

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](mailto: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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Form	ACO1 - Well Completion
Operator	Black Oak Exploration, LLC
Well Name	DJ 1-22
Doc ID	1661909

All Electric Logs Run

POR
MICRO
DIL
SONIC







**CEMENT TREATMENT REPORT**

Customer: Black Oak Exploration	Well: DJ # 1-22	Ticket: WP-2897
City, State: Oakley KS	County: Decatur KS	Date: 6/6/2022
Field Rep: Arturo	S-T-R: 22-5S-30W	Service: PTA

Downhole Information	Calculated Slurry - Lead	Calculated Slurry - Tail
Hole Size: 7 7/8 in	Blend: H-Plug	Blend:
Hole Depth: 4240 ft	Weight: 13.8 ppg	Weight: ppg
Casing Size: in	Water / Sx: 6.9 gal / sx	Water / Sx: gal / sx
Casing Depth: ft	Yield: 1.41 ft <sup>3</sup> / sx	Yield: ft <sup>3</sup> / sx
Tubing / Liner: in	Annular Bbls / Ft.: 0.0406 bbs / ft.	Annular Bbls / Ft.: bbs / ft.
Depth: ft	Depth: 4240 ft	Depth: ft
Tool / Packer:	Annular Volume: 172.1 bbls	Annular Volume: 0 bbls
Tool Depth: ft	Excess:	Excess:
Displacement: 50.5 bbls	Total Slurry: 64.0 bbls	Total Slurry: 0.0 bbls
	Total Sacks: 255 sx	Total Sacks: 0 sx

TIME	RATE	PSI	BBLs	TOTAL BBLs	REMARKS
2:45a			-	-	Arrival
2:50a				-	Safety meeting
2:55a				-	Rig up
3:18a	4.1	230.0	5.0	5.0	H2O ahead
3:21a	4.5	250.0	12.5	17.5	Mixed 50 sks of H-plug @ 13.8 ppg @ 2620'
3:25a	4.5	190.0	5.0	22.5	Displaced H2O with truck
3:27a				22.5	Displaced mud with rig for 2.5 minutes
3:32a				22.5	Pull pipe to 1800'
3:56a	4.7	110.0	5.0	27.5	H2O ahead
3:58a	5.0	200.0	25.1	52.6	Mixed 100 sks of H-plug @ 13.8 ppg @ 1800'
4:04a	4.5	170.0	16.7	69.3	Displaced H2O with truck
4:07a					Pull pipe to 320'
4:50a	4.2	110.0	5.0		H2O ahead
4:53a	5.0	220.0	12.5		Mixed 50 sks of H-plug @ 13.8 ppg @ 320'
4:58a	4.0	130.0	1.0		Displaced H2O with truck
5:03a					Pull pipe to 40'
5:40a	3.0	70.0	2.5		Mixed 10 sks of H-plug @ 13.8 ppg @ 40'
5:47a	3.0	70.0	3.8		Mixed 15 sks of H-plug @ 13.8 ppg @ Mouse hole
5:55a	3.0	70.0	5.0		Mixed 30 sks of H-plug @ 13.8 ppg @ Rat hole
6:00a					Plug down
6:02a					Wash up
6:10a					Rig down
6:25a					Depart location

CREW		UNIT	SUMMARY		
Cementer:	Jesse	78	Average Rate	Average Pressure	Total Fluid
Pump Operator:	Michael	230	4.1 bpm	152 psi	99 bbls
Bulk #1:	Spencer	180-530			
Bulk #2:					

# Black Oak Exploration, LLC

## WELL COMPARISON SHEET

Company: Black Oak Exploration, LLC  
 1474 S St Paul St  
 Denver, CO 80210

Contact: Clayton Camozzi 303-968-4999 (Cell)

Well: DJ 1-22  
 Location: 2380 FSL / 1085 FWL 22- 5S - 30W  
 Rawlins Co., KS

Elevation: 2876' GL 2881' KB  
 Field: Wildcat  
 API No: 15-039-21283-0000  
 Surface Casing: 8 5/8" set @ 265' KB

Wellsite Geologist: Tim Hedrick Cell: (580) 754-0062

Drilling Contractor: Murfin Drilling Co Rig #7. Rig Phone (785-443-5616), Tool Pusher Arturo Cabezas (785-443-0495)

