KOLAR Document ID: 1679457

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 # 7311
Name: Shakespeare Oil Co., Inc.
Address 1: 202 W MAIN ST
Address 2:
City: SALEM State: IL Zip: 62881 + 1519
Contact Person: Don Williams
Phone: (618) 548-1585
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: Kent Matson
Purchaser: CHS

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 #:

10/11/2022 Spud Date or Recompletion Date
10/21/2022 Date Reached TD
11/14/2022 Completion Date or Recompletion Date

API No.: 15-063-22420-00-00
Spot Description:
NE - NW - SE - NW Sec. 22 Twp. 11 S. R. 31 ☐ East ☑ West
1470 Feet from ☑ North / ☐ South Line of Section
1740 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☑ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Gove
Lease Name: BLOOM Well #: 2-22
Field Name:
Producing Formation: LKC-G', TORONTO
Elevation: Ground: 2967 Kelly Bushing: 2978
Total Vertical Depth: 4680 Plug Back Total Depth: 4288
Amount of Surface Pipe Set and Cemented at: 225 Feet
Multiple Stage Cementing Collar Used? ☑ Yes ☐ No
If yes, show depth set: 2462 Feet
If Alternate II completion, cement circulated from: 2462
feet depth to: 0 w/ 250 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content: 6500 ppm Fluid volume: 2500 bbls
Dewatering method used: Evaporated
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: 01/10/2023
☐ **Confidential Release Date:** 01/09/2025
☑ **Wireline Log Received** ☑ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** David Befort **Date:** 01/11/2023

Page Two

Operator Name: Shakespeare Oil Co., Inc. Lease Name: BLOOM Well #: 2-22

Sec. 22 Twp. 11 S. R. 31 ☐ East ☑ West County: Gove

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

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

Drill Stem Tests Taken *(Attach Additional Sheets)*	☑ Yes	☐ No	
Samples Sent to Geological Survey	☑ Yes	☐ No	
Cores Taken	☐ Yes	☑ No	
Electric Log Run	☑ Yes	☐ No	
Geologist Report / Mud Logs	☑ Yes	☐ No	

List All E. Logs Run:

Neutron/Density
Dual Induction
Microlog

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	225	Class A	150	2% gel, 3% cc
Production	7.875	5.5	15.5	4340	EA-2	170	5% Calseal, 10% salt, 1% Halad 322, 7#/

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☑ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	2462-0	SMD	200	1/4#/sx Floseal
	-			

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:
11/15/2022	☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	65		120		32

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:	
		Top	Bottom
☐ Vented ☐ Sold ☑ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☑ Commingled *(Submit ACO-4)*	3995	4168

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
4	3995	3998			
4	4164	4168			250 gal 15% MCA

TUBING RECORD:	Size:	Set At:	Packer At:
	2.375	4044	

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	BLOOM 2-22
Doc ID	1679457

Tops

Name	Top	Datum
Andydrite	2497	+481
Heebner	3978	-1000
Lansing	4024	-1046
Muncie Creek	4160	-1182
Stark Shale	4245	-1267
Hushpuckney	4280	-1302
Pawnee	4438	-1460
Johnson	4591	-1613
Mississippian	4625	-1647

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	BLOOM 2-22
Doc ID	1679457

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	225	Class A	150	2% gel, 3% cc
Production	7.875	5.5	15.5	4340	EA-2	170	5% Calseal, 10% salt, 1% Halad 322, 7#/sx Gilsonite & 1/8#/sx Floseal

SWIFT Services, Inc.
P. O. Box 466
Ness City, KS 67560
Off: 785-798-2300

Invoice

DATE	INVOICE #
10/11/2022	34761

BILL TO

Shakespeare Oil Company, Inc
202 West Main Street
Salem, IL 62881



- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#2-22	Bloom	Gove	Duke Drlg Rig #4	Oil	Development	Surface Pipe	Gideon

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	90	Miles	7.00	630.00
576D-S	Pump Charge - Shallow Surface (< 500 Ft.)	1	Job	1,100.00	1,100.00
325	Standard Cement	150	Sacks	15.00	2,250.00T
279	Bentonite Gel	3	Sack(s)	40.00	120.00T
278	Calcium Chloride	7	Sack(s)	40.00	280.00T
290	D-Air	2	Gallon(s)	42.00	84.00T
581D	Service Charge Cement	150	Sacks	2.00	300.00
583D	Drayage	664	Ton Miles	1.00	664.00
	Subtotal				5,428.00
	Sales Tax Gove County			8.50%	232.39

582-5 4

We Appreciate Your Business!

Total $5,660.39

DW

SWIFT Services, Inc.

CHARGE TO: Shakespeare Oil & Gas
ADDRESS
CITY, STATE, ZIP CODE

TICKET 34761

PAGE 1 OF 1

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. Ness City, KS	2-22	Bloom	Gove	KS		10/11/2022	
2.	TICKET TYPE ☑ SERVICE ☐ SALES	CONTRACTOR Duke	RIG NAME/NO. #4	SHIPPED VIA CT	DELIVERED TO Location	ORDER NO.	
3.	WELL TYPE Oil	WELL CATEGORY Development	JOB PURPOSE Surface Pipe		WELL PERMIT NO.	WELL LOCATION S/of Campus, KS	
4.							
REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
575		1			MILEAGE Trk # 115			90	mi	7 00	630 00
576S		1			Pump Charge - Surface			1	job	1,100 00	1,100 00
325		1			Standard Cement			150	sks	15 00	2,250 00
279		1			Bentonite Gel			3	sks	40 00	120 00
278		1			Calcium Chloride			7	sks	40 00	280 00
290		1			D-Air			2	gal	42 00	84 00
581		1			Cement Service Charge			150	sks	2 00	300 00
583		1			Drayage	14,750	lbs	664	TM	1 00	664 00

PAGE TOTAL 5,428 00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.

X

DATE SIGNED 10/11/2022 | TIME SIGNED 3:15 ☐ A.M. ☑ P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UNDECIDED	DISAGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

TAX Gove	232 39
TOTAL	5660 39

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR Gideon Funk

APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 10/11/2022 | PAGE NO. 1

CUSTOMER Shakespeare Oil & Gas | WELL NO. 2-22 | LEASE Bloom | JOB TYPE Surface Pipe | TICKET NO. 34761

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	1320							ON LOCATION @ 8 5/8" 23lb/ft
	1345	4	5		✓		200	Pump 5 bbl H2O Spacer
	1350	4	36		✓		100	Mix 150 sks of Standard CMT w/ 2% gel, 3% CC @ 14.7ppg
		4	0		✓		100	Begin Displacement
		4	9		✓		250	*Circulate Cement to Surface*
	1405	—	13		✓		175	KO Pump *Shut IN* -Release PSI *Hold*
	1415							Wash up Trk #115
	1445							Job Complete
								150 sks used
								Approx 15 sks to the Pit
								Thanks!
								Gideon, Mark, Brett

SWIFT Services, Inc.

P. O. Box 466
Ness City, KS 67560
Off: 785-798-2300

Invoice

DATE	INVOICE #
10/22/2022	35634

BILL TO

Shakespeare Oil Company, Inc
202 West Main Street
Salem, IL 62881

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#2-22	Bloom	Gove	Duke Drlg Rig #4	Oil	Development	Long String	Jonathan

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	70	Miles	7.00	490.00
578D-L	Pump Charge - Long String	1	Job	1,600.00	1,600.00
290	D-Air	5	Gallon(s)	42.00	210.00T
281	Mud Flush	500	Gallon(s)	2.00	1,000.00T
221	Liquid KCL (Clayfix)	2	Gallon(s)	25.00	50.00T
325	Standard Cement	200	Sacks	15.00	3,000.00T
284	Calseal	19	Sack(s)	50.00	950.00T
283	Salt	1,100	Lb(s)	0.25	275.00T
292	Halad 322	100	Lb(s)	9.00	900.00T
276	Flocele	20	Lb(s)	3.00	60.00T
277	Gilsonite (Coal Seal)	625	Lb(s)	1.25	781.25T
581D	Service Charge Cement	200	Sacks	2.00	400.00
583D	Drayage	755.83	Ton Miles	1.00	755.83
	Subtotal				10,472.08
	Sales Tax Gove County			8.50%	614.23

302-5 4

RECEIVED
NOV 07 2022

We Appreciate Your Business!

Total $11,086.31

DW

SWIFT Services, Inc.

CHARGE TO: Shakespeare Oil & Gas
ADDRESS
CITY, STATE, ZIP CODE

TICKET 35634

PAGE 1 OF 2

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. Hays, KS	2-22	Bloom	Gove	KS		10/22/22	Same
2. Ness City, KS	TICKET TYPE ☑ SERVICE ☐ SALES	CONTRACTOR Duke Drilling	RIG NAME/NO. Rig 4	SHIPPED VIA CT	DELIVERED TO Location	ORDER NO.	
3.	WELL TYPE Oil	WELL CATEGORY Development	JOB PURPOSE Long String		WELL PERMIT NO.	WELL LOCATION	
4.							
REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
575		1			MILEAGE #113	70	mi			7 00	490 00
578		1			Pump Charge - Long String	1	EA			1600 00	1600 00
290		1			D-Air	5	gal			42 00	210 00
281		1			Mud Flush	500	gal			2 00	1000 00
221		1			Liquid KCL	2	gal			25 00	50 00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.

X

DATE SIGNED | TIME SIGNED ☐ A.M. ☐ P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UNDECIDED	DISAGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

Page 1 ~~PAGE TOTAL~~	3,350 00
Page 2	7,122 02
SubTotal	10,472 02
Gove TAX	614 29
TOTAL	11086 31

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR | APPROVAL

Thank You!

SWIFT Services, Inc.

PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 35634

CUSTOMER: Shakespeare Oil & Gas | WELL: Bloom 2-22 | DATE: 10/22/22 | PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	TIME	DESCRIPTION	QTY	U/M	QTY	U/M	UNIT PRICE	AMOUNT
325		2				Standard Cement	200	SKS			15 00	3000 00
284		2				Calseal	19	SKS			50 00	950 00
283		2				Salt	1100	lbs			0 25	275 00
292		2				Halad 322	100	lbs			9 00	900 00
276		2				Flocele	20	lbs			3 00	60 00
277		2				Gilsonite	625	lbs			1 25	781 25
						SERVICE CHARGE Cement	~~CUBIC FEET~~	200 SKS			2 00	400 00
581		2										
583		2				MILEAGE CHARGE TOTAL WEIGHT 21595 LOADED MILES 70	TON MILES	755.83			1 00	755 83
											CONTINUATION TOTAL	7,122 08

JOB LOG

SWIFT Services, Inc.

DATE 10/22/22 | PAGE NO. 1

CUSTOMER: Shakespeare Oil & Gas | WELL NO.: 2-22 | LEASE: Bloom | JOB TYPE: Long String | TICKET NO.: 35634

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	0150							On location, set up trucks
								4343' of 4½" x 11.6#
								Set @ 4340'
								TD - 4681'
								Port Collar - 2459'
								Shoe Jt - 44.21
								Baffle Plate - 4299
	0225							Break Circulation on Bottom
	0325							Hook up to Swift
		2	7					Plug Rat hole w/ 30 SKs
		5	12				300	Pump Mud flush
	0345	5	28				300	Pump KCL Spacer
		4						Start Cement
		4	48					Finish Cement, Shut Down
								Drop Plug, Wash out Pump + Lines
	0410	7½						Start Displacement
		6¼	48				500	Catch Cement
			65				850	Lift PSI
	0420	6¼	67				1600	Land Plug
	0425							Release Trnck, Dry
								Washup
	0440							Rack up
	0450							Job Complete
								Thanks
								Jon, Joe, + Brett
								Set Packer Shoe w/ 1100#

SWIFT Services, Inc.

P. O. Box 466
Ness City, KS 67560
Off: 785-798-2300

Invoice

DATE	INVOICE #
10/28/2022	35617

BILL TO

Shakespeare Oil Company, Inc
202 West Main Street
Salem, IL 62881

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#2-22	Bloom	Gove	Wild West	Oil	Development	Port Collar	David E

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	70	Miles	7.00	490.00
576D-D	Pump Charge - Deep Surface (> 500 Ft.) & Port Collars	1	Job	1,600.00	1,600.00
290	D-Air	3	Gallon(s)	42.00	126.00T
330	Swift Multi-Density Standard (MIDCON II)	250	Sacks	19.50	4,875.00T
276	Flocele	50	Lb(s)	3.00	150.00T
581D	Service Charge Cement	350	Sacks	2.00	700.00
583D	Drayage	1,220	Ton Miles	1.00	1,220.00
	Subtotal				9,161.00
	Sales Tax Gove County			8.50%	437.84

502-5

RECEIVED
NOV 07 2022

We Appreciate Your Business!

Total $9,598.84

DW

SWIFT Services, Inc.

CHARGE TO: Shakespeare Oil & Gas
ADDRESS
CITY, STATE, ZIP CODE

TICKET 35617

PAGE 1 OF

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. Hays KS	2-22	Bloom	Lane	KS		10-28-22	
2. Ness City KS	TICKET TYPE ☐ SERVICE ☐ SALES / CONTRACTOR: Wild West	RIG NAME/NO.	SHIPPED VIA: Co	DELIVERED TO: location		ORDER NO.	
3.	WELL TYPE: oil	WELL CATEGORY: development	JOB PURPOSE: Port Collar	WELL PERMIT NO.		WELL LOCATION	
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC	ACCT	DF	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
575		1			MILEAGE Trk 110	70	mi			7 00	490 00
576 D		1			Pump Charge- Port Collar	1	EA			1600 00	1600 00
290		1			D-Air	3	Gal			42 00	126 00
330		2			Swift Multi Density	250	sx			19 50	4875 00
276		2			Flocele	50	lbs			3 00	150 00
281		2			Service Charge Cement	350	sx			2 00	700 00
583		2			Drayage	1220	tm			1 00	1220 00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.

X

DATE SIGNED | TIME SIGNED ☐ A.M. ☐ P.M.

REMIT PAYMENT TO:

SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UNDECIDED	DISAGREE
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?			
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? ☐ YES ☐ NO

☐ CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL	9111 00
TAX Guide	437 84
TOTAL	9598 84

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR David Edgerton | APPROVAL

Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 10-28-22 | PAGE NO.

CUSTOMER Shakespeare | WELL NO. 2-22 | LEASE Bloom | JOB TYPE Port Collar | TICKET NO. 35617

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	1215							On location
								Csg - 4 1/2
								TBG - 2 3/8
								Port Collar - 2459
						1500		Test tools - held
								open port collar
		3				500		Take injection Rate
								Start Cement @ 11.2 PPG
			225					Circ CMT - 225 sx - Raise wgt
			230					End CMT - 250 sx
								25 sx CMT to Pit
		2.5	8			800		Disp
								Close Port Collar
						1500		Test - held
								Run 5 Joints
		2.5	15					Reverse out
								T.O.O.H w/ TBG
								Job Complete
								Thanks
								David Scott & Brett



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co Inc**

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

Bloom #2-22

22-11S.-31W Gove,KS

Start Date: 2022.10.15 @ 01:57:00
End Date: 2022.10.15 @ 09:00:00
Job Ticket #: 69476 DST #: 1

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

Printed: 2022.10.24 @ 09:50:08

DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69476 **DST#: 1**

Test Start: 2022.10.15 @ 01:57:00

GENERAL INFORMATION:

Formation: **Toronto**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:51:30
Time Test Ended: 09:00:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Martine Salinas
Unit No: 82

Interval: 3982.00 ft (KB) To 4000.00 ft (KB) (TVD)
Total Depth: 4000.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

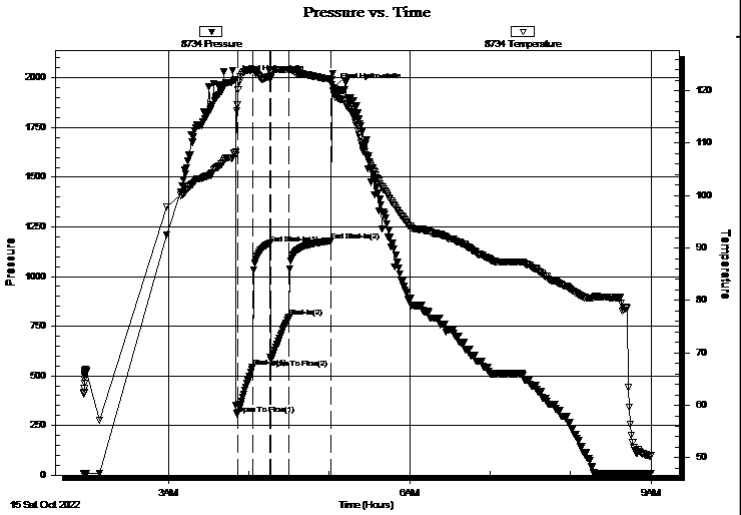
Reference Elevations: 2978.00 ft (KB)
2967.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8734 **Outside**

Press@RunDepth: 793.78 psig @ 3983.00 ft (KB)
Start Date: 2022.10.15 End Date: 2022.10.15
Start Time: 01:57:01 End Time: 09:00:00

Capacity: 8000.00 psig
Last Calib.: 2022.10.15
Time On Btm: 2022.10.15 @ 03:50:20
Time Off Btm: 2022.10.15 @ 05:03:30

TEST COMMENT: 10-IF-B.O.B (11 inches) @ 1 min (blow built to 116 1/4")
15-ISI-No return
15-FF-B.O.B @ 1 1/2 mins (blow built to 98 1/2")
30-FSI-Return @ 5 mins built to 3 1/2"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1991.99	108.25	Initial Hydro-static
2	309.06	117.39	Open To Flow (1)
13	544.59	123.97	Shut-In(1)
26	1166.50	122.60	End Shut-In(1)
27	584.71	122.82	Open To Flow (2)
40	793.78	123.94	Shut-In(2)
72	1180.37	122.16	End Shut-In(2)
74	1948.48	119.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1090.00	GSMOCW 7%G,6%M,8%O,79%W	15.29
420.00	GSMWO 22%G,4%M,8%W,66%O	5.89
180.00	GSMWCO 15%G,5%M,20%W,60%O	2.52
60.00	GSMOCW 40%G,5%M,25%O,30%W	0.84
0.00	120' GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69476 **DST#: 1**

