

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)</i> <i>(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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CEMENT TREATMENT REPORT

Customer: Cobalt Energy	Well: Indiek # 1-18	Ticket: WP-2473
City, State: Oakley KS	County: Hodgemen KS	Date: 3/3/2022
Field Rep: Rick Popp	S-T-R: 18-23S-22W	Service: 2 Stage

Downhole Information	
Hole Size:	7 7/8 in
Hole Depth:	4650 ft
Casing Size:	5 1/2 in
Casing Depth:	4647 ft
Tubing / Liner:	in
Depth:	ft
Tool / Packer:	D.V.
Tool Depth:	1453 ft
Displacement:	147.7 bbls

Calculated Slurry - Lead	
Blend:	H-LD
Weight:	14.8 ppg
Water / Sx:	6.5 gal / sx
Yield:	1.40 ft ³ / sx
Annular Bbls / Ft.:	0.0309 bbs / ft.
Depth:	4647 ft
Annular Volume:	143.6 bbls
Excess:	
Total Slurry:	37.4 bbls
Total Sacks:	150 sx

Calculated Slurry - Tail	
Blend:	H-CON
Weight:	12 ppg
Water / Sx:	13.9 gal / sx
Yield:	2.33 ft ³ / sx
Annular Bbls / Ft.:	0.0309 bbs / ft.
Depth:	1453 ft
Annular Volume:	44.8977 bbls
Excess:	
Total Slurry:	95.4 bbls
Total Sacks:	230 sx

TIME	RATE	PSI	BBLs	TOTAL BBLs	REMARKS
2:15a			-	-	Arrival
2:20a				-	Safety meeting
2:45a				-	Run float equipment
5:00a				-	Rig up 5 1/2 head and pump
5:15a				-	Drop ball
5:30a				-	Circulate hole for one hour
7:08a	5.0	290.0	5.0	5.0	H2O ahead
7:10a	5.1	250.0	12.0	17.0	Mixed mud flush
7:13a	5.1	240.0	5.0	22.0	H2O behide
7:16a	4.3	400.0	37.4	59.4	Mixed 150 sks of H-LD @ 14.8 ppg @ 4647'
7:28a				59.4	Wash up pump and lines
7:31a					Drop plug
7:35a	6.6	310.0	112.3		Displaced H2O
7:54a	3.0	1,100.0			Land plug
8:03a					Drop bomb wait 30 minutes to open tool
8:40a	1.5	780.0			Open tool with truck
8:50a	5.1	220.0	12.0		Mixed mud flush
8:54a	5.0	180.0	5.0		H2O behide
8:58a	6.6	420.0	82.9		Mixed 200 sks of H-con @ 12 ppg @ 1453'
9:02a	6.6	420.0	12.4		Mixed 30 sks of H-con @ 12 ppg @ Rat hole
9:13a					Wash up pump and lines
9:16a					Drop plug
9:18a	6.2	320.0	35.4		Displaced H2O
9:30a	3.0	1,590.0			Land plug
9:36a					Wash up pump and lines
9:40a					Rig down 5 1/2 head and pump
10:00a					Depart location

CREW		UNIT	SUMMARY		
Cementer:	Jesse J	78	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Michael R	230	4.9 bpm	502 psi	319 bbls
Bulk #1:	Kale O	527-250			
Bulk #2:					



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208+0037

ATTN: Tim Pierce

Indiek #1-18

18-23s-22w Hodgeman,KS

Start Date: 2022.02.28 @ 07:50:00

End Date: 2022.02.28 @ 14:40:26

Job Ticket #: 68205 DST #: 1

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

Printed: 2022.03.03 @ 14:47:38



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC
 PO Box 8037
 Wichita KS 67208+0037
 ATTN: Tim Pierce

18-23s-22w Hodgeman, KS
Indiek #1-18
 Job Ticket: 68205 **DST#: 1**
 Test Start: 2022.02.28 @ 07:50:00

GENERAL INFORMATION:

Formation: **Ft. Scott - Cherokee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:48:17
 Time Test Ended: 14:40:26
 Interval: **4418.00 ft (KB) To 4498.00 ft (KB) (TVD)**
 Total Depth: 4498.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2278.00 ft (KB)
 2271.00 ft (CF)
 KB to GR/CF: 7.00 ft

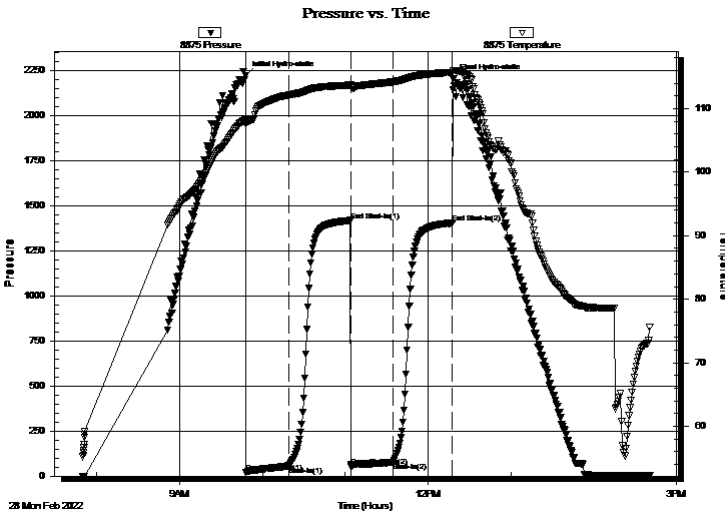
Serial #: 8875

Inside

Press@RunDepth: 76.89 psig @ 4421.00 ft (KB) Capacity: psig
 Start Date: 2022.02.28 End Date: 2022.02.28 Last Calib.: 2022.02.28
 Start Time: 07:50:01 End Time: 14:40:26 Time On Btm: 2022.02.28 @ 09:48:07
 Time Off Btm: 2022.02.28 @ 12:18:27

TEST COMMENT: 30-IF-Surface to 9"
 45-ISI-No Return
 30-FF-BOB 22 mins Built to 16"
 45-FSI-Surface to 1/2"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2222.73	108.22	Initial Hydro-static
1	21.66	107.58	Open To Flow (1)
32	56.95	112.12	Shut-In(1)
76	1418.66	113.68	End Shut-In(1)
77	54.49	113.42	Open To Flow (2)
107	76.89	114.19	Shut-In(2)
150	1404.87	115.70	End Shut-In(2)
151	2204.71	115.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
145.00	GHOCM 25%G 30%O 45%M	0.99
0.00	540 GIP 100%G	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC
 PO Box 8037
 Wichita KS 67208+0037
 ATTN: Tim Pierce

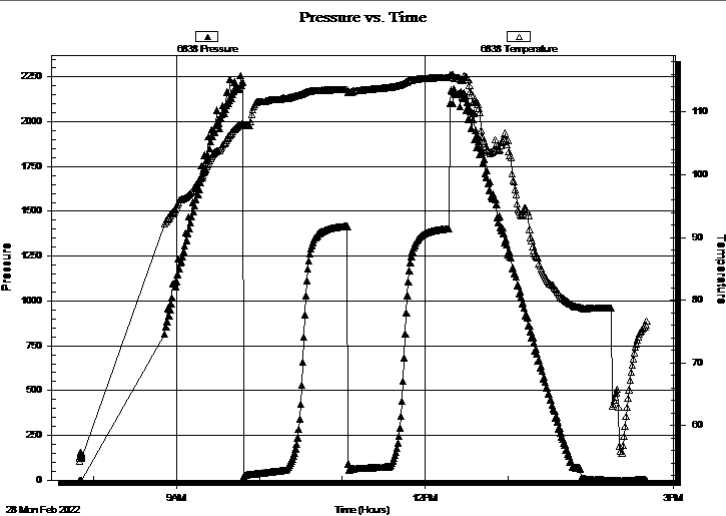
18-23s-22w Hodgeman,KS
Indiek #1-18
 Job Ticket: 68205 **DST#: 1**
 Test Start: 2022.02.28 @ 07:50:00

GENERAL INFORMATION:

Formation: **Ft. Scott - Cherokee**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:48:17
 Time Test Ended: 14:40:26
 Interval: **4418.00 ft (KB) To 4498.00 ft (KB) (TVD)**
 Total Depth: 4498.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2278.00 ft (KB)
 2271.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 6838 **Inside**
 Press@RunDepth: psig @ 4421.00 ft (KB) Capacity: psig
 Start Date: 2022.02.28 End Date: 2022.02.28 Last Calib.: 2022.02.28
 Start Time: 07:50:01 End Time: 14:40:26 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-Surface to 9"
 45-ISI-No Return
 30-FF-BOB 22 mins Built to 16"
 45-FSI-Surface to 1/2"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
145.00	GHOCM 25%G 30%O 45%M	0.99
0.00	540 GIP 100%G	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC
PO Box 8037
Wichita KS 67208+0037
ATTN: Tim Pierce

18-23s-22w Hodgeman,KS
Indiek #1-18
Job Ticket: 68205 **DST#: 1**
Test Start: 2022.02.28 @ 07:50:00

Tool Information

Drill Pipe:	Length: 4287.00 ft	Diameter: 3.82 inches	Volume: 60.77 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose:	105000.0 daN
			<u>Total Volume:</u>	Tool Chased	ft
				String Weight: Initial	68000.00 daN
Drill Pipe Above KB:	16.00 ft			Final	69000.00 daN
Depth to Top Packer:	4418.00 ft				
Depth to Bottom Packer:	ft				
Interval between Packers:	80.00 ft				
Tool Length:	112.00 ft				
Number of Packers:	1	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			4387.00	
Shut In Tool	5.00			4392.00	
Hydraulic tool	5.00			4397.00	
Jars	5.00			4402.00	
Gap Sub	4.00			4406.00	
Safety Joint	3.00			4409.00	
Packer	5.00			4414.00	32.00 Bottom Of Top Packer
Packer	4.00			4418.00	
Stubb	1.00			4419.00	
Perforations	1.00			4420.00	
Change Over Sub	1.00			4421.00	
Recorder	0.00	6838	Inside	4421.00	
Recorder	0.00	8875	Inside	4421.00	
Drill Pipe	64.00			4485.00	
Change Over Sub	1.00			4486.00	
Perforations	9.00			4495.00	
Bullnose	3.00			4498.00	80.00 Bottom Packers & Anchor
Total Tool Length:	112.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC
PO Box 8037
Wichita KS 67208+0037
ATTN: Tim Pierce

