

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD
 Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

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

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Mull Drilling Company, Inc.
Well Name	CARTER 2-30
Doc ID	1674224

All Electric Logs Run

CDNL
Sonic
DIL
Micro

Form	ACO1 - Well Completion
Operator	Mull Drilling Company, Inc.
Well Name	CARTER 2-30
Doc ID	1674224

Tops

Name	Top	Datum
Anhydrite Top	1228	1025
Heebner	4410	-2157
Lansing	4604	-2351
Stark	5046	-2793
Cherokee	5301	-3048
Mississippi	5552	-3299
Viola	6700	-4447
Simpson	6910	-4657
Arbuckle	6994	4741



DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co, Inc.**

1700 N Waterfront
Pkyw Bldg 1200
Wichita, KS 67206

ATTN: Blake Miller

Carter #2-30

30-32s-23w Clark,KS

Start Date: 2022.11.08 @ 19:42:00

End Date: 2022.11.09 @ 06:25:47

Job Ticket #: 69252 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.11.16 @ 13:55:44



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mull Drilling Co, Inc.

30-32s-23w Clark,KS

1700 N Waterfront
Pkw y Bldg 1200
Wichita, KS 67206
ATTN: Blake Miller

Carter #2-30

Job Ticket: 69252

DST#: 1

Test Start: 2022.11.08 @ 19:42:00

GENERAL INFORMATION:

Formation: **St. Louis**

Deviated: No Whipstock: 2253.00 ft (KB)

Time Tool Opened: 23:24:17

Time Test Ended: 06:25:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

Interval: 5855.00 ft (KB) To 5886.00 ft (KB) (TVD)

Reference Elevations: 2253.00 ft (KB)

Total Depth: 5886.00 ft (KB) (TVD)

2245.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8672 Inside

Press@RunDepth: 213.95 psig @ 5858.00 ft (KB)

Capacity: psig

Start Date: 2022.11.08

End Date: 2022.11.09

Last Calib.: 2022.11.08

Start Time: 19:42:01

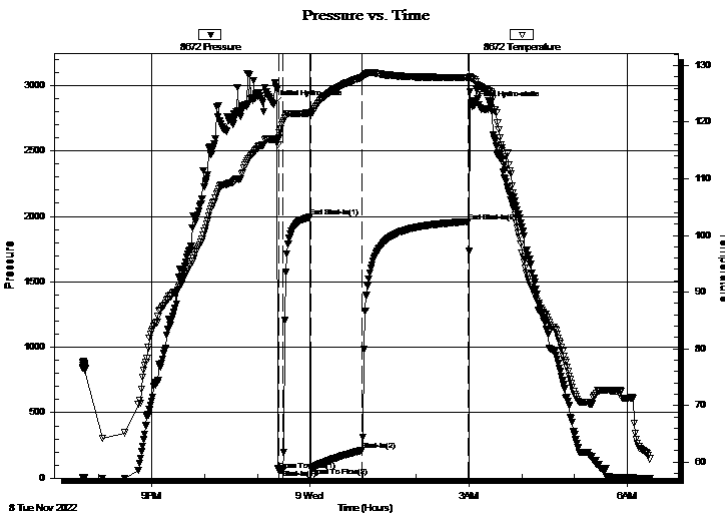
End Time: 06:25:47

Time On Btm: 2022.11.08 @ 23:19:17

Time Off Btm: 2022.11.09 @ 03:03:47

TEST COMMENT: IF: 5 min., BOB 3 min., strong building blow , 21 inches
IS: 30 min., no blow back
FF: 60 min., BOB 4 min., strong building blow , 81 inches
FS: 120 min., no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2850.98	116.98	Initial Hydro-static
5	61.30	117.18	Open To Flow (1)
10	64.89	119.94	Shut-In(1)
41	1994.04	121.61	End Shut-In(1)
42	80.69	121.31	Open To Flow (2)
100	213.95	127.95	Shut-In(2)
220	1960.08	127.94	End Shut-In(2)
225	2843.32	127.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
315.00	gassy muddy water 5%G,5%M,90%W	3.33
63.00	gassy OCWM 10%G,15%O,25%W,50%N	0.88

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co, Inc.

30-32s-23w Clark,KS

1700 N Waterfront
Pkw y Bldg 1200
Wichita, KS 67206
ATTN: Blake Miller

Carter #2-30

Job Ticket: 69252

DST#: 1

Test Start: 2022.11.08 @ 19:42:00

Tool Information

Drill Pipe:	Length: 5735.00 ft	Diameter: 3.80 inches	Volume: 80.45 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 81.04 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 90000.00 lb
Depth to Top Packer:	5855.00 ft			Final 92000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	61.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5830.00	
Hydraulic tool	5.00			5835.00	
Isolator Sub	3.00			5838.00	
Jars	5.00			5843.00	
Safety Joint	3.00			5846.00	
Packer	5.00			5851.00	30.00 Bottom Of Top Packer
Packer	4.00			5855.00	
Stubb	1.00			5856.00	
Perforations	2.00			5858.00	
Recorder	0.00	8672	Inside	5858.00	
Recorder	0.00	6751	Outside	5858.00	
Pickup sub perf	5.00			5863.00	
Perforations	20.00			5883.00	
Bullnose	3.00			5886.00	31.00 Bottom Packers & Anchor

Total Tool Length: 61.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co, Inc.

30-32s-23w Clark,KS

1700 N Waterfront
Pkw y Bldg 1200
Wichita, KS 67206
ATTN: Blake Miller

Carter #2-30

Job Ticket: 69252

DST#: 1

Test Start: 2022.11.08 @ 19:42:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 10.00 lb/gal
Viscosity: 52.00 sec/qt
Water Loss: 8.78 in³
Resistivity: ohm.m
Salinity: 4100.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 32000 ppm

