

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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DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E 22nd St N 700
Wichita, KS 67278

ATTN: John Goldsmith

21-16s-31w Scott,KS

Scheuerman-Hrbek Trusst #1

Start Date: 2021.12.01 @ 01:04:03

End Date: 2021.12.01 @ 08:40:03

Job Ticket #: 67691 DST #: 1

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

Printed: 2021.12.09 @ 09:25:59

Ritchie Exploration

Scheuerman-Hrbek Trusst #1

21-16s-31w Scott,KS

DST # 1

LKC C - D

2021.12.01



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N 700
Wichita, KS 67278

ATTN: John Goldsmith

Scheuerman-Hrbek Trusst #1

21-16s-31w Scott,KS

Job Ticket: 67691

DST#: 1

Test Start: 2021.12.01 @ 01:04:03

GENERAL INFORMATION:

Formation: **LKC C - D**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:15:03

Time Test Ended: 08:40:03

Test Type: Conventional Bottom Hole (Initial)

Tester: Brandon Turley

Unit No: 79

Interval: 3997.00 ft (KB) To 4033.00 ft (KB) (TVD)

Reference Elevations: 2932.00 ft (KB)

Total Depth: 4033.00 ft (KB) (TVD)

2923.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8674 Outside

Press@RunDepth: 150.84 psig @ 3998.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2021.12.01

End Date:

2021.12.01

Last Calib.:

2021.12.01

Start Time: 01:04:08

End Time:

08:40:02

Time On Btm:

2021.12.01 @ 03:13:33

Time Off Btm:

2021.12.01 @ 06:16:03

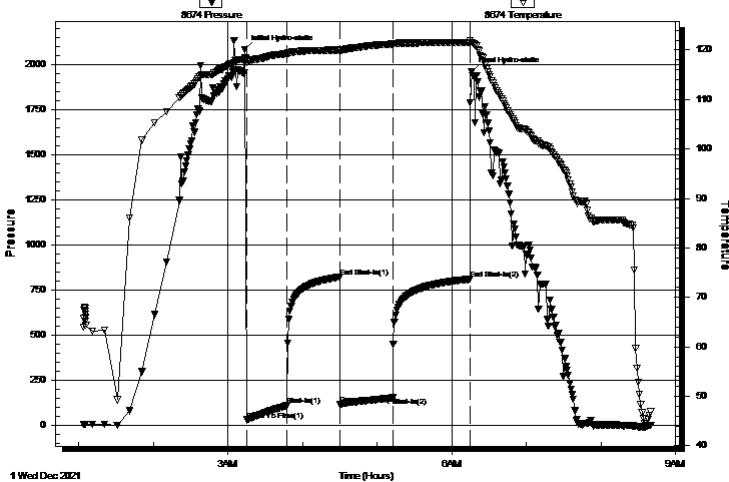
TEST COMMENT: IF: 1/4" blow built to 4 1/2"

IS: No return.

FF: Surface blow built to 3 1/2"

FS: No return. 30-45-45-60

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2081.32	118.08	Initial Hydro-static
2	28.09	117.56	Open To Flow (1)
34	107.71	119.30	Shut-In(1)
77	821.31	120.00	End Shut-In(1)
77	113.20	119.78	Open To Flow (2)
119	150.84	121.22	Shut-In(2)
181	808.66	121.50	End Shut-In(2)
183	1960.07	121.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
189.00	mcw 90%w 10%m	0.93
72.00	w cm 20%w 80%m	0.78

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

Scheuerman-Hrbek Trusst #1

8100 E 22nd St N 700
Wichita, KS 67278

21-16s-31w Scott, KS

Job Ticket: 67691

DST#: 1

ATTN: John Goldsmith

Test Start: 2021.12.01 @ 01:04:03

Tool Information

Drill Pipe:	Length: 3788.00 ft	Diameter: 3.80 inches	Volume: 53.14 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: 30000.00 lb
Drill Collar:	Length: 214.00 ft	Diameter: 2.25 inches	Volume: 1.05 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 54.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	3997.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	63.00 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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Stubb	1.00			3971.00	
Shut In Tool	5.00			3976.00	
Hydraulic tool	5.00			3981.00	
Jars	5.00			3986.00	
Safety Joint	2.00			3988.00	
Packer	5.00			3993.00	27.00 Bottom Of Top Packer
Packer	4.00			3997.00	
Stubb	1.00			3998.00	
Recorder	0.00	8790	Inside	3998.00	
Recorder	0.00	8674	Outside	3998.00	
Perforations	32.00			4030.00	
Bullnose	3.00			4033.00	36.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Scheuerman-Hrbek Trusst #1

8100 E 22nd St N 700
Wichita, KS 67278

21-16s-31w Scott,KS

Job Ticket: 67691

DST#: 1

ATTN: John Goldsmith

Test Start: 2021.12.01 @ 01:04:03

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

30000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbf

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
189.00	mcw 90%w 10%m	0.929
72.00	w cm 20%w 80%m	0.782