18-23s-22w Hodgeman,KS
Indiek #1-18
Job Ticket: 68205 **DST#: 1**
Test Start: 2022.02.28 @ 07:50:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.77 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4800.00 ppm			
Filter Cake: inches			

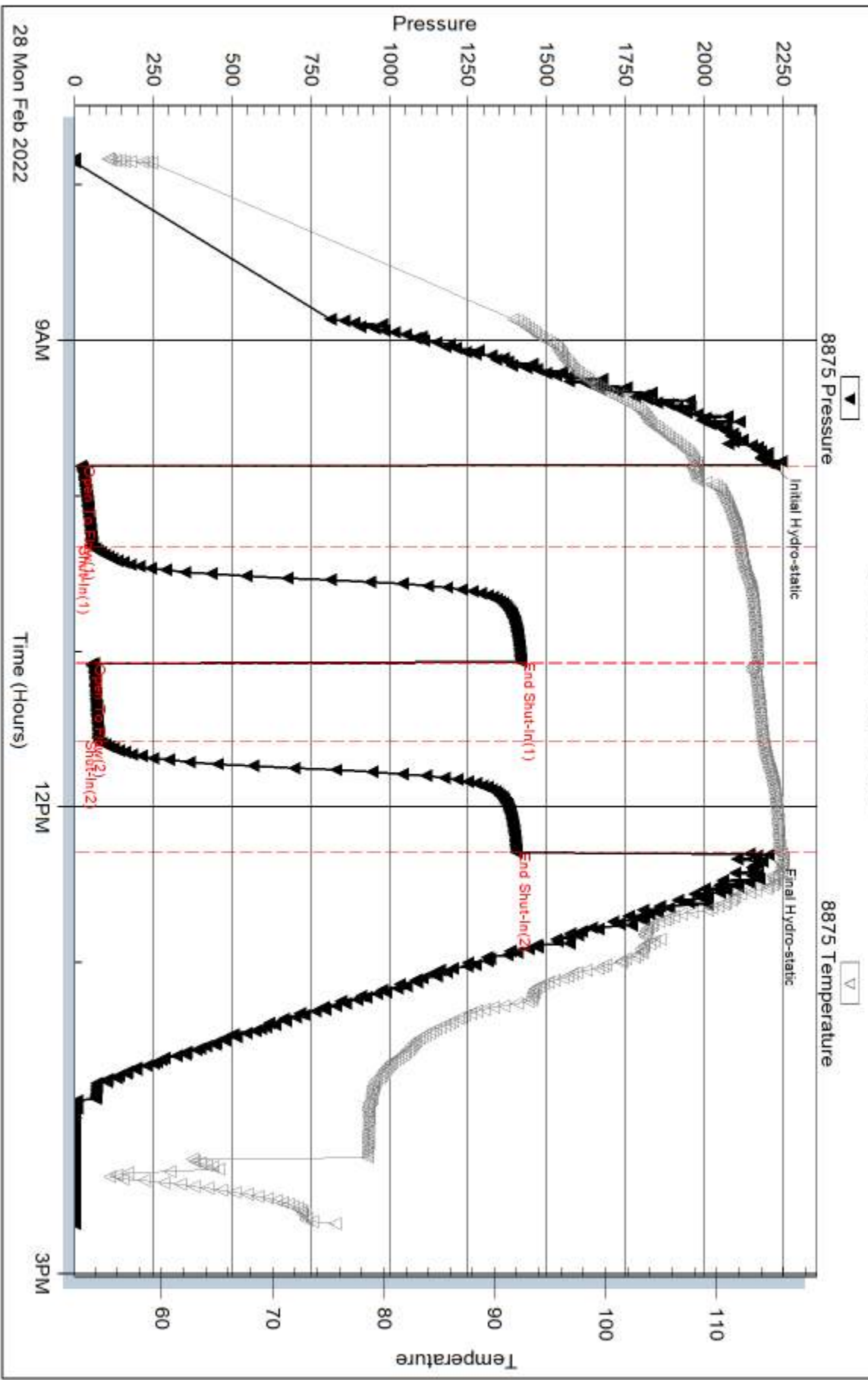
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
145.00	GHOCM 25%G 30%O 45%M	0.991
0.00	540 GIP 100%G	0.000

Total Length: 145.00 ft Total Volume: 0.991 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 1#LCM

Pressure vs. Time



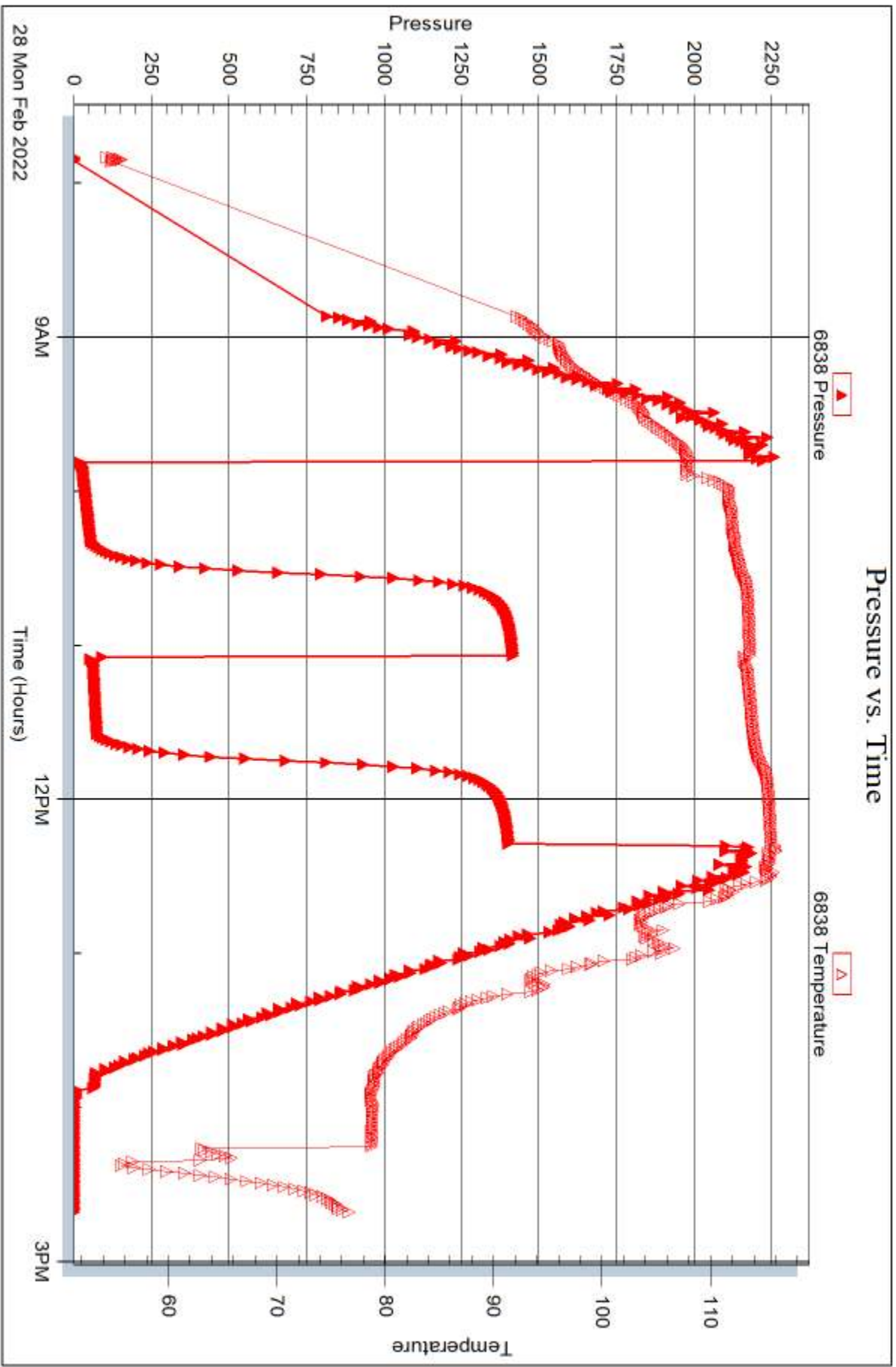
Serial #: 6838

Inside

Cobalt Energy LLC

Indiek #1-18

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 68205

Printed: 2022.03.03 @ 14:47:40



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208+0037

ATTN: Tim Pierce

Indiek #1-18

18-23s-22w Hodgeman,KS

Start Date: 2022.02.28 @ 23:53:00

End Date: 2022.03.01 @ 05:55:32

Job Ticket #: 68206 DST #: 2

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

Printed: 2022.03.03 @ 14:46:32

Cobalt Energy LLC
18-23s-22w Hodgeman,KS
Indiek #1-18
DST # 2
Mississippi
2022.02.28



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cobalt Energy LLC
PO Box 8037
Wichita KS 67208+0037
ATTN: Tim Pierce