Recovery Information

Recovery Table

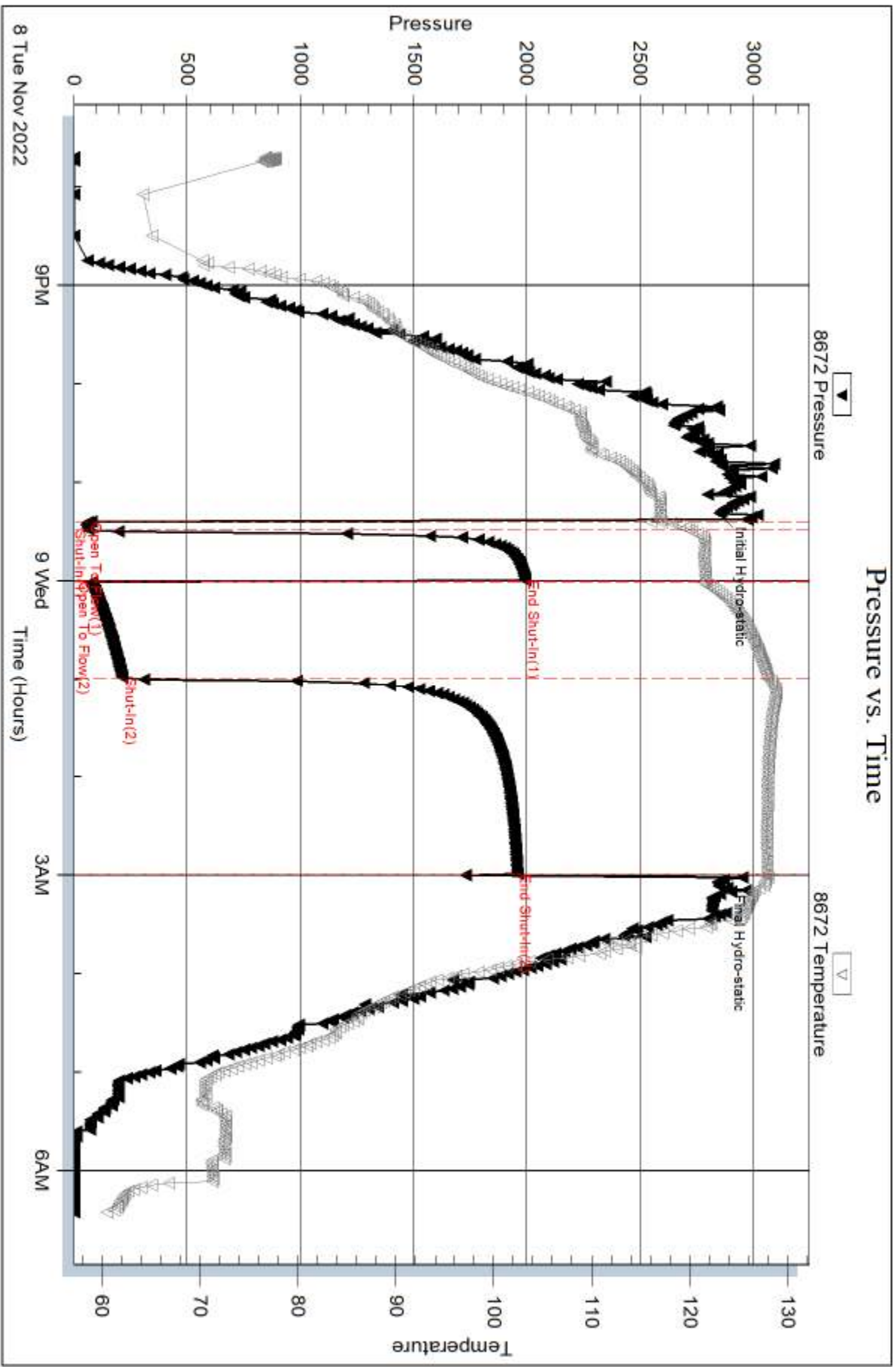
Length ft	Description	Volume bbl
315.00	gassy muddy w ater 5%G,5%M,90%W	3.325
63.00	gassy OCWM 10%G,15%O,25%W,50%M	0.884

Total Length: 378.00 ft Total Volume: 4.209 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: 315' GIP
RW=.240@65= 32,000ppm

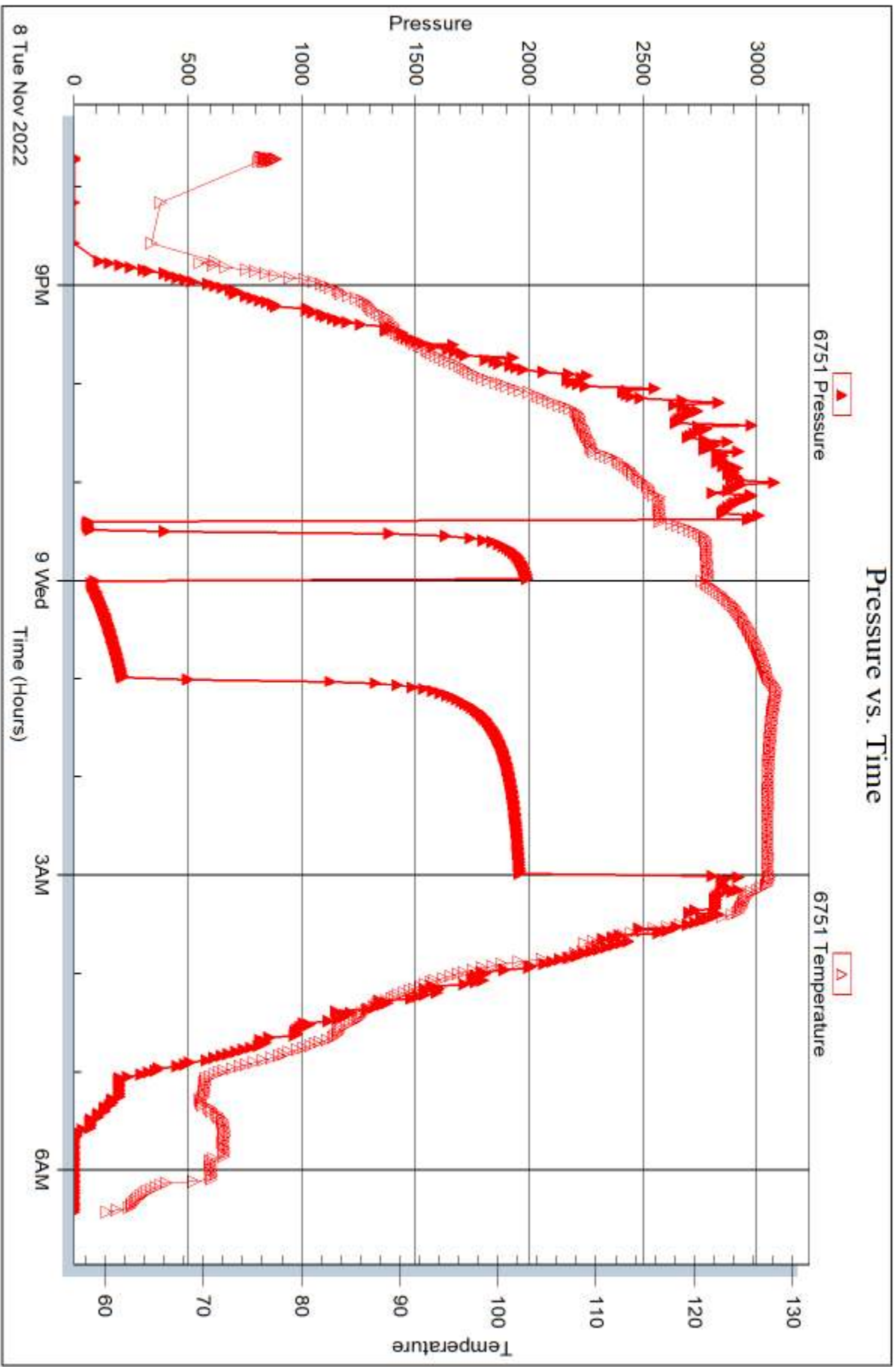


Serial #: 6751

Outside Mall Drilling Co. Inc.

Carter #2-30

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 69252

Printed: 2022.11.16 @ 13:55:44



DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co, Inc.**

1700 N Waterfront
Pkyw Bldg 1200
Wichita, KS 67206

ATTN: Blake Miller

Carter #2-30

30-32s-23w Clark,KS

Start Date: 2022.11.11 @ 12:10:00

End Date: 2022.11.11 @ 21:17:47

Job Ticket #: 69253 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2022.11.16 @ 13:55:07



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mull Drilling Co, Inc.