Test Start: 2022.10.15 @ 01:57:00

GENERAL INFORMATION:

Formation: **Toronto**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:51:30
Time Test Ended: 09:00:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Martine Salinas
Unit No: 82

Interval: 3982.00 ft (KB) To 4000.00 ft (KB) (TVD)
Total Depth: 4000.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

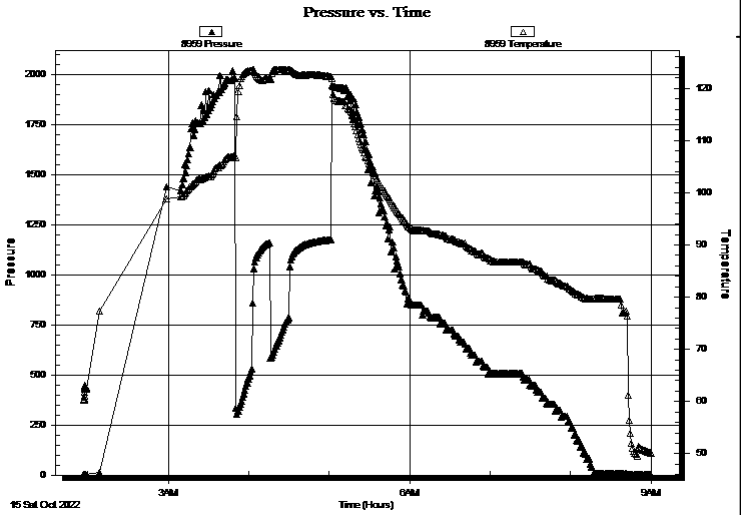
Reference Elevations: 2978.00 ft (KB)
2967.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8959 **Inside**

Press@RunDepth: psig @ 3983.00 ft (KB)
Start Date: 2022.10.15 End Date: 2022.10.15
Start Time: 01:57:01 End Time: 09:00:00

Capacity: 8000.00 psig
Last Calib.: 2022.10.15
Time On Btm:
Time Off Btm:

TEST COMMENT: 10-IF-B.O.B (11 inches) @ 1 min (blow built to 116 1/4")
15-ISI-No return
15-FF-B.O.B @ 1 1/2 mins (blow built to 98 1/2")
30-FSI-Return @ 5 mins built to 3 1/2"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1090.00	GSMOCW 7%G,6%M,8%O,79%W	15.29
420.00	GSMWO 22%G,4%M,8%W,66%O	5.89
180.00	GSMWCO 15%G,5%M,20%W,60%O	2.52
60.00	GSMOCW 40%G,5%M,25%O,30%W	0.84
0.00	120' GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69476 **DST#: 1**

Test Start: 2022.10.15 @ 01:57:00

Tool Information

Drill Pipe:	Length:	3962.00 ft	Diameter:	3.80	inches	Volume:	55.58	bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75	inches	Volume:	0.00	bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	Weight to Pull Loose:	70000.00 lb
						Total Volume:	55.58	bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		13.00 ft							String Weight: Initial	56000.00 lb
Depth to Top Packer:		3982.00 ft							Final	64000.00 lb
Depth to Bottom Packer:		ft								
Interval betw een Packers:		18.00 ft								
Tool Length:		51.00 ft								
Number of Packers:		2	Diameter:	6.75	inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3950.00		
Shut In Tool	5.00			3955.00		
Hydraulic tool	5.00	1113		3960.00		
Jars	5.00	01-07		3965.00		
EM Tool	5.00			3970.00		
Safety Joint	3.00	-001		3973.00		
Packer	5.00			3978.00	33.00	Bottom Of Top Packer
Packer	4.00			3982.00		
Stubb	1.00			3983.00		
Recorder	0.00	8959	Inside	3983.00		
Recorder	0.00	8734	Outside	3983.00		
Perforations	12.00			3995.00		
Bullnose	5.00			4000.00	18.00	Bottom Packers & Anchor
Total Tool Length:	**51.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69476 **DST#: 1**

Test Start: 2022.10.15 @ 01:57:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	33.4 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	43000 ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.78 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1500.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1090.00	GSMOCW 7%G,6%M,8%O,79%W	15.290
420.00	GSMWO 22%G,4%M,8%W,66%O	5.891
180.00	GSMWCO 15%G,5%M,20%W,60%O	2.525
60.00	GSMOCW 40%G,5%M,25%O,30%W	0.842
0.00	120' GIP	0.000

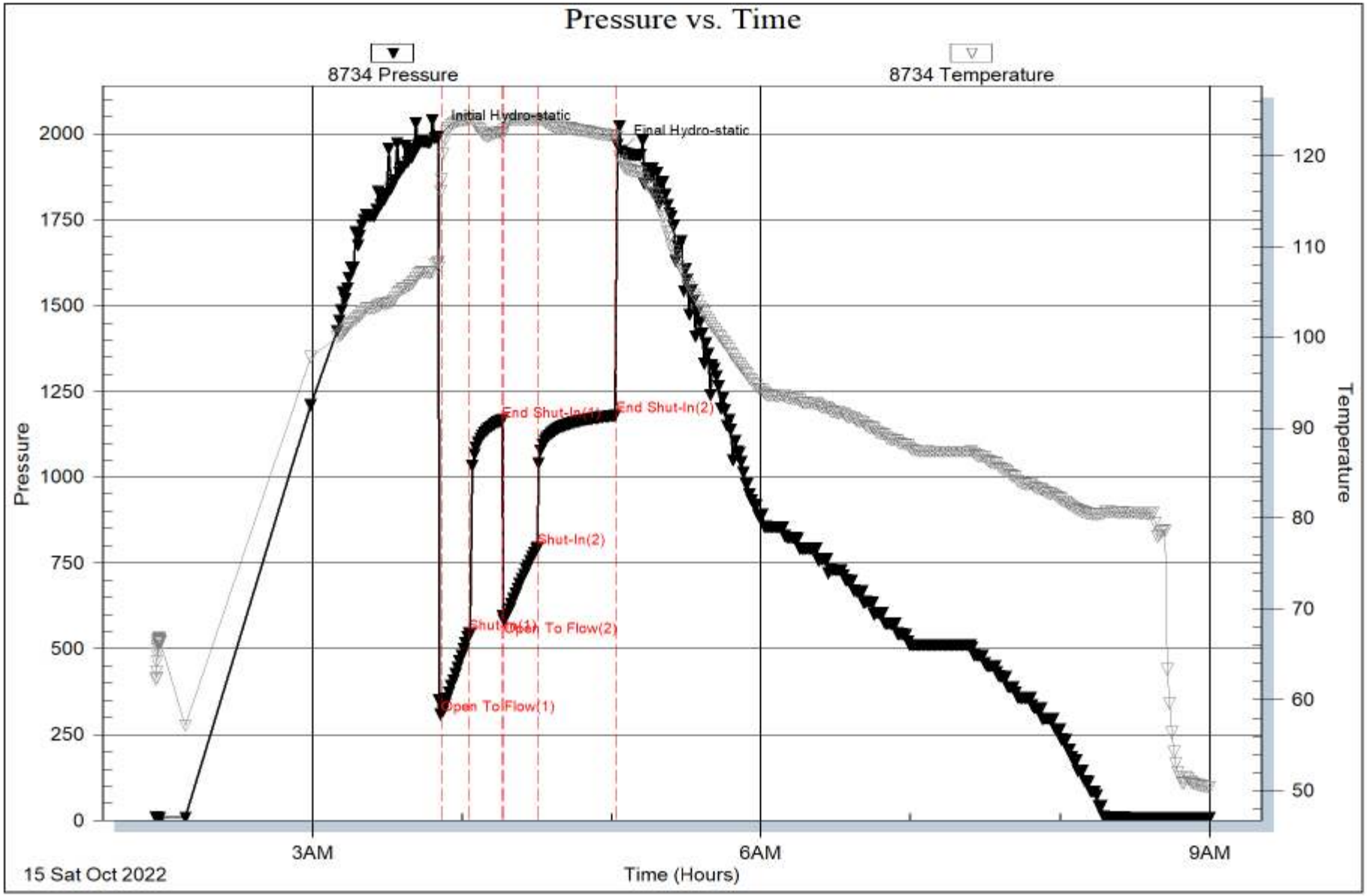
Total Length: 1750.00 ft Total Volume: 24.548 bbl

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

Laboratory Name: Laboratory Location:

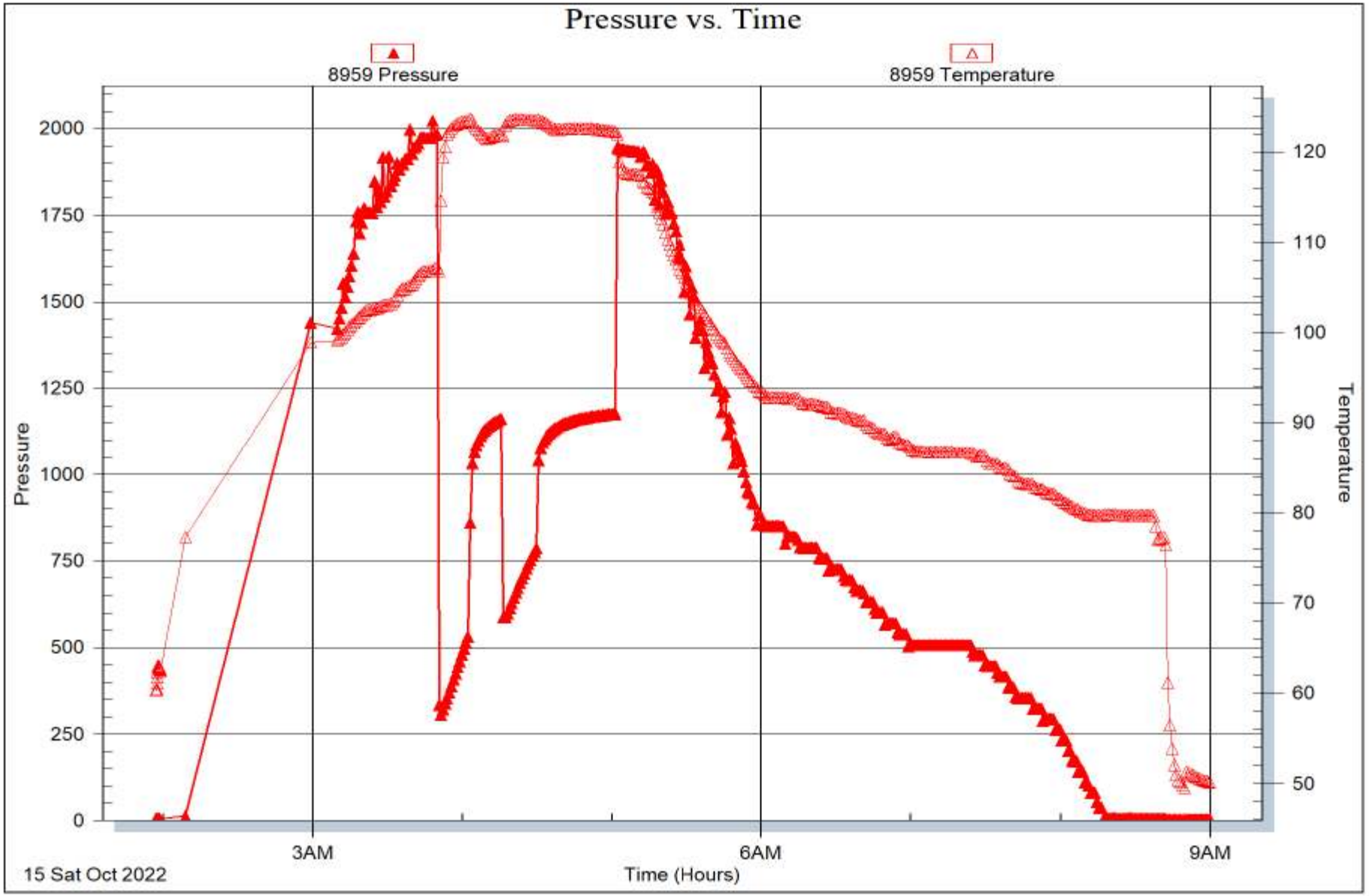
Recovery Comments: Gravity of oil =31.6 @ 42 degs corrected to 33.4 @ 60 degs
RW= .290 @ 43.5 degs = 43,000 PPM

Serial #: 8734 **Outside** Shakespeare Oil Co Inc Bloom #2-22 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 69476 Printed: 2022.10.24 @ 09:50:08

Serial #: 8959 **Inside** Shakespeare Oil Co Inc Bloom #2-22 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 69476 Printed: 2022.10.24 @ 09:50:09



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co Inc**

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

Bloom #2-22

22-11S.-31W Gove,KS

Start Date: 2022.10.15 @ 19:22:00
End Date: 2022.10.16 @ 01:49:09
Job Ticket #: 69477 DST #: 2

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

Printed: 2022.10.24 @ 09:49:36

DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69477 **DST#: 2**

Test Start: 2022.10.15 @ 19:22:00

GENERAL INFORMATION:

Formation: **LKC B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:57:30
Time Test Ended: 01:49:09

Test Type: Conventional Bottom Hole (Reset)
Tester: Martine Salinas
Unit No: 82

Interval: 4030.00 ft (KB) To 4060.00 ft (KB) (TVD)
Total Depth: 4060.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

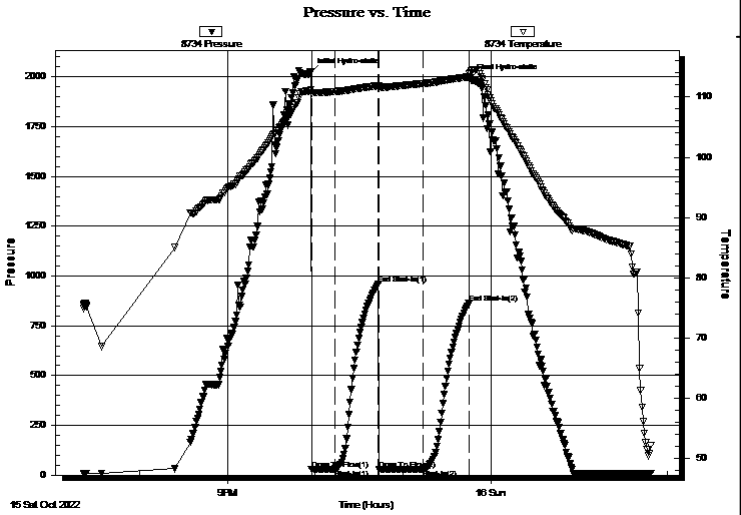
Reference Elevations: 2978.00 ft (KB)
2967.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8734 **Outside**

Press@RunDepth: 29.78 psig @ 4031.00 ft (KB)
Start Date: 2022.10.15 End Date: 2022.10.16
Start Time: 19:22:01 End Time: 01:49:10

Capacity: 8000.00 psig
Last Calib.: 2022.10.16
Time On Btm: 2022.10.15 @ 21:57:10
Time Off Btm: 2022.10.15 @ 23:45:20

TEST COMMENT: 15-IF-Strong surface blow dead @ 10 mins
30-ISI-No return
30-FF-No blow
30-FSI-No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2023.45	111.21	Initial Hydro-static
1	27.84	110.64	Open To Flow (1)
16	28.69	110.91	Shut-In(1)
46	959.45	111.87	End Shut-In(1)
47	29.40	111.47	Open To Flow (2)
77	29.78	112.23	Shut-In(2)
108	865.67	113.35	End Shut-In(2)
109	1992.62	113.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 4%O, 96%M	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69477 **DST#: 2**

Test Start: 2022.10.15 @ 19:22:00

GENERAL INFORMATION:

Formation: **LKC B**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:57:30
Time Test Ended: 01:49:09

Test Type: Conventional Bottom Hole (Reset)
Tester: Martine Salinas
Unit No: 82

Interval: 4030.00 ft (KB) To 4060.00 ft (KB) (TVD)
Total Depth: 4060.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2978.00 ft (KB)
2967.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8959 **Inside**

Press@RunDepth: psig @ 4031.00 ft (KB)
Start Date: 2022.10.15 End Date: 2022.10.16
Start Time: 19:22:01 End Time: 01:49:10

Capacity: 8000.00 psig
Last Calib.: 2022.10.16
Time On Btm:
Time Off Btm:

TEST COMMENT: 15-IF-Strong surface blow dead @ 10 mins
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)
5.00	OSM 4%O, 96%M	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69477 **DST#: 2**

Test Start: 2022.10.15 @ 19:22:00

Tool Information

Drill Pipe:	Length:	4024.00 ft	Diameter:	3.80	inches	Volume:	56.45	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	
						Total Volume:	56.45	bbl	

Drill Pipe Above KB:	27.00 ft
Depth to Top Packer:	4030.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	30.00 ft
Tool Length:	63.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		65000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	57000.00 lb
	Final	57000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3998.00		
Shut In Tool	5.00			4003.00		
Hydraulic tool	5.00	1113		4008.00		
Jars	5.00	01-07		4013.00		
EM Tool	5.00			4018.00		
Safety Joint	3.00	-001		4021.00		
Packer	5.00			4026.00	33.00	Bottom Of Top Packer
Packer	4.00			4030.00		
Stubb	1.00			4031.00		
Recorder	0.00	8959	Inside	4031.00		
Recorder	0.00	8734	Outside	4031.00		
Perforations	24.00			4055.00		
Bullnose	5.00			4060.00	30.00	Bottom Packers & Anchor
Total Tool Length:	**63.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69477 **DST#: 2**

Test Start: 2022.10.15 @ 19:22:00

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:	7.18 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