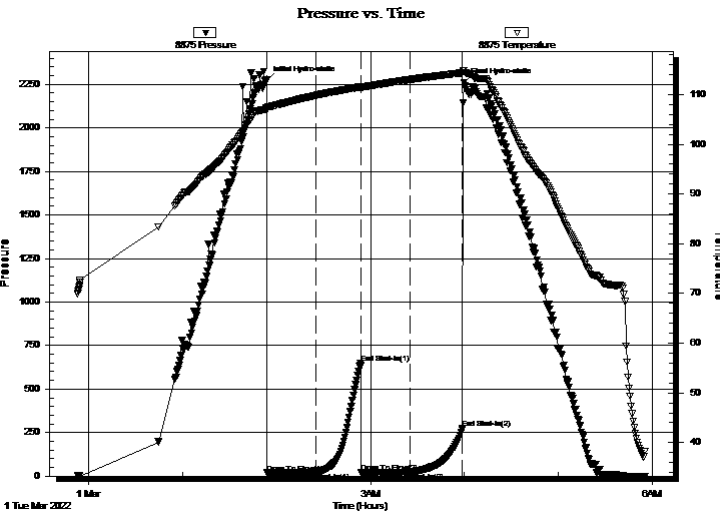
18-23s-22w Hodgeman,KS
Indiek #1-18
Job Ticket: 68206 **DST#: 2**
Test Start: 2022.02.28 @ 23:53:00

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 01:53:42
Time Test Ended: 05:55:32
Interval: **4515.00 ft (KB) To 4530.00 ft (KB) (TVD)**
Total Depth: 4530.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84
Reference Elevations: 2278.00 ft (KB)
2271.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8875 Outside
Press@RunDepth: 21.99 psig @ 4516.00 ft (KB) Capacity: psig
Start Date: 2022.02.28 End Date: 2022.03.01 Last Calib.: 2022.03.01
Start Time: 23:53:01 End Time: 05:55:32 Time On Btm: 2022.03.01 @ 01:53:32
Time Off Btm: 2022.03.01 @ 03:59:47

TEST COMMENT: 30-IF-Surface to 1/2"
30-ISI-No Return
30-FF-Surface Blow
30-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2274.24	107.40	Initial Hydro-static
1	18.29	106.70	Open To Flow (1)
32	19.95	109.86	Shut-In(1)
61	648.08	111.53	End Shut-In(1)
61	19.46	111.47	Open To Flow (2)
92	21.99	113.03	Shut-In(2)
126	274.73	114.42	End Shut-In(2)
127	2259.56	114.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
4.00	OM 50%O 50%M	0.02
1.00	CO 100%O	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cobalt Energy LLC
PO Box 8037
Wichita KS 67208+0037
ATTN: Tim Pierce

18-23s-22w Hodgeman,KS
Indiek #1-18
Job Ticket: 68206 **DST#: 2**
Test Start: 2022.02.28 @ 23:53:00

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
Time Tool Opened: 01:53:42 Tester: Spencer J Staab
Time Test Ended: 05:55:32 Unit No: 84

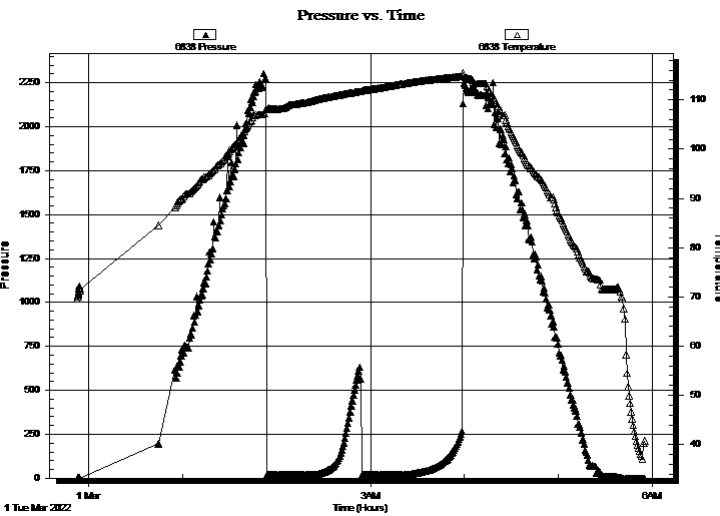
Interval: **4515.00 ft (KB) To 4530.00 ft (KB) (TVD)** Reference Elevations: 2278.00 ft (KB)
Total Depth: 4530.00 ft (KB) (TVD) 2271.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 7.00 ft

Serial #: 6838

Inside

Press@RunDepth: psig @ 4516.00 ft (KB) Capacity: psig
Start Date: 2022.02.28 End Date: 2022.03.01 Last Calib.: 2022.03.01
Start Time: 23:53:01 End Time: 05:55:32 Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IF-Surface to 1/2"
30-ISI-No Return
30-FF-Surface Blow
30-FSI-No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
4.00	OM 50%O 50%M	0.02
1.00	CO 100%O	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC
PO Box 8037
Wichita KS 67208+0037
ATTN: Tim Pierce

18-23s-22w Hodgeman,KS
Indiek #1-18
Job Ticket: 68206 **DST#: 2**
Test Start: 2022.02.28 @ 23:53:00

Tool Information

Drill Pipe:	Length: 4384.00 ft	Diameter: 3.82 inches	Volume: 62.15 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose:	90000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	69000.00 daN
Depth to Top Packer:	4515.00 ft			Final	69000.00 daN
Depth to Bottom Packer:	ft				
Interval between Packers:	15.00 ft				
Tool Length:	47.00 ft				
Number of Packers:	1	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			4484.00	
Shut In Tool	5.00			4489.00	
Hydraulic tool	5.00			4494.00	
Jars	5.00			4499.00	
Gap Sub	4.00			4503.00	
Safety Joint	3.00			4506.00	
Packer	5.00			4511.00	32.00 Bottom Of Top Packer
Packer	4.00			4515.00	
Stubb	1.00			4516.00	
Recorder	0.00	6838	Inside	4516.00	
Recorder	0.00	8875	Outside	4516.00	
Perforations	11.00			4527.00	
Bullnose	3.00			4530.00	15.00 Bottom Packers & Anchor

Total Tool Length: 47.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC
PO Box 8037
Wichita KS 67208+0037
ATTN: Tim Pierce

18-23s-22w Hodgeman,KS
Indiek #1-18
Job Ticket: 68206 **DST#: 2**
Test Start: 2022.02.28 @ 23:53:00

Mud and Cushion Information

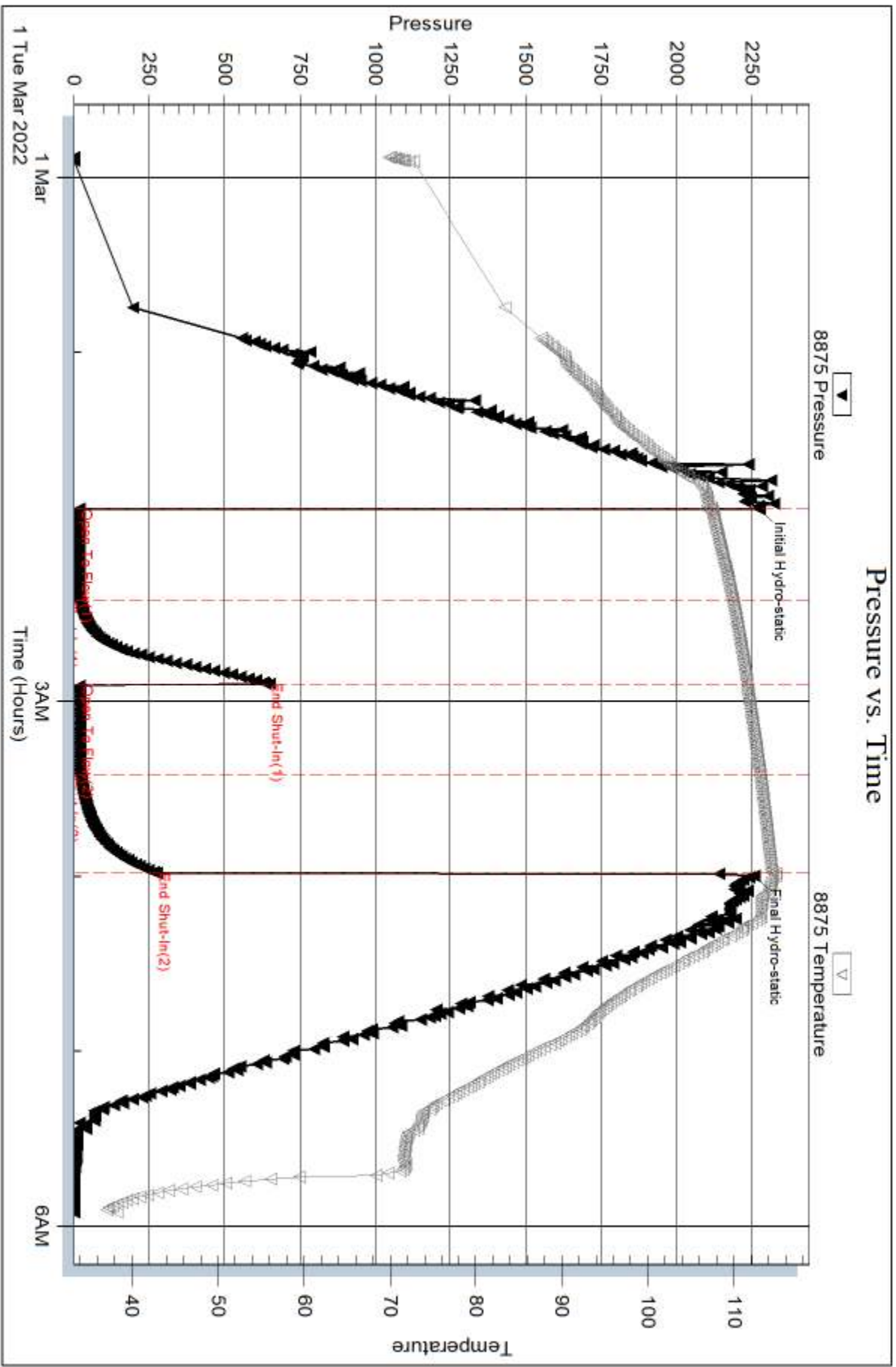
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4650.00 ppm			
Filter Cake: inches			