30-32s-23w Clark,KS

1700 N Waterfront
Pkw y Bldg 1200
Wichita, KS 67206
ATTN: Blake Miller

Carter #2-30

Job Ticket: 69253

DST#: 2

Test Start: 2022.11.11 @ 12:10:00

GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: 2253.00 ft (KB)

Time Tool Opened: 15:13:47

Time Test Ended: 21:17:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

Interval: 6708.00 ft (KB) To 6790.00 ft (KB) (TVD)

Reference Elevations: 2253.00 ft (KB)

Total Depth: 6790.00 ft (KB) (TVD)

2245.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8672 Inside

Press@RunDepth: 32.36 psig @ 6711.00 ft (KB)

Capacity: psig

Start Date: 2022.11.11

End Date:

2022.11.11

Last Calib.:

1899.12.30

Start Time: 12:10:01

End Time:

21:17:47

Time On Btm:

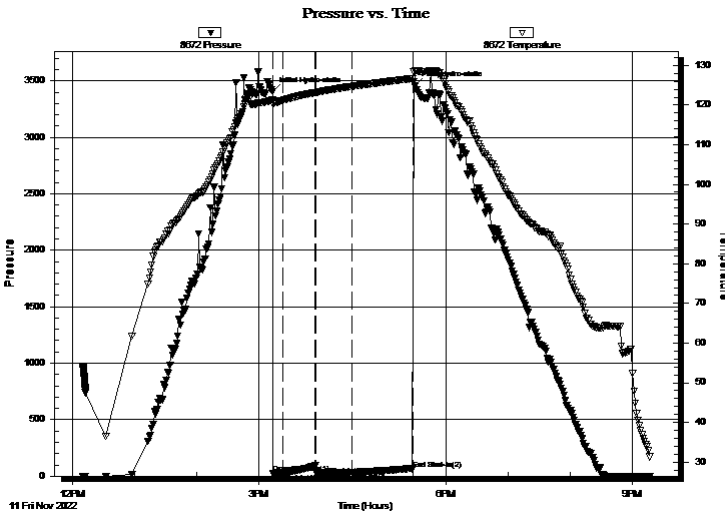
2022.11.11 @ 15:13:02

Time Off Btm:

2022.11.11 @ 17:30:17

TEST COMMENT: IF: 5 min., weak surface blow, .3 inches
IS: 30 min., no blow back
FF: 30 min., no blow
FS: 60 min., no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3405.46	121.24	Initial Hydro-static
1	27.45	120.39	Open To Flow (1)
10	28.93	121.17	Shut-In(1)
42	90.01	123.14	End Shut-In(1)
42	30.21	123.16	Open To Flow (2)
77	32.36	124.70	Shut-In(2)
136	64.89	126.73	End Shut-In(2)
138	3457.93	128.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	100%Mud	0.05

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mull Drilling Co, Inc.
 1700 N Waterfront
 Pkwy Bldg 1200
 Wichita, KS 67206
 ATTN: Blake Miller

30-32s-23w Clark,KS

Carter #2-30

Job Ticket: 69253

DST#: 2

Test Start: 2022.11.11 @ 12:10:00

GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: 2253.00 ft (KB)

Time Tool Opened: 15:13:47

Time Test Ended: 21:17:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

Interval: 6708.00 ft (KB) To 6790.00 ft (KB) (TVD)

Reference Elevations: 2253.00 ft (KB)

Total Depth: 6790.00 ft (KB) (TVD)

2245.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 6751 Outside

Press@RunDepth: psig @ 6711.00 ft (KB)

Capacity: psig

Start Date: 2022.11.11

End Date: 2022.11.11

Last Calib.: 1899.12.30

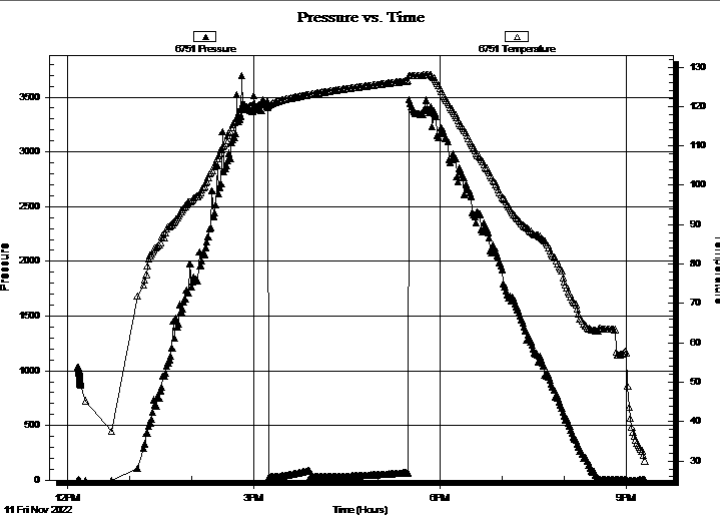
Start Time: 12:10:01

End Time: 21:17:47

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: 5 min., weak surface blow, .3 inches
 IS: 30 min., no blow back
 FF: 30 min., no blow
 FS: 60 min., no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	100%Mud	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co, Inc.

30-32s-23w Clark,KS

1700 N Waterfront
Pkw y Bldg 1200
Wichita, KS 67206
ATTN: Blake Miller

Carter #2-30

Job Ticket: 69253

DST#: 2

Test Start: 2022.11.11 @ 12:10:00

Tool Information

Drill Pipe:	Length: 6587.00 ft	Diameter: 3.80 inches	Volume: 92.40 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 110000.0 lb
			<u>Total Volume: 92.99 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 100000.0 lb
Depth to Top Packer:	6708.00 ft			Final 100000.0 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.00 ft			
Tool Length:	82.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			6683.00	
Hydraulic tool	5.00			6688.00	
Isolator Sub	3.00			6691.00	
Jars	5.00			6696.00	
Safety Joint	3.00			6699.00	
Packer	5.00			6704.00	30.00 Bottom Of Top Packer
Packer	4.00			6708.00	
Stubb	1.00			6709.00	
Perforations	2.00			6711.00	
Recorder	0.00	8672	Inside	6711.00	
Recorder	0.00	6751	Outside	6711.00	
Pickup sub perf	5.00			6716.00	
Perforations	7.00			6723.00	
Change Over Sub	1.00			6724.00	
Drill Pipe	32.00			6756.00	
Change Over Sub	1.00			6757.00	
Bullnose	3.00			6760.00	52.00 Bottom Packers & Anchor
Total Tool Length:	82.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co, Inc.

30-32s-23w Clark,KS

1700 N Waterfront
Pkw y Bldg 1200
Wichita, KS 67206
ATTN: Blake Miller

Carter #2-30

Job Ticket: 69253

DST#: 2

Test Start: 2022.11.11 @ 12:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 55.00 sec/qt

Water Loss: 6.79 in³

Resistivity: ohm.m

Salinity: 4900.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	100%Mud	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8672