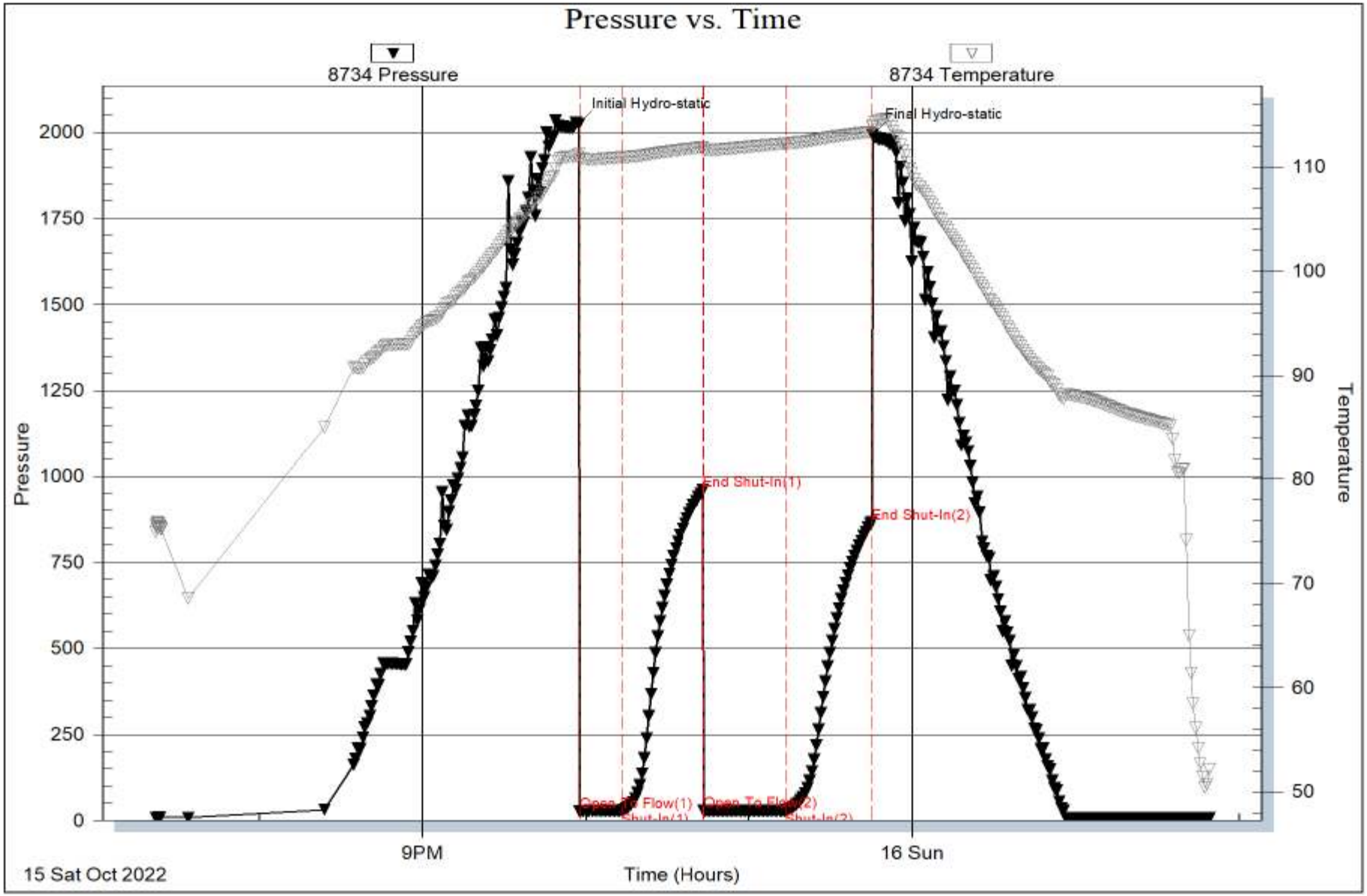
Recovery Table

Length ft	Description	Volume bbl
5.00	OSM 4%O, 96%M	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

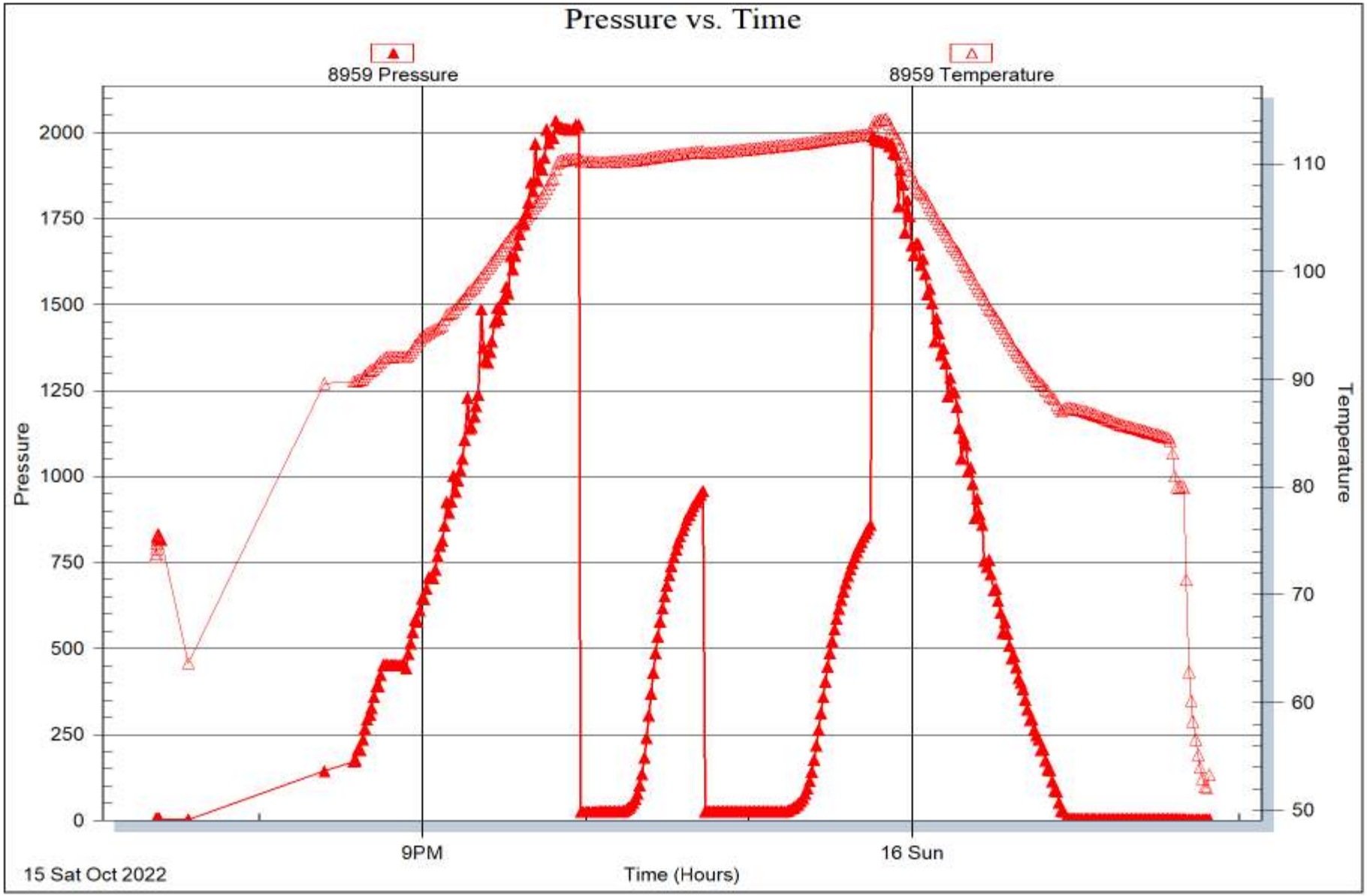
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8734 **Outside** Shakespeare Oil Co Inc Bloom #2-22 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 69477 Printed: 2022.10.24 @ 09:49:37

Serial #: 8959 **Inside** Shakespeare Oil Co Inc Bloom #2-22 DST Test Number: 2





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co Inc**

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

Bloom #2-22

22-11S.-31W Gove,KS

Start Date: 2022.10.16 @ 15:27:00
End Date: 2022.10.16 @ 21:41:50
Job Ticket #: 69478 DST #: 3

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

Printed: 2022.10.24 @ 09:49:07

DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69478 **DST#: 3**

Test Start: 2022.10.16 @ 15:27:00

GENERAL INFORMATION:

Formation: **LKC D - F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:36:40
Time Test Ended: 21:41:50

Test Type: Conventional Bottom Hole (Reset)
Tester: Martine Salinas
Unit No: 82

Interval: 4078.00 ft (KB) To 4108.00 ft (KB) (TVD)
Total Depth: 4108.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

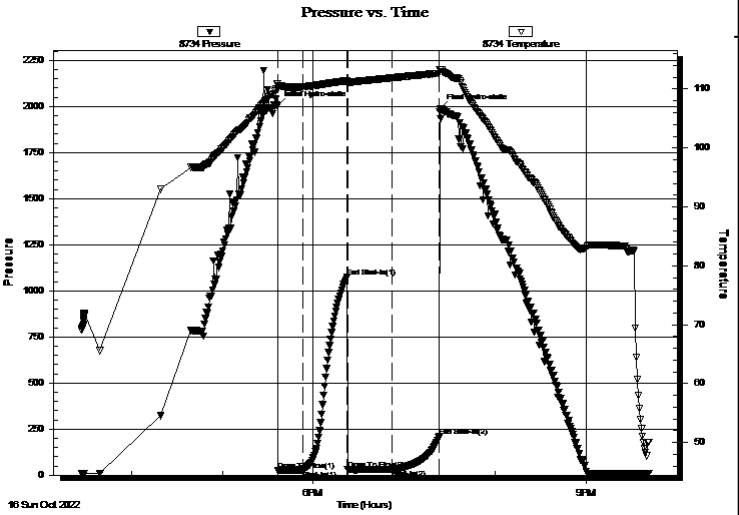
Reference Elevations: 2978.00 ft (KB)
2967.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8734 **Outside**

Press@RunDepth: 30.17 psig @ 4079.00 ft (KB)
Start Date: 2022.10.16 End Date: 2022.10.16
Start Time: 15:27:01 End Time: 21:41:50

Capacity: 8000.00 psig
Last Calib.: 2022.10.16
Time On Btm: 2022.10.16 @ 17:36:30
Time Off Btm: 2022.10.16 @ 19:23:30

TEST COMMENT: 15-IF-Blow built to 1/4"
30-ISI-No return
30-FF-No blow
30-FSI-No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2005.48	110.99	Initial Hydro-static
1	26.42	109.91	Open To Flow (1)
17	28.77	110.39	Shut-In(1)
46	1072.94	111.41	End Shut-In(1)
46	29.61	111.04	Open To Flow (2)
76	30.17	111.92	Shut-In(2)
107	210.29	112.70	End Shut-In(2)
107	1988.02	113.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	OCM 15%O, 85%M	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69478 **DST#: 3**

Test Start: 2022.10.16 @ 15:27:00

GENERAL INFORMATION:

Formation: **LKC D - F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:36:40
Time Test Ended: 21:41:50

Test Type: Conventional Bottom Hole (Reset)
Tester: Martine Salinas
Unit No: 82

Interval: 4078.00 ft (KB) To 4108.00 ft (KB) (TVD)
Total Depth: 4108.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

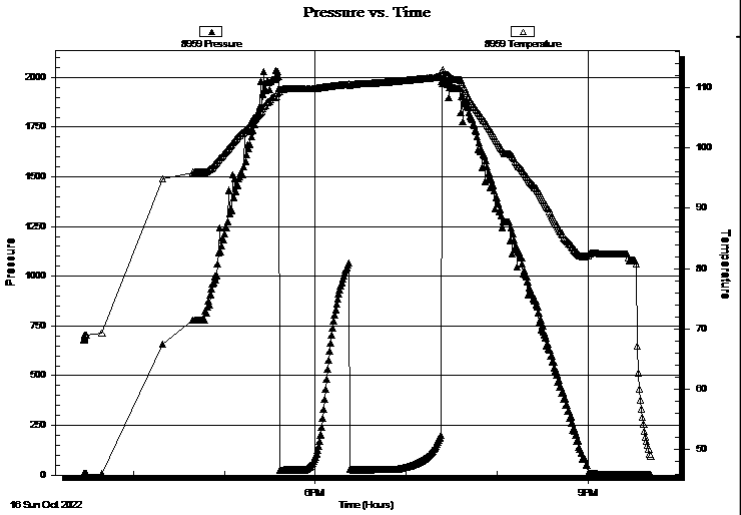
Reference Elevations: 2978.00 ft (KB)
2967.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8959 **Inside**

Press@RunDepth: psig @ 4079.00 ft (KB)
Start Date: 2022.10.16 End Date: 2022.10.16
Start Time: 15:27:01 End Time: 21:41:50

Capacity: 8000.00 psig
Last Calib.: 2022.10.16
Time On Btm:
Time Off Btm:

TEST COMMENT: 15-IF-Blow built to 1/4"
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)
5.00	OCM 15%O, 85%M	0.07

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69478 **DST#: 3**

Test Start: 2022.10.16 @ 15:27:00

Tool Information

Drill Pipe:	Length:	4055.00 ft	Diameter:	3.80	inches	Volume:	56.88	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	
						Total Volume:	56.88	bbl	

Drill Pipe Above KB:	10.00 ft
Depth to Top Packer:	4078.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	30.00 ft
Tool Length:	63.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		70000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	58000.00 lb
	Final	58000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4046.00		
Shut In Tool	5.00			4051.00		
Hydraulic tool	5.00	1113		4056.00		
Jars	5.00	01-07		4061.00		
EM Tool	5.00			4066.00		
Safety Joint	3.00	-001		4069.00		
Packer	5.00			4074.00	33.00	Bottom Of Top Packer
Packer	4.00			4078.00		
Stubb	1.00			4079.00		
Recorder	0.00	8959	Inside	4079.00		
Recorder	0.00	8734	Outside	4079.00		
Perforations	24.00			4103.00		
Bullnose	5.00			4108.00	30.00	Bottom Packers & Anchor
Total Tool Length:	**63.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69478 **DST#: 3**

Test Start: 2022.10.16 @ 15:27:00

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:	53.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.18 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

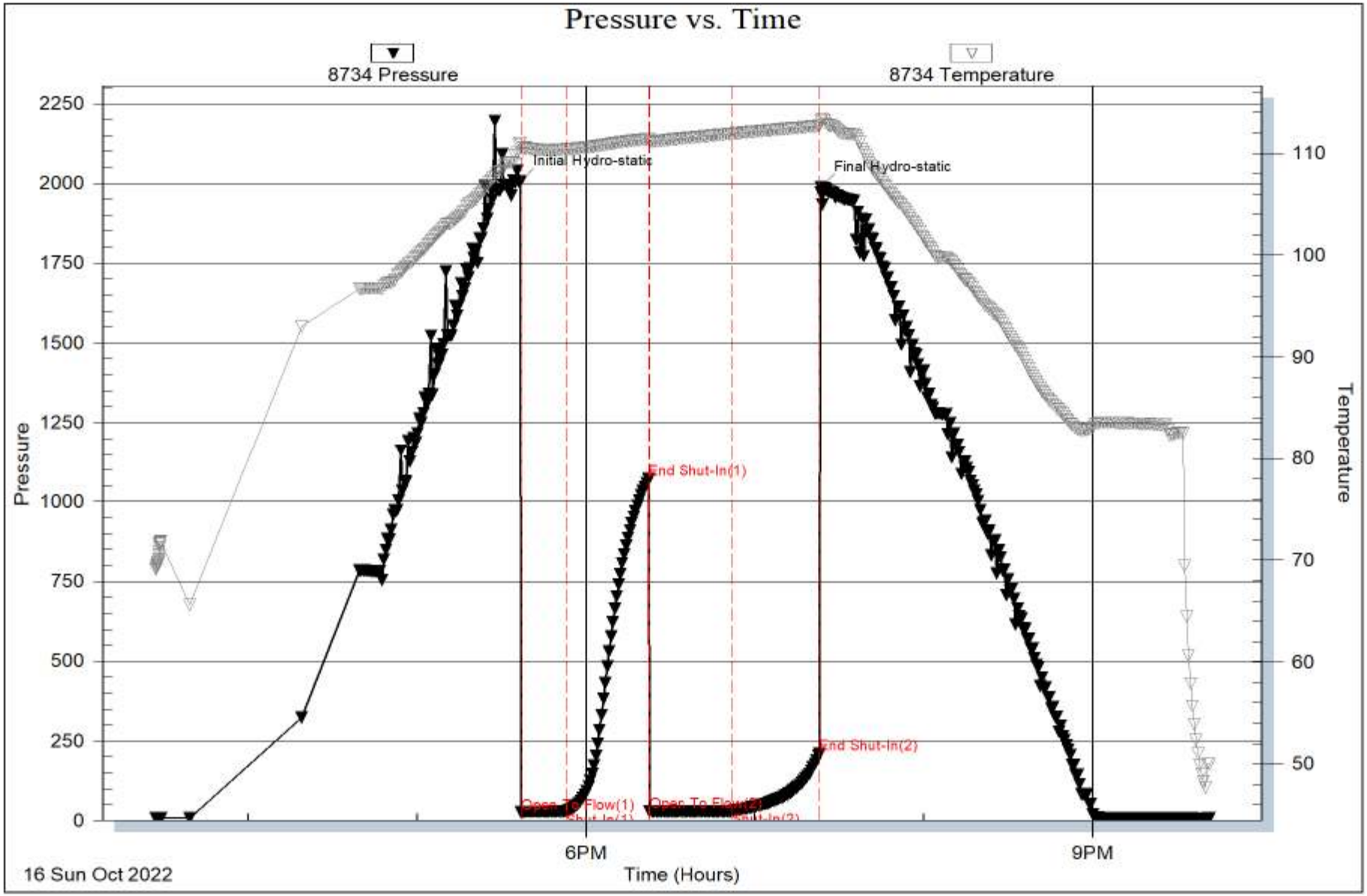
Recovery Table

Length ft	Description	Volume bbl
5.00	OCM 15%O, 85%M	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl

