Name: A. Wasinger # 9
API: 15-051-27,045-000
Location: Ellis County
License Number:
Spud Date: 09/01/2022
Surface Coordinates: Section 15 - Township 15 South - Range 18 West
890' FSL & 430' FEL
Bottom Hole Coordinates: Vertical well w/ minimal deviation, same as above
Ground Elevation (ft): 2,007
Logged Interval (ft): 2,950
Formation: TOPEKA - ARBUCKLE
Type of Drilling Fluid: Chemical (Andy's Mud & Chemical Co.)

Region: Kansas
Drilling Completed: 09/08/2022
K.B. Elevation (ft): 2,015
Total Depth (ft): 3,692
To: 3,692

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

OPERATOR

Company: John O. Farmer, Inc.
Address: 370 W. Wichita Ave
Russell, KS 67665

Comments

The A. Wasinger #9 was drilled by Discovery Drilling Rig #2 (Tool Pusher: Travis Schmidt).

The location for the A. Wasinger #9 was discovered via 3D seismic survey. Drill time was recorded, and rock samples were gathered and evaluated from 2,950' - 3,692'. Oil shows were encountered in several Lansing zones (see below) and Arbuckle. Structurally, the Lansing top was picked 10' high to the comparison well, A. Wasinger #7 (John O. Farmer, Inc.). Three bottom-hole drill stem tests were conducted to evaluate the Lansing zones (see results below). Structure thickened and the Arbuckle top was picked 8' low to the comparison well.

After comprehensive evaluation of oil shows, structural position, electric logs, and drill stem test results, the decision was made to run 5-1/2" production casing to further evaluate the A. Wasinger #9 on September 8, 2022.