Total Length: 261.00 ft Total Volume: 1.711 bbf

Num Fluid Samples: 0

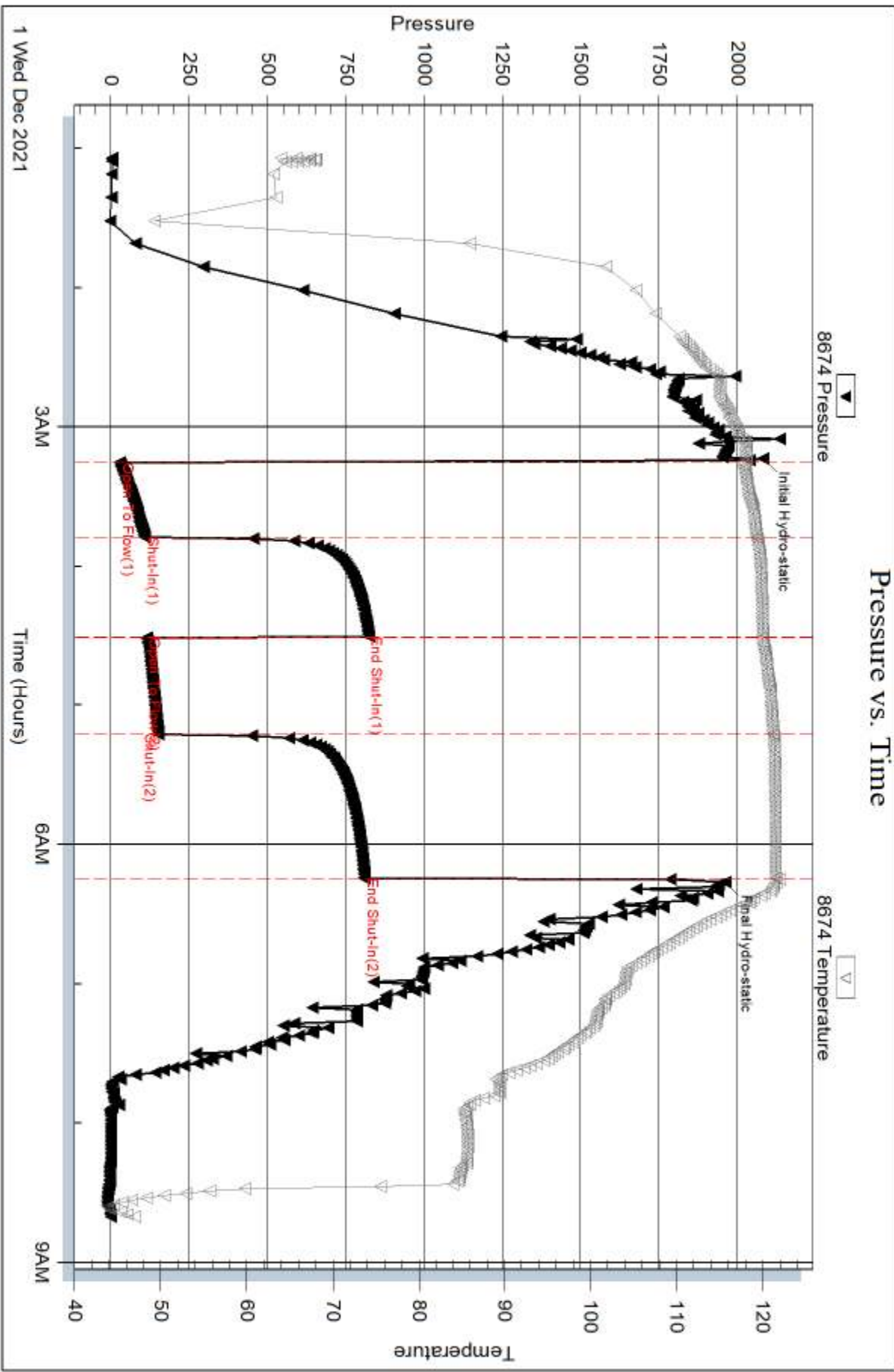
Num Gas Bombs: 0

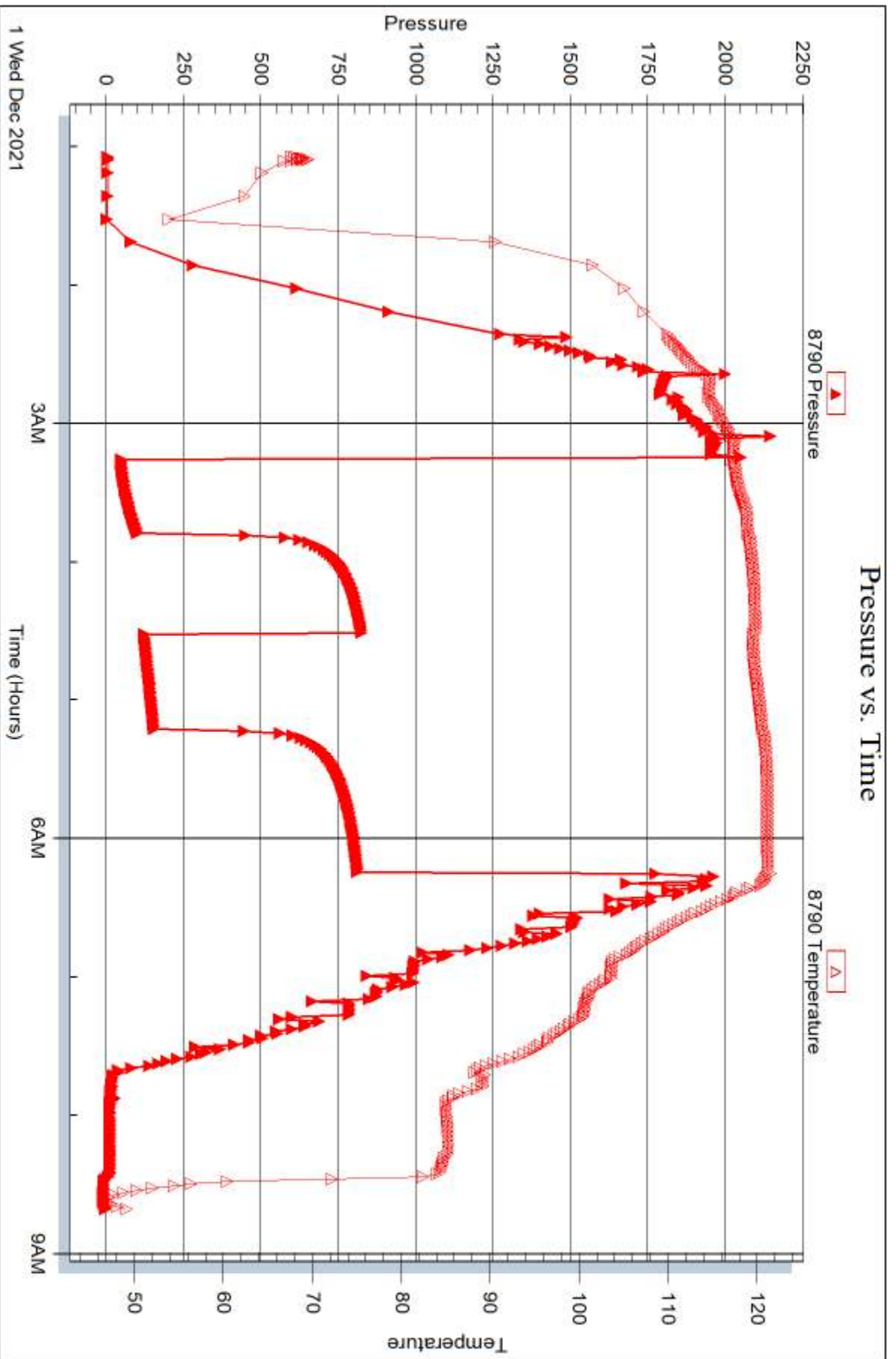
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .27@62=30000







DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

8100 E 22nd St N 700
Wichita, KS 67278

ATTN: John Goldsmith

21-16s-31w Scott,KS

Scheuerman-Hrbek Trusst #1

Start Date: 2021.12.04 @ 01:52:36

End Date: 2021.12.04 @ 07:53:36

Job Ticket #: 67692 DST #: 2

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

Printed: 2021.12.09 @ 09:25:00

Ritchie Exploration

Scheuerman-Hrbek Trusst #1

21-16s-31w Scott,KS

DST # 2

Johnson

2021.12.04



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration

8100 E 22nd St N 700
Wichita, KS 67278

ATTN: John Goldsmith

Scheuerman-Hrbek Trusst #1

21-16s-31w Scott,KS

Job Ticket: 67692

DST#: 2

Test Start: 2021.12.04 @ 01:52:36

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:49:06

Time Test Ended: 07:53:36

Test Type: Conventional Bottom Hole (Reset)

Tester: Brandon Turley

Unit No: 79

Interval: 4540.00 ft (KB) To 4582.00 ft (KB) (TVD)

Reference Elevations: 2932.00 ft (KB)

Total Depth: 4582.00 ft (KB) (TVD)

2923.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8674 Outside

Press@RunDepth: 34.19 psig @ 4541.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2021.12.04

End Date:

2021.12.04

Last Calib.:

2021.12.04

Start Time: 01:52:41

End Time:

07:53:35

Time On Btm:

2021.12.04 @ 03:48:06

Time Off Btm:

2021.12.04 @ 05:51:36

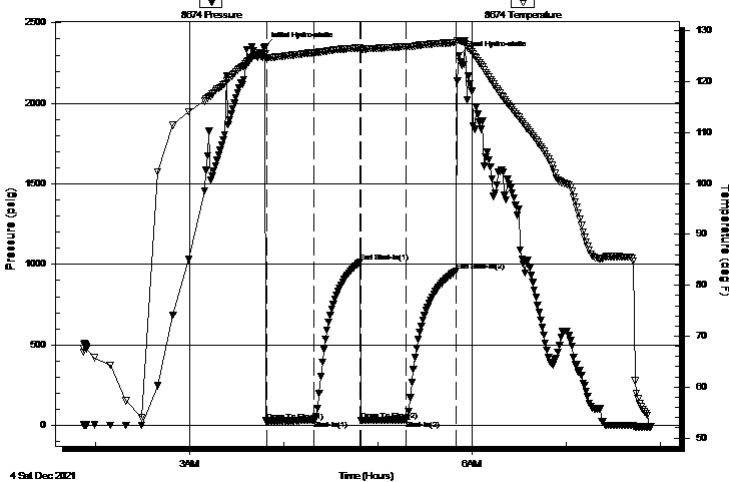
TEST COMMENT: IF: Surface blow built to 1/4"

IS: No return.

FF: No blow.

FS: No return. 30-30-30-30

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2354.22	125.52	Initial Hydro-static
1	28.04	124.76	Open To Flow (1)
31	31.23	125.72	Shut-In(1)
61	1013.87	126.64	End Shut-In(1)
61	32.30	126.38	Open To Flow (2)
90	34.19	126.90	Shut-In(2)
122	957.91	127.70	End Shut-In(2)
124	2295.33	128.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	mud 100%m	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

Scheuerman-Hrbek Trusst #1

8100 E 22nd St N 700
Wichita, KS 67278

21-16s-31w Scott,KS

Job Ticket: 67692

DST#: 2

ATTN: John Goldsmith

Test Start: 2021.12.04 @ 01:52:36

Tool Information

Drill Pipe:	Length: 4332.00 ft	Diameter: 3.80 inches	Volume: 60.77 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: 30000.00 lb
Drill Collar:	Length: 214.00 ft	Diameter: 2.25 inches	Volume: 1.05 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 61.82 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	4540.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	42.00 ft			
Tool Length:	69.00 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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Stubb	1.00			4514.00	
Shut In Tool	5.00			4519.00	
Hydraulic tool	5.00			4524.00	
Jars	5.00			4529.00	
Safety Joint	2.00			4531.00	
Packer	5.00			4536.00	27.00 Bottom Of Top Packer
Packer	4.00			4540.00	
Stubb	1.00			4541.00	
Recorder	0.00	8790	Inside	4541.00	
Recorder	0.00	8674	Outside	4541.00	
Perforations	4.00			4545.00	
Change Over Sub	1.00			4546.00	
Drill Pipe	32.00			4578.00	
Change Over Sub	1.00			4579.00	
Bullnose	3.00			4582.00	42.00 Bottom Packers & Anchor

Total Tool Length: 69.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Scheuerman-Hrbek Trusst #1

8100 E 22nd St N 700
Wichita, KS 67278

21-16s-31w Scott,KS

Job Ticket: 67692

DST#: 2

ATTN: John Goldsmith

Test Start: 2021.12.04 @ 01:52:36

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	mud 100%m	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