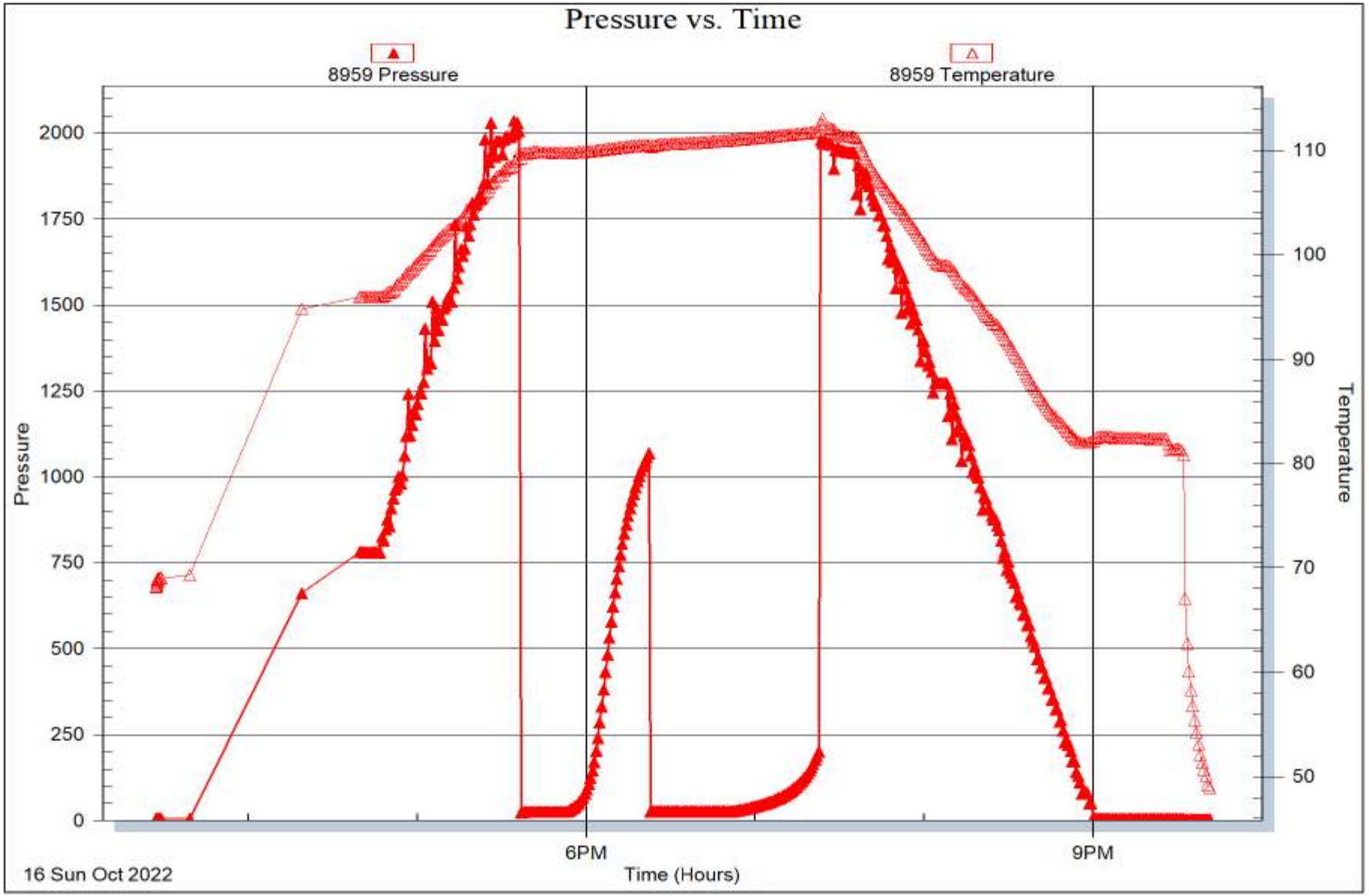
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8734 **Outside** Shakespeare Oil Co Inc Bloom #2-22 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 69478 Printed: 2022.10.24 @ 09:49:08

Serial #: 8959 **Inside** Shakespeare Oil Co Inc Bloom #2-22 DST Test Number: 3



Trilobite Testing, Inc Ref. No: 69478 Printed: 2022.10.24 @ 09:49:08



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co Inc**

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

Bloom #2-22

22-11S.-31W Gove,KS

Start Date: 2022.10.17 @ 10:08:00
End Date: 2022.10.17 @ 15:21:39
Job Ticket #: 69479 DST #: 4

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

Printed: 2022.10.24 @ 09:47:18

DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69479 **DST#: 4**

Test Start: 2022.10.17 @ 10:08:00

GENERAL INFORMATION:

Formation: **LKC G - H**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:58:20
Time Test Ended: 15:21:39

Test Type: Conventional Bottom Hole (Reset)
Tester: Martine Salinas
Unit No: 82

Interval: 4146.00 ft (KB) To 4188.00 ft (KB) (TVD)
Total Depth: 4188.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

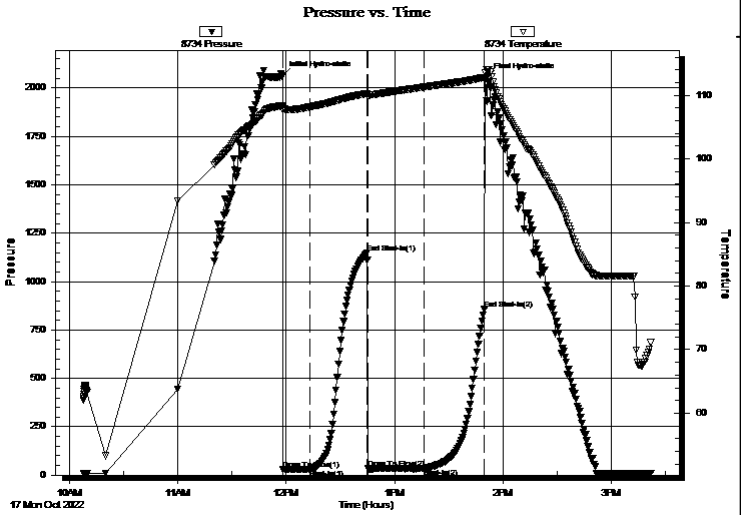
Reference Elevations: 2978.00 ft (KB)
2967.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8734 **Outside**

Press@RunDepth: 34.92 psig @ 4147.00 ft (KB)
Start Date: 2022.10.17 End Date: 2022.10.17
Start Time: 10:08:01 End Time: 15:21:40

Capacity: 8000.00 psig
Last Calib.: 2022.10.17
Time On Btm: 2022.10.17 @ 11:58:00
Time Off Btm: 2022.10.17 @ 13:51:20

TEST COMMENT: 15-IF-Blow built to 3/4"
30-ISI-No return
30-FF-Surface blow @ 25 mins
30-FSI-No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2063.53	108.37	Initial Hydro-static
1	28.80	107.69	Open To Flow (1)
16	30.95	108.18	Shut-In(1)
47	1146.47	110.28	End Shut-In(1)
48	32.95	109.83	Open To Flow (2)
78	34.92	111.28	Shut-In(2)
112	856.98	112.80	End Shut-In(2)
114	2053.13	114.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 7%O, 93%M	0.14

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69479 **DST#: 4**

Test Start: 2022.10.17 @ 10:08:00

GENERAL INFORMATION:

Formation: **LKC G - H**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:58:20
Time Test Ended: 15:21:39

Test Type: Conventional Bottom Hole (Reset)
Tester: Martine Salinas
Unit No: 82

Interval: 4146.00 ft (KB) To 4188.00 ft (KB) (TVD)
Total Depth: 4188.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

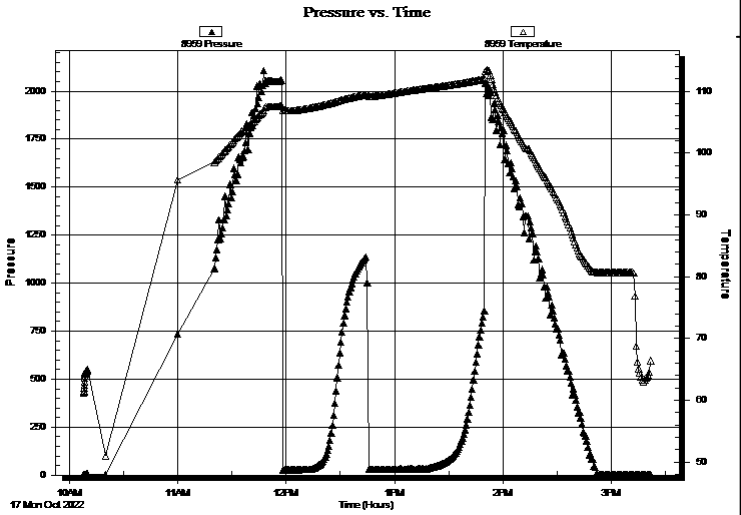
Reference Elevations: 2978.00 ft (KB)
2967.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8959 **Inside**

Press@RunDepth: psig @ 4147.00 ft (KB)
Start Date: 2022.10.17 End Date: 2022.10.17
Start Time: 10:08:01 End Time: 15:21:40

Capacity: 8000.00 psig
Last Calib.: 2022.10.17
Time On Btm:
Time Off Btm:

TEST COMMENT: 15-IF-Blow built to 3/4"
30-ISI-No return
30-FF-Surface blow @ 25 mins
30-FSI-No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 7%O, 93%M	0.14

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69479 **DST#: 4**

Test Start: 2022.10.17 @ 10:08:00

Tool Information

Drill Pipe:	Length:	4148.00 ft	Diameter:	3.80 inches	Volume:	58.19 bbl	Tool Weight:		2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:		68000.00 lb
					Total Volume:	58.19 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		35.00 ft					String Weight:	Initial	58000.00 lb
Depth to Top Packer:		4146.00 ft						Final	58000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		42.00 ft							
Tool Length:		75.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4114.00		
Shut In Tool	5.00			4119.00		
Hydraulic tool	5.00	1113		4124.00		
Jars	5.00	01-07		4129.00		
EM Tool	5.00			4134.00		
Safety Joint	3.00	-001		4137.00		
Packer	5.00			4142.00	33.00	Bottom Of Top Packer
Packer	4.00			4146.00		
Stubb	1.00			4147.00		
Recorder	0.00	8959	Inside	4147.00		
Recorder	0.00	8734	Outside	4147.00		
Perforations	2.00			4149.00		
Change Over Sub	1.00			4150.00		
Drill Pipe	32.00			4182.00		
Change Over Sub	1.00			4183.00		
Bullnose	5.00			4188.00	42.00	Bottom Packers & Anchor
Total Tool Length:	**75.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69479 **DST#: 4**

Test Start: 2022.10.17 @ 10:08:00

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:	53.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.39 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

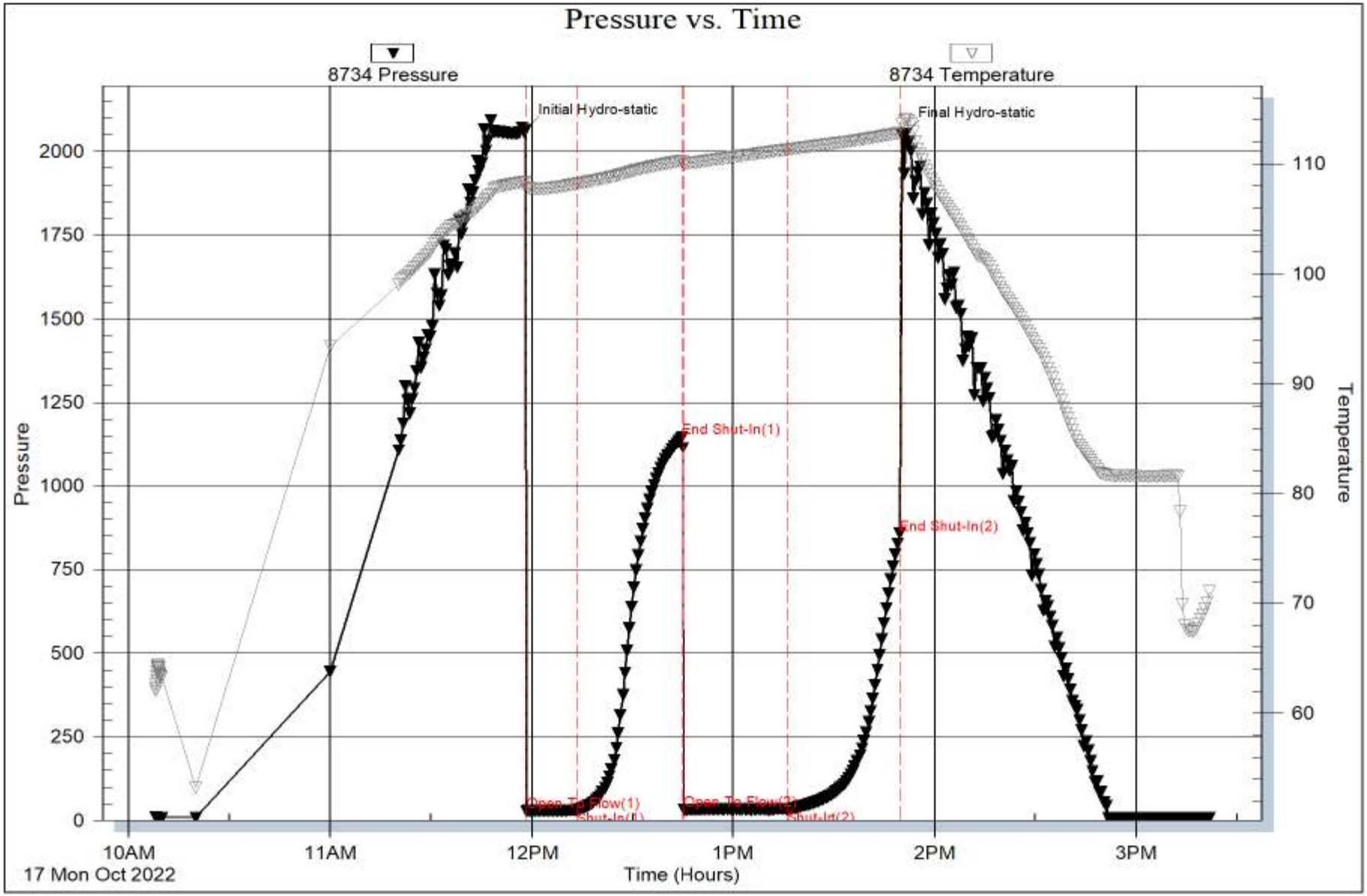
Recovery Table

Length ft	Description	Volume bbl
10.00	OCM 7%O, 93%M	0.140

Total Length: 10.00 ft Total Volume: 0.140 bbl

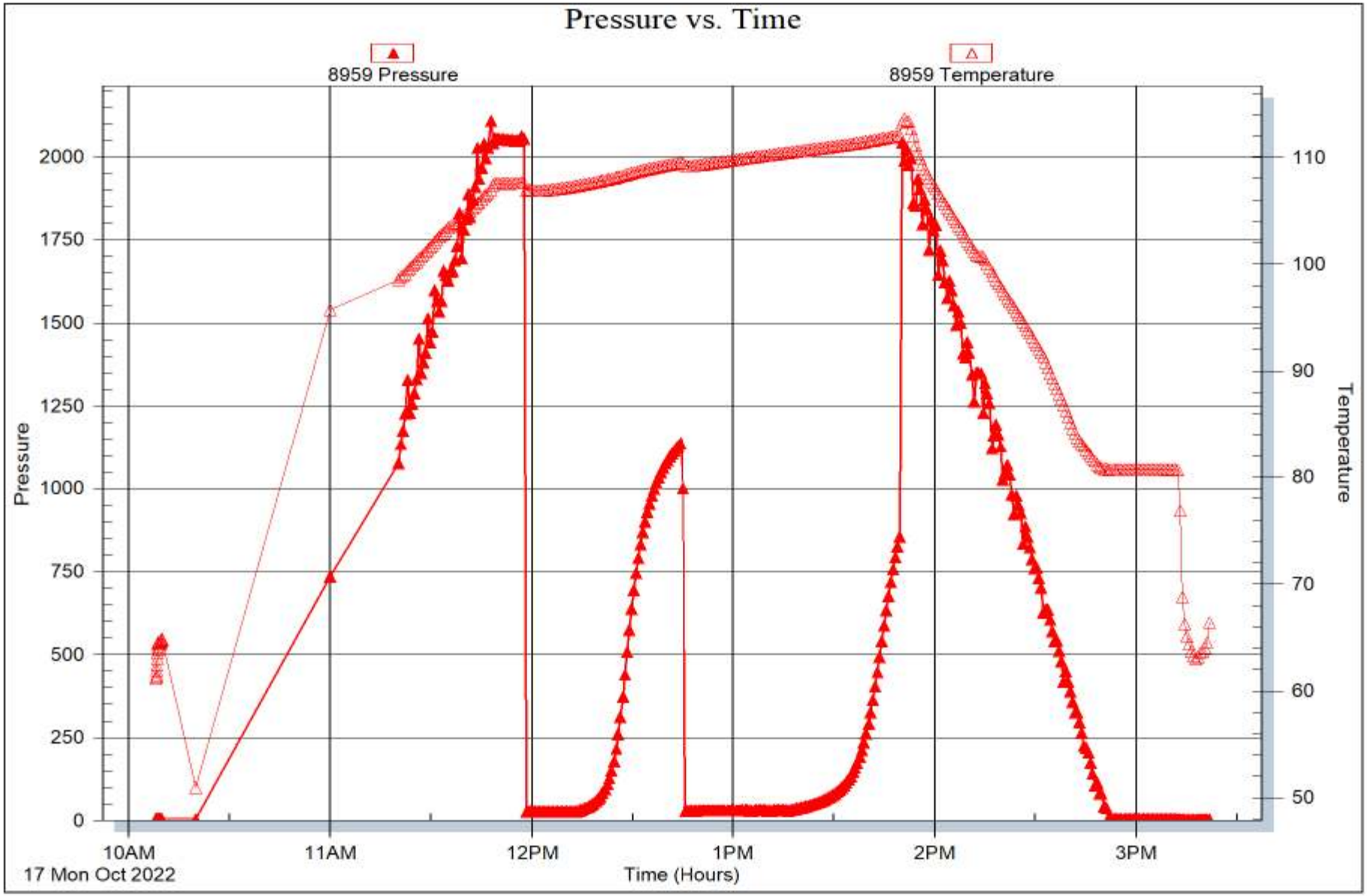
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8734 **Outside** Shakespeare Oil Co Inc Bloom #2-22 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 69479 Printed: 2022.10.24 @ 09:47:20