ROCK TYPES

Anhy
Bent
Brec
Cht

Clyst
Coal
Congl
Dol

Gyp
Igne
Lmst
Meta

Mrlst
Salt
Shale
Shcol

Shgy
Sltst
Ss
Till

OTHER SYMBOLS

POROSITY
E Earthy
F Fenest
F Fracture
X Inter
M Moldic
O Organic
P Pinpoint

Vuggy

SORTING
W Well
M Moderate
P Poor

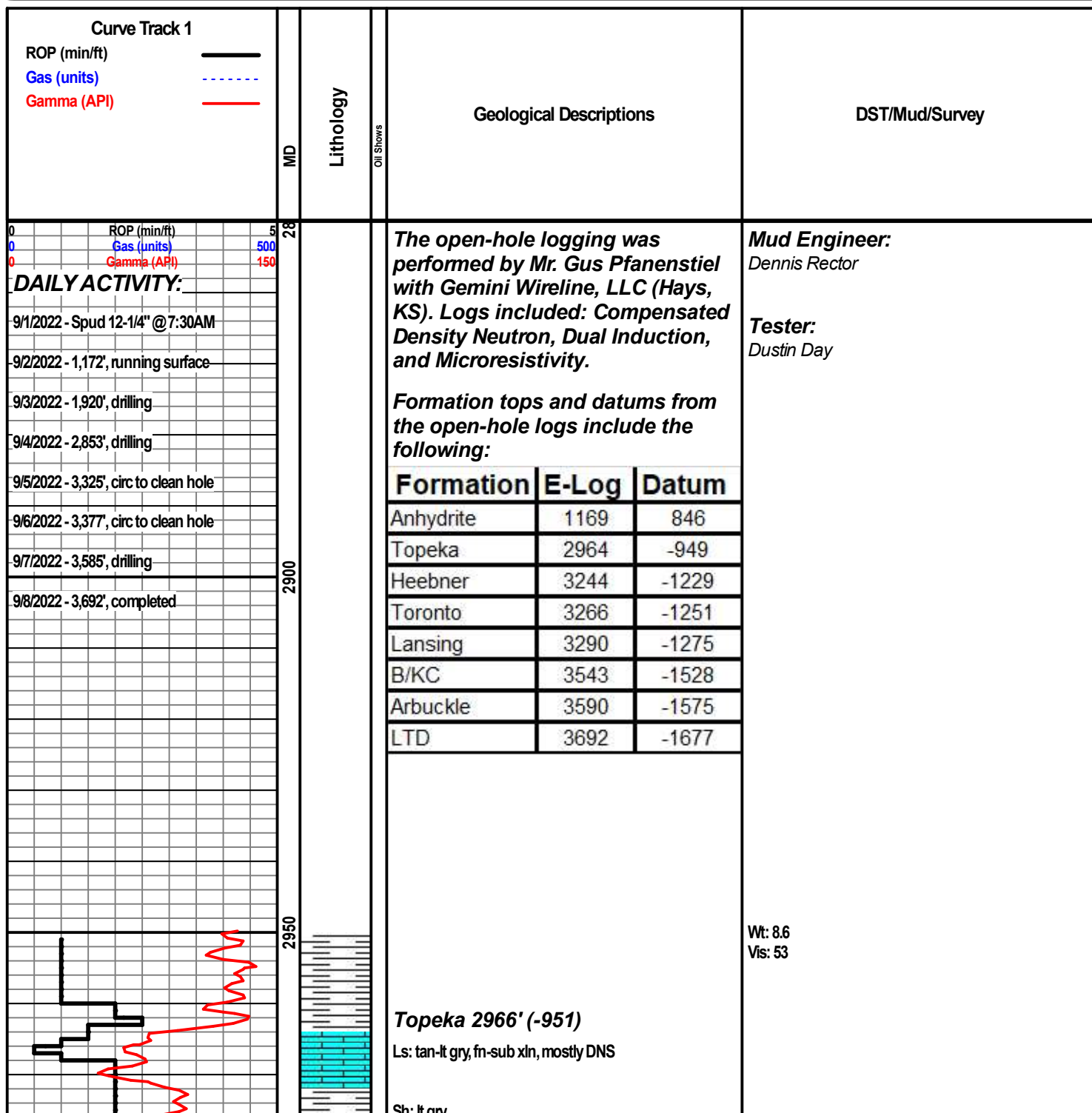
ROUNDING
R Rounded
r Subrnd
a Subang
A Angular