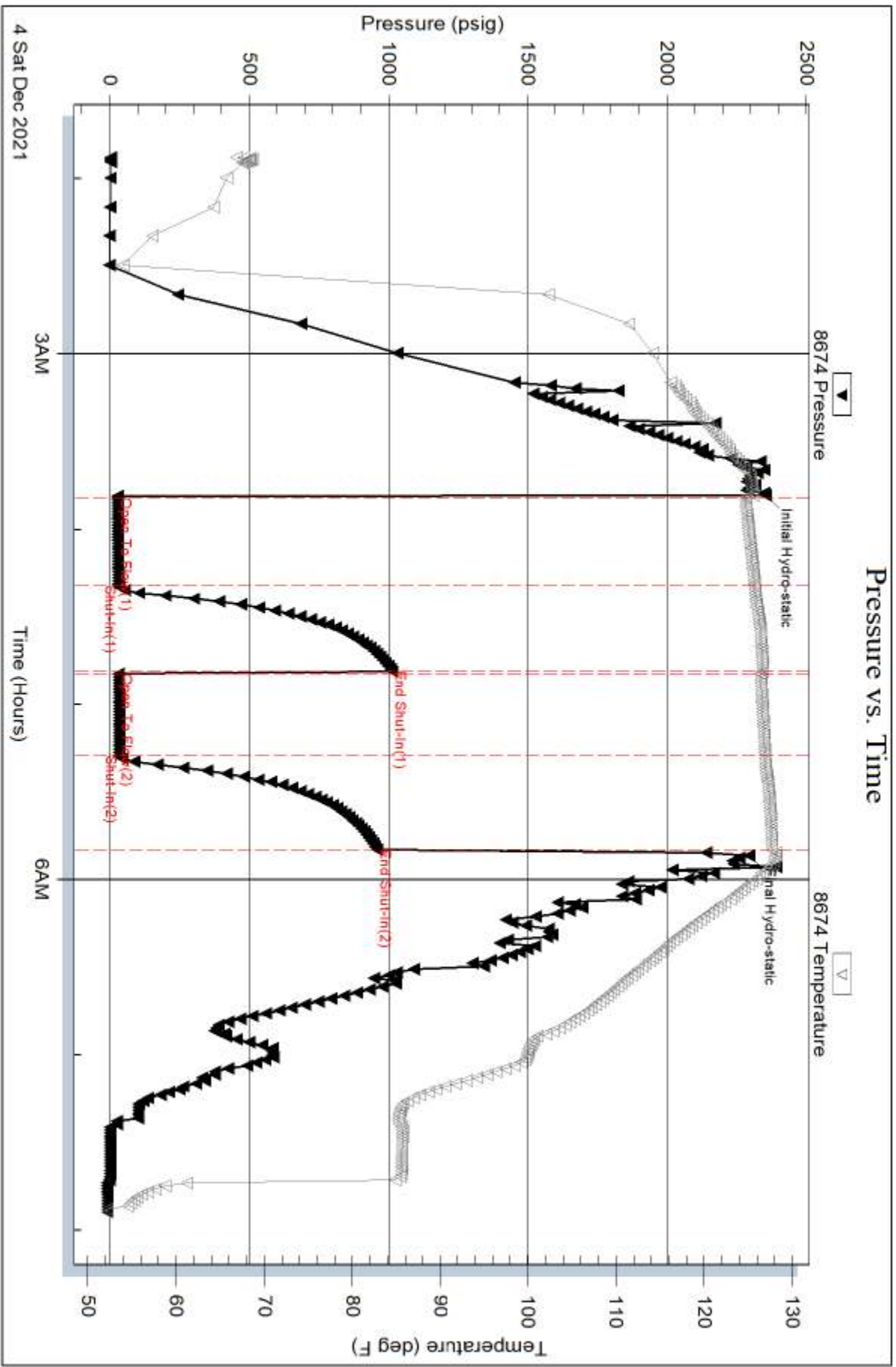
Num Gas Bombs: 0

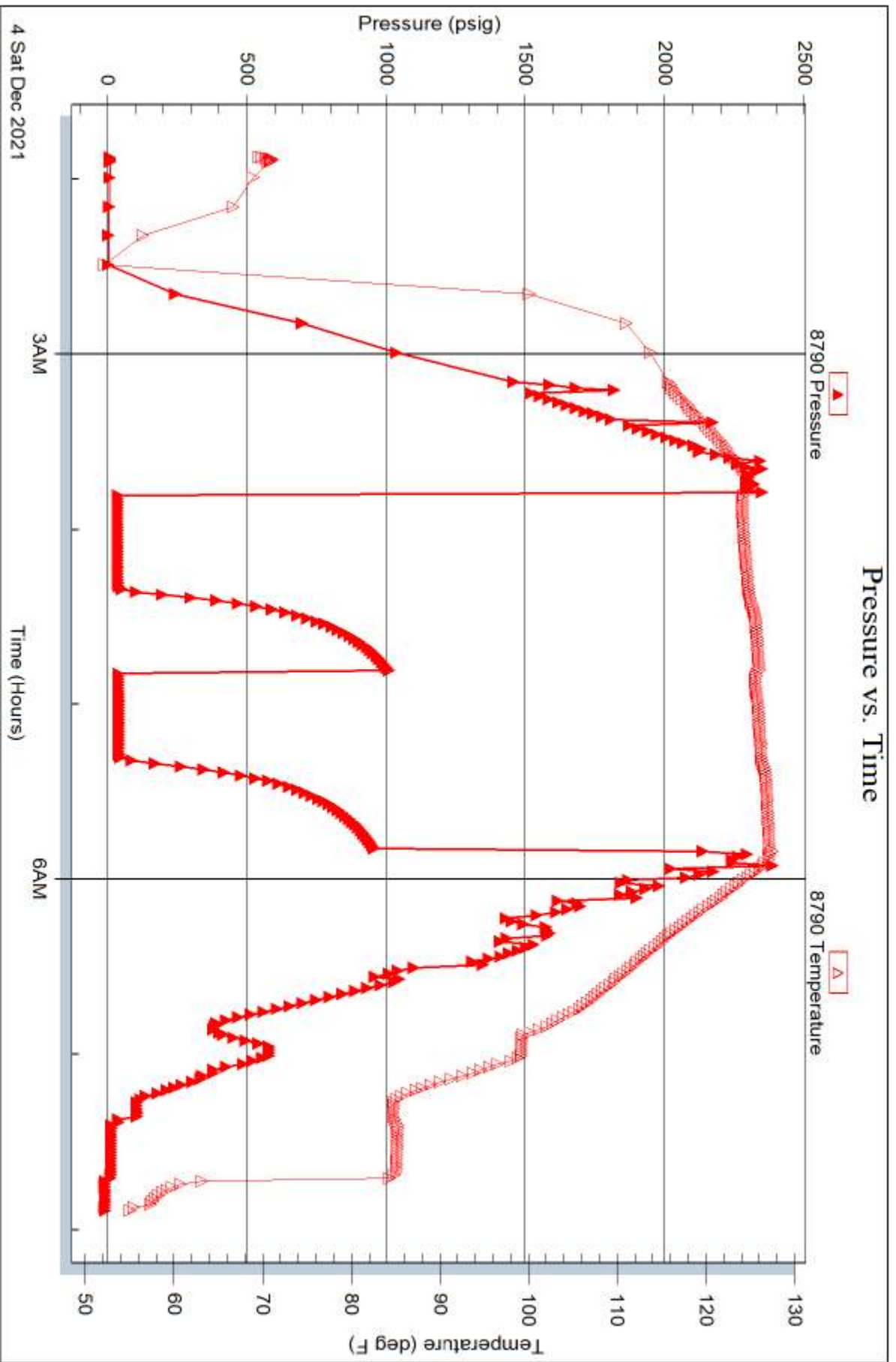
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 67691

Well Name & No. Scheuermayr - Arbek trust 1 Test No. 1 Date 12-1-21
 Company Ritchie Exploration Elevation 2932 KB 2923 GL
 Address 8100 E 22nd St N #200 Wichita, KS 67278
 Co. Rep / Geo. John Goldsmith Rig Sterling 4
 Location: Sec. 21 Twp 16S Rge. 31W Co. Scott State KS

Interval Tested 3997 4033 Zone Tested LKC G D
 Anchor Length 36 Drill Pipe Run _____ Mud Wt. 9.1
 Top Packer Depth 3992 Drill Collars Run 214 Vis 48
 Bottom Packer Depth 3997 Wt. Pipe Run _____ WL 6.8
 Total Depth 4033 Chlorides 1800 ppm System LCM 2
 Blow Description IF: 1/4 blow built to 4 1/2.
IS: No return.
FF: Surface blow built to 3 1/2.
FS: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>93</u>	<u>Wcm</u>		<u>20</u>	<u>80</u>	
<u>189</u>	<u>MCW</u>		<u>90</u>	<u>10</u>	
____	____				
____	____				
____	____				

Rec Total 262 BHT 121 Gravity _____ API RW .27 @ 62 °F Chlorides 30,000 ppm

(A) Initial Hydrostatic <u>2081</u>	<input checked="" type="checkbox"/> Test <u>1450</u>	T-On Location <u>00:00</u>
(B) First Initial Flow <u>28</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1:04</u>
(C) First Final Flow <u>107</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>3:15</u>
(D) Initial Shut-In <u>821</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>6:15</u>
(E) Second Initial Flow <u>113</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>8:41</u>
(F) Second Final Flow <u>150</u>	<input checked="" type="checkbox"/> Mileage <u>50 - 62.50</u>	Comments _____
(G) Final Shut-In <u>808</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1960</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> EM Tool _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Ruined Packer _____
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder _____	<input type="checkbox"/> Extra Copies _____
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility _____	Total <u>1837.50</u>
	Sub Total <u>1837.50</u>	MP/DST Disc't _____

Approved By _____ Our Representative [Signature]
 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.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 67692

Well Name & No. Scheuerman-Hrbek trust 1 Test No. 2 Date 12-4-21
 Company Ritchie Exploration Elevation 2932 KB 2923 GL
 Address _____
 Co. Rep / Geo. John Goldsmith Rig Sterling #4
 Location: Sec. 21 Twp 16S Rge. 31W Co. Scott State KS

Interval Tested 4540 4582 Zone Tested Johnson
 Anchor Length _____ Drill Pipe Run 4432 Mud Wt. 9.3
 Top Packer Depth _____ Drill Collars Run 214 Vis 47
 Bottom Packer Depth 4540 Wt. Pipe Run _____ WL 7.2
 Total Depth 4582 Chlorides 3300 ppm System LCM 2
 Blow Description IF: Surface blow built to 1/4.
IS: No return.
FF: No blow.
FS: No return.