Serial #: 8959 **Inside** Shakespeare Oil Co Inc Bloom #2-22 DST Test Number: 4



Trilobite Testing, Inc Ref. No: 69479 Printed: 2022.10.24 @ 09:47:20



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co Inc**

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

Bloom #2-22

22-11S.-31W Gove,KS

Start Date: 2022.10.18 @ 05:07:00
End Date: 2022.10.18 @ 11:10:30
Job Ticket #: 69480 DST #: 5

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

Printed: 2022.10.24 @ 09:45:51

DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69480 **DST#: 5**

Test Start: 2022.10.18 @ 05:07:00

GENERAL INFORMATION:

Formation: **LKC I - J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:04:00
Time Test Ended: 11:10:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Martine Salinas
Unit No: 82

Interval: 4184.00 ft (KB) To 4240.00 ft (KB) (TVD)
Total Depth: 4240.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

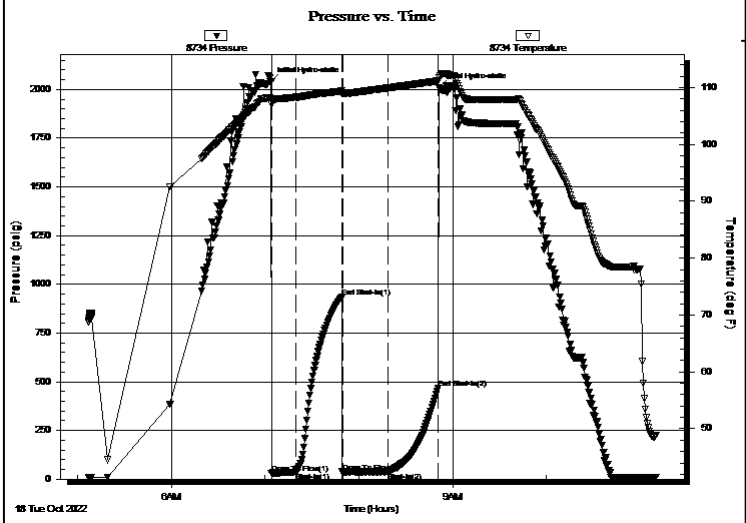
Reference Elevations: 2978.00 ft (KB)
2967.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8734 **Outside**

Press@RunDepth: 36.88 psig @ 4185.00 ft (KB)
Start Date: 2022.10.18 End Date: 2022.10.18
Start Time: 05:07:01 End Time: 11:10:30

Capacity: 8000.00 psig
Last Calib.: 2022.10.18
Time On Btm: 2022.10.18 @ 07:03:50
Time Off Btm: 2022.10.18 @ 08:51:20

TEST COMMENT: 15-IF-Blow built to 3/4" & decreased to 1/2"
30-ISI-No return
30-FF-Blow built to 1 1/4"
30-FSI-No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2038.61	107.96	Initial Hydro-static
1	30.81	107.06	Open To Flow (1)
16	34.97	108.29	Shut-In(1)
46	934.63	109.36	End Shut-In(1)
46	37.13	109.07	Open To Flow (2)
75	36.88	109.93	Shut-In(2)
107	466.76	111.16	End Shut-In(2)
108	2010.44	111.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	SOSM 2%O, 98%M	0.42

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69480 **DST#: 5**

Test Start: 2022.10.18 @ 05:07:00

GENERAL INFORMATION:

Formation: **LKC I - J**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:04:00
Time Test Ended: 11:10:30

Test Type: Conventional Bottom Hole (Reset)
Tester: Martine Salinas
Unit No: 82

Interval: 4184.00 ft (KB) To 4240.00 ft (KB) (TVD)
Total Depth: 4240.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

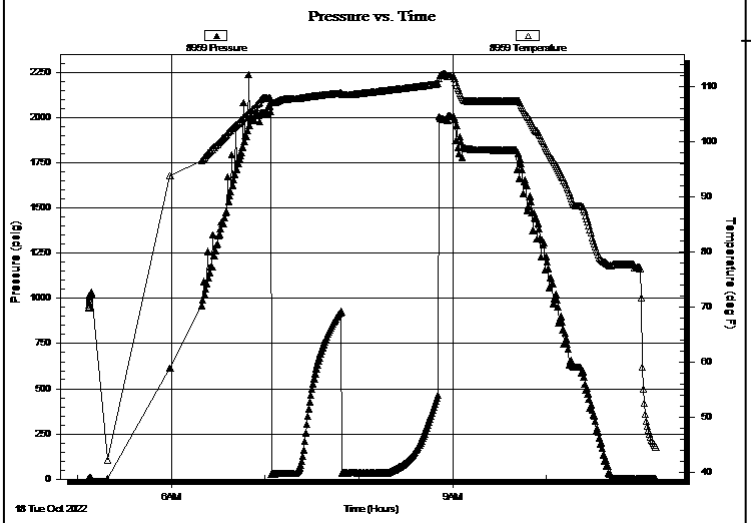
Reference Elevations: 2978.00 ft (KB)
2967.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8959 **Inside**

Press@RunDepth: psig @ 4185.00 ft (KB)
Start Date: 2022.10.18 End Date: 2022.10.18
Start Time: 05:07:01 End Time: 11:10:30

Capacity: 8000.00 psig
Last Calib.: 2022.10.18
Time On Btm:
Time Off Btm:

TEST COMMENT: 15-IF-Blow built to 3/4" & decreased to 1/2"
30-ISI-No return
30-FF-Blow built to 1 1/4"
30-FSI-No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	SOSM 2%O, 98%M	0.42

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69480 **DST#: 5**

Test Start: 2022.10.18 @ 05:07:00

Tool Information

Drill Pipe:	Length:	4180.00 ft	Diameter:	3.80 inches	Volume:	58.63 bbl	Tool Weight:		2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.75 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:		64000.00 lb
					Total Volume:	58.63 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		29.00 ft					String Weight:	Initial	60000.00 lb
Depth to Top Packer:		4184.00 ft						Final	60000.00 lb
Depth to Bottom Packer:		ft							
Interval betw een Packers:		56.00 ft							
Tool Length:		89.00 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4152.00		
Shut In Tool	5.00			4157.00		
Hydraulic tool	5.00	1113		4162.00		
Jars	5.00	01-07		4167.00		
EM Tool	5.00			4172.00		
Safety Joint	3.00	-001		4175.00		
Packer	5.00			4180.00	33.00	Bottom Of Top Packer
Packer	4.00			4184.00		
Stubb	1.00			4185.00		
Recorder	0.00	8959	Inside	4185.00		
Recorder	0.00	8734	Outside	4185.00		
Perforations	17.00			4202.00		
Change Over Sub	1.00			4203.00		
Drill Pipe	31.00			4234.00		
Change Over Sub	1.00			4235.00		
Bullnose	5.00			4240.00	56.00	Bottom Packers & Anchor
Total Tool Length:	**89.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co Inc

202 W Main St
Salem, IL 62881

ATTN: Kent Matson

22-11S.-31W Gove,KS

Bloom #2-22

Job Ticket: 69480 **DST#: 5**

Test Start: 2022.10.18 @ 05:07:00

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:	45.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.39 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

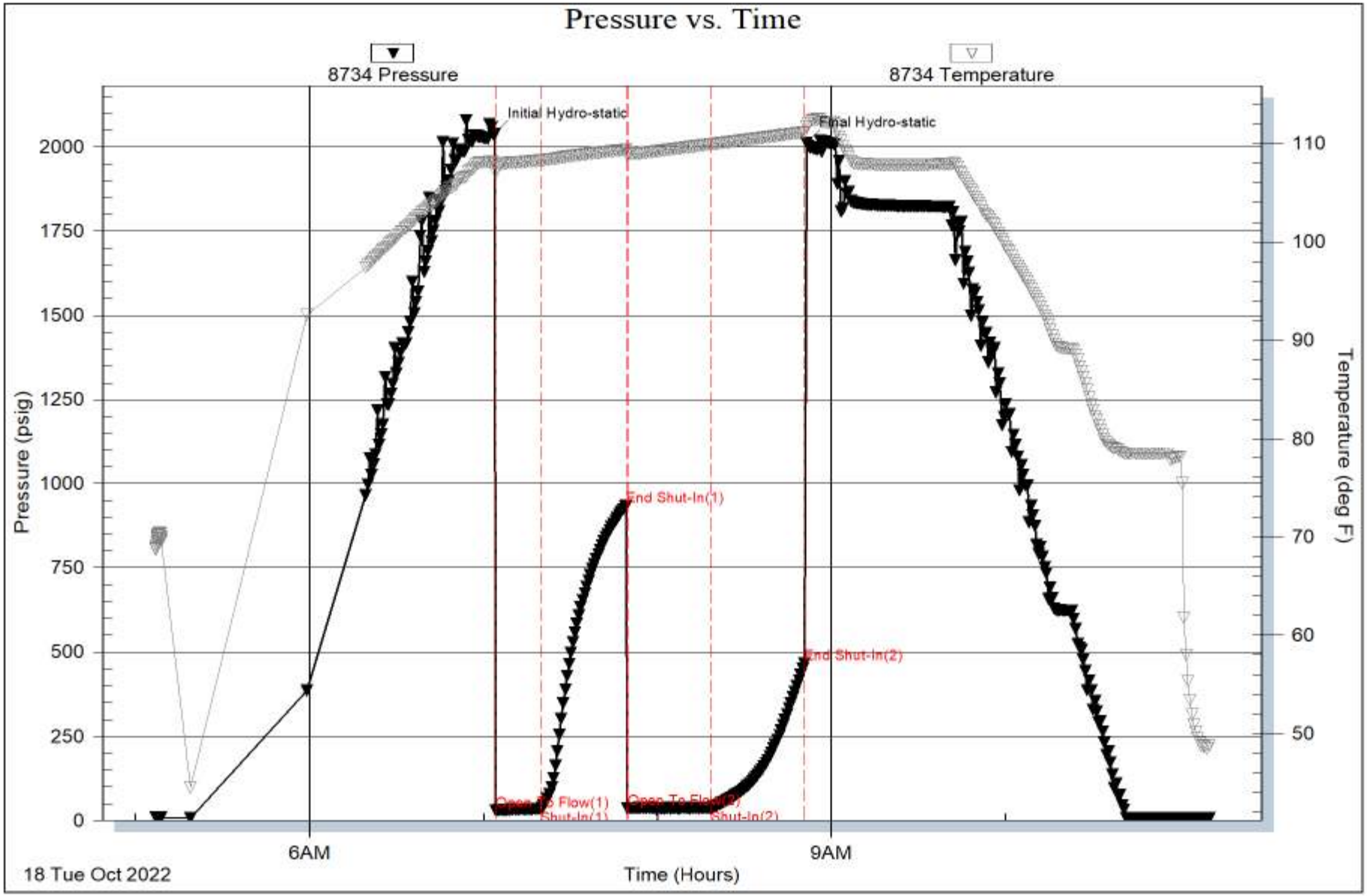
Recovery Table

Length ft	Description	Volume bbl
30.00	SOSM 2%O, 98%M	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl

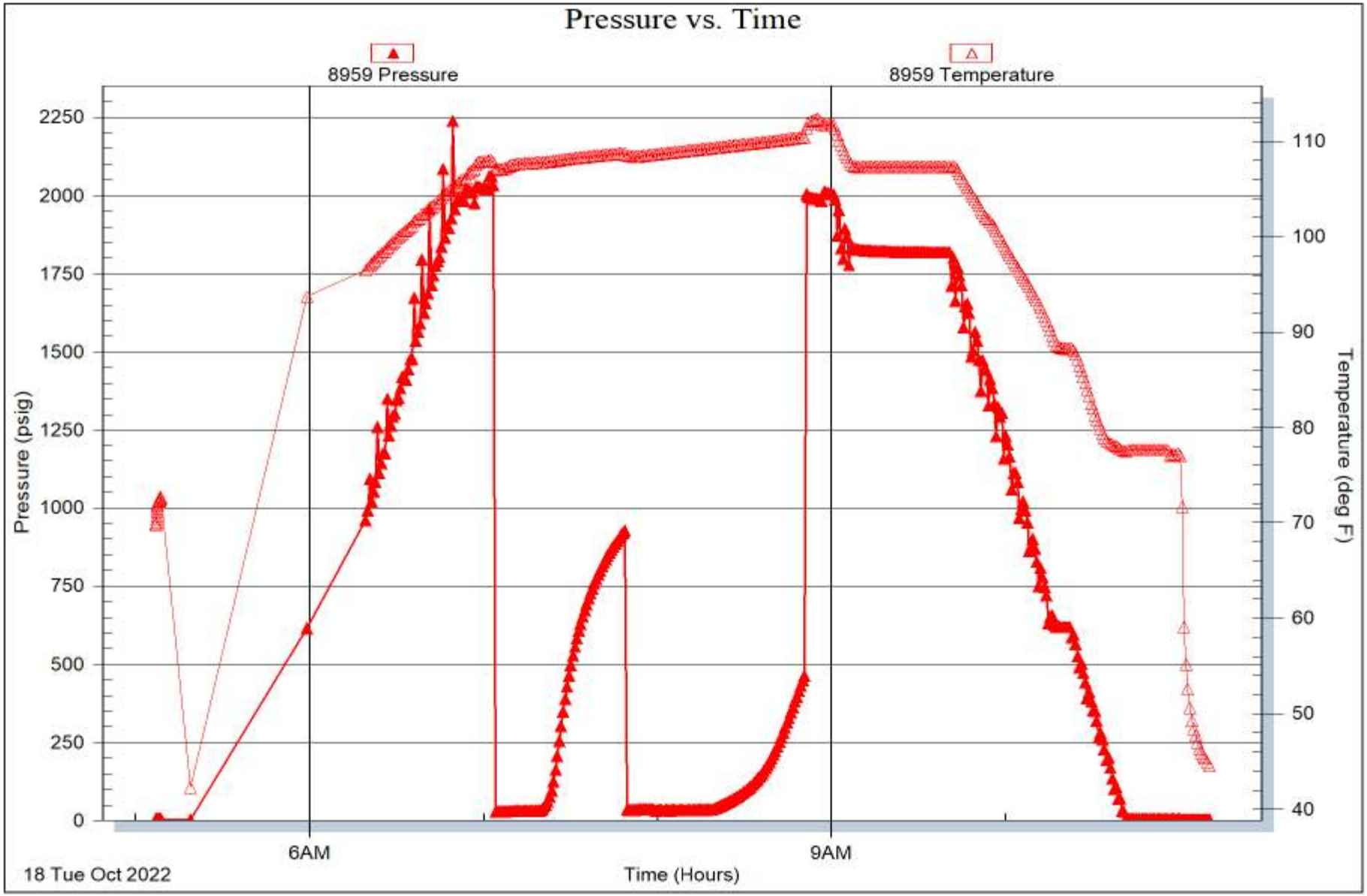
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8734 **Outside** Shakespeare Oil Co Inc Bloom #2-22 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 69480 Printed: 2022.10.24 @ 09:46:26

Serial #: 8959 **Inside** Shakespeare Oil Co Inc Bloom #2-22 DST Test Number: 5



Trilobite Testing, Inc Ref. No: 69480 Printed: 2022.10.24 @ 09:46:26

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 69476

Well Name & No. Bloom #2-22 Test No. 1 Date 10-15-22

Company Shakespeare Oil Co INC Elevation 2978 KB 2967 GL

Address 202 W. Main St. Salem, IL 62881

Co. Rep / Geo. Kent Matson Rig Duke #4

Location: Sec. 22 Twp 11S Rge. 31W Co. Gove State KS.

Interval Tested 3982-4000 Zone Tested Toronto

Anchor Length 18' Drill Pipe Run 3962 Mud Wt. 9.1

Top Packer Depth 3977 Drill Collars Run — Vis 52

Bottom Packer Depth 3982 Wt. Pipe Run — WL 6.8

Total Depth 4000 Chlorides 1500 ppm System LCM 3#

Blow Description IF-B.O.B (11 inches) @ 1 min (blow built to 116 1/4")

ISI - No return.

FF - B.O.B @ 1 1/2 mins (blow built to 98 1/2")

FSI - Return @ 5 mins built to 3 1/2"

Rec 60	Feet of GSMOCW	40	%gas 25	%oil 30	%water 5	%mud
Rec 180	Feet of GSMWCO	15	%gas 60	%oil 20	%water 5	%mud
Rec 420	Feet of GSMWO	22	%gas 66	%oil 8	%water 4	%mud
Rec 690	Feet of GSMOCW	7	%gas 8	%oil 79	%water 6	%mud
Rec 0	Feet of 120' GIP		%gas	%oil	%water	%mud

Rec Total 1750 BHT 119 Gravity 33.4 API RW .290 @ 43.5 °F Chlorides 43,000 ppm

(A) Initial Hydrostatic 1992	☒ Test 1800	T-On Location 01:15
(B) First Initial Flow 309	☒ Jars 300	T-Started 01:57
(C) First Final Flow 545	☒ Safety Joint	T-Open 03:50
(D) Initial Shut-In 1167	☐ Circ Sub	T-Pulled 05:00
(E) Second Initial Flow 585	☐ Hourly Standby	T-Out 09:00
(F) Second Final Flow 794	☒ Mileage 104 RT 182	Comments
(G) Final Shut-In 1180	☐ Sampler	
(H) Final Hydrostatic 1948	☐ Straddle	☒ EM Tool
	☐ Shale Packer	☐ Ruined Shale Packer
Initial Open 10	☐ Extra Packer	☐ Ruined Packer
Initial Shut-In 15	☐ Extra Recorder	☐ Extra Copies
Final Flow 15	☐ Day Standby	Sub Total 0
Final Shut-In 30	☐ Accessibility	Total 2282
	Sub Total 2282	MP/DST Disc't

Approved By Our Representative Martin Schmidt

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

4/10

Test Ticket

NO. 69477

Well Name & No. Bloom #2-22 Test No. 2 Date 10-15-22

Company Shakespeare Oil Co INC. Elevation 2978 KB 2967 GL

Address 202 W. Main St. Salem, IL 62881

Co. Rep / Geo. Kent Matson Rig Duke #4

Location: Sec. 22 Twp 11S. Rge. 31W. Co. Gove State KS

Interval Tested 4030-4060 Zone Tested "Lansing B"

Anchor Length 30' Drill Pipe Run 4024 Mud Wt. 9.3

Top Packer Depth 4025 Drill Collars Run — Vis 55

Bottom Packer Depth 4030 Wt. Pipe Run — WL 7.2

Total Depth 4060 Chlorides 2000 ppm System LCM 2#

Blow Description IF- Strong surface blow dead @ 10 mins

ISI - No return.