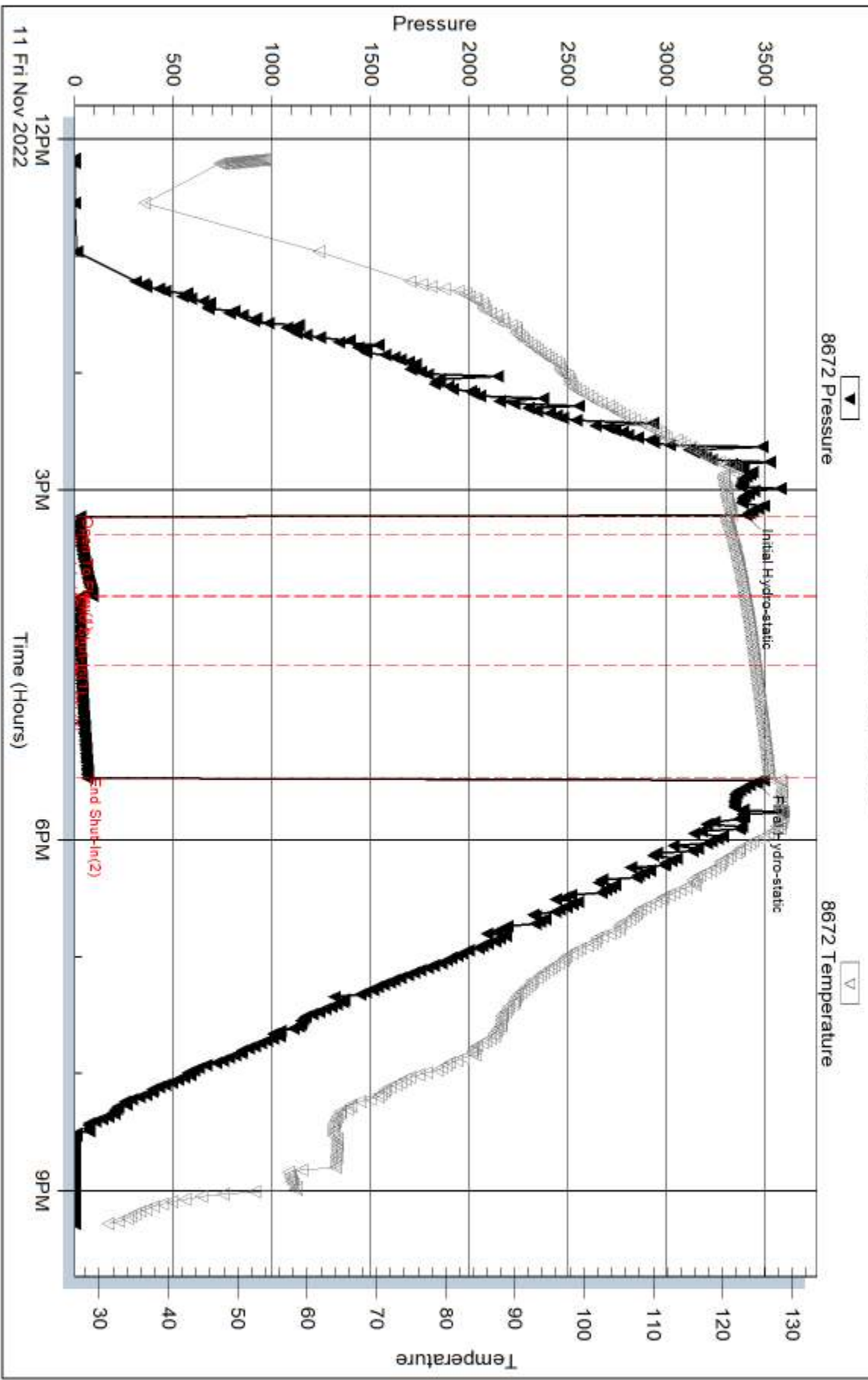
Inside

Mull Drilling Co. Inc.

Carter #2-30

DST Test Number: 2

Pressure vs. Time

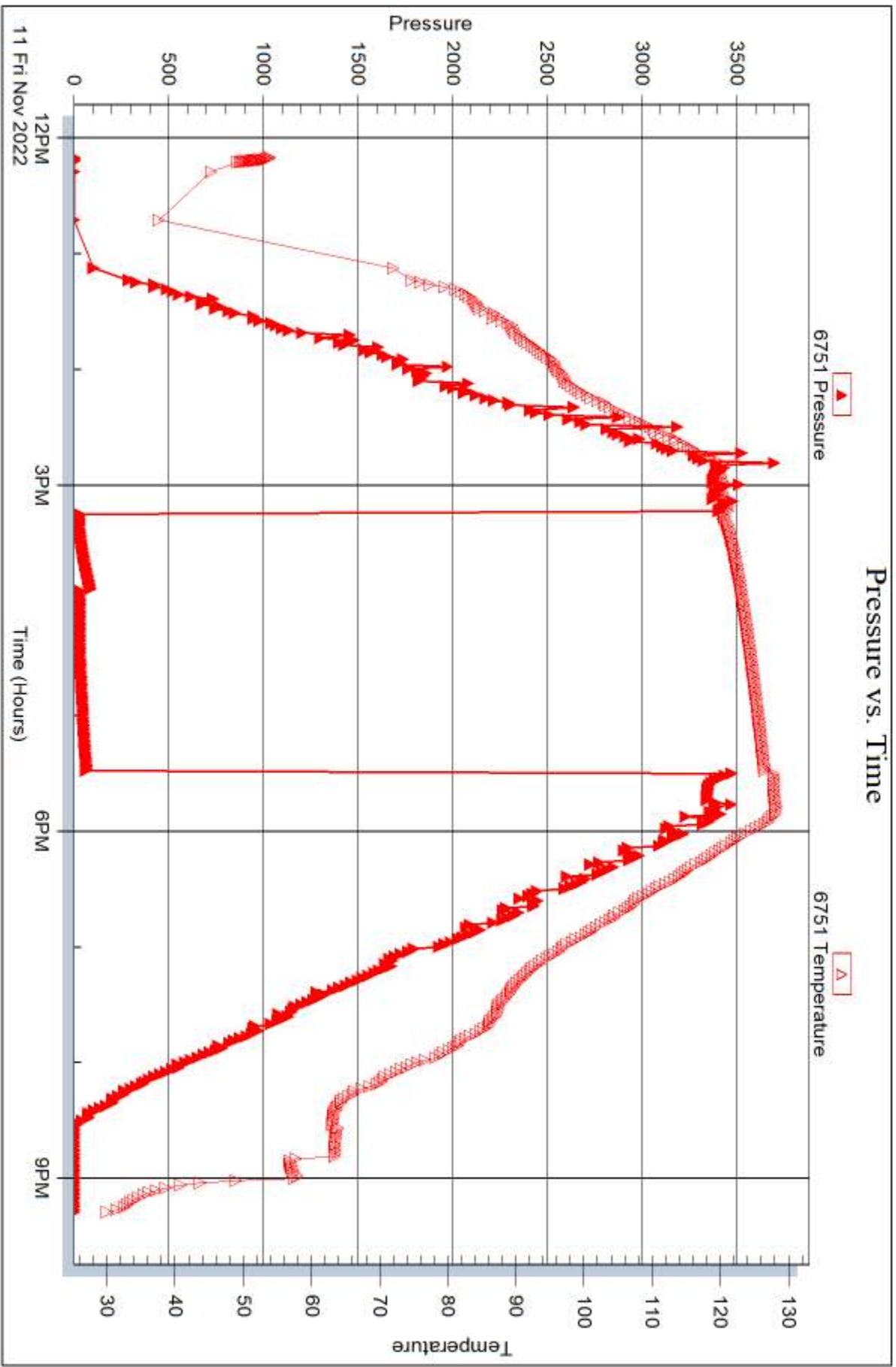


Serial #: 6751

Outside Mall Drilling Co. Inc.

Carter #2-30

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Mull Drilling Co, Inc.**

1700 N Waterfront
Pky Bldg 1200
Wichita, KS 67206

ATTN: Blake Miller

Carter #2-30

30-32s-23w Clark,KS

Start Date: 2022.11.13 @ 23:45:00

End Date: 2022.11.14 @ 10:58:47

Job Ticket #: 69254 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2022.11.16 @ 13:54:08



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mull Drilling Co, Inc.