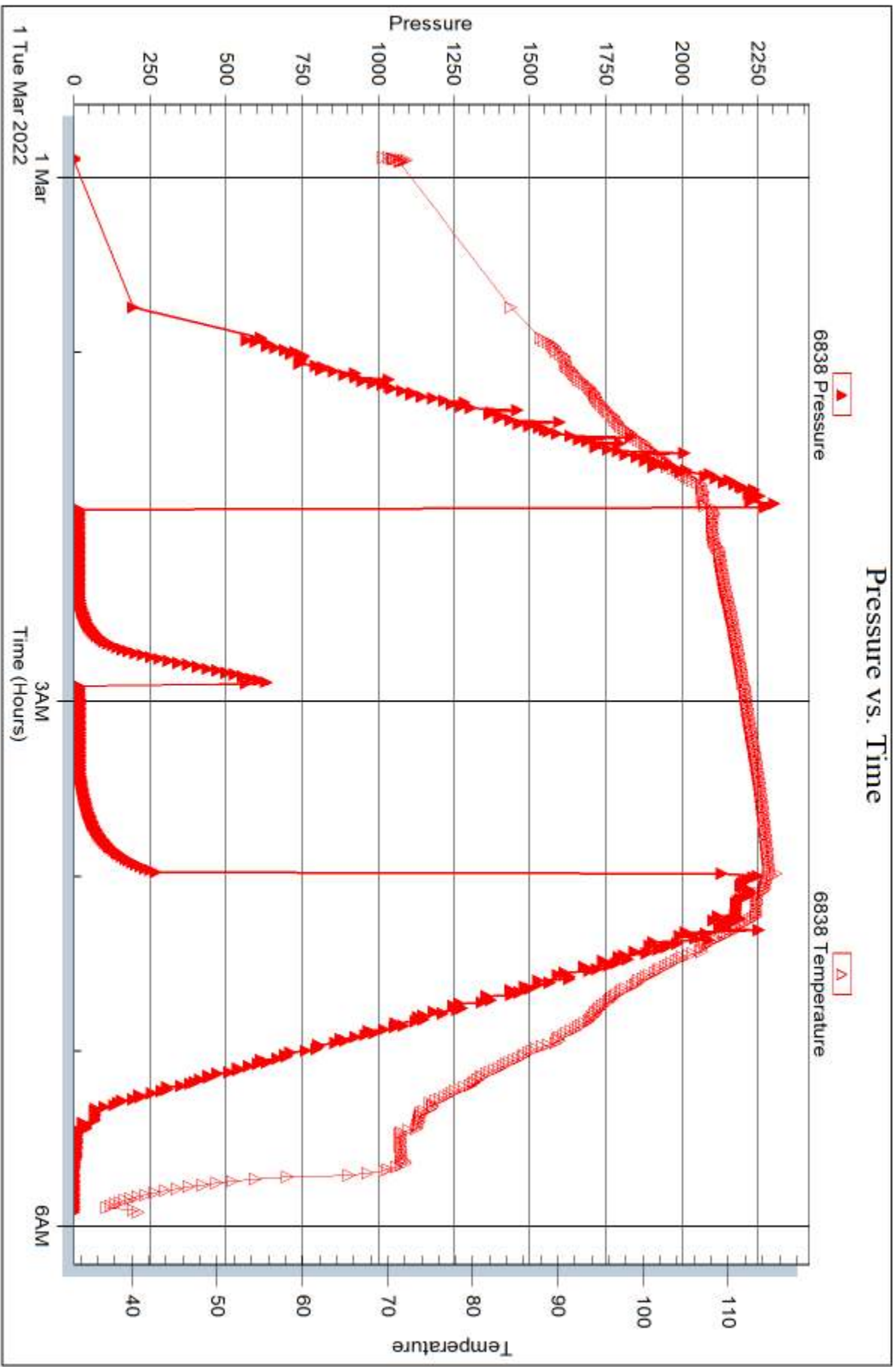
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
4.00	OM 50%O 50%M	0.020
1.00	CO 100%O	0.005

Total Length: 5.00 ft Total Volume: 0.025 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: 2#LCM







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208+0037

ATTN: Tim Pierce

Indiek #1-18

18-23s-22w Hodgeman,KS

Start Date: 2022.03.01 @ 14:52:00

End Date: 2022.03.01 @ 21:27:47

Job Ticket #: 68207 DST #: 3

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

Printed: 2022.03.03 @ 14:45:11



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC
 PO Box 8037
 Wichita KS 67208+0037
 ATTN: Tim Pierce

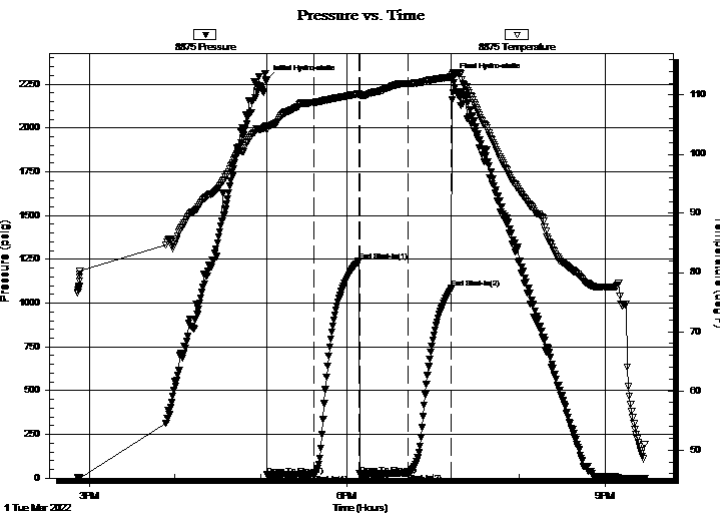
18-23s-22w Hodgeman,KS
Indiek #1-18
 Job Ticket: 68207 **DST#: 3**
 Test Start: 2022.03.01 @ 14:52:00

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:03:42
 Time Test Ended: 21:27:47
 Interval: **4528.00 ft (KB) To 4550.00 ft (KB) (TVD)**
 Total Depth: 4550.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Spencer J Staab
 Unit No: 84
 Reference Elevations: 2278.00 ft (KB)
 2271.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8875 Outside
 Press@RunDepth: 26.77 psig @ 4529.00 ft (KB) Capacity: psig
 Start Date: 2022.03.01 End Date: 2022.03.01 Last Calib.: 2022.03.01
 Start Time: 14:52:01 End Time: 21:27:47 Time On Btm: 2022.03.01 @ 17:03:37
 Time Off Btm: 2022.03.01 @ 19:14:02

TEST COMMENT: 30-IF-Surface to .75" Died back to .25"
 30-ISI-No Return
 30-FF-No Blow
 30-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2274.17	104.84	Initial Hydro-static
1	18.19	104.08	Open To Flow (1)
34	22.63	108.76	Shut-In(1)
65	1239.46	110.18	End Shut-In(1)
65	23.80	109.94	Open To Flow (2)
99	26.77	111.95	Shut-In(2)
130	1083.76	113.05	End Shut-In(2)
131	2286.04	113.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
9.00	OSM 100%M	0.04
1.00	CO 100%O	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cobalt Energy LLC
PO Box 8037
Wichita KS 67208+0037
ATTN: Tim Pierce

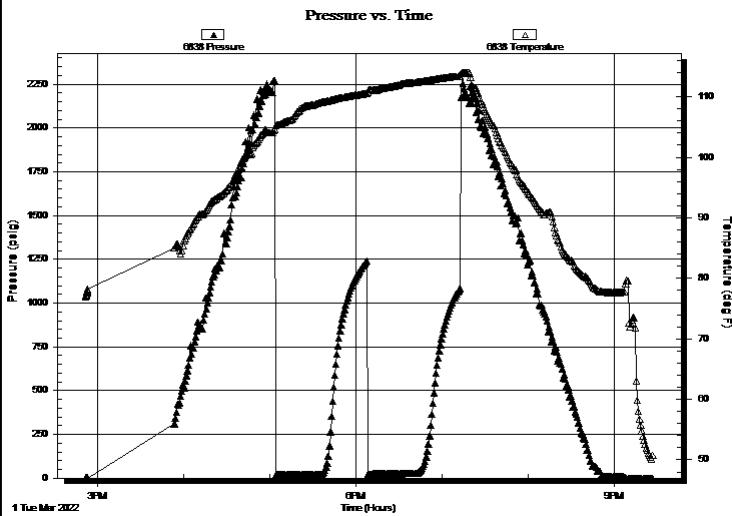
18-23s-22w Hodgeman,KS
Indiek #1-18
Job Ticket: 68207 **DST#: 3**
Test Start: 2022.03.01 @ 14:52:00

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:03:42
Time Test Ended: 21:27:47
Interval: **4528.00 ft (KB) To 4550.00 ft (KB) (TVD)**
Total Depth: 4550.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2278.00 ft (KB)
2271.00 ft (CF)
KB to GR/CF: 7.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Spencer J Staab
Unit No: 84

Serial #: 6838 **Inside**
Press@RunDepth: psig @ 4529.00 ft (KB) Capacity: psig
Start Date: 2022.03.01 End Date: 2022.03.01 Last Calib.: 2022.03.01
Start Time: 14:52:01 End Time: 21:27:07 Time On Btm:
Time Off Btm:

TEST COMMENT: 30-IF-Surface to .75" Died back to .25"
30-ISI-No Return
30-FF-No Blow
30-FSI-No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
9.00	OSM 100%M	0.04
1.00	CO 100%O	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