FF - No blow

ESI - No return

Rec 5	Feet of OSM	%gas	4 %oil	%water 96	%mud
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 5 BHT 114 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2023	☒ Test 1950	T-On Location 19:00
(B) First Initial Flow 28	☒ Jars 300	T-Started 19:22
(C) First Final Flow 29	☒ Safety Joint	T-Open 21:57
(D) Initial Shut-In 959	☐ Circ Sub	T-Pulled 23:43
(E) Second Initial Flow 29	☐ Hourly Standby	T-Out 01:50
(F) Second Final Flow 30	☒ Mileage 104RT 182	Comments
(G) Final Shut-In 866	☐ Sampler	
(H) Final Hydrostatic 1993	☐ Straddle	☒ EM Tool
	☐ Shale Packer	☐ Ruined Shale Packer
Initial Open 15	☐ Extra Packer	☐ Ruined Packer
Initial Shut-In 30	☐ Extra Recorder	☐ Extra Copies
Final Flow 30	☐ Day Standby	Sub Total 0
Final Shut-In 30	☐ Accessibility	Total 2432
	Sub Total 2432	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

4/10

Test Ticket

NO. 69478

Well Name & No. Bloom #2-22 Test No. 3 Date 10-16-22

Company Shakespeare Oil Co. INC Elevation 2978 KB 2967 GL

Address 202 W. Main St. Salem, IL 62881

Co. Rep / Geo. Kent Matson. Rig Duke #4

Location: Sec. 22 Twp 11S. Rge. 31W. Co. Gove State KS

Interval Tested 4078-4108 Zone Tested "Lansing D+E/F"

Anchor Length 30' Drill Pipe Run 4055 Mud Wt. 9.2

Top Packer Depth 4073 Drill Collars Run — Vis 53

Bottom Packer Depth 4078 Wt. Pipe Run — WL 7.2

Total Depth 4108 Chlorides 3000 ppm System LCM 3#

Blow Description IF - Blow built to 1/4"

ISI - No return.

FF - No blow

FSI - No return.

Rec 5	Feet of OCM	%gas 15	%oil	%water 85	%mud	
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 5 BHT 113 Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic 2055	☒ Test 1950	T-On Location 15:25	
(B) First Initial Flow 26	☒ Jars 300	T-Started 15:27	
(C) First Final Flow 29	☒ Safety Joint	T-Open 17:36	
(D) Initial Shut-In 1073	☐ Circ Sub	T-Pulled 19:21	
(E) Second Initial Flow 30	☐ Hourly Standby	T-Out 21:42	
(F) Second Final Flow 30	☒ Mileage 1 1/4 RT 182	Comments	
(G) Final Shut-In 210	☐ Sampler		
(H) Final Hydrostatic 1988	☐ Straddle	☒ EM Tool	
	☐ Shale Packer	☐ Ruined Shale Packer	
Initial Open 15	☐ Extra Packer	☐ Ruined Packer	
Initial Shut-In 30	☐ Extra Recorder	☐ Extra Copies	
Final Flow 30	☐ Day Standby	Sub Total 0	
Final Shut-In 30	☐ Accessibility	Total 2432	
	Sub Total 2432	MP/DST Disc't	

Approved By _____ Our Representative Matthew Johnson

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

4/10

Test Ticket

NO. 69479

Well Name & No. Bloom #2-22 Test No. 4 Date 10-17-22

Company Shakespeare Oil Co INC Elevation 2978 KB 2967 GL

Address 202 W. Main St. Salem, IL 62881

Co. Rep / Geo. Kent Matson Rig Duke #4

Location: Sec. 22 Twp 11S. Rge. 31W. Co. Gove State KS

Interval Tested 4146 - 4188 Zone Tested Lansing G'+H.

Anchor Length 42' Drill Pipe Run 4148 Mud Wt. 9.4

Top Packer Depth 4141 Drill Collars Run — Vis 53

Bottom Packer Depth 4146 Wt. Pipe Run — WL 6.4

Total Depth 4188 Chlorides 2000 ppm System LCM 2#

Blow Description IF - Blow built to 3/4"

ISI - No return.

FF - Surface blow @ 25 mins

FSI - No return.

Rec 10	Feet of OCM	%gas 7	%oil	%water 93	%mud	
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 114 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2064	☒ Test 1950	T-On Location 09:45
(B) First Initial Flow 29	☒ Jars 300	T-Started 10:08
(C) First Final Flow 31	☒ Safety Joint	T-Open 11:58
(D) Initial Shut-In 1146	☐ Circ Sub	T-Pulled ~~13:28~~ 13:43
(E) Second Initial Flow 33	☐ Hourly Standby	T-Out 15:22
(F) Second Final Flow 35	☒ Mileage 104 RT 182	Comments
(G) Final Shut-In 857	☐ Sampler	
(H) Final Hydrostatic 2053	☐ Straddle	☒ EM Tool
	☐ Shale Packer	☐ Ruined Shale Packer
Initial Open 15	☐ Extra Packer	☐ Ruined Packer
Initial Shut-In 30	☐ Extra Recorder	☐ Extra Copies
Final Flow 30	☐ Day Standby	Sub Total 0
Final Shut-In 30	☐ Accessibility	Total 2432
	Sub Total 2432	MP/DST Disc't

Approved By Our Representative Walter Johnson

Tritobite 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

4/10

Test Ticket

NO. 69480

Well Name & No. Bloom #2-22 Test No. 5 Date 10-18-22

Company Shakespeare Oil Co INC. Elevation 2978 KB 2967 GL

Address 202W. Main St Salem, IL 62881

Co. Rep / Geo. Kent Matson. Rig Duke #4

Location: Sec. 22 Twp 11S. Rge. 31W. Co. Gove State KS.

Interval Tested 4184-4240 Zone Tested Lansing "I+J"

Anchor Length 56' Drill Pipe Run 4180 Mud Wt. 9.4

Top Packer Depth 4179 Drill Collars Run — Vis 45

Bottom Packer Depth 4184 Wt. Pipe Run — WL 6.4

Total Depth 4240 Chlorides 2000 ppm System LCM 2#

Blow Description IF - Blow built to 3/4 + decreased to 1/2"

ISI - No return.

FF - Surface blow @ 6mins 1/4"

FSI - No return.

Rec 30	Feet of 50SM	%gas 2	%oil	%water 98	%mud		
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 30 BHT 112 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2039	☒ Test 1950	T-On Location 04:45	
(B) First Initial Flow 31	☒ Jars 300	T-Started 05:07	
(C) First Final Flow 35	☒ Safety Joint	T-Open 07:03	
(D) Initial Shut-In 935	☐ Circ Sub	T-Pulled 08:48	
(E) Second Initial Flow 37	☐ Hourly Standby	T-Out 11:10	
(F) Second Final Flow 37	☒ Mileage 104RT X2 182+182	Comments Tool loaded @ 16:15. 10-20-22	
(G) Final Shut-In 467	☐ Sampler		
(H) Final Hydrostatic 2010	☐ Straddle	☒ EM Tool	
	☐ Shale Packer	☐ Ruined Shale Packer	
Initial Open 15	☐ Extra Packer	☐ Ruined Packer	
Initial Shut-In 30	☐ Extra Recorder	☐ Extra Copies	
Final Flow 30	☒ Day Standby X2 2d 5.5h	Sub Total 983.33	
Final Shut-In 30	☐ Accessibility	Total 3597.33	
	Sub Total 2614	MP/DST Disc't	

Approved By _____ Our Representative Austin Salmans

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.



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

Well Name:	**BLOOM**
Well Id:	**#2-22**
Location:	**1470' FNL, 1740' FWL, NW/4 Sec 22-T11S-R31W, Gove County, Kansas**
License Number:	**API: 15-063-22420** **Region: Gove County**
Spud Date:	**10/11/2022** **Drilling Completed: 10/21/2022**
Surface Coordinates:	**NAD83**
	Lat: 39.0866961, Long: -100.7511716
Bottom Hole Coordinates:	**Vertical hole**
Ground Elevation (ft):	**2967'** **K.B. Elevation (ft): 2978'**
Logged Interval (ft):	**3750' To: RTD Total Depth (ft): 4680'**
Formation:	**Mississippian at RTD**
Type of Drilling Fluid:	**Chemical**

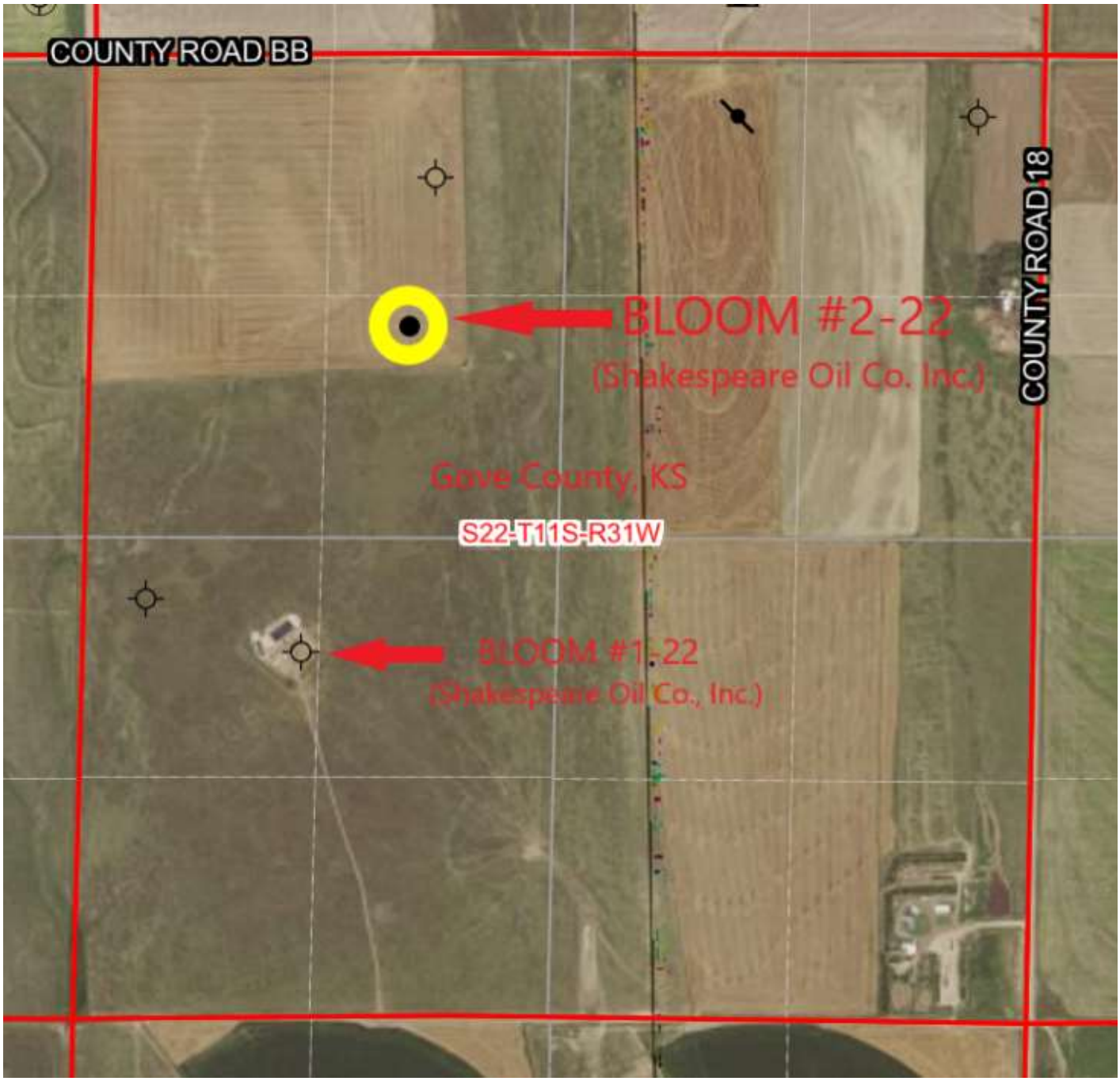
Printed by MudLog from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: **SHAKESPEARE OIL COMPANY, INC.**
Address: **202 West Main Street**
Salem, IL 62881
618-548-1585

WELLSITE GEOLOGIST

Name: **Kent R. Matson**
Company: **Matson Geological Services, LLC**
Address: **33300 W. 15th Street S.**
Garden Plain, Kansas 67050
316-644-1975; kent4m@hotmail.com



COMMENTS

Shakespeare Oil Company, Inc., Geologist: Toby Eck, 316-305-0572 (cell).
Contractor: Duke Drilling Company, Inc.: Rig #4.
Tool Pusher: Hector Torres, 620-682-3927 (cell).
Surface Casing: 8 5/8" set at 225' (KB) w/150sx cement.
Production Casing: Based on field observations of drill cuttings, DST results and electric log evaluation, 4.5" production casing was installed.
Mud by: Mud-Co/Service Mud, Inc., Reid Atkins, 785-694-3741 (cell).
DST's by: Trilobite Testing, Martine Salinas, 785-639-2040 (cell).
Logs by: ELI Wireline (DI w/GR, CND, Micro), Jeff Luebbers, 785-735-7112 (office).
RTD= 4680'
LTD= 4681'

FORMATION TOPS

FORMATION	SAMPLE TOPS Depth	Datum	LOG TOPS Depth	Datum
Oread	3928'	-950	3932'	-954
Heebner Shale	3974'	-996	3978'	-1000
Lansing	4018'	-1039	4024'	-1045
Muncie Creek Shale	4156'	-1178	4160'	-1182
Stark Shale	4244'	-1266	4245'	-1267
Hushpuckney Shale	4278'	-1300	4280'	-1302
Base of KC	4304'	-1326	4306'	-1328
Marmaton	4356'	-1378	4359'	-1381
Pawnee	4434'	-1456	4439'	-1461
Myrick Station	4482'	-1504	4486'	-1508
Fort Scott	4509'	-1531	4510'	-1532
Cherokee Shale	4537'	-1559	4540	-1562
Johnson	4586'	-1608	4591'	-1613
Mississippian	4626'	-1648	4525'	-1647
RTD	4680'	-1702		
LTD			4681'	-1703

ROCK TYPES

LITHOLOGY

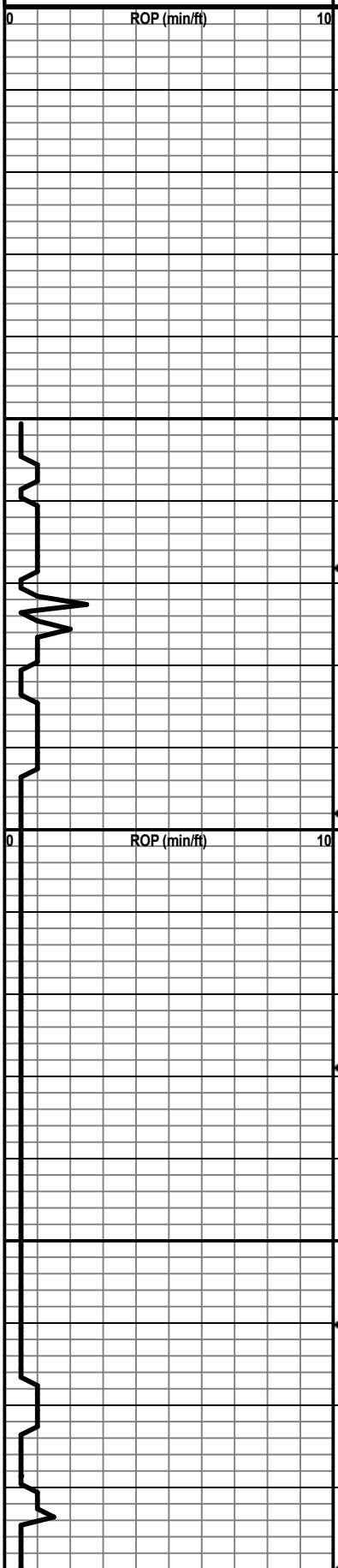
- Anhy
- Cht
- Coal
- Congl
- Dol
- Gyp
- Lmst
- Salt
- Shale
- Shcol
- Shgy
- Sltst
- Ss
- Carb sh
- Dol
- Dtd
- Gry sh
- Sandylms
- Shale
- Sltstn
- Shlyslts
- Sltysh
- Sdy dolo
- Silty dolo
- Shy dolo
- Shaly ls