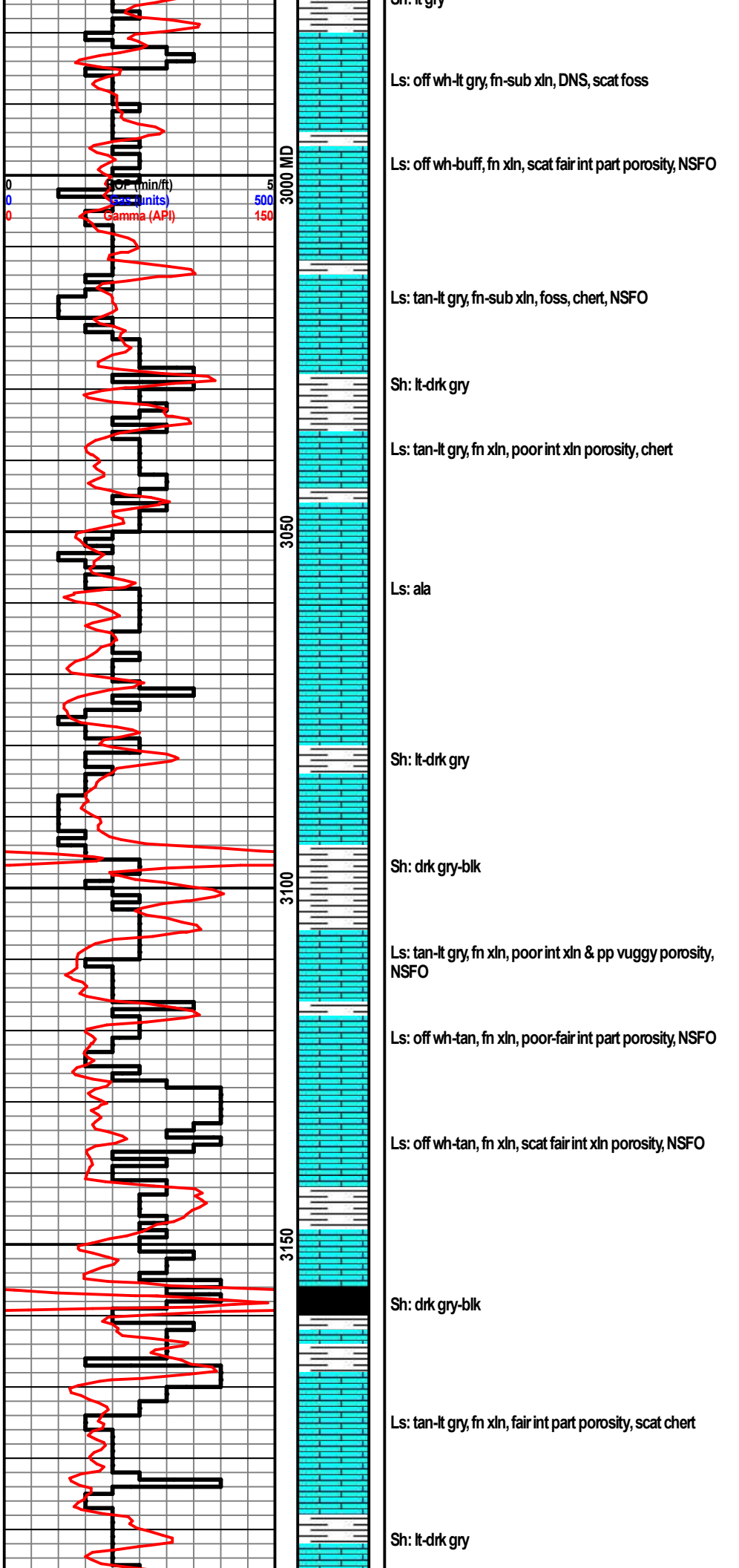
OIL SHOW
Even

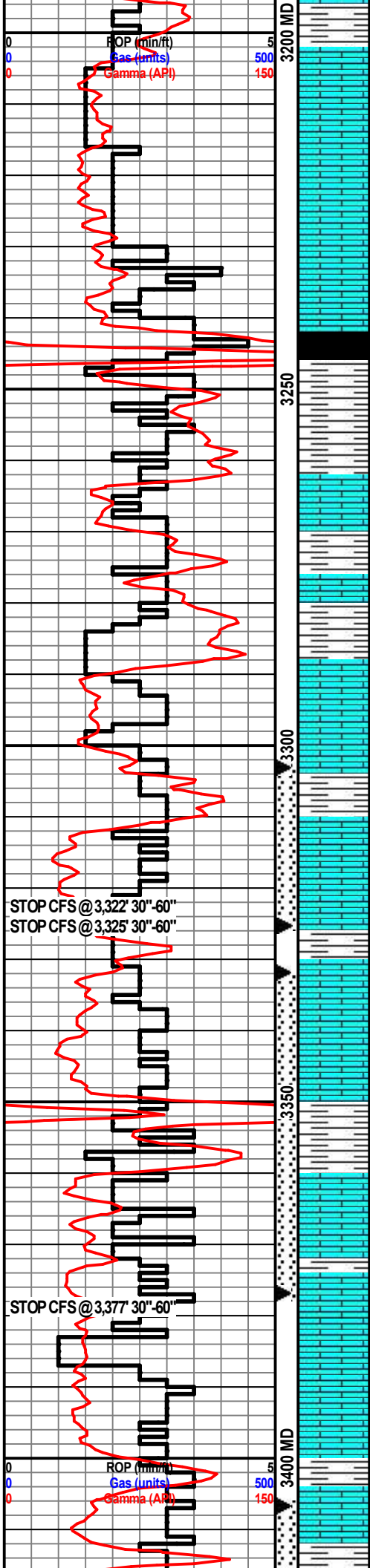
Spotted
Ques
Dead

EVENT
Rft
Sidewall

INTERVAL
Core
Dst







Ls: tan-lt gry, fn-sub xln, scat foss

Ls: ala

Ls: lt gry-tan, fn xln, poor int xln porosity

Heebner 3245' (-1230)

Sh: blk, carb, fissile

Sh: lt-drk gry

Toronto 3265' (-1250)