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

Rec Total 10 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2354</u>	<input checked="" type="checkbox"/> Test 1450	T-On Location <u>1:00</u>
(B) First Initial Flow <u>28</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>1:52</u>
(C) First Final Flow <u>31</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>3:48</u>
(D) Initial Shut-In <u>1013</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/L</u>	T-Pulled <u>5:48</u>
(E) Second Initial Flow <u>32</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>7:55</u>
(F) Second Final Flow <u>34</u>	<input checked="" type="checkbox"/> Mileage <u>50</u> 62.50+62.50	Comments <u>stand by between</u>
(G) Final Shut-In <u>957</u>	<input type="checkbox"/> Sampler	<u>dst 1-2 loaded</u>
(H) Final Hydrostatic <u>2295</u>	<input type="checkbox"/> Straddle	<u>12-5-21 5:00 pm</u>

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

EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Recorder _____
 Extra Copies _____
 Day Standby 2d 16.25h
 Sub Total 1341.67
 Accessibility _____
 Total 3241.67
 Sub Total 1900
 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

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.

Wellsite Services, LLC

John Goldsmith
(316) 640-0236

427 Roosevelt St.
Cheney, KS 67025

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

Well Name: #1 Scheuerman-Hrbek Trust
API: 15-171-21280-0000
Location: 2355' FSL & 2028' FEL, 45°N & 48°W OF N/2 NW SE Sec 21-16S-31W
License Number: REI #4767 Region: Scott County
Spud Date: 11/24/2021 Drilling Completed: 12/5/2021
Surface Coordinates: LAT 38.649112
LONG -100.749867
Bottom Hole Vertical hole
Coordinates: 0.2 Degree Deviation
Ground Elevation (ft): 2921' K.B. Elevation (ft): 2932'
Logged Interval (ft): 3700' To: RTD Total Depth (ft): 4695'
Formation: Mississippian at RTD
Type of Drilling Fluid: Chemical

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

OPERATOR

Company: Ritchie Exploration, Inc.
Address: 8100 E 22nd St. N Bldg #700
Wichita, KS 67226
(316) 691-9500

GEOLOGIST

Name: John Goldsmith
Company: Wellsite Services, LLC
Address: 427 Roosevelt St.
Cheney, KS 67025
316-640-0236

COMMENTS

Contractor: Sterling Drilling Rig #4
Pusher: Lanny Saloga (620) 388-4193
Surface Casing: 5 joints of 8 5/8" set at 219'
Production Casing: No Production Casing was installed.
Mud by: MudCo
DST's by: Trilobite Testing
Logs by: Midwest Wireline (DIL, CN-CD, ML, CS)
RTD=4695'
LTD=4695'

FORMATION TOPS





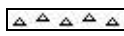







FORMATION	SAMPLE TOPS		LOG TOPS	
	Depth	Datum	Depth	Datum
Stotler	3559'	-627	3559'	-627
Heebner Shale	3937'	-1005	3937'	-1005
Toronto	3958'	-1026	3956'	-1024
Lansing	3978'	-1046	3976'	-1044
Muncie Creek Shale	4147'	-1215	4146'	-1214
Stark Shale	4244'	-1312	4243'	-1311
Hushpuckney Shale	4285'	-1353	4283'	-1351
Base of LKC	4328'	-1396	4321'	-1389
Marmaton	4366'	-1434	4359'	-1427
Altamont	4386'	-1454	4383'	-1451
Pawnee	4450'	-1518	4448'	-1516
Myrick Station	4484'	-1552	4484'	-1552
Ft Scott	4501'	-1569	4501'	-1569
Cherokee Shale	4527'	-1595	4525'	-1593
Johnson Zone	4565'	-1633	4566'	-1634
Morrow	4593'	-1661	4592'	-1660
Mississippian	4618'	-1686	4618'	-1686
RTD	4695'	-1763		
LTD			4695'	-1763

DSTs





















DST #1 "LKC C&D" 3997'-4033' 12-1-21 30-45-45-60
 1st Blw: 1/4" blw blt to 4.5" (No BB)
 2nd Blw: Surf blw blt to 3.5" (No BB)
 IFP: 28-107# ISIP: 821# FFP: 113-150# FSIP: 808#
 Hyd: 2081-1960#
 Rec: 73'WCM (20%Wtr), 189'MCW (90%Wtr)

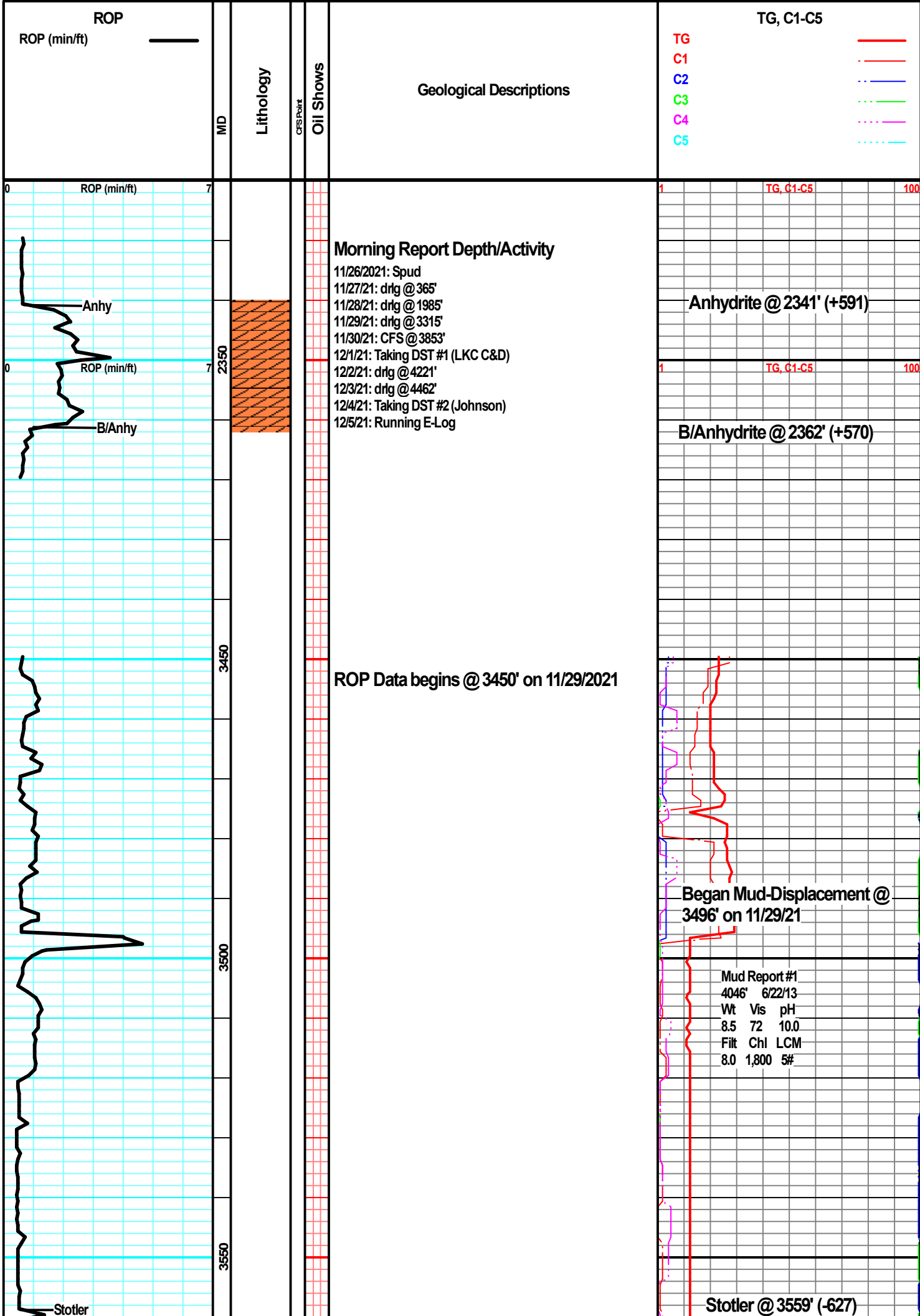
DST #2 "Johnson" 4540'-4582' 12-4-21 30-30-30-30
 1st Blw: Surf blw blt to 1/4" (No BB)
 2nd Blw: No blw (No BB)
 IFP: 28-31# ISIP: 1013# FFP: 32-34# FSIP: 957#
 Hyd: 2354-2295#
 Rec: 10'M