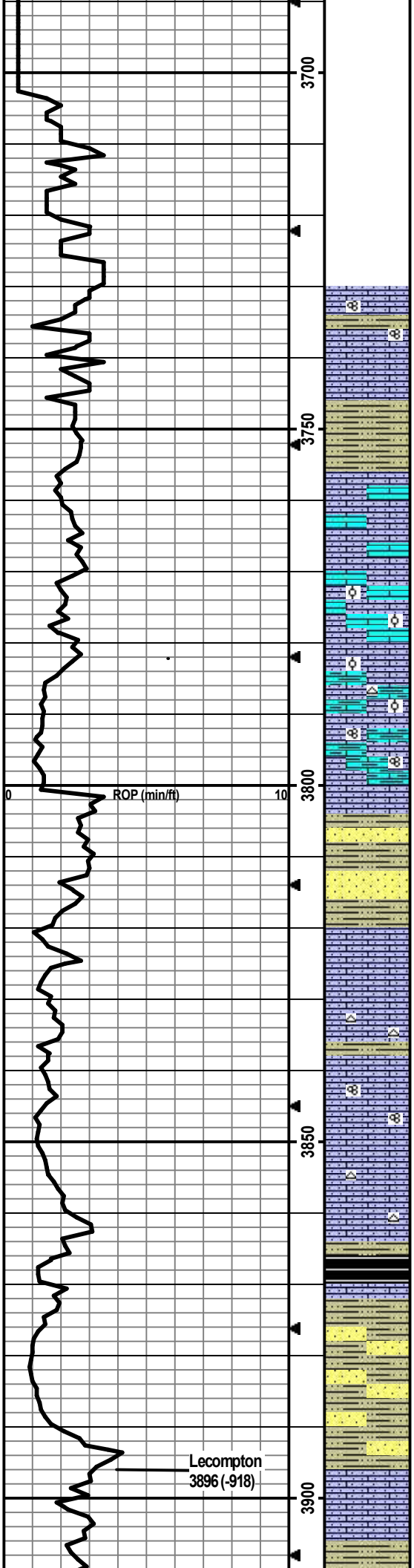
FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Slty

Rate of Penetration (ROP) ROP (min/ft)	DEPTH	Lithology	CFS Point	Oil Shows	Geological Descriptions	Remarks
					**Morning Report Depth/Activity (7:00 am)** 10/10/2022: MIRU. 10/11: Spud, set surface casing @ 225' KB. 10/12: Drilling @ 1099'. 10/13: Drilling @ 2851'. 10/14: CTCH after Bit Trip @ 3700'. 10/15: TOH w/test tool after DST #1 @ 4000'. 10/16: CFS @ 4080'. 10/17: CFS @ 4188'. 10/18: DST #5 @ 4240'. 10/19: Working on mud pump @ 4340'. 10/20: CFS @ 4460' 10/21: CTCH before log; TD @ 4680'; Electric logged. Geologist on location @ 3415', 10/13/2022. **Anhydrite:** **Drill Time (ROP) Top @ 2496' (+482), Base @ 2524 (+454).** **E-Log Top @ 2497' (+481), Base @ 2524' (+454).** **ROP Data begins @ 3550' on 10/14/2022. Recorded from drillers geolograph record, and geologist's auto-reader switch on geolograph.**	Mud-Co/Service Mud Inc. Check #1 @ 0' 10/11/22, predrilling instructions. Mud-Co/Service Mud Inc. Check #2 @ 2895' 10/13/22 08:40am wt vis pH chl 9.3 31 7 20000 Filt LCM n/c 1 **Lost circulation at 3415': Displaced drilling mud @ 3415' - 3440'.** Mud-Co/Service Mud Inc. Check #3 @ 3700' 10/14/22 06:30am wt vis pH chl 8.8 56 11.5 1500 Filt LCM 6.8 3 **Bit Trip @ 3700' conn; replaced PDC bit with Tricone Button bit.** Mud-Co/Service Mud Inc. Check #4 @ 3999' 10/15/22 05:00am wt vis pH chl 9.1 54 11.0 2000 Filt LCM 7.2 3 Mud-Co/Service Mud Inc. Check #5 @ 4261' 10/16/22 05:00am wt vis pH chl 9.2 53 11.0 3000 Filt LCM 7.2 3 Mud-Co/Service Mud Inc. Check #6 @ 4174' 10/17/22 06:00am wt vis pH chl 9.4 53 11.0 2000 Filt LCM 6.4 2 Mud-Co/Service Mud Inc. Check #7 @ 4240' 10/18/22 09:40am wt vis pH chl 9.0 57 11.0 3000 Filt LCM 7.2 2 Mud-Co/Service Mud Inc. Check #8 @ 4340' 10/19/22 09:30am wt vis pH chl 9.0 58 11.0 2800 Filt LCM 6.8 2 Mud-Co/Service Mud Inc. Check #9 @ 4467' 10/20/22 08:00am wt vis pH chl 9.1 53 11.0 4000 Filt LCM 7.2 2



Formation tops and lithologies have been adjusted to correlate to the electric log.

<<<<~~~~ Oil Shows indicator: Left Block 0-10 tray pcs w/show, Middle Block 10-20 tray pcs w/show, Right Block 20+ tray pcs w/show.

NOTE: RED TEXT INDICATES THE PRESENCE OF OIL.

Drill cutting samples at 10' intervals start at 3750'.

LS: wht/crm/lt gry, micro-m xtal, some vry silty/sndy, foss frags/fusln/grainy, ppt-vf in-xtal por, no odor, ns.

LS: crm/lt brn, vf-m xtal, vry silty/sndy, foss frags/some grainy, ppt-f in-xtal por, no odor, ns.

SH: lt-dk gry, some vry silty/sndy, carb, soft-firm.

LS: crm/lt-m brn, micro-m xtal, some vry silty/sndy, foss frags, no vis por, no odor, ns.

LS: crm/lt-m brn/min lt gry, micro-m xtal, some vry silty/sndy, foss frags/grainy, no vis por, no odor, ns.

LS: wht/crm/lt brn, micro-m xtal, some chalky, some silty/sndy, foss frags/some dense ool/grainy, no vis por, no odor, ns.

LS: crm/lt brn/min lt gry, micro-m xtal, some chalky, some silty/sndy, some red Sh mottling, min wht chert, foss frags/dense ool/grainy, no vis por, no odor, ns.

LS: crm/lt brn/lt gry, micro-m xtal, silty/sndy/arg, chalky, foss frags/fusln/grainy, no vis por, no odor, ns.

SH: lt-dk gry, vry silty/sndy, soft-firm. SS: lt gry, pred qtz, vf-f/m-crs, sr-wr, some arg, some carb, friable, no odor, ns.

SH: lt-dk gry/lt brn, vry silty/sndy, carb, soft-firm. SS: lt-m gry, vf-f, sr-wr, some arg, carb, friable, no odor, ns.

LS: crm/lt brn, vf-m xtal, vry silty/sndy, some chalky, foss frags/grainy, ppt-vf in-xtal por, no odor, ns.

LS: as above w/wht/crm chert, no odor, ns.

LS: crm/lt brn, micro-m, chalky, some vry silty/sndy, foss frags/fusln/grainy, ppt-f in-xtal por, no odor, ns.

LS: crm/lt brn, micro-m xtal, chalky, silty/sndy, wht tripolitic chert, foss frags, ppt-f in-xtal por, no odor, ns.

SH: m-dk gry/blk/brn/red-brn, some vry silty, carb, soft-firm.

SH: lt-dk gry/maroon brn/blk, vry silty/sndy, carb, soft-firm. SS: lt-m gry/lt red-brn, vf-f, pred qtz, arg, slt carb, friable, no odor, ns.

SH: lt-m gry, vry silty/sndy, carb, soft-firm. SS: as above, no odor, ns.

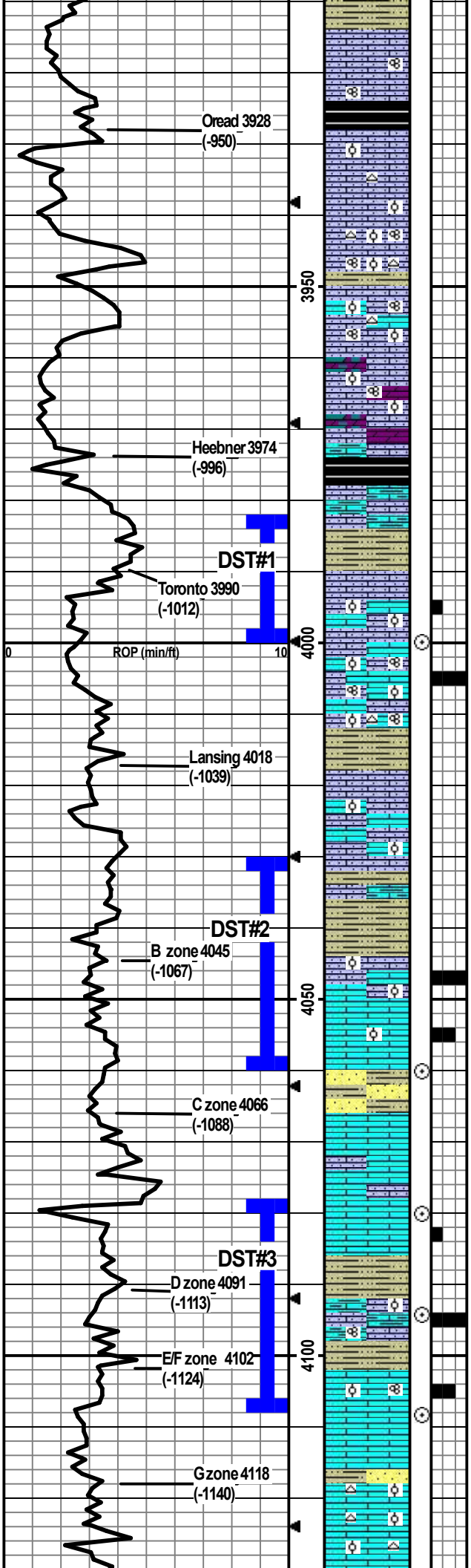
LS: wht/crm/lt brn/lt gry, vf-m xtal, some chalky, silty/sndy, foss frags/fusln, no vis por, no odor, ns.

Mud-Co/Service Mud Inc. Check #10 @ 4680' 10/21/22 10:00am

wt	vis	pH	chl
9.2	55	11.0	4000

Filt LCM
8.0 2

Survey Record
Deg @ Ft
0.50 @ 225'
0.50 @ 2103'
0.00 @ 3700'
1.00 @ 4680'



SH: m-dk gry/blk/dk brn, silty/sndy, carb, soft-firm.

LS: crm/lt brn/min lt gry, vf-m, some vry silty/sndy, some chalky, foss frags/fusln, some ppt-f in-xtal por, no odor, ns.

SH: lt-dk gry/blk/min red brn, some silty, slt carb, soft-firm.

LS: crm/lt brn, vf-m xtal, chalky, silty/sndy, min wht/lt orange chert, foss frags/abund ool, f-m oo-castic por, no odor, ns.

LS: crm/lt-m brn, micro-m xtal, some vry silty/sndy, min crm chert, foss frags/fusln/ool, some dk gry ool, some vf-f in-xtal por w/some f-m oo-castic por, no odor, ns.

LS: wht/crm/lt brn, vf-m xtal, some vry silty/sndy, some chalky, min wht chert, foss frags/fusln/ool, vf-f in-xtal w/f-m oo-castic por, no odor, ns.

LS: crm/lt brn/lt gry, vf-m xtal, silty/sndy, chalky, lt brn dolomitic, foss frags/fusln/ool, vf-f in-xtal/in-ool por, min f-m oo-castic por, no odor, ns.

LS: crm/lt-m brn/lt gry, micro-m xtal, silty/sndy/arg, chalky, some dolomitic, foss frags, no vis por, no odor, ns.

SH: dk gry/blk, silty, carb, firm.

LS: crm/lt brn/lt gry, micro-m xtal, chalky, silty/sndy/arg, foss frags/grainy, no vis por, no odor, ns.

SH: lt-dk gry/red-brn, vry silty/sndy, carb, soft-firm.

LS: crm/lt brn, micro-m xtal, chalky, some silty/sndy, foss frags/ool, 7 pcs w/sfo w/vf-m in-xtal/in-ool por, brite yel fluor, stg odor, sfo.

LS: crm/lt brn, micro-m xtal, some chalky, min silty, foss frags/fusln/ool, 37 pcs w/staining/sfo, f-crs in-xtal/in-ool por, brit yel fluor, gd odor, gd sfo.

LS: crm/lt brn/lt gry, micro-m xtal, some chalky, some silty, min crm chert, foss frags/fusln/dense ool, no vis por, no odor, ns. (few ool pcs w/staining assume from Toronto).

SH: lt-dk gry/blk/lt green-gry, some vry silty, carb, soft-hard.

LS: wht/crm/lt gry, micro-m xtal, some chalky, some silty, min foss frags/min dense ool, no vis por, no odor, ns.

LS: wht/crm/lt gry, micro-f xtal, some chalky, some silty, min foss frags/dense ool, no vis por, no odor, ns.

SH: lt-dk gry/dk brn/red-brn/dk gry-green, silty, carb, soft-firm.

LS: crm/min lt gry, micro-m xtal, some chalky, some silty/sndy, foss frags/ool, 27 pcs w/sfo, few w/blk tar oil, ppt-m in-xtal/in-ool por, dul yel fluor, no odor, sfo.

LS: wht/crm, micro-m xtal, some chalky, min foss frags/ool, mostly dense, 11 pcs w/sfo w/ppt-m in-xtal/in-ool por, dul yel fluor, no odor, sfo. (Some crs-vug por in 60min).

SH: lt-dk gry/red-brn/gry-green, some vry silty, carb, soft-firm. SS: lt gry/lt brn, vf-f, sr-wr, pred qtz, arg, friable, no odor, ns.

LS: wht/crm/lt-m brn/brn mottling, micro-m xtal, some chalky, min foss frags, no vis por, no odor, ns. (3 ool pcs w/show assume from above).

LS: wht/crm/lt brn/some brn mottling, micro-f w/min med xtal, some chalky, some silty, min foss frags, no vis por, no odor, ns.

LS: crm/lt brn/lt gry-brn, micro-m xtal, some chalky, min foss frags, no vis por, no odor, 1 pce w/brn oil staining w/vf-f por, no fluor.

LS: wht/crm/lt gry, micro-m xtal, some chalky, min foss frags, no vis por, no odor, ns.

LS: crm/lt brn/min lt gry, micro-m xtal, some chalky, some silty/sndy/arg, foss frags/fusln/min ool, 44 pcs w/sfo, f-crs/vug in-xtal/in-ool por, dul yel fluor, no odor, gd sfo.

LS: crm/lt-m brn/min lt gry, micro-m xtal, some chalky, foss frags/fusln/ool, 18 pcs w/sfo, ppt-crs in-xtal/in-ool por, dul yel fluor, no odor, sfo.

LS: crm/lt brn, micro-m xtal, some chalky, wht chert, foss frags/min ool, no vis por, no odor, ns.

SH: lt-dk gry/brn/red-brn, some vry silty, pyriite, slt carb, soft-firm. SS: lt gry, vf-f, sr-wr, glauc, pyrite, hard, friable.

LS: wht/crm/lt brn/min lt gry, micro-m xtal, some chalky, wht chert, foss frags/dense crs ool, no vis por, no odor, ns.

Pipe strap TOH for DST #1 @ 4000' was 0.36' short to board.

DST1) 3982-4000 Toronto

10/15/15/30
1st) BOB blow at 1min; No BB.
2nd) BOB blow at 1.5min; SB BB at 5min built to 3.5".
IFP 309-545#
ISIP 1167#
FFP 585-794#
FSIP 1180#
HP 1992-1948#
Recvd: 120' GIP, 420' GMWO (22%G, 4%M, 8%W, 66%O), 180' GMWO (15%G, 5%M, 20%W, 60%O), 60' GMOW (40%G, 5%M, 25%O, 30%W), 1090' GMOW (7%G, 6%M, 8%O, 79%W).

CFS @ 4000'
Stop/30"/60"

DST2) 4030-4060 Lansing B-zone

15/30/30/30
1st) Stg SB dead at 10min; No BB.
2nd) No blow; No BB.
IFP 28-29#
ISIP 959#
FFP 29-30#
FSIP 866#
HP 2023-1993#
Recvd: 5' OSM (4%O, 96%M).

CFS @ 4060'
Stop/30"/60"

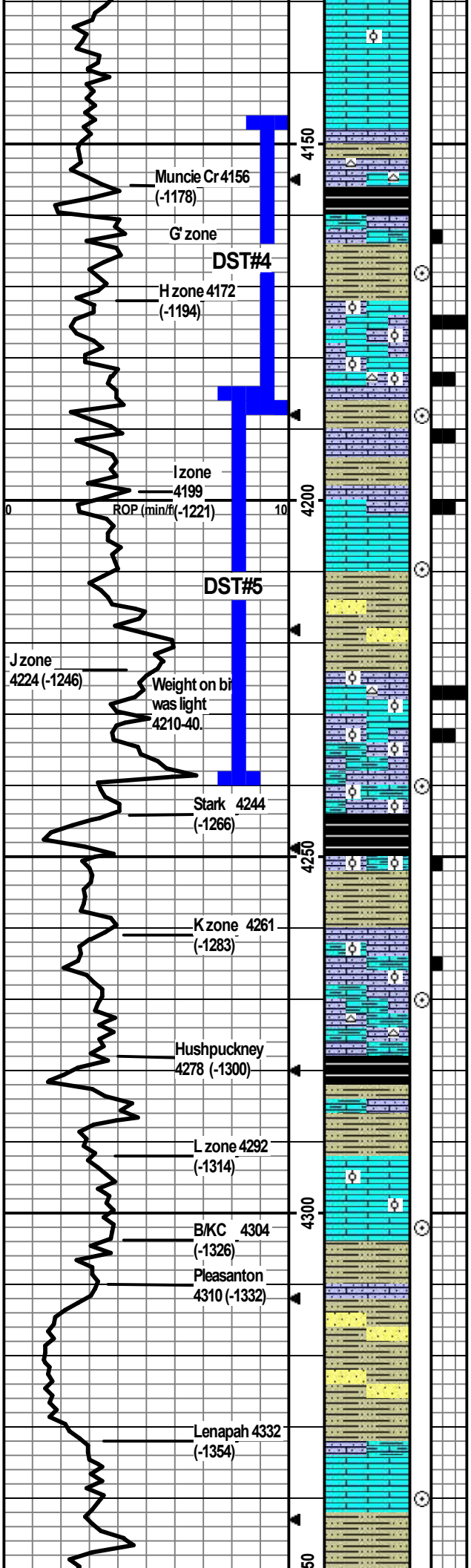
CFS @ 4080'
Stop/30"/60"

CFS @ 4094'
Stop/30"/60"

CFS @ 4108'
Stop/30"/60"

DST3) 4078-4108 Lansing D & E/F-zones

15/30/30/30
1st) Blow built to 1/4"; No BB.
2nd) No blow; No BB.
IFP 26-29#



LS: wht/crm/lt brn, micro-m xtal, chalky, foss frags/min dense crs ool, no vis por, no odor, ns.