18-23s-22w Hodgeman,KS

PO Box 8037
Wichita KS 67208+0037

Indiek #1-18

Job Ticket: 68207

DST#: 3

ATTN: Tim Pierce

Test Start: 2022.03.01 @ 14:52:00

Tool Information

Drill Pipe:	Length: 4413.00 ft	Diameter: 3.82 inches	Volume: 62.56 bbl	Tool Weight:	2500.00 daN
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer:	25000.00 daN
Drill Collar:	Length: 115.00 ft	Diameter: 2.25 inches	Volume: 0.57 bbl	Weight to Pull Loose:	94000.00 daN
			<u>Total Volume:</u>	Tool Chased	ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	69000.00 daN
Depth to Top Packer:	4528.00 ft			Final	69000.00 daN
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	54.00 ft				
Number of Packers:	1	Diameter:	6.75 inches		
Tool Comments:					

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

Change Over Sub	1.00			4497.00	
Shut In Tool	5.00			4502.00	
Hydraulic tool	5.00			4507.00	
Jars	5.00			4512.00	
Gap Sub	4.00			4516.00	
Safety Joint	3.00			4519.00	
Packer	5.00			4524.00	32.00 Bottom Of Top Packer
Packer	4.00			4528.00	
Stubb	1.00			4529.00	
Recorder	0.00	6838	Inside	4529.00	
Recorder	0.00	8875	Outside	4529.00	
Perforations	18.00			4547.00	
Bullnose	3.00			4550.00	22.00 Bottom Packers & Anchor

Total Tool Length: 54.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC
PO Box 8037
Wichita KS 67208+0037
ATTN: Tim Pierce

18-23s-22w Hodgeman,KS
Indiek #1-18
Job Ticket: 68207 **DST#: 3**
Test Start: 2022.03.01 @ 14:52:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 7200.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

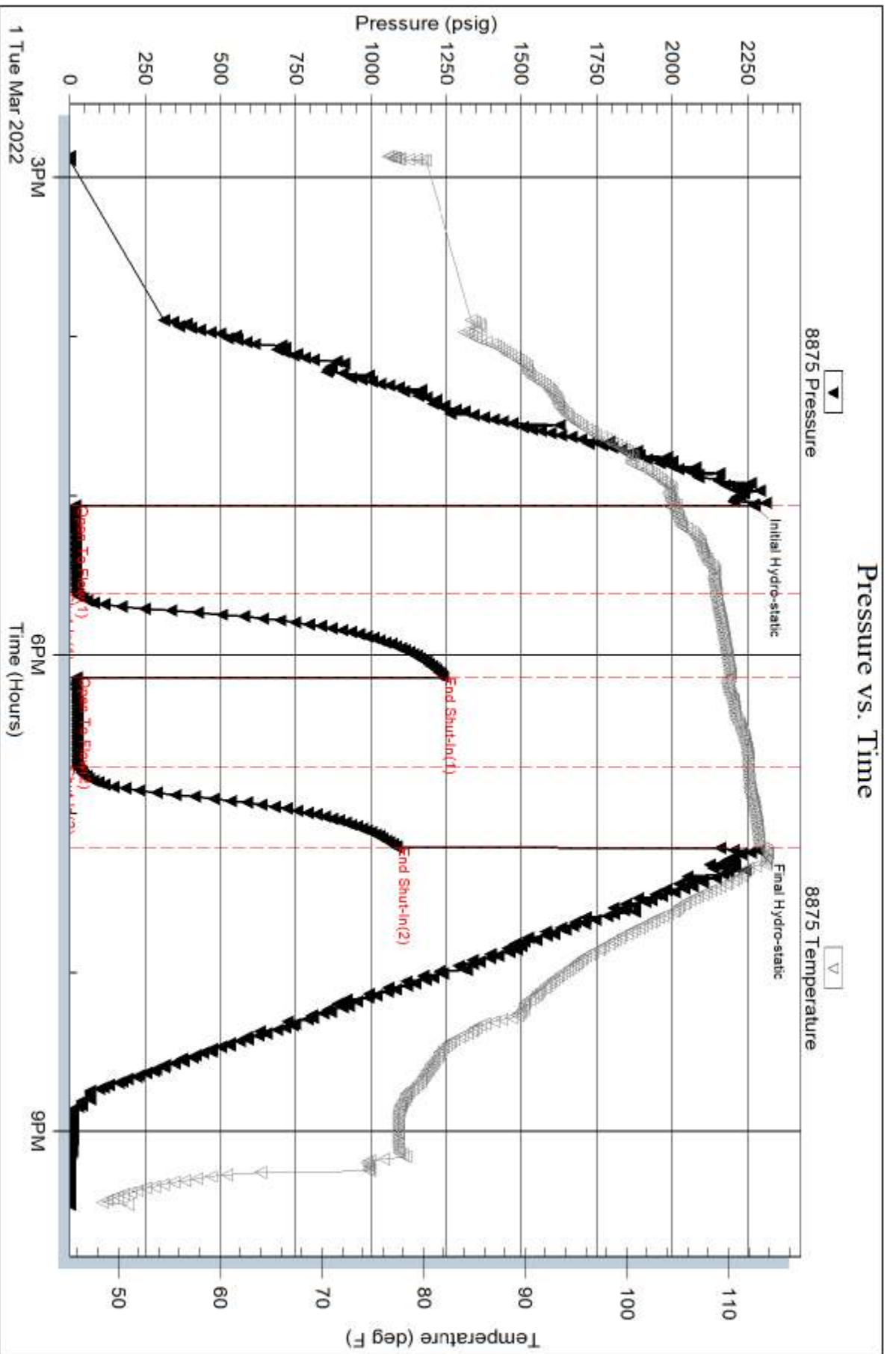
Length ft	Description	Volume bbl
9.00	OSM 100%M	0.044
1.00	CO 100%O	0.005

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: 2#LCM



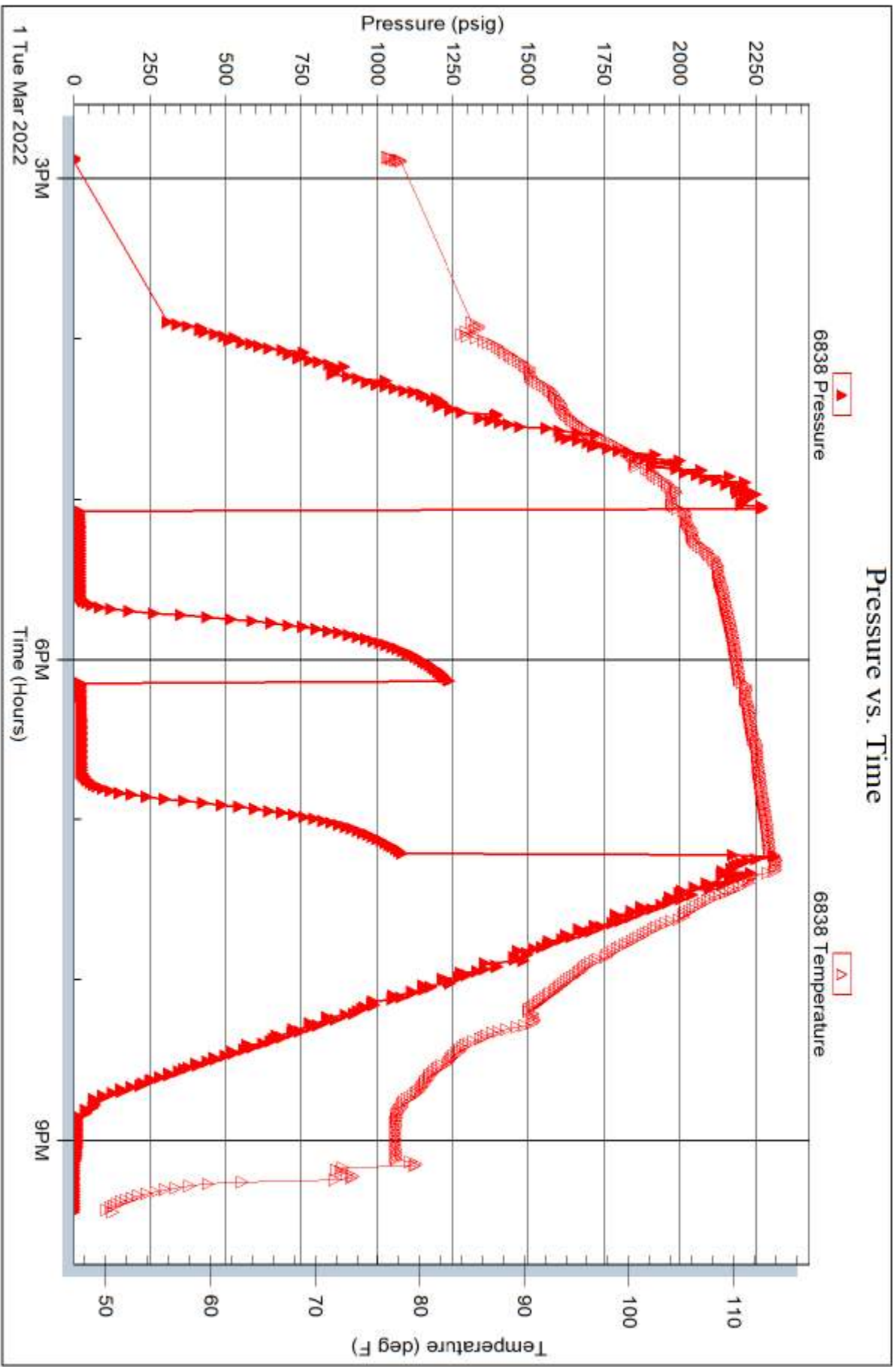
Serial #: 6838

Inside

Cobalt Energy LLC

Indiek #1-18

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 68207

Printed: 2022.03.03 @ 14:45:12



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 68205

Well Name & No. Indiek #1-18 Test No. 1 Date 02/28/2022
 Company Cobalt Energy LLC Elevation 3278 KB 2271 GL
 Address 4701 E. Lewis St. PO BOX 8037 Wichita Ks 67208-10037
 Co. Rep / Geo. Tim Pierce Rig Pickrell
 Location: Sec. 18 Twp 23A Rge. 22w Co. Hodgeman State Ks