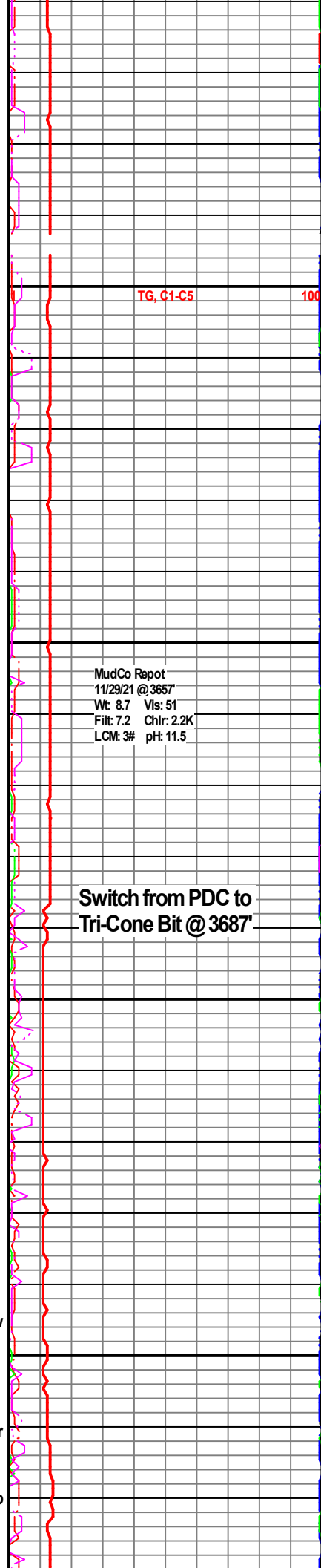
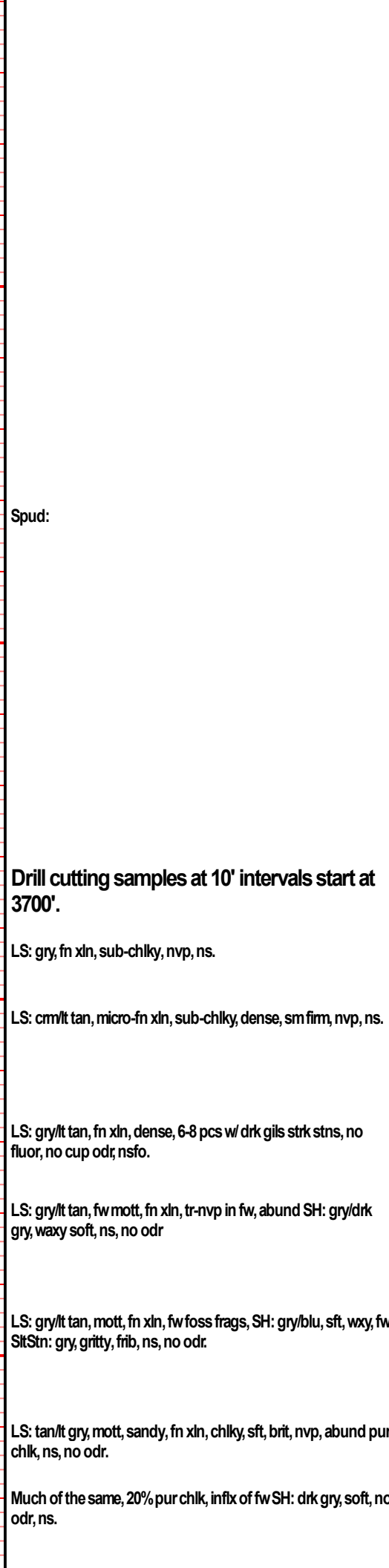
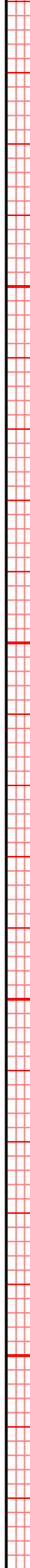
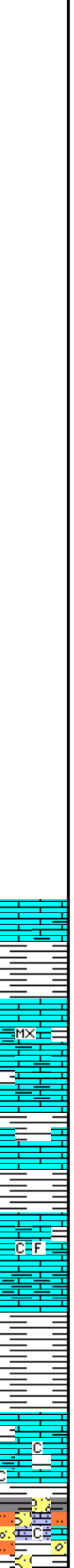
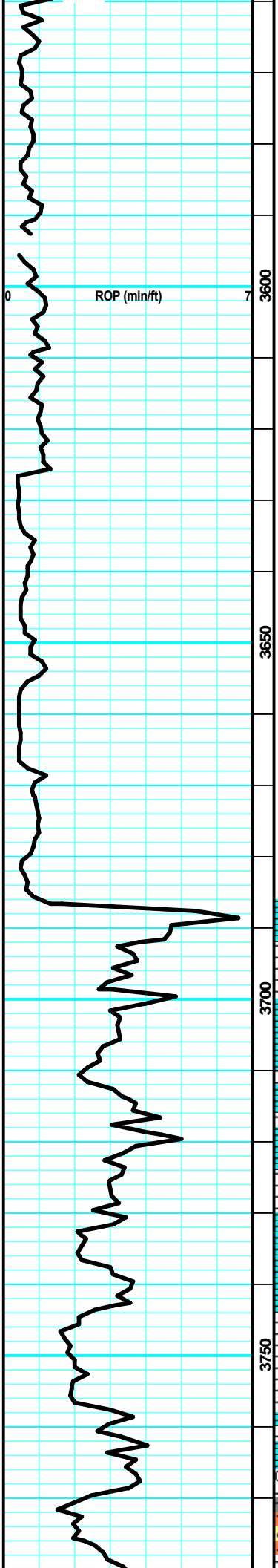
ROCK TYPES

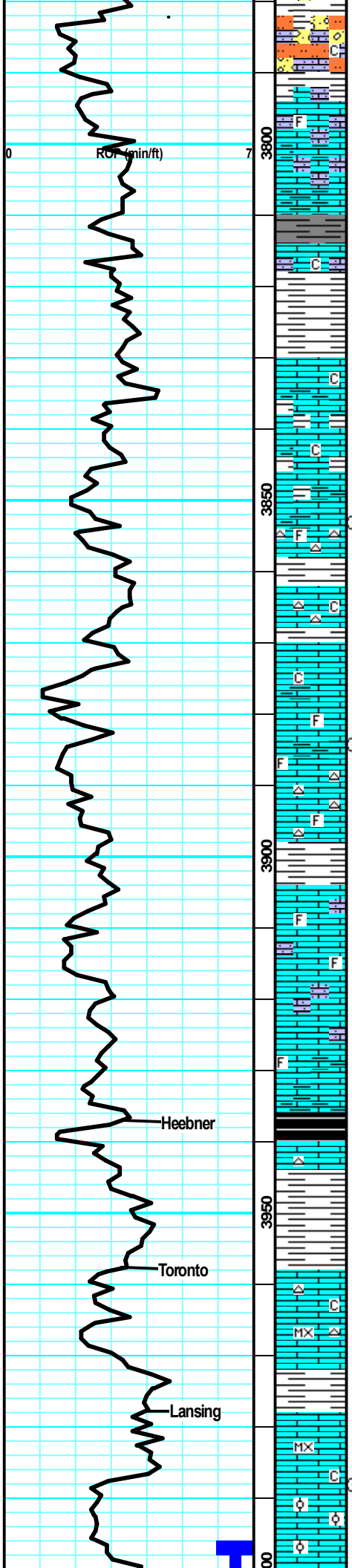
 Anhy	 Dol	 Slst	 Gry sh
 Cht	 Lmst	 Ss	 Sandylms
 Congl	 Shale	 Carb sh	 Shaly ls

ACCESSORIES

EVENTS	 Crin	MINERAL	 Chalky
 Circ	 Foram	 Chtdk	 Cryxln
 Conn	 Fossfrag	 Chtlt	 Finexln
FOSSIL	 Oolite	 Feldspar	 Microxln
 Brach	 Fuss	 Glau	
 Bryozoa	 Oolcast	 Pyr	
		 Sil	







LS: lt tan, sandy/grainy, v brit, chlky, tr-nvp, abund pur clk, fw SH: gry, no odr, ns.

LS: lt tan/lt gm, fn xln, fw foss frags, sub-chlky in prt, no odr, ns.

Much of the same, fw pcs SH: gry/bm, silty/gritty, no odr, ns.

LS: tan/lt gry, slight mott, sm sandy/gmy, sub-chlky, nvp, no odr, ns.

LS: lt tan/lt gry, fn xln, chlky, brit, nvp, infix SH: drk gry/blk, silty, carb, no odr, ns.

Much of the same, svlr pcs of SH: gry/blu, silty, waxy, no odr, ns.

LS: tan/lt tan, fn xln, sub-chlky in prt, nvp, no odr, ns.

LS: lt gry/lt tan, fn xln, sub-chlky in prt, nvp, no odr, ns.

LS: lt tan, sing, fn xln, sub-chlky in prt, nvp, svlr Chrt: wht/opaq, foss, no odr, ns.