ISIP 1073#
FFP 30-30#
FSIP 210#
HP 2005-1988#
Recvd: 5' OCM (15%O, 85%M).

LS: wht/crm/min lt gry, micro-m xtal, chalky, min silty, min foss frags, no vis por, no odor, ns.

LS: crm/lt brn/lt gry, micro-m xtal, chalky, some silty, wht/lt gry chert, foss frags, no vis por, no odor, ns.

SH: m-dk gry/blk/brn/red-brn, some vry silty, carb, soft-firm.

LS: crm/lt-m brn, micro-m xtal, chalky, some vry silty/arg, min foss frags, 4 silty pcs w/sfo on break, ppt in-xtal por, dul yel fluor, slt odor, slt sfo.

CFS @ 4168'
Stop/30"/60"

LS: wht/crm/lt brn/lt gry, micro-m xtal, some chalky, some silty, foss frags/ool, 22 pcs w/sfo w/mostly ppt-m w/min crs in-xtal/in-ool por, brite yel fluor, gd odor, sfo.

LS: crm/lt-m brn/lt gry mottling, micro-m xtal, some chalky, some silty, min lt gry chert, foss frags/ool, 19 pcs w/sfo w/ppt-crs in-xtal/in-ool por, brite yel fluor, slt odor, sfo.

CFS @ 4188'
Stop/30"/60

SH: lt-dk gry/gry-green-gry/brn, some vry silty/sndy, carb, soft-firm.

LS: crm/lt-m brn, micro-f xtal, some chalky, some silty, min foss frags, 12 pcs w/sfo, ppt-m in-xtal por, brit yel fluor, slt odor, gsfo.

LS: wht/crm/lt brn/lt gry, micro-m xtal, chalky, some silty, foss frags, 13 pcs w/sfo, gas bubbles, mostly ppt-f w/some med in-xtal por, brit yel fluor, slt odor, sfo.

CFS @ 4210'
Stop/30"/60

SH: lt-dk gry/blk/lt gry-green/dk maroon/brn/red-brn, some vry silty, carb, firm; min SS: lt gry, pred qtz, vf-m, sr-wr, arg, friable, no odor, ns.

DST4) 4146-4188 Lansing G' & H-zones

15/30/30/30
1st) Blow built to 3/4"; No BB.
2nd) SB at 25min; No BB.
IFP 29-31#
ISIP 1146#
FFP 33-35#
FSIP 857#
HP 2064-2053#
Recvd: 10' OCM (7%O, 93%M).

LS: wht/crm/lt brn/lt gry, micro-m xtal, some silty/sndy, chalky, crm chert, foss frags/some ool, 25 pcs w/sfo/some staining, f-crs in-xtal/in-ool por, washed out stain in crs por, brit yel fluor, slt odor, sfo.

LS: crm/lt brn/lt gry, micro-m xtal, some silty/arg, foss frags/some ool, 14 pcs w/sfo, vf-m in-xtal por, brite yel fluor, gd odor, sfo.

LS: crm/lt-m brn/lt gry, micro-m xtal, some silty/arg, foss frags/min dense ool, no vis por, no odor, ns.

SH: lt-dk gry/blk/red-brn/brn/dk maroon-brn, some vry silty/sndy, carb, soft-firm.

CFS @ 4240'
Stop/30"/60"

LS: crm/lt brn/lt-m gry, vf-m xtal, silty/sndy/arg, chalky, foss frags/dense ool, no vis por, 2 ool pcs w/sfo w/vf-m in-ool por, dul yel fluor, no odor, slt sfo.

SH: lt-dk gry/blk/red-brn/maroon-brn, some vry silty, carb, soft-firm. Some Silstn: lt-m gry, vf-f, arg, carb, hard, friable, ns.

LS: crm/lt brn/lt gry, micro-m xtal, some vry silty/sndyarg, some chalky, foss frags/dense ool, 2 ool pcs w/sfo w/vf-f in-xtal por, dul yel fluor, no odor, slt sfo.

CFS @ 4270'
Stop/30"/60"

LS: crm/lt brn/lt gry, micro-m xtal, chalky, silty/arg, min crm/lt brn chert, foss frags, no vis por, no odor, ns.

SH: dk gry/blk/lt gry-green, some vry silty, carb, soft-firm.

DST5) 4184-4240 Lansing I & J-zones

15/30/30/30
1st) Blow built to 3/4" then decreased to 1/2"; No BB.
2nd) Blow built to 1.25"; No BB.
IFP 31-35#
ISIP 935#
FFP 37-37#
FSIP 467#
HP 2039-2010#
Recvd: 30' OSM (2%O, 98%M).

LS: crm/lt-m brn, micro-m xtal, chalky, some vry silty/arg, foss frags, no vis por, no odor, ns.

SH: -m-dk gry/blk/red-brn, vry silty/sndy, carb, soft-firm.

LS: crm/lt gry/lt brn, micro-m xtal, some silty/sndy, some vry chalky, foss frags/dense ool, no vis por, no odor, ns.

SH: lt-dk gry/red-brn, some vry silty, carb, soft-firm.

SH: lt-dk gry/blk/red-brn, vry silty/sndy, carb, soft-firm. SS: wht/lt gry, vf-f, sr-wr, chalky, arg, soft, friable, no odor, ns.

CFS @ 4302'
Stop/30"/60"

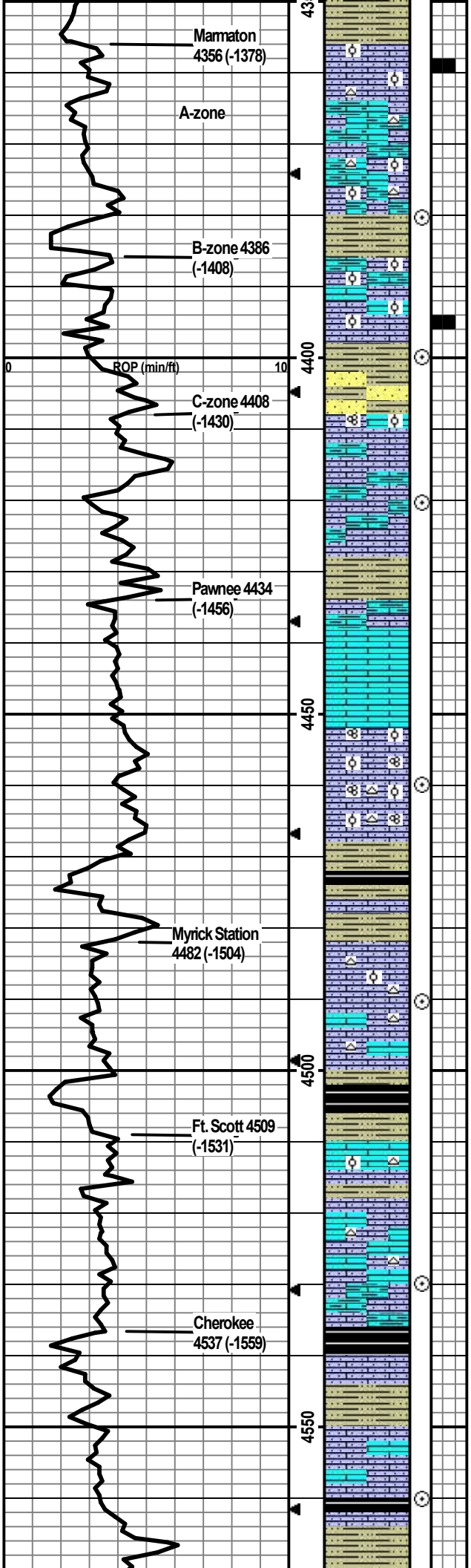
Mud pump suction problems at 4340'. Down from 11:40pm 10/18 thru 5:30pm 10/19. TOH, replaced suction flow line.

SH: as above. SS: wht/lt gry/lt red-brn, vf-f, sr-wr, chalky, carb, soft-friable, no odor, ns.

LS: wht/crm/lt brn, micro-m xtal, chalky, some silty/arg, foss frags, no vis por, no odor, ns

CFS @ 4340'
Stop/30"/60"

SH: lt-dk gry/red-brn/gry-green, some vry silty/sndy, carb, soft-firm.



SH: as above.

LS: crm/lt brn, micro-m xtal, some silty, some chalky, foss frags/ool, 16 pcs w/staining/fo on break, ppt-crs in-xtal/in-ool por, brite yel fluor, no odor, sfo.

LS: wht/crm/lt-m brn/lt gry/dk red-brn/lt yel, some red frac mottling, micro-m xtal, some silty/arg, chalky, lt yel/orange/brn chert, foss frags, no vis por, no odor, ns. (1 pcs w/sfo assume from above). (SH flood).

LS: as above w/some dense ool, no vis por, no odor, ns. (SH flood).

CFS @ 4380'
Stop/30"/60"

SH: lt-dk gry/blk/red-brn, some silty, carb, soft-firm.

LS: wht/crm/lt-dk brn/lt yel, some red SH mottling, micro-m xtal, some chalky, some silty/arg, foss frags/dense ool, no vis por, no odor, ns

LS: wht/crm/lt brn/lt yel/lt gry, some red SH mott, micro-m xtal, some silty, some chalky, foss frags/dense ool, no vis por, no odor, ns. 13 pcs in 60min w/stain/sfo, vf-m in-xtal/in-ool por, dul yel fluor, no odor, sfo.

SH: lt-dk gry/blk/brn/red-brn/mustard yel, some vry silty/sndy, carb, soft-firm. SS: lt-m gry, vf-f, sr-wr, pred qtz, arg, slt carb, friable, no odor, ns.

CFS @ 4400'
Stop/30"/60"

LS: crm/lt-m brn/lt gry/lt yel, micro-m xtal, some chalky, some vry silty, foss frags w/min fusln/dense ool, no vis por, no odor, ns.

LS: crm/lt gry/lt yel/lt red-brn, micro-m xtal, chalky, vry silty/arg, foss frags, no vis por, no odor, ns.

CFS @ 4420'
Stop/30"/60"

SH: lt-dk gry/gry-green/red-brn, some vry silty, carb, soft-firm.

LS: wht/crm/lt brn/lt gry, micro-m xtal, some vry silty/arg, chalky, foss frags/fusln, no vis por, no odor, ns.

LS: wht/crm/min lt gry-brn, micro-m xtal, chalky, foss frags, no vis por, no odor, ns.

LS: wht/crm/lt brn, micro-m xtal, some vry silty, chalky, lt brn chert, foss frags/fusln/dense ool, no vis por, no odor, ns.

CFS @ 4460'
Stop/30"/60"

LS: crm/lt gry-brn/lt gry, micro-m xtal, chalky, silty, lt gry/ lt brn chert, foss frags/fusln/ool, no vis por, no odor, ns.

SH: lt-dk gry/red-brn, silty, carb, soft-firm.

SH: lt-m gry/blk/lt gry-green/crm, silty, carb, soft-firm.

LS: crm/lt brn/lt gry-brn, micro-m xtal, chalky, silty, crm/lt brn chert, foss frags/min dense ool, no vis por, no odor, ns.

CFS @ 4490
Stop/30"/60

LS: crm/lt brn, micro-m xtal, some silty, chalky, wht/lt gry chert, foss frags, no vis por, no odor, ns.

SH: blk/min lt-dk gry, some vry silty, carb, soft-firm, fissile.

LS: wht/crm/lt-m brn, micro-m xtal, some silty/chalky, wht/lt-m brn chert, foss frags/min dense ool, no vis por, no odor, ns.

LS: crm/lt gry/lt-m brn, micro-m xtal, some chalky, some silty, wht/crm/lt brn chert, foss frags, no vis por, no odor, ns.

CFS @ 4530'
Stop/30"/60

LS: crm/lt-m brn/lt-m gry, micro-m xtal, some silty/sndy/arg, chalky, foss frags, no vis por, no odor, ns.

SH: m-dk gry/blk/lt brn mottling, silty, carb, soft-firm.

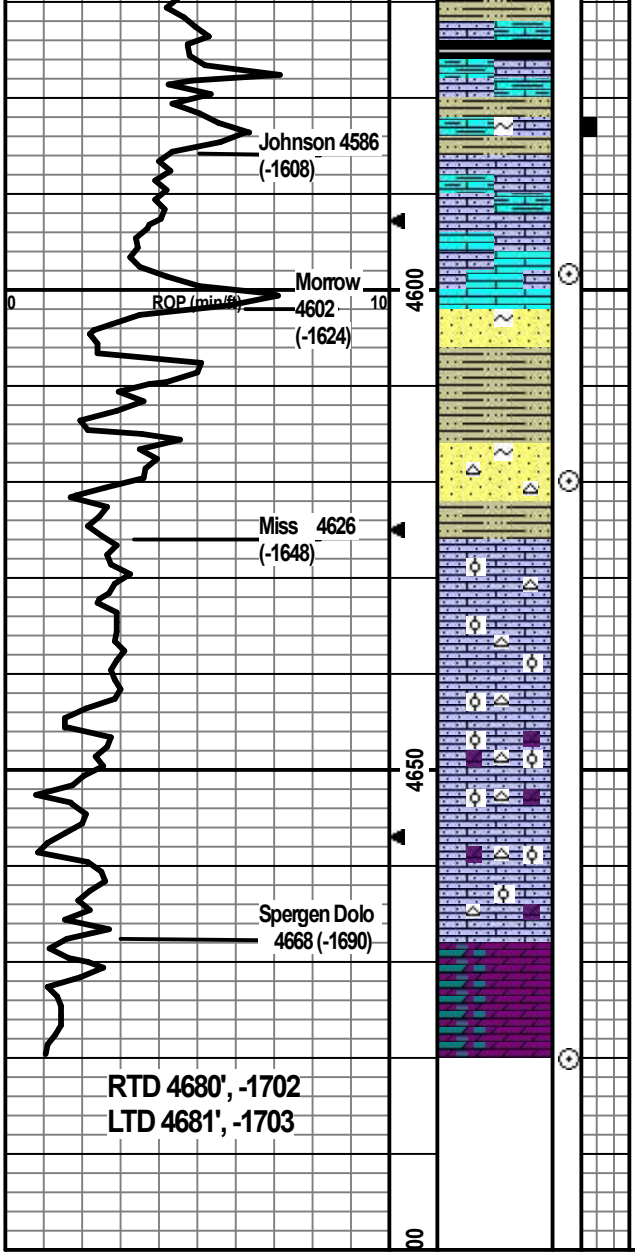
LS: crm/lt-m brn/lt gry, micro-m xtal, chalky, silty/sndy/arg, foss frags, no vis por, no odor, ns.

SH: lt-dk gry/lt gry-green/dk maroon-brn/dk red-brn, silty, carb, soft-firm.

LS: crm/lt brn/lt gry, micro-m xtal, smpl vry chalky, some silty/sndy, foss frags, no vis por, no odor, ns.

CFS @ 4560'
Stop/30"/60

SH: lt-dk gry/lt gry-green/red-brn, some vry silty, carb, soft-firm.



LS: crm/lt-m brn, micro-m xtal, chalky, some silty/arg, foss frags, no vis por, no odor, ns.
SH: lt-dk gry/blk/red-brn/brn/min mustard yel, some vry silty/sndy, carb, soft-firm.

LS: wht/crm/lt-m brn/lt gry, micro-m xtal, chalky, some silty/arg, min glauc, foss frags, no vis por, 1 pce w/stain/fo on break w/ppt-vf in-xtal por, brite yel fluor, no odor, slt sfo.

SH: lt-dk gry/blk/gry-green/red-brnmin mustard yel, some vry silty, carb, soft-firm.

LS: wht/crm/lt-m brn, micro-m xtal, some 2ndry xtals, some chalky, some silty, min foss frags, no vis por, no odor, ns.

CFS @ 4598'
Stop/30"/60

SS: wht/lt gry, vf-f, sr-wr, pred qtz, min glauc, some friable, some hard non-friable, no odor, ns.
SH: lt-dk gry/lt gry-green/mustard yel/dk maroon, some silty, slt carb, soft-firm.

SS: wht/lt gry/lt red-brn, f-crs, sr-sa, pred qtz, min glauc, some arg, some friable, some hard non-fri, no odor, ns. SH: as above.

SS: wht/lt gry/lt green/lt yel/lt red-brn, vf-m, sr-wr, pred qtz, some arg, wht/orange chert, some friable, some hard non-fri, no odor, ns.
SH: lt-dk gry/red-brn/lt gry-green/lt maroon/mustard yel, some silty, carb, soft-firm.

CFS @ 4620'
Stop/30"/60

LS: crm/lt brn/lt yel, micro-m xtal, sndy, chalky, wht/lt orange chert, oolitic, no vis por, no odor, ns.

LS: wht/crm/lt brn/lt yel, vf-m xtal, sndy, chalky, some slt dolomitic w/ppt-vf por, min wht/lt orange chert, oolitic, some med oo-castic por, no odor, ns.

LS: wht/crm/lt brn/lt gry, vf-m xtal, sndy, chalky, some lt brn dolomitic w/vf-crs por, wht/orange chert, ool, min m-crs oo-castic por, no odor, ns.

Dolo: lt-m brn, vf-f xtal, sucrosic, ppt-m in-xtal por, no odor, ns.

Dolo: lt-m brn, vf-f xtal, sucrosic, ppt-crs in-xtal por, no odor, ns.

CFS @ 4680'
Stop/30"/60"
Did 11 std wiper trip, then CTCH 1.5 hr, then TOH for logging.

TD @ 4680'