Interval Tested 4418'-4498' Zone Tested Ft. Scott + Cherokee Ls
 Anchor Length 80' Drill Pipe Run 4287' Mud Wt. 9.4
 Top Packer Depth 4413' Drill Collars Run 115' Vls 55
 Bottom Packer Depth 4418' Wt. Pipe Run - WL 8.8
 Total Depth 4498' Chlorides 4800 ppm System LCM #

Blow Description 77-Surface to 9"
77- No Return
77- BOB 22 mins; Built to 16"
78-Surface to 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>145</u>	<u>G#OCM</u>	<u>85</u>	<u>30</u>	<u>45</u>	
	<u>540' GTP</u>	<u>100</u>			

Rec Total 145 BHT 115° Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2222 Test 1450 T-On Location 05:50
 (B) First Initial Flow 21 Jars 250 T-Started 07:50
 (C) First Final Flow 56 Safety Joint 75 T-Open 09:45
 (D) Initial Shut-In 1418 Circ Sub _____ T-Pulled 12:15
 (E) Second Initial Flow 54 Hourly Standby _____ T-Out 14:39
 (F) Second Final Flow 76 Mileage 16427 205 Comments _____
 (G) Final Shut-In 1404 Sampler _____
 (H) Final Hydrostatic 2204 Straddle _____ EM Tool 350
 Shale Packer _____ Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Day Standby _____ Sub Total 350
 Accessibility _____ Total 2330
 Sub Total 1980 MP/DST Disc't _____

Approved By _____ Our Representative [Signature] Thanks!
 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.

785-259-0056



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 68206

Well Name & No. Indick #1-18 Test No. 2 Date 03/01/2022
 Company Colalt Energy LLC Elevation 2278 KB 2271 GL
 Address 4701 E Lewis St PO BOX 8037 Wichita KS 67208+0037
 Co. Rep / Geo. Tina Pierce Rig Pickrell
 Location: Sec. 18 Twp 23 S Rge. 22 W Co. Hodgeman State KS

Interval Tested 4515' - 4530' Zone Tested Mississippi
 Anchor Length 15' Drill Pipe Run 4384' Mud Wt. 9.45
 Top Packer Depth 4510' Drill Collars Run 115' Vis 4/9
 Bottom Packer Depth 4515' Wt. Pipe Run - WL 8.0
 Total Depth 4530' Chlorides 4650 ppm System LCM 2#

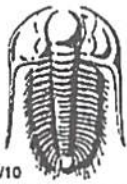
Blow Description 17 - Surface to 1/2"
250 - No Return
77 - Surface Blow
950 - No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>4</u>	<u>OM</u>	<u>30</u>		<u>50</u>	
<u>1</u>	<u>CO</u>	<u>100</u>			

Rec Total 5' BHT 114° Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>2274</u>	<input checked="" type="checkbox"/> Test <u>1450</u>	T-On Location <u>22:55</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>23:53</u>
(C) First Final Flow <u>19</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>01:42</u>
(D) Initial Shut-In <u>648</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>03:52</u>
(E) Second Initial Flow <u>19</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>05:54</u>
(F) Second Final Flow <u>21</u>	<input checked="" type="checkbox"/> Mileage <u>16427</u> 205	Comments
(G) Final Shut-In <u>274</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2259</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Sub Total <u>350</u>
	<input type="checkbox"/> Accessibility	Total <u>2330</u>
	Sub Total <u>1980</u>	MP/DST Disc't

Approved By _____ Our Representative _____
 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. 68207

Well Name & No. Indiek # 1-18 Test No. 3 Date 03/01/2022
 Company Cobalt Energy LLC Elevation 2278 KB 2271 GL
 Address 4701 E Lewis St PO BOX 8037 Wichita KS 67208-0037
 Co. Rep / Geo. Tim Pierce Rig Pickrell
 Location: Sec. 18 Twp 23A Rge. 22w Co. Hodgeman State Ks

Interval Tested 4528' - 4550' Zone Tested Mississippi
 Anchor Length 22' Drill Pipe Run 4413' Mud Wt. 9.15
 Top Packer Depth 4523' Drill Collars Run 115' Vls 50
 Bottom Packer Depth 4528' Wt. Pipe Run - WL 9.2
 Total Depth 4550' Chlorides 7200 ppm System LCM 2#

Blow Description 77- Surface to 3/4"; Died back to 1/4"
75D- No Return
77- No Blow
75D- No Return

Rec	Feet of	%gas	%oil	%water	%mud
9'	OSM			100	
1'	CO	100			

Rec Total 10' BHT 113° Gravity - API RW - @ - °F Chlorides - ppm
 (A) Initial Hydrostatic 2274 Test 1450 T-On Location 13:44
 (B) First Initial Flow 18 Jars 250 T-Started 14:52
 (C) First Final Flow 22 Safety Joint 75 T-Open 17:03
 (D) Initial Shut-In 1239 Circ Sub _____ T-Pulled 19:03
 (E) Second Initial Flow 23 Hourly Standby _____ T-Out 21:46
 (F) Second Final Flow 26 Mileage 16427x2 205+205 Comments Loaded 03/02/2022
 (G) Final Shut-In 1087 Sampler _____ @ 5:00
 (H) Final Hydrostatic 2286 Straddle _____ EM Tool 350

Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 30 Extra Packer _____ Ruined Packer _____
 Final Flow 30 Extra Recorder _____ Extra Copies _____
 Final Shut-In 30 Day Standby _____ Sub Total 350
 Accessibility _____ Total 2535
 Sub Total 2185 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.

785-259-0058

Timothy G. Pierce

Petroleum Geologist

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY Cobalt Energy, LLC

LEASE Indiek #1-18

FIELD Wildcat

LOCATION 2294' FSL & 1180' FEL

SEC 18 TWSW 23 S RGE 22 W

COUNTY Hodgeman STATE Kansas

CONTRACTOR Pickrell Drilling Rig #10

SPUD 2-21-2022 COMP 3-02-2022

RTD 4650 LTD 4652

MUD UP 3300 TYPE MUD Chemical

SAMPLES SAVED FROM 3600 TO RTD

DRILLING TIME KEPT FROM 3600 TO RTD

SAMPLES EXAMINED FROM 3600 TO RTD

GEOLOGICAL SUPERVISION FROM 3600 TO RTD

GEOLOGIST ON WELL Tim Pierce

ELEVATIONS

KB 2278'

DF _____

GL 2271'

Measurements Are All
From Kelly Bushing

CASING

CONDUCTOR _____

SURFACE 8-5/8" at 220'

PRODUCTION 5-1/2" at 4650'

ELECTRICAL SURVEYS

DIL/CN-CD/Micro
Midwest Wireline LLC

FORMATION TOPS

Anhydrite 1394 (+884) 1395 (+883) SAMPLE

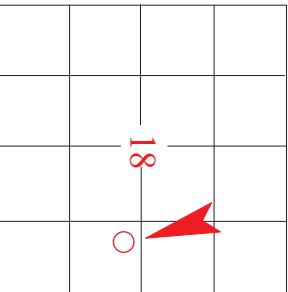
Heehner Shale 3845 (-1567) 3843 (-1565)

Lansing 3911 (-1633) 3910 (-1632)

Hushpuckney Shale 4213 (-1935) 4212 (-1934)

Cherokee Shale 4464 (-2186) 4464 (-2186)

Mississippi 4515 (-2237) 4513 (-2235)

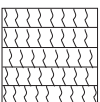


API# 15-083-22,000-00

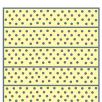
REMARKS Based on results of DST #1, the decision was made to attempt a completion in the Cherokee LS.