Ls: off wh-tan-lt gry, fn xln, poor int xln porosity, scat edge str, NSFO

Sh: lt gry-bm

Sh: lt gry

Lansing 3292' (-1277)

Ls: off wh-tan, fn xln, scat int part & poor-fair int xln porosity, sl oil str, NSFO

Sh: lt-drk gry-rd

Ls: off wh-tan, fn xln, fair-good int xln porosity, scat vuggy porosity, fair oil str, SSFO, fair odor

Sh: lt-drk gry, rd

Ls: off wh-tan, fn xln, fair-good int xln porosity, fair oil sat, SSFO, fair odor

Ls: off wh-tan, fn xln, poor int xln porosity, NSFO

Sh: lt-drk gry

Ls: off wh-tan, fn xln, fair int xln & scat vuggy porosity, fair-good oil str, SSFO, sl odor, scat chert

Ls: off wh-tan, fn xln, foss, fair int xln & int foss porosity, fair-good oil str, few rxns good sat, S-FSFO, good odor

Ls: off wh-tan, fn xln, ool, fair-good oom porosity, vry lt oil str, VSSFO, sl odor, scat chert-off wh

Ls: off wh-tan, fn xln, poor int xln porosity, barren, chert

Ls: ala

Sh: drk arv-blk

Wt: 9.2
Vis: 50

DST #1 3,303-3,325' (LKC B) 15"-30"-15"-30"

IF: BOB 3 min, no blow back on shut in
FF: BOB 3 min, weak surface blow on SI

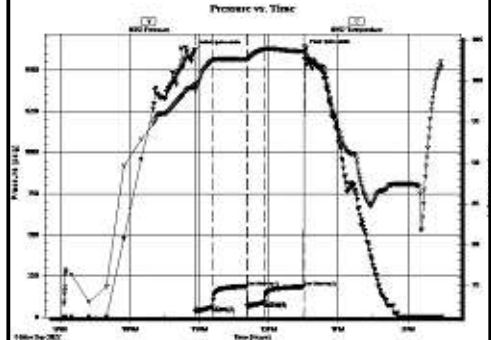
Rec: 538' Gas in Pipe,
30' Oil spotted watery mud
(5%W, 95%M)
125' Slight mud cut water
(5%M, 95% W) (Chl. 33K)

FP: 37-61, 63-88#

SIP: 187-185#

HP: 1,620-1,624#

BHT: 104



DST #2 3,332-3,377' (LKC C-F) 10"-30"-10"-30"

IF: BOB 15 sec, BOB 5 min on shut in
FF: BOB immediately, BOB 1 min on SI

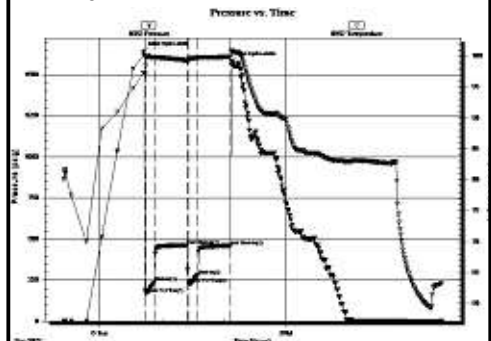
Rec: Gas to surface
(flow rate of 175 Mcf/d),
640' Very Gassy Oil (30%O, 70%G),
126' Gassy Oil (45%G, 55%O),
251' Gassy Oil & Water Cut Mud
(5%W, 15%O, 20%M, 60%G)