30-32s-23w Clark,KS

1700 N Waterfront
Pkw y Bldg 1200
Wichita, KS 67206
ATTN: Blake Miller

Carter #2-30

Job Ticket: 69254

DST#: 3

Test Start: 2022.11.13 @ 23:45:00

GENERAL INFORMATION:

Formation: **Simpson**

Deviated: No Whipstock: 2253.00 ft (KB)

Time Tool Opened: 03:20:32

Time Test Ended: 10:58:47

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Hagman

Unit No: 69

Interval: 6910.00 ft (KB) To 7010.00 ft (KB) (TVD)

Reference Elevations: 2253.00 ft (KB)

Total Depth: 7010.00 ft (KB) (TVD)

2245.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8672

Inside

Press@RunDepth: 408.91 psig @ 6913.00 ft (KB)

Capacity: psig

Start Date: 2022.11.12

End Date: 2022.11.13

Last Calib.: 1899.12.30

Start Time: 23:45:01

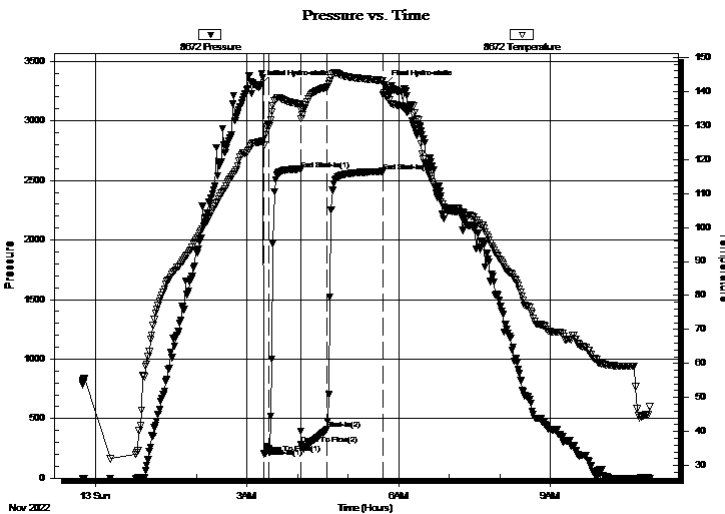
End Time: 10:58:47

Time On Btm: 2022.11.13 @ 03:16:02

Time Off Btm: 2022.11.13 @ 05:43:32

TEST COMMENT: IF: 5 min., BOB 2 min., strong building blow , 108 inches
IS: 30 min., Blow back 3 min., 2.5 inches
FF: 30 min., BOB 30 sec., strong building blow , 632 inches
FS: 60 min., Blow back immediately, BOB 1 min., 53 inches

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3300.61	125.17	Initial Hydro-static
5	204.36	124.16	Open To Flow (1)
11	247.73	130.32	Shut-In(1)
48	2592.86	136.14	End Shut-In(1)
49	283.10	131.97	Open To Flow (2)
79	408.91	141.23	Shut-In(2)
145	2575.55	143.14	End Shut-In(2)
148	3301.08	139.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1000.00	gasy oil 45%G, 55%O	12.93

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mull Drilling Co, Inc.

30-32s-23w Clark,KS

1700 N Waterfront
Pkw y Bldg 1200
Wichita, KS 67206
ATTN: Blake Miller

Carter #2-30

Job Ticket: 69254

DST#: 3

Test Start: 2022.11.13 @ 23:45:00

Tool Information

Drill Pipe:	Length: 6775.00 ft	Diameter: 3.80 inches	Volume: 95.04 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 120000.0 lb
			<u>Total Volume: 95.63 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 103000.0 lb
Depth to Top Packer:	6910.00 ft			Final 106000.0 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	100.00 ft			
Tool Length:	130.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			6885.00	
Hydraulic tool	5.00			6890.00	
Isolator Sub	3.00			6893.00	
Jars	5.00			6898.00	
Safety Joint	3.00			6901.00	
Packer	5.00			6906.00	30.00 Bottom Of Top Packer
Packer	4.00			6910.00	
Stubb	1.00			6911.00	
Perforations	2.00			6913.00	
Recorder	0.00	8672	Inside	6913.00	
Recorder	0.00	6751	Outside	6913.00	
Pickup sub perf	5.00			6918.00	
Perforations	24.00			6942.00	
Change Over Sub	1.00			6943.00	
Drill Pipe	63.00			7006.00	
Change Over Sub	1.00			7007.00	
Bullnose	3.00			7010.00	100.00 Bottom Packers & Anchor
Total Tool Length:	130.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mull Drilling Co, Inc.

30-32s-23w Clark,KS

1700 N Waterfront
Pkw y Bldg 1200
Wichita, KS 67206
ATTN: Blake Miller

Carter #2-30

Job Ticket: 69254

DST#: 3

Test Start: 2022.11.13 @ 23:45:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1000.00	gasy oil 45%G, 55%O	12.934

Total Length: 1000.00 ft Total Volume: 12.934 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

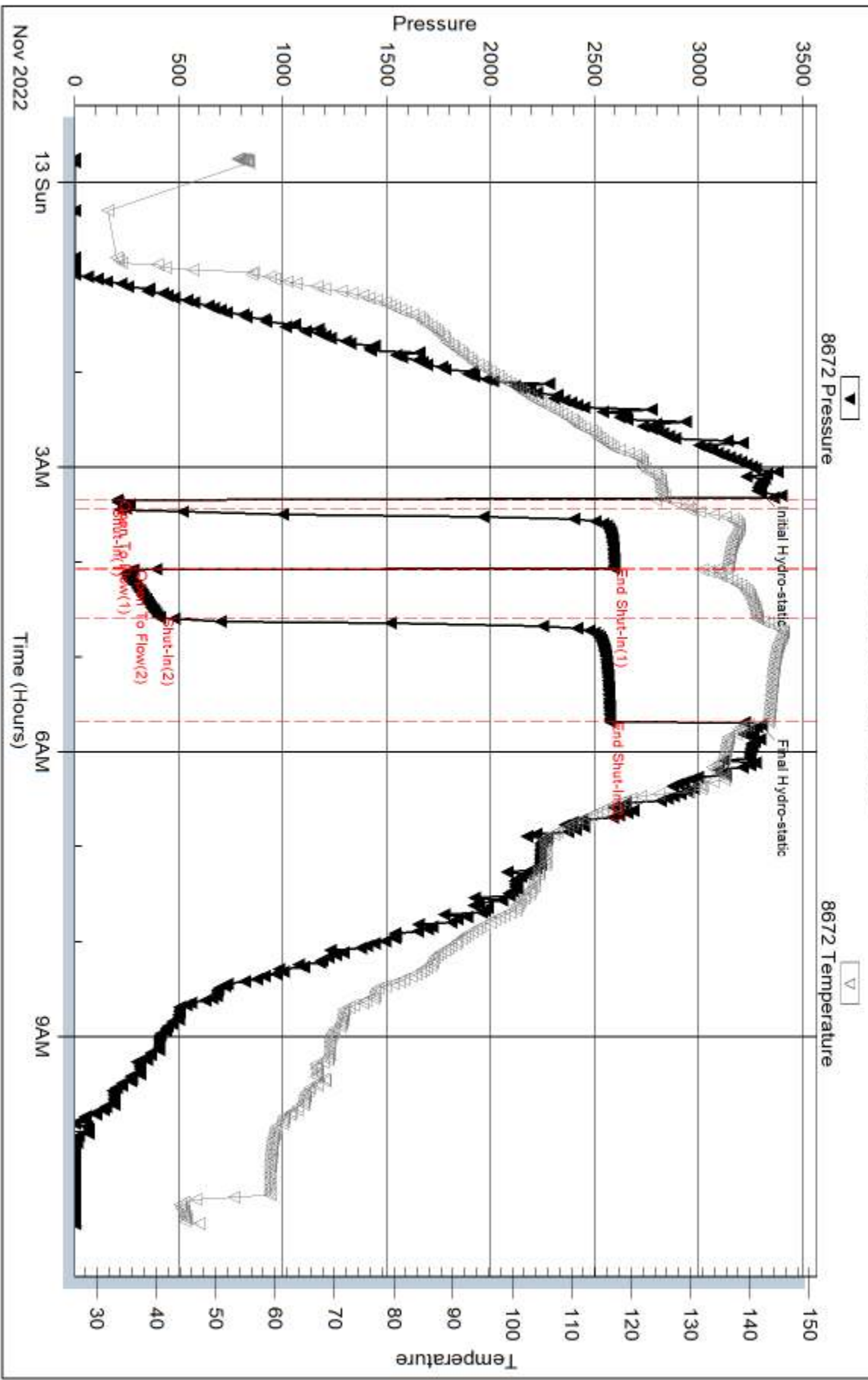
Laboratory Name:

Laboratory Location:

Recovery Comments: 2960' GIP

API = 35@5-F = 36

Pressure vs. Time

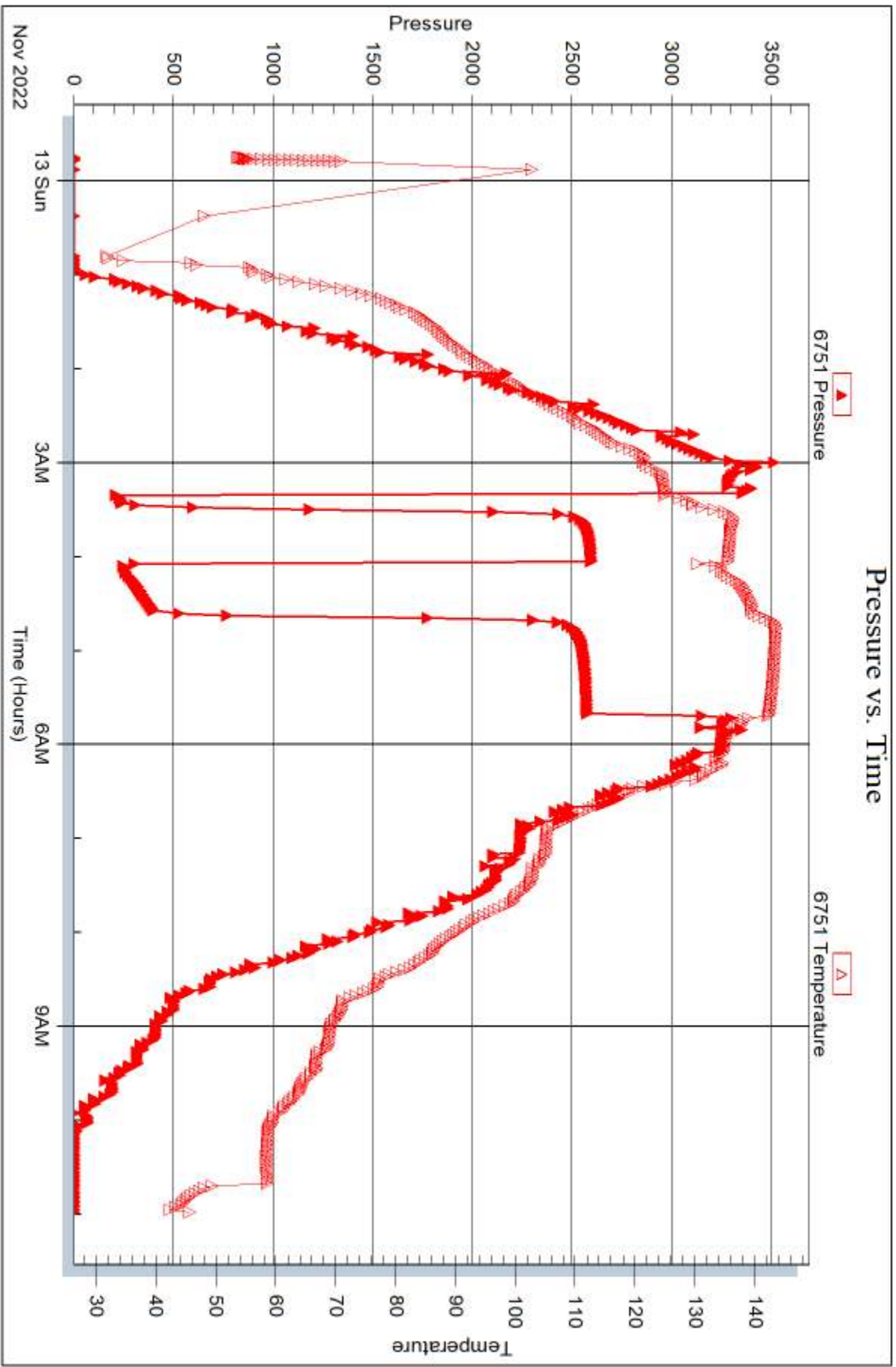


Serial #: 6751

Outside Mall Drilling Co. Inc.

Carter #2-30

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 69254

Printed: 2022.11.16 @ 13:54:09



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 69252

Well Name & No. Carter 2-30 Test No. 1 Date 11-8-22
 Company Mull Drilling Co, Inc. Elevation 2253 KB 2245 GL
 Address Wichita, KS
 Co. Rep / Geo. Blake Miller Rig Ross 11 #3
 Location: Sec. 30 Twp 32 Rge. 23 Co. Clark State KS

Interval Tested 5855-5886 Zone Tested St. Louis
 Anchor Length 31' Drill Pipe Run 5735 Mud Wt. 9.55
 Top Packer Depth 5850 Drill Collars Run 120 Vis 52
 Bottom Packer Depth 5855 Wt. Pipe Run N.A. WL 8.8
 Total Depth 5886 Chlorides 4100 ppm System LCM 5^A
 Blow Description IF: 5 min., BOB 3 min., strong building blow, 21 inches
BS: 30 min., no blow back
FF: 60 min., BOB 4 min., strong building blow, 81 inches
PS: 120 min., no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>315</u>	<u>gassy muddy water</u>	<u>5</u>	<u>90</u>	<u>5</u>	<u>5</u>
<u>63</u>	<u>gassy oil cut watery mud</u>	<u>10</u>	<u>15</u>	<u>25</u>	<u>50</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u>315' G.P.</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Rec Total 378 BHT 128 Gravity API RW 240 @ 65 °F Chlorides 32,000 ppm
 (A) Initial Hydrostatic 2851 Test conv. 2150 T-On Location 1900
 (B) First Initial Flow 61 Jars 300 T-Started 2000
 (C) First Final Flow 65 Safety Joint T-Open 2330
 (D) Initial Shut-In 1994 Circ Sub T-Pulled 0305
 (E) Second Initial Flow 81 Hourly Standby T-Out 0630
 (F) Second Final Flow 214 Mileage 190 332.50 Comments 1942
 (G) Final Shut-In 1960 Sampler
 (H) Final Hydrostatic 2843 Straddle EM Tool no good -350
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Initial Open 5 Extra Recorder
 Initial Shut-In 30 Day Standby
 Final Flow 60 Accessibility
 Final Shut-In 120 Sub Total 2782.50 Total 2432.50
 Sub Total 2782.50 MP/DST Disc't