Timothy G. Pierce

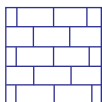
LEGEND



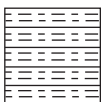
Anhydrite



Sandstone



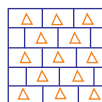
Limestone



Shale



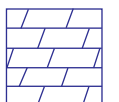
Carb Sh



Cherty LS



Chert



Dolomite

GAS SCALE

DRILLING TIME IN
MINUTES PER FOOT

Rate of Penetration Decreases

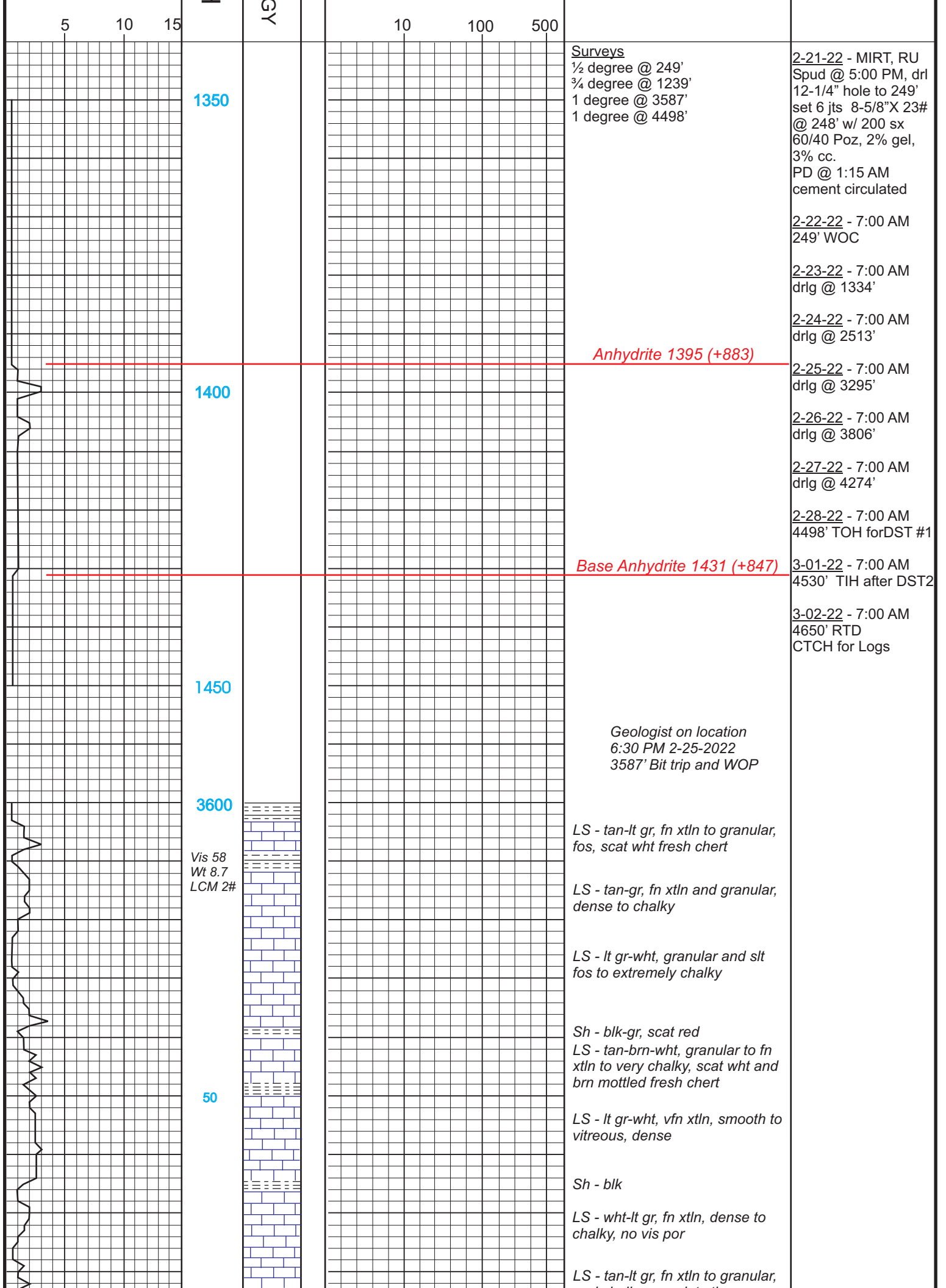


DEPTH

LITHOLOGY

SAMPLE DESCRIPTION

REMARKS



1350

Surveys

1/2 degree @ 249'
 3/4 degree @ 1239'
 1 degree @ 3587'
 1 degree @ 4498'

2-21-22 - MIRT, RU
 Spud @ 5:00 PM, drl
 12-1/4" hole to 249'
 set 6 jts 8-5/8" X 23#
 @ 248' w/ 200 sx
 60/40 Poz, 2% gel,
 3% cc.
 PD @ 1:15 AM
 cement circulated

2-22-22 - 7:00 AM
 249' WOC

2-23-22 - 7:00 AM
 drlg @ 1334'

2-24-22 - 7:00 AM
 drlg @ 2513'

Anhydrite 1395 (+883)

2-25-22 - 7:00 AM
 drlg @ 3295'

2-26-22 - 7:00 AM
 drlg @ 3806'

2-27-22 - 7:00 AM
 drlg @ 4274'

2-28-22 - 7:00 AM
 4498' TOH for DST #1

1400

Base Anhydrite 1431 (+847)

3-01-22 - 7:00 AM
 4530' TIH after DST2

3-02-22 - 7:00 AM
 4650' RTD
 CTCH for Logs

1450

*Geologist on location
 6:30 PM 2-25-2022
 3587' Bit trip and WOP*

3600

Vis 58
 Wt 8.7
 LCM 2#

*LS - tan-lt gr, fn xtl to granular,
 fos, scat wht fresh chert*

*LS - tan-gr, fn xtl and granular,
 dense to chalky*

*LS - lt gr-wht, granular and slt
 fos to extremely chalky*

*Sh - blk-gr, scat red
 LS - tan-brn-wht, granular to fn
 xtl to very chalky, scat wht and
 brn mottled fresh chert*

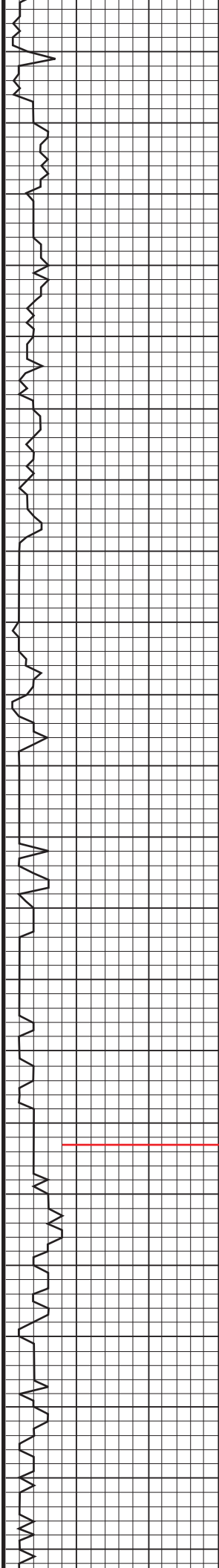
50

*LS - lt gr-wht, vfn xtl, smooth to
 vitreous, dense*

Sh - blk

*LS - wht-lt gr, fn xtl, dense to
 chalky, no vis por*

LS - tan-lt gr, fn xtl to granular,



3700

50

Vis 44
Wt 8.7
LCM 2#
Add
Mud

3800

Vis 56
Wt 8.7
LCM 1#
Filt 7.6

50

Vis 57
Wt 8.7
LCM 2#

3900

and chalky, poor int xtlr por

Sh - gr-blk
LS - lt gr-tan, fn xtlr to granular,
poor int xtlr por, chalky to dense

Sh - gr-blk

LS - tan-crm, fn xtlr to granular,
poor int xtlr por, scat gr vitr chert

Sh - blk

LS - tan-gr, fn xtlr to granular,
mottled, poor int xtlr por to
chalky

LS - gr-tan, mottled, fn xtlr and
granular, dense to chalky

Sh - blk and gr

LS - gr-tan, fn xtlr, granular and
dense to chalky, poor vis por

Sh - blk and gr

LS - tan-gr, fn xtlr, dense and
granular, chalky with poor vis
por

LS - tan-gr, fn xtlr dense to
granular

LS - tan, fn xtlr, fair-gd int xtlr
por, no show

LS - tan, fn xtlr, dense w/ scat
fair int xtlr por

Sh - blk carb
LS - tan-brn, fn xtlr, dense

Sh - blk-gr

LS - tan-lt gr, fn xtlr, scat poor
vug and int xtlr por, to chalky

Sh - gr-blk

LS - tan-gr, dense

LS - gr, argillaceous to chalky

Sh - gr-blk-red

Heebner Sh.
3843 (-1565)

Lansing
3910 (-1632)

LS - tan-lt gr, fn xtl, dense

Sh - blk-gr, scat red w/ LS - gr-tan, dense

LS - tan-gr-brn, fn xtl, dense
scat poor vug por, scat gr vitr
chert

50

Sh - gr-blk, some red

LS - gr-tan-wht, fn xtl, dense to
slt chalky, scat tan-gr vitreous
chert

Vis 51
Wt 8.7
LCM 2#

Sh - gr-blk-red, w/ LS - dk gr-blk,
mottled, granular

4000

LS - tan-lt gr, fn xtl, dense to
slt chalky, scat poor vug por, no
show

Sh - gr-blk

LS - tan-gr, fn xtl, scat poor vug
por, chalky in part, scat gr-wht
vitreous chert, dense

Sh - gr-blk

LS - lt gr-tan, fn xtl, dense to
slt chalky, no vis por

Vis 50
Wt 9.0
50

LS - gr-tan, fn xtl, dense, scat
gr-wht vitreous chert

Muncie Creek Sh
4071 (-1793)

Sh - blk
LS - gr-tan, dense

Sh - gr-blk-red

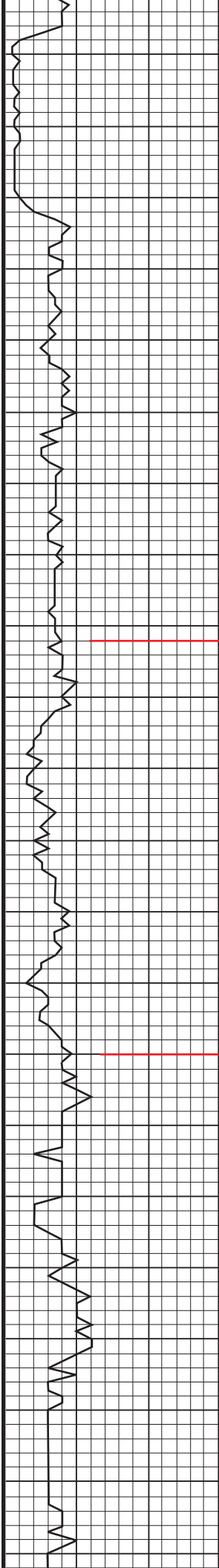
LS - lt gr-tan, fn xtl, dense to
chalky in part, no vis por

Vis 52
Wt 9.2

4100

Sh - gr-grn-red and LS - brn-tan,
fn xtl to part oolitic, no vis por

LS - tan-lt gr-brn, fn xtl to part
oolitic, no vis por



50

Vis 54
Wt 9.3+
LCM 1#

4200

50

Vis 55
Wt 9.4
LCM 1#
Filt 8.8

4300

Add
Mud

LS - tan-lt gr, fn xtl, and oolitic,
f-gd vug and oolitic por, no
show

LS - tan-lt gr, fn xtl, dense

Sh - gr-red

LS - lt-dk gr, fn xtl, dense

LS - tan-lt gr-wht, fn xtl, dense
and slt chalky

LS - tan-lt gr- wht, fn xtl, dense
some chalk

Hushpuckney Sh.
4212 (-1934)