Much of the same, fw pcs pur chl, no odr, ns.

LS: tan/lt gry, fn xln, dense, fw sub-chlky, nvp, svlr pcs pur chl, no odr, ns.

LS: gry/tan, mott in prt, many sandy/gmy, fw foss, no odr, ns.

LS: lt tan/lt gry, mott, many profus foss, brit, tr-nvp, sub-chlky, fw Chrt: wht/opaq, foss, sharp, no odr, ns.

LS: cm/lt gry, fn xln, fw foss frags, sub-chlky in prt, nvp, fw Chrt: wht/opaq, foss, sharp, no odr, ns.

LS: gry/lt tan, mott, fn xln, v foss, brit, tr-nvp, fw pcs chl, no odr, ns.

Much of the same as above, slight infix of dirty LS: gry, mott, drk min stns, no fluor/cut, tr-nvp, no odr, ns.

LS: drk gry, mott, fn xln, tr-nvp, sm drk blk min stns, no fluor/cut, no cup odr, ns.

LS: gry/tan, mott, fn xln, foss, sm firm, tr-nvp, no odr, ns.

SH: blk, carb, silty, soft.

LS: gry, micro-fn xln, dense, firm, nvp, abund SH: gry/blu, sft, wxy, no odr, ns.

LS: cm/lt tan, fn xln, sub-chlky, brit, tr-nvp, fw Chrt: wht, shrp, no odr, ns.

Much of the same, infix of fw SH: gry, no odr, ns.

LS: cm/lt tan, micro-fn xln, dense, sm brit, sub-chlky in prt, tr-nvp, no odr, ns.

LS: cm/lt tan, micro-fn xln, dense, brit, nvp, no odr, ns.

LS: lt tan, fn xln, dense, sub-chlky, tr-nvp, fw LS: gry, profus ool, dense mtrx, hard, no odr, ns.

TG, C1-C5 100

CFS @ 3853' (20"/45")

Gas Extractor Test

MudCo Repot
11/30/21 @ 3878'
Wt: 9.1 Vis: 48
Filt: 6.8 Chlr: 1.8K
LCM: 2# pH: 11.5

CFS @ 3884' (20"/45")

Heebner @ 3937' (-1005)

Toronto @ 3958' (-1026)

Lansing @ 3978' (-1046)

CFS @ 3988' (30"/60")

MudCo Repot

Heebner

Toronto

Lansing

3800

3850

3900

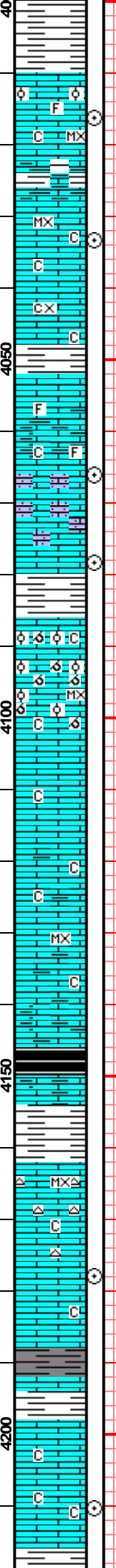
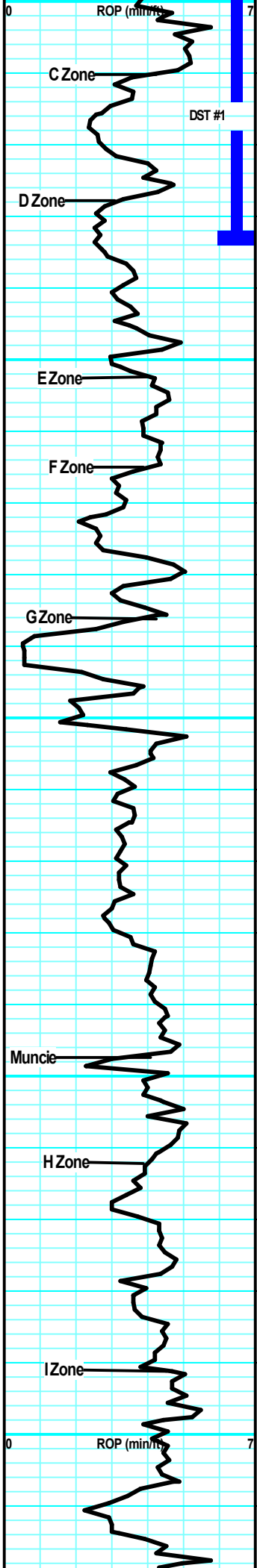
3950

4000

RQI (min/ft)

0

7



SH: bm/gry, silty, soft.

LS: tan/lt gry, mott, many profus foss, dense, many hard, lght bm pos stns in mtrx, ? fluor, no cut resid, nsfo on brk, no odr

LS: cm/lt tan, sing, micro-fn xln, sub-chlky, nvp, fw pcs pur chlk, no odr, ns.

LS: cm/lt tan, micro-fn xln, dense, britl, sub-chlky, nvp, v fw Cht: wht/opaq, no odr, ns.

LS: lt tan, sing, fn xln, sub-chlky, britl, tr-nvp, no odr, ns.

LS: lt gry/lt tan, fn xln, sm 2nd rxln in prt, v fw pcs w/ pr intxln por, svrl SH: drk gry/drck bm, no odr, ns.

LS: lt gry/tan, slght mott, fn xln, dense, fw flakey, nvp, no odr, ns.

LS: gry/tan, mott in prt, sm v foss, sm firm, tr-nvp, no odr, ns. 1 pcs w/ pos edge str, no fluor/cut.

LS: lt tan, fn xln, sandy/grany, chlky, britl, tr-v pr intxln por in fw, svrl pcs pur chlk, no odr, ns.

60" had much more pur chlk, no odr, ns.

LS: tan/lt bn, profus ool, scat gd oolcast por, britl, no odr, ns.

Much of the same, lrg amt of LS: cm/lt tan, micro-fn xln, chlky, britl, no odr, ns.

LS: lt gry/lt tan, fn xln, dense, sub-chlky, sm britl, nvp, fw pcs pur chlk, no odr, ns.

Much of the same, lrg infx or pur chlk, no odr, ns.

LS: lt gry/lt tan, micro-fn xln, dense, chlky, britl, nvp, fw SH: gry/bm, soft, no odr, ns.

Much of the same, infx of SH: drk gry/blk, silty, carb, no odr, ns.

LS: gry/tan, mott, fn-crs xln, foss, firm, sm flakey, tr-nvp, abund SH: gry/blk, soft, sm carb, no odr, ns.

LS: lt tan, micro-fn xln, sub-chlky, britl, nvp, fw pcs pur chlk, svrl Cht: wht/opaq, sharp, no odr, ns.

LS: tan/lt gry, slght mott, fn xln, sub-chlky britl, tr-pr intxln por in fw pcs, patchy bm stns in 5-6 pcs, no fluor/cut, no odr, nsfo.

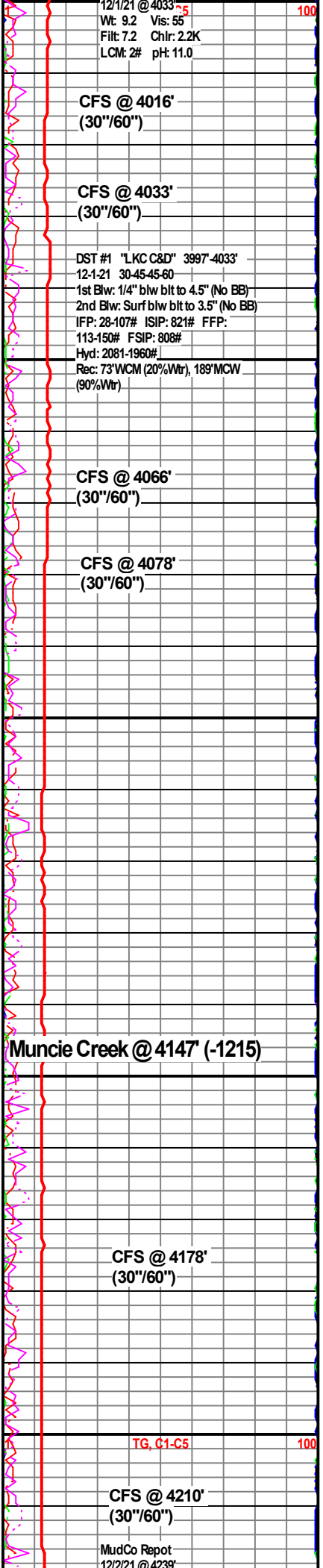
LS: tan/lt gry, fn xln, sub-chlky in prt, dense, tr-nvp, fw SH: gry/blu/gm, waxy, no odr, ns.