Approved By _____ Our Representative Chris Hagan
 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.
 785-656-3947



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 69253

Well Name & No. Carter 2-30 Test No. 2 Date 11-11-22
 Company Mull Drilling Co., Inc. Elevation 2253 KB 2245 GL
 Address Wichita, KS
 Co. Rep / Geo. Blake Miller Rig Fossil #3
 Location: Sec. 30 Twp 32 Rge. 23 Co. Clark State KS

Interval Tested 6708-6790 Zone Tested Viola
 Anchor Length 82' Drill Pipe Run 6587 Mud Wt. 9.5
 Top Packer Depth 6703 Drill Collars Run 120 Vis SS
 Bottom Packer Depth 6708 Wt. Pipe Run N.A. WL 6.8
 Total Depth 6790 Chlorides 4900 ppm System LCM 6A

Blow Description IF: 5 min., weak surface blow, 3 inches
IST: 30 min., no blow back
FPI #30 min., no blow
FSD: 60 min., no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>mud</u>				<u>100</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 10 BHT 127 Gravity API RW @ ° F Chlorides ppm
 (A) Initial Hydrostatic 3405 Test conv. 2400 T-On Location 0830
 (B) First Initial Flow 27 Jars 300 T-Started 1300 WOR
 (C) First Final Flow 29 Safety Joint _____ T-Open 1520
 (D) Initial Shut-In 90 Circ Sub _____ T-Pulled 1725
 (E) Second Initial Flow 30 Hourly Standby _____ T-Out 2100
 (F) Second Final Flow 32 Mileage X 190 332.50 Comments 1210
 (G) Final Shut-In 65 Sampler _____
 (H) Final Hydrostatic 3458 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 3032.50

Initial Open 5 EM Tool no good -350
 Initial Shut-In 30 Ruined Shale Packer _____
 Final Flow 30 Ruined Packer _____
 Final Shut-In 60 Extra Copies _____
 Sub Total -350
 Total 2682.50
 MP/DST Disc't _____

Approved By _____ Our Representative Chris Hogren
 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.



TRIBOLITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 69254

Well Name & No. Carter 2-30 Test No. 3 Date 11-17-22
 Company Mull Drilling Co, Inc. Elevation 2253 KB 2245 GL
 Address Wichita, KS
 Co. Rep / Geo. Blake Miller Rig Fossil #3
 Location: Sec. 30 Twp 32 Rge. 23 Co. Clerk State KS

Interval Tested 6910-7010 Zone Tested Simpson
 Anchor Length 100' Drill Pipe Run 6775 Mud Wt. 9.2
 Top Packer Depth 6905 Drill Collars Run 120 Vis 60
 Bottom Packer Depth 6910 Wt. Pipe Run N.A. WL 6.0
 Total Depth 7010 Chlorides 3900 ppm System LCM 11 #

Blow Description IF: 5 min., BOB 2 min., strong building blow, 108 inches
IST: 30 min., blow back 3 min., 2.5 inches
FP: 30 min., BOB 30 sec., strong building blow 632 inches
BST: 60 min., Blow back immediately, BOB 1 min., 53 inches

Rec	Feet of	%gas	%oil	%water	%mud
<u>1000</u>	<u>gasy oil</u>	<u>45</u>	<u>55</u>		
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>2960' G.P.</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1000 BHT 141 Gravity 36 API 35 @ 50 °F Chlorides _____ ppm

- (A) Initial Hydrostatic 3301
- (B) First Initial Flow 204
- (C) First Final Flow 248
- (D) Initial Shut-In 2593
- (E) Second Initial Flow 283
- (F) Second Final Flow 409
- (G) Final Shut-In 2576
- (H) Final Hydrostatic 3301

- Test conv. ²⁷⁰⁰
- Jars 300
- Safety Joint
- Circ Sub
- Hourly Standby
- Mileage 2190 ^{332.50}
- Sampler
- Straddle
- Shale Packer A 1.0 ²⁵⁰
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total 3582.50

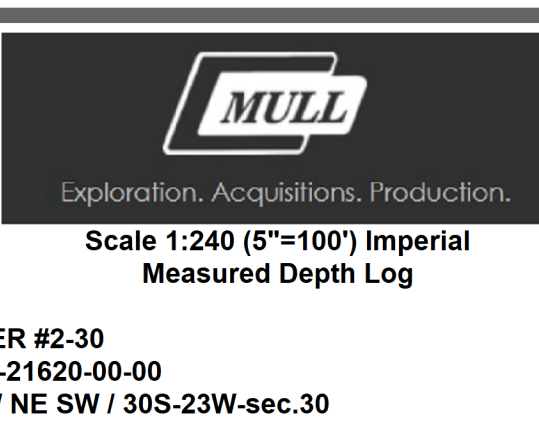
- T-On Location 2100
- T-Started 0030
- T-Open 0325
- T-Pulled 0530
- T-Out 1100
- Comments 2345
- EM Tool no good ⁻³⁵⁰
- Ruined Shale Packer
- Ruined Packer
- Extra Copies
- Sub Total -350
- Total 3232.50
- MP/DST Disc't _____

Initial Open 5
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 60

Approved By _____

Our Representative Chris Nguyen

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.



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

Well Name: CARTER #2-30
Location: NW NE NW SW 1/4 30S-23W-sec.30
Drilling Completed: NESS City

Company: MULL DRILLING COMPANY
Operator: OPERATOR
Name: Blake Miller
Company: Blake S. Miller
Address: 235 N. Zelta Wichita, KS 672

Surface Casing: Production Casing
Deviation Surveys: Pipe Strap @ Contractor Bit Record

Gas Detector: PASON SYSTEMS
Mud System: CHEMICAL MUD DISPLACED
DSTs: TRILOBITE TESTING

TRILLOBITE TESTING, CHRIS HOGMAN:
DST #1: ST. LOUIS (5555-5886) 5-30-60-120
DST #2: VIOLA (6708-6790) 5-30-30-60

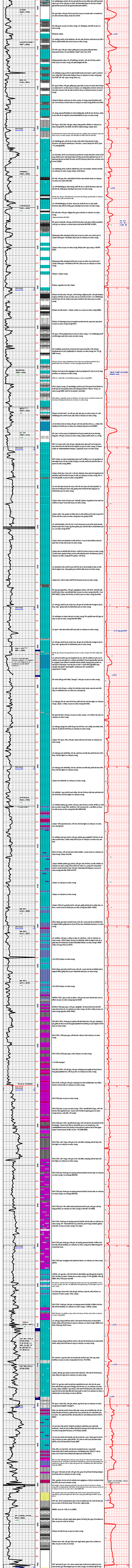
PUSHER: GALE THOMPSON
DAYLIGHTS: PABLO
EVENING: JOSE MORNING: TRISTRAN

ROCK TYPES:
Anhy Bent Brecc Chert Clayst Congl Sdy dolom
Gly Dol Gyp Sst Gyrst Lms Mist Salt Shale