Sh - blk

Sh - blk-gr-red and LS - gr, fn
xtln, dense

LS - tan-lt gr-wht, fn xtl, dense
to chalky, scat gr vitreous chert,
no vis por, no show

Sh blk-gr

LS - tan-lt gr-wht, fn xtl, dense,
chalky to slt granular, scat poor
vug por, no show

BKC
4270 (-1992)

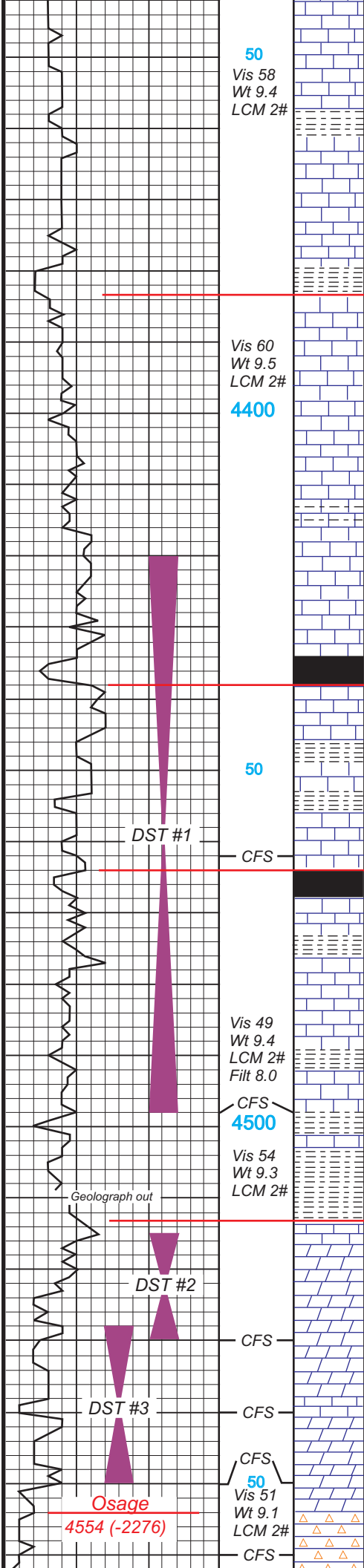
Sh - gr-blk

LS - lt gr-tan, fn xtl, dense w/
Sh - gr-blk, some red

LS - lt gr-tan-wht, fn xtl dense to
chalky, and Sh - gr-blk

Sh - gr-blk

LS - gr-brn-tan, fn xtl, dense
scat chalk



50
Vis 58
Wt 9.4
LCM 2#

Vis 60
Wt 9.5
LCM 2#
4400

50

Vis 49
Wt 9.4
LCM 2#
Filt 8.0
4500

Vis 54
Wt 9.3
LCM 2#

50
Vis 51
Wt 9.1
LCM 2#

Pipe strap 4513.00
Board 4510.04
Diff 2.96

LS - gr-brn-wht, fn xtl, dense to chalky

Sh - gr-blk

LS - tan-lt gr, fn xtl, dense w/ scat chalk, scat gr vitreous chert

Sh - gr-blk

Pawnee LS
4383 (-2105)

LS - tan-lt gr-wht, fn xtl and slightly chalky in part, no vis por

LS - lt-dk gr-tan, fn xtl dense, slt chalky, slt pyritic, scat gr vitr chert

LS - lt-dk gr-tan, fn xtl, dense

LS - dk gr-brn-tan, fn xtl, dense w/ sh - gr-blk

DST #1
4420-4498
30-45-30-45
1st Open: wk blow incr to 9 inches
2nd Open: wk blow incr to 16 inches
Wk surf blow on final SI
Rec - 540' GIP
145' OCM
(25%g, 30%o, 45%m)
FP: 21-56 / 54-76#
SIP: 1418-1404#
BHT: 115 deg
HP: 2222-2204#

Sh - blk carb

Ft. Scott LS
4438 (-2160)

LS - tan-brn, fn xtl, dense

Sh - gr-blk

LS - tan-gr, dense
LS - tan-lt gr, fn xtl, scat poor vug and int xtl por, slt show lt oil film, spotty lt brn stain, fair odor, spty bright fluor

Cherokee Sh.
4464 (-2186)

Sh - blk carb

LS - tan-wht, fn xtl, dense to slt chalky

LS - tan-lt gr-wht, fn xtl, dense w/ scat poor int xtl to vug por, slt show lt oil film, spty light brn stain, good odor, spty bright fluuor

LS - gr-tan-wht, fn xtl dense to very chalky, no vis por, scat f-gd show blk gilsonite, faint odor, blk sat stain

Sh - gr-grn-red-blk

Mississippi
4513 (-2235)

LS - tan-lt gr, fn xtl, dense, no vis por, few pieces w/slt show oil film, no odor

Dolo - lt gr-tan, fn and med xtl, tight, becoming porous w/ fair-gd vug and int xtl por, good show oil film, occasional gas bubble, strong odor, mostly sat brn stain bright fluor
30 min circ spl @ 4540'

DST #2
4515-4530
30-30-30-30
1st Open: wk blow- 1/2 inch
2nd Open: surface blow
Rec - 4' OCM
(50%oil,50%mud)
1' Clean oil
FP: 18-19 / 19-21#
SIP: 648-274#
BHT: 114 deg
HP: 2274-2259#

Dolo - lt gr-tan, mostly fn xtl, some med xtl, gd show oil film, w/ dk oil in vugs, spty to sat brn stain, fair odor, bright fluor, 5% of sample
60 min circ spl @ 4540'

Dolo - tan-gr, fn xtl, dense, scat poor vug and int xtl por, scat

Osage
4554 (-2276)

Geograph out

DST #1

DST #2

DST #3

CFS

CFS

CFS

CFS

CFS

CFS

RTD
4650'

4600

50
Vis 45
Wt 9.2
LCM 3#
Add mud

Chert - wht, fresh vitreous and weathered, scat vug por, sub tripolitic, no show

Chert wht-gr, fresh, vitreous to sub tripolitic, scat vug and pin point por

Chert - wht-gr, fresh, vitreous to heavily weathered, pinpoint and vug por

Chert - gr, fresh, vitreous, and wht, weathered, vug and pin-point por, scat tripolitic, scat dolomite

Chert - gr-wht, fresh, vitreous, w/ wht, weathered, vug and pin-point por, scat tripolitic, scat tan, dolomite

poor vug and int xtl por, scat show of oil as above, flood of chalk

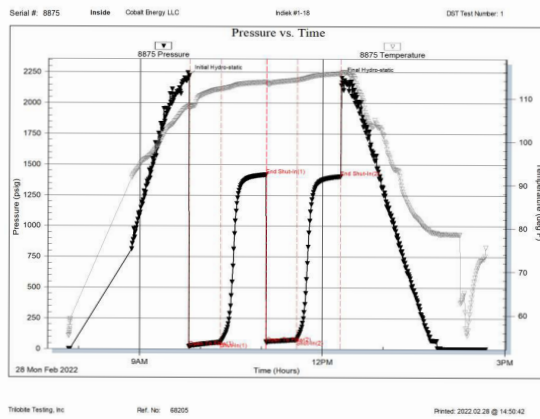
30 min circ spl @ 4550'
Dolo - lt gr-tan, fn xtl, p-f int xtl and pin point por, f show oil film, some dk oil in vugs, spty to sat brn stain, fair odor, bright fluor, 10% of sample

60 min circ spl @ 4550'
Dolo - tan-gr, fn xtl, dense, scat poor vug and int xtl por, scat milky quartz crystals w/ oil along edges, scat p-f show of oil film, some gilsonite, fair odor, bright fluor 5% of sample.

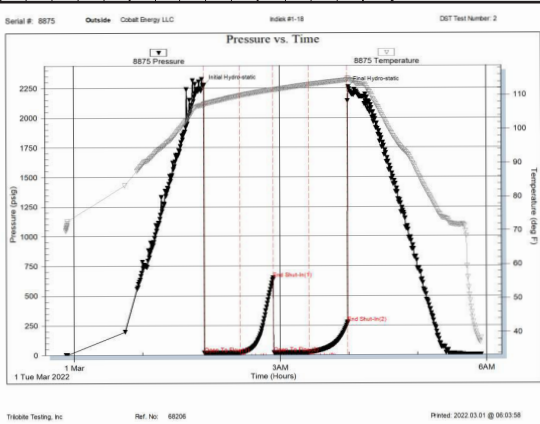
30 min circ spl @ 4560'
Chert - wht-gr, fresh to slt weath, angular, no show, couple pieces of dolo from above w/ show oil film, sample has faint odor

60 min circ spl @ 4560'
Chert - wht-gr, fresh and vitreous to slt weath, angular, no show,

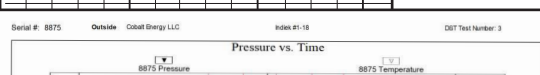
DST #3
4528-4550
30-30-30-30
1st Open: wk blow-
3/4 inch-decr to 1/4
2nd Open: no
blow
Rec - 9' OSM
(100% mud)
1' Clean oil
FP: 18-22 / 23-26#
SIP: 1239-1087#
BHT: 113 deg
HP: 2274-2286#



DST #1
4420-4498
30-45-30-45
1st Open: wk blow
incr to 9 inches
2nd Open: wk blow
incr to 16 inches
Wk surf blow on
final SI
Rec - 540' GIP
145' OCM
(25%g, 30%o, 45%m)
FP: 21-56 / 54-76#
SIP: 1418-1404#
BHT: 115 deg
HP: 2222-2204#



DST #2
4515-4530
30-30-30-30
1st Open: wk blow-
1/2 inch
2nd Open: surface
blow
Rec - 4' OCM
(50%oil, 50% mud)
1' Clean oil
FP: 18-19 / 19-21#
SIP: 648-274#
BHT: 114deg
HP: 2274-2259#



DST #3
4500-4550