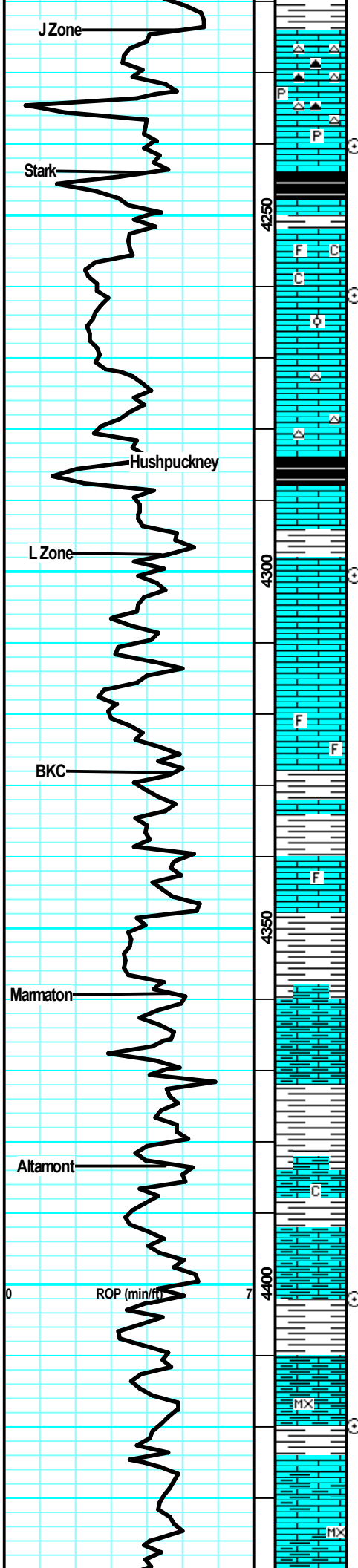
LS: gry/tan, slght mott, fn-crs xln, fw firm, tr-nvp, abund SH: gry/bm, silty, gritty, no odr, ns.

LS: tan, sing, fn xln, many dense, sub-chlky in prt, sm brittle, nvp, no cup odr, ns.

LS: tan/gry, sing fn xln, mostly dense, tr-pr intxln por on fw edges, 4-5 pcs w/ drk dead str, no fluor/cut, no cup odr, nsfo.

LS: gry, slght mott, fn xln, fw flakey/mealy, pr intxln por in sm, svrl SH: gry/bn, no odr, ns.





LS: lt tan, sing, fn xln, sub-chlky, fw pcs w/ pr intxn por, svrl Cht: wht/gry, smky, sharp, no odr, ns.

LS: gry/tan, slight mott, foss in prt, tr-vp, svrl Cht: gry, sharp, fw pcs pyrt, no odr, ns.
Much of the same, lrg infx in SH: gry/blk, sm carb, no odr, ns.

SH: blk, fissile, carb, flash of cup odr, most likely from gas test, nsfo.

LS: gry/tan, mott, fw foss frags, many britl, sm friabl, tr-pr intxn por in fw, abund chl, 3-4 pcs w/ drk min stns, no fluor/cut, no cup odr, ns.

LS: gry/tan, mott, sm profus ool, fw foss, sm fr-gd oolcast/vuggy por, chlky, svrl pcs pur chl, no odr, ns.

LS: lt tan, fn xln, dense, sm flaky, sub-chlky, tr-nvp, svrl Cht: gry/smky, sharp, no odr, ns.

SH: blk/dr k gry, mostly carb, fissile, gritty, no odr, ns.

LS: gry, mott, fn-crs xln, svrl flakey/mealy, firm, tr-pr intxn por in sm, abund SH: blk/gry, sm carb, no odr, ns.

LS: gry/tan, mott, fn xln, dense, many hard, nvp, no cup odr, ns.

LS: gry/lt gry, slight mott in prt, fn xln, fw flakey, tr-nvp, 2-3 pcs w/ pos drk dead o stn, no fluor/cut, no odr, nsfo.

LS: gry/tan, mott, fn-med xln, flakey/mealy, foss in prt, many firm/hard, tr-pr por in sm, no odr, ns.

LS: gry/tan, mott, fn xln, sm foss, tr-nvp, sub-chlky in prt, no odr, ns.

Most of the same, infx SH: gry/blu, silty, soft, svrl pcs chl, no odr, ns.

SH: gry/blu/gm, silty, soft, waxy no odr, ns.

LS: gry/tan, mott, fn-med xln, flakey/mealy, dense, sm hrd, tr-nvp, no odr, ns.

SH: gry/bm/gm, silty, soft, waxy, fw SltStn: gry/gritty, friabl, sm SH: gry, fn xln, dense, nvp, no odr, ns.

Mostly SH, fw LS: lt gry, fn xln, sub-chlky, nvp, no odr, ns.

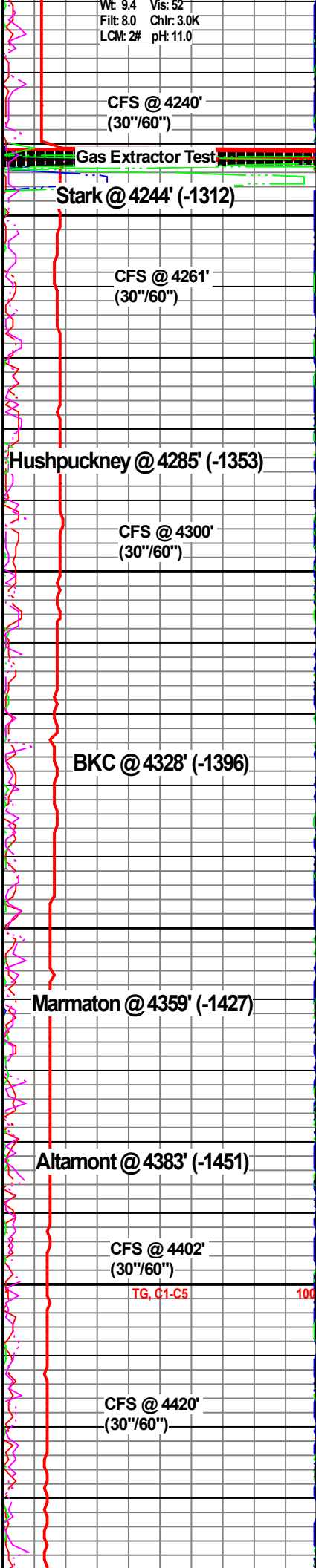
SH: gry/bm/blu, silty, soft, sm SH: tan/gry, mott, fn xln, dense, firm, nvp, no odr, ns.

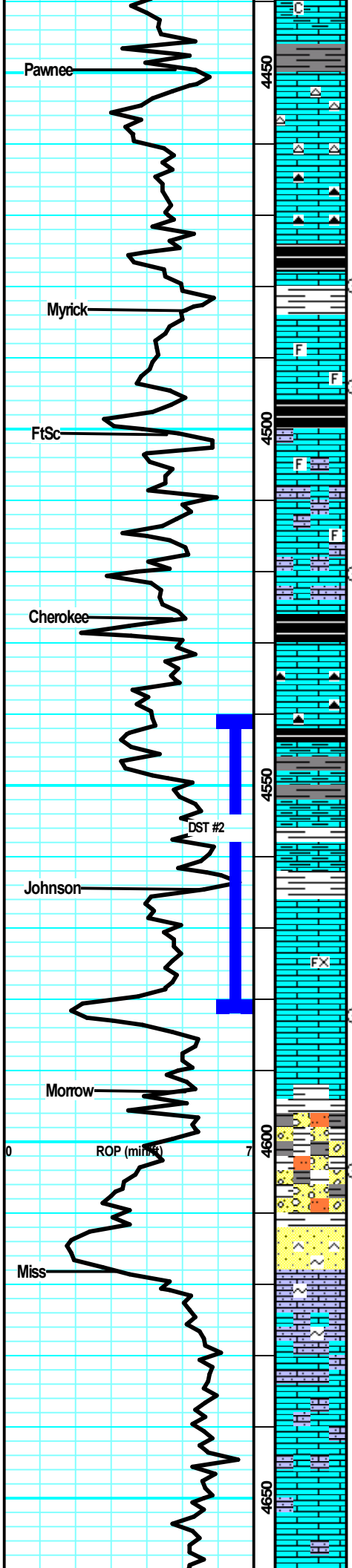
LS: tan/lt gry, slight mott, fn xln, most dense, firm, nvp, abund SH: gry/blu, soft, no odr, ns.

LS: lt tan, sing, micro-fn xln, denes, sm britl, nvp, abund SH: gry/blu/gm/bm, silty, sm fissile, waxy, no cup odr.

LS: tan, fn xln, sm dense, britl, tr-nvp, 2 pcs w/ pos patchy drk dead oil stns, no fluor/cut, svrl SH: gry/blu, soft, no odr, ns.

LS: tan/lt gry, micro-fn xln, dense, sm hard, 3 pcs w/ patchy bm stns, no fluor/cut, nsfo, no cup odr.





SH: drk gry/blk, silty, soft, no odr, ns.

LS: lt tan, sing, fn xln, britl, tr-ppt intxn por in sm, sm pyrt specs/pcs, abund Cht: wht/opaq, sharp, no odr, ns.

LS: lt/bm/tan/gry, slight mott, fn xln, dense, sm flakey, tr-nvp, abund Cht: bm/gry, smokey, no odr, ns.

SH: blk, carb, fissile, gritty, no odr, ns.

LS: gry/mott, fn xln, fw foss frags, sm flakey/mealy, tr-nvp, no odr, ns.

Much of the same, no odr, ns.

SH: blk/drk gry, med crush, fissile, no odr, ns.