MINERAL: Anhy Arg Bent Brecc Calc Carb Chkd Chrt Clayst Gyp Marl Noodule Phos Pyr Salt Sandy Silt

ACCESSORIES: Pelec Pellet Ptsilite Strom Fuzz Osmoldic
STRINGER: Anhy Bent Coal Gyp Ls Mist Sstbrst Carbsh Cystn Dol

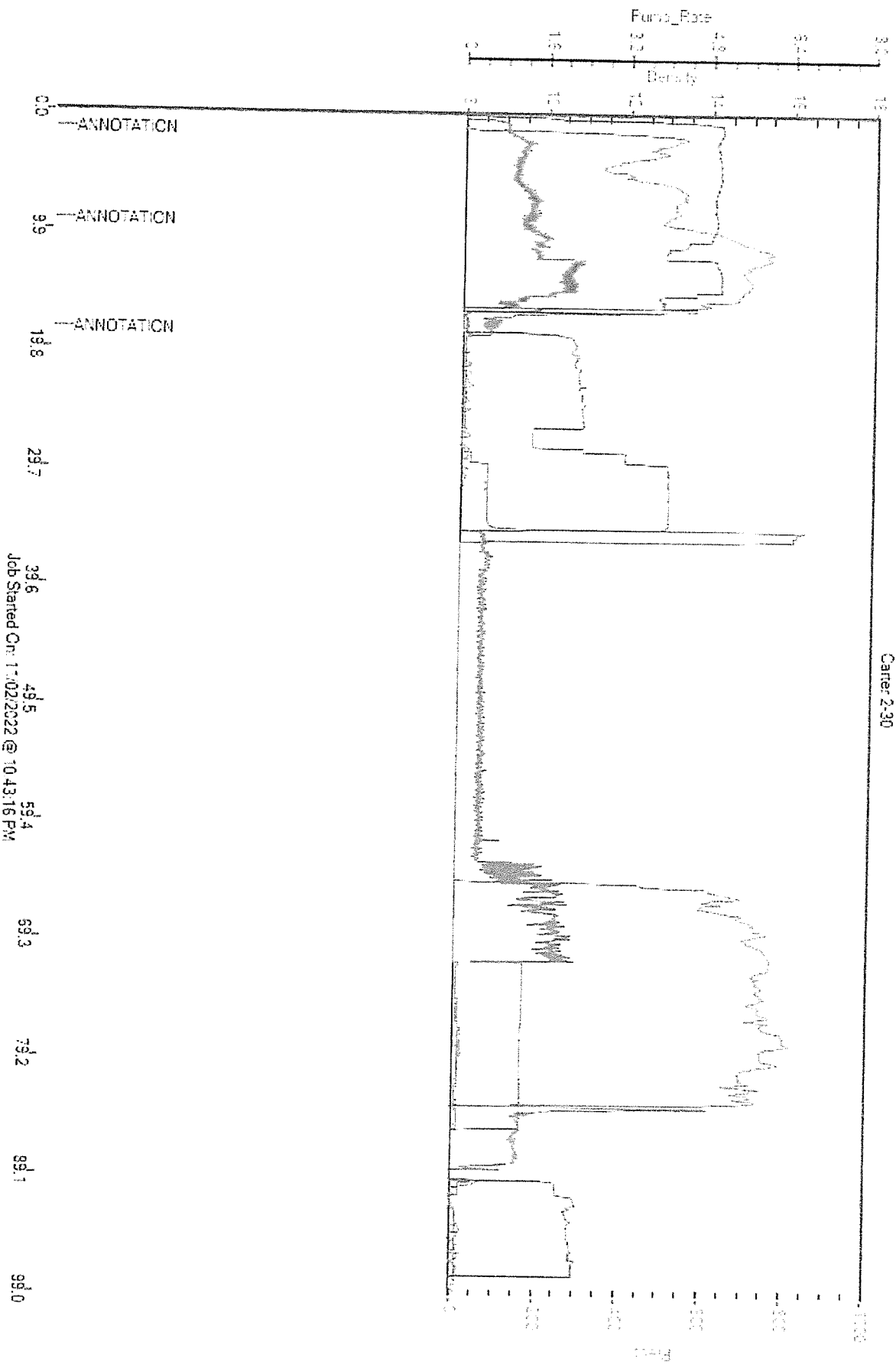
TEXTURE: Boundst Chalky Craytn Earthy Finexn Grainst Lithogr Microxln Packet Wackest



SP CORRELATION: 6932 (+682) +72
DST #2: VIOLA (6708-6790) 5-30-30-60
DST #2: VIOLA (6708-6790) 5-30-30-60

Mull Drilling

Case: 2-30



Mull surface IMP.acdb 1



Customer	MULL DRILLING COMPANY INC	Lease & Well #	CARTER 2-30	Date	11/15/2022
Service District	PRATT	County & State	CLARK KS	Legals S/T/R	30-32S-23W
Job Type	LONGSTRING	<input checked="" type="checkbox"/> PROD	<input type="checkbox"/> INJ	<input type="checkbox"/> SWD	New Well? <input checked="" type="checkbox"/> YES <input type="checkbox"/> No
Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures			
912	MATTAL	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
179/521	CLIFTON	<input checked="" type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
182/534	JULIAN	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
		<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Muster Point/Medical Locations
		<input type="checkbox"/> Hearing Protection	<input type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	
Comments					

Product/Service Code	Description	Unit of Measure	Quantity	Net Amount
CP025	H-Con	sack	150.00	\$3,750.00
CP032	HH-Long	sack	125.00	\$5,625.00
CP025	H-Con	sack	50.00	\$1,250.00
CP116	Water Control Agent	lb	25.00	\$650.00
CP120	Cello-flake	lb	31.00	\$54.25
CP132	Cement Fluid Loss 2	lb	36.00	\$540.00
FE145	5 1/2" Float Shoe - AFU Flapper Type	ea	1.00	\$375.00
FE170	5 1/2" Latch Down Plug & Baffle	ea	1.00	\$350.00
FE130	5 1/2" Cement Basket	ea	2.00	\$600.00
FE135	5 1/2" Turbolizer	ea	10.00	\$1,250.00
CP174	Super Flush II	gal	1,000.00	\$1,750.00
AF055	Liquid KCL Substitute 2	gal	20.00	\$400.00
M015	Light Equipment Mileage	mi	90.00	\$180.00
M010	Heavy Equipment Mileage	mi	180.00	\$720.00
M020	Ton Mileage	tn	1,355.00	\$2,032.50
C060	Cement Blending & Mixing Service	sack	325.00	\$455.00
D018	Depth Charge: 7001'-8000'	job	1.00	\$3,500.00
C035	Cement Data Acquisition	job	1.00	\$250.00
C050	Cement Plug Container	job	1.00	\$250.00
R061	Service Supervisor	day	1.00	\$275.00
C025	Cement Pump - Hourly Service	hr	4.00	\$700.00

Customer Section: On the following scale how would you rate Hurricane Services Inc.?		Net:	\$24,956.75
Total Taxable \$ - Tax Rate:		Sale Tax:	\$ -
Based on this job, how likely is it you would recommend HSI to a colleague? <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input checked="" type="checkbox"/> 9 <input type="checkbox"/> 10 <small>Extremely Likely</small>		Total:	\$ 24,956.75
HSI Representative: <i>Mike Mattal</i>			

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 3/4% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

x Robin Brown CUSTOMER AUTHORIZATION SIGNATURE

MULL
CARTER 2-30