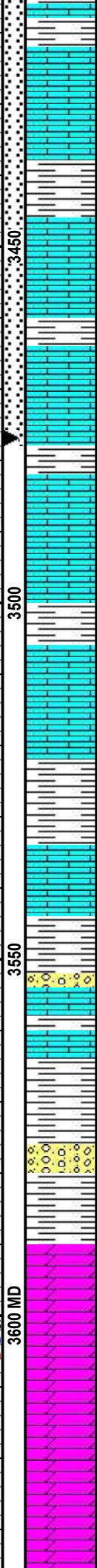
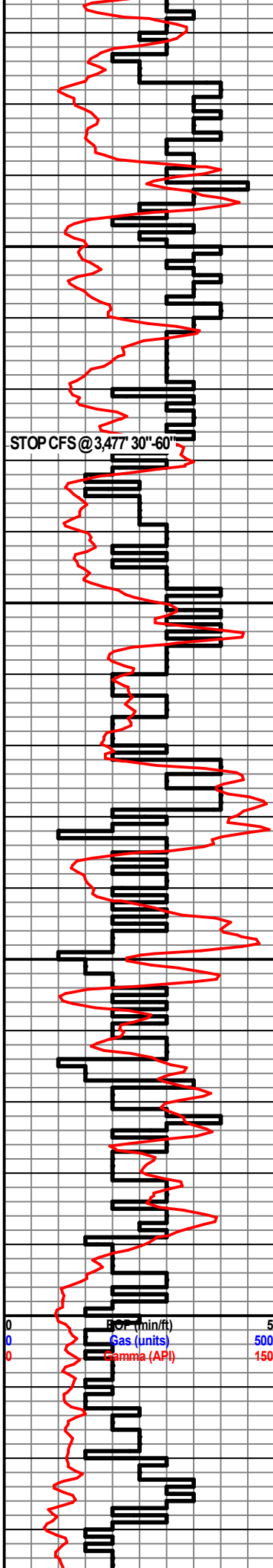
FP: 169-238, 233-281#

SIP: 464-461#

HP: 1,644-1,583#

BHT: 101





Ls: off wh-tan, fn xln, poor int xln porosity, few rxs w/ fair int xln porosity, scat-fair oil stn, SSFO, fair odor, chalky

Sh: lt-drk gry

Ls: off wh-tan, fn xln, poor int xln porosity, scat fair int xln porosity, sl-fair oil stn, SSFO, fair odor

Sh: drk gry

Ls: off wh-tan, fn xln, ool, fair oom porosity, scat int xln porosity, fair oil stn, sl sat in few rxs, SSFO, fair odor

Sh: lt-drk gry

Ls: off wh-tan, fn xln, poor int xln porosity, NSFO, scat chert, chalky

Ls: ala

Sh: lt-drk gry

Ls: off wh-tan, fn xln, poor int xln porosity, barren, DNS, NSFO

B/KC 3529' (-1514)

Sh: lt-drk gry-bm

Ls: off wh-tan, fn xln, poor int xln porosity, NSFO

Sh: lt-drk gry-bm, scat cong: lt gry-rd

Sh: lt-drk gry-rd, scat ls: tan-lt gry, fn-sub xln, DNS, chert

Sh: ala

Sh: drk gry-bm-rd, ls: tan-lt gry, fn-sub xln, DNS, hvy chert

Arbuckle 3612' (-1597)

Dolo: off wh, fn-md xln, poor-scat fair int xln porosity, scat oil on few rxs, SSFO, fair odor

Dolo: off wh, fn-md xln, poor int xln porosity, scat lt oil stn, VSSFO, sl odor

Dolo: off wh-lt gry, fn-md xln, fair-good int xln porosity, scat oil stn, VSSFO, sl odor

Wt: 9.0
Vis: 50

DST #3 3,407-3,477' (LKC H-J) 30"-30"-5"-0"

IF: weak blow died in 16 minutes
FF: no blow

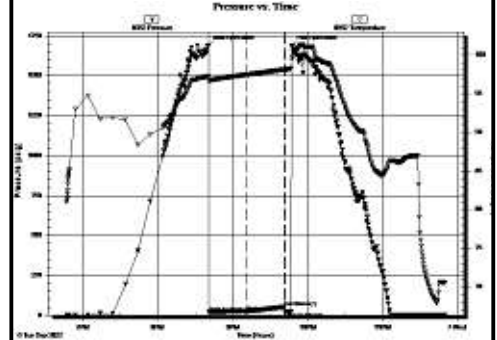
Rec. 2' Mud

FP: 20-25, 21#

SIP: 54#

HP: 1,689-1,691#

BHT: 100



*First Arbuckle in Sample: 3,630'