LS: gry, mott, fn xln, sm foss, sm flakey/mealy, nvp, svrl SH: drk gry/blk, silty, no odr, ns.

LS: tan/lt gry, fn xln, fw foss, sandy, many flakey, tr-pr intxn por in sm, no odr, ns.

Much of the same, no odr, ns.

LS: gry/tan, slight mott, fn xln, fw flakey, tr-pr intxn por, abund SH: blk, carb, fissile, no odr, ns.

LS: gry/tan, fn xln, dense, hard, tr-nvp, svrl Cht: gry/bm, smokey, sharp, no odr, ns.

LS: gry, mott, fn-med xln, tr-nvp, abund SH: blk/drk gry, silty, fissile, no odr, ns.

Much of the same, fw LS: bm, sandy/grainy, friable, tr-pr intgm/intxn por, no odr, ns.

LS: gry, slight mott, sm fr intxn por, even slit-pep stns in 8-10 pcs, dul yel fluor, strn cut pal blu, fr sfo on brk, faint cup odr.

LS: gry/lt tan, fn xln, sm fr intxn por in sm, 6 pcs w/ slit-pep stns, fr sfo on brk, faint cup odr, dul yel fluor, gd cut resid.

60" Smple, lrg infx of SH: drk gry/blk, silty, fissile, ns, no cup odr.

LS: gry, slight mott, fn xln, many firm/hard, tr-nvp, no odr, ns.

LS: tan, fn xln, sm sandy, tr-pr intxn por in sm, fw SS clusters: cm/wht, well srted, arg, v hard, v sml min drk specs in sm, no cut, no odr, nsfo.

SS: cm/lt gry, fn gm, well md/srted, arg, friabl, tr-pr intgm por, fw SH: gry/bm/yel, soft, fw wthrd, no odr, ns.

Much of the same, fw SS: fm gm, sub-ang, pr srted, britl, friable, arg, tr-pr intgm por, abund SH: gry/blu/gm/yel, wthrd, waxy, no odr, ns.

LS: cm/lt tan, fn xln, sandy/gritty, firm, sm hard, tr-pr intxn por in v fw, no odr, ns.

LS: tan, sing, fn xln, mostly firm, sm flakey/mealy, tr-nvp, no odr, ns.

LS: tan/lt gry, fn xln, sm flakey/mealy, fw sub-chlky in prt, svrl firm, tr-nvp, no odr, ns.

Much of the same, fw more pcs of chlky, no odr, ns.

Pawnee @ 4450' (-1518)

MudCo Repot
12/3/21 @ 4480'
Wt: 9.3 Vis: 47
Filt: 7.2 Chr: 3.3K
LCM: 2# pH: 11.0

CFS @ 4480'
(30"/60")

Myrick @ 4484' (-1552)

CFS @ 4494'
(30"/60")

Ft Scott @ 4501' (-1569)

CFS @ 4520'
(30"/60")

Cherokee @ 4527' (-1595)

DST #2 "Johnson" 4540'-4582'
12-4-21 30-30-30-30
1st Blw: Surf blw bit to 1/4" (No BB)
2nd Blw: No blw (No BB)
IFP: 28-31# ISIP: 1013# FFP:
32-34# FSIP: 957#
Hyd: 2354-2295#
Rec: 10'M

Johnson @ 4565' (-1633)

MudCo Repot
12/4/21 @ 4582'
Wt: 9.3 Vis: 52
Filt: 6.4 Chr: 3.1K
LCM: 2# pH: 11.0

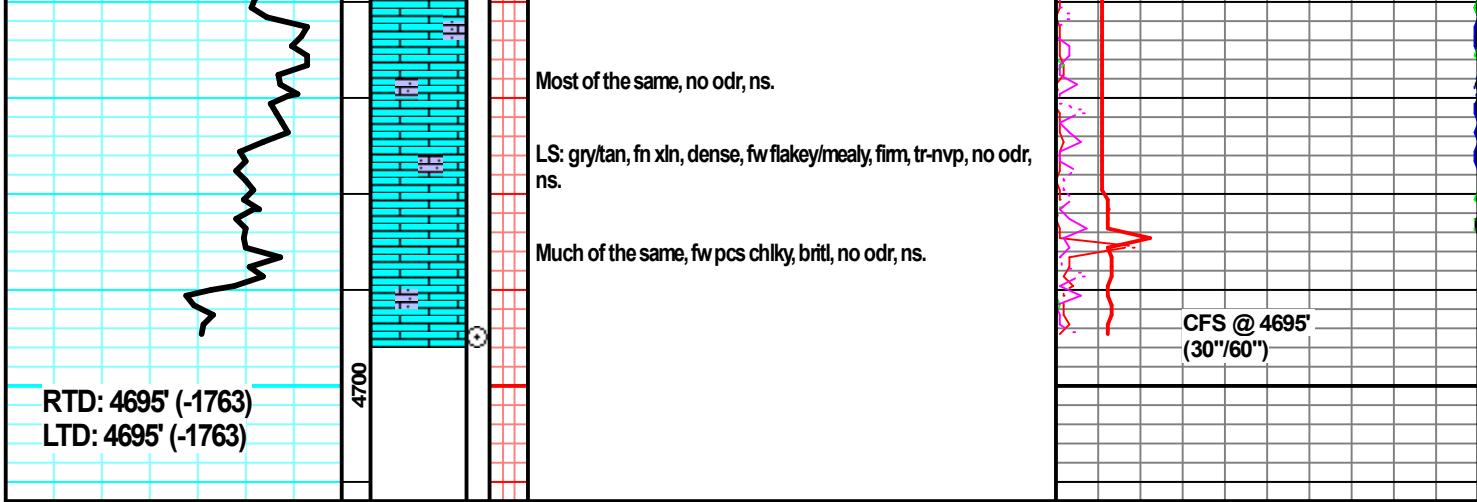
CFS @ 4582'
(30"/60")

Morrow @ 4593' (-1661)

TG, C1-C5 100

CFS @ 4604'
(30"/60")

Mississippi @ 4618' (-1686)



RTD: 4695' (-1763)
LTD: 4695' (-1763)

4700

Most of the same, no odr, ns.

LS: gry/tan, fn xln, dense, fw flakey/mealy, firm, tr-nvp, no odr, ns.

Much of the same, fw pcs chlky, britl, no odr, ns.

CFS @ 4695'
(30''/60'')



#1 Scheuerman-Hrbek Trust

2,355' FSL & 2,028' FEL

45' N & 48' W of N/2 NW SE Section 21-16S-31W

Scott County, Kansas

API# 15-171-21280-0000

Elevation: GL: 2,933', KB: 2,938'

Sample Tops

Anhydrite	2342	+590
B/Anhydrite	2361	+571
Stotler	3559	-627
Heebner	3937	-1005
Toronto	3958	-1026
Lansing	3978	-1046
Muncie	4147	-1215
Stark	4244	-1312
Hushpuckney	4285	-1353
BKC	4328	-1396
Marmaton	4366	-1434
Altamont	4386	-1454
Pawnee	4450	-1518
Myrick	4484	-1552
Ft. Scott	4501	-1569
Cherokee	4527	-1595
Johnson	4565	-1633
Morrow	4593	-1661
Mississippian	4618	-1686
RTD	4695	-1763

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. 2653

Date	11-26-21	Sec.	21	Twp.	16	Range	31	County	SCOTT	State	KAN	On Location		Finish	5:30PM
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Lease Hibek Location Healy 7W 35N

Lease Scheuerman Well No. 1 Owner To Quality Oilwell Cementing, Inc.

Contractor Steering You are hereby requested to rent cementing equipment and furnish center and helper to assist owner or contractor to do work as listed.

Type Job Surface Charge To Ritchie Exp.

Hole Size 12 1/4 T.D. 225 Street _____

Csg. 8 3/8 Depth 219 City _____ State _____

Tbg. Size _____ Depth _____ The above was done to satisfaction and supervision of owner agent or contractor.

Tool _____ Depth _____ Cement Amount Ordered 175 com 392

Cement Left in Csg. 15 Shoe Joint _____

Meas Line _____ Displace 13 Common 175

EQUIPMENT Poz. Mix _____

Pumptrk	17	No.	Cementer		
			Helper		
Bulktrk		No.	Driver	<u>Bill</u>	Gel. <u>3</u>
			Driver	<u>Crails</u>	
Bulktrk	9	No.	Driver	<u>Doug</u>	Calcium <u>6</u>
			Driver		

JOB SERVICES & REMARKS Hulls _____

Remarks: Salt _____

Rat Hole Flowseal _____

Mouse Hole Kol-Seal _____

Centralizers Mud CLR 48 _____

Baskets CFL-117 or CD110 CAF 38 _____

D/V or Port Collar Sand _____

Ran 5 Jts 8 3/8 sets 219. Handling 184

Cement 175 Mileage _____

pump plug w 13 bbls **FLOAT EQUIPMENT**

Cement did circ Guide Shoe _____

Centralizer _____

Baskets _____

AFU Inserts _____

Float Shoe _____

Latch Down _____

Thanks

X Signature [Handwritten Signature]

Pumptrk Charge Surface

Mileage 63

Thanks

Tax _____

Discount _____

Total Charge _____