DRILLING WELL					COMPARISON WELL				COMPARISON WELL			
DJ 1-22					Robertson 3		Abercrombie: P&A		Shamahl A 1		Cities Serv: D&A	
2380 FSL / 1085 FWL 22- 5S - 30W					1980 FNL / 810 FEL 21 - 5S - 30W				330 FSL / 1650 FWL 22 - 5S - 30W			
2881 KB					2883 KB		Structural Relationship		2869 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Stone Corral	2599	282	2599	282	2604	279	3	3	2581	288	-6	-6
Topeka	3708	-827	3707	-826	3718	-835	8	9	3695	-826	-1	0
LeCompton	3819	-938	3816	-935	3827	-944	6	9	3807	-938	0	3
Heebner	3880	-999	3879	-998	3889	-1006	7	8	3867	-998	-1	0
Lansing	3928	-1047	3925	-1044	3935	-1052	5	8	3915	-1046	-1	2
Lansing C	3952	-1071	3952	-1071	3964	-1081	10	10	3943	-1074	3	3
Lansing F	3995	-1114	3995	-1114	4006	-1123	9	9	3988	-1119	5	5
Lansing J	4078	-1197	4078	-1197	4088	-1205	8	8	4068	-1199	2	2
BKC	4132	-1251	4137	-1256	NDE				4124	-1255	4	-1
Total Depth	4240	-1359	4240	-1359	4125	-1242			4620	-1751		392



## DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration LLC**

1474 S St Paul St.  
Denver, CO 80210

ATTN: Clayton Camozzi

**DJ #1-22**

**22-5s-30w Decatur,KS**

Start Date: 2022.06.01 @ 01:30:00

End Date: 2022.06.01 @ 08:04:21

Job Ticket #: 68863                      DST #: 1

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

Printed: 2022.06.06 @ 12:14:00





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**22-5s-30w Decatur, KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68863

**DST#: 1**

ATTN: Clayton Camozzi

Test Start: 2022.06.01 @ 01:30:00

## GENERAL INFORMATION:

Formation: **Toronto - LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:00:36

Time Test Ended: 08:04:21

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 73

**Interval: 3908.00 ft (KB) To 3940.00 ft (KB) (TVD)**

Reference Elevations: 2881.00 ft (KB)

Total Depth: 3940.00 ft (KB) (TVD)

2876.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6771**

**Inside**

Press@RunDepth: 23.03 psig @ 3909.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.06.01

End Date:

2022.06.01

Last Calib.:

2022.06.01

Start Time: 01:30:01

End Time:

08:04:21

Time On Btm:

2022.06.01 @ 04:00:21

Time Off Btm:

2022.06.01 @ 06:04:21

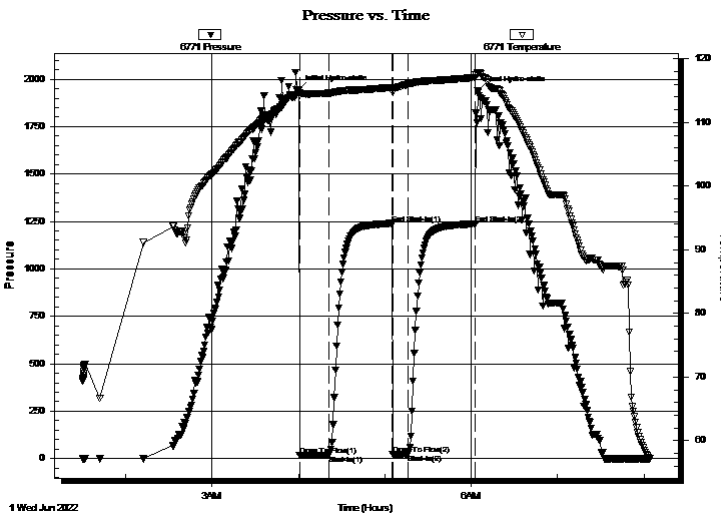
TEST COMMENT: 20 - IF: 1/4" Blow at open, died back to 1/8" at end of open

45 - IS: No blow

10 - FF: No blow

45 - FS: No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1945.21	115.12	Initial Hydro-static
1	16.08	114.27	Open To Flow (1)
21	18.68	114.62	Shut-In(1)
65	1239.55	115.55	End Shut-In(1)
66	20.72	115.39	Open To Flow (2)
76	23.03	116.07	Shut-In(2)
123	1237.35	117.08	End Shut-In(2)
124	1937.27	117.87	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud 100%	0.07

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68863

**DST#: 1**

ATTN: Clayton Camozzi

Test Start: 2022.06.01 @ 01:30:00

## Tool Information

Drill Pipe:	Length: 3644.00 ft	Diameter: 3.80 inches	Volume: 51.12 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: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose:	72000.00 lb
			<u>Total Volume: 52.28 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	68000.00 lb
Depth to Top Packer:	3908.00 ft			Final	68000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	32.00 ft				
Tool Length:	65.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3876.00	
Shut In Tool	5.00			3881.00	
Hydraulic tool	5.00			3886.00	
Jars	5.00			3891.00	
EM Tool	4.00			3895.00	
Safety Joint	3.00			3898.00	
Packer	5.00			3903.00	33.00 Bottom Of Top Packer
Packer	5.00			3908.00	
Stubb	1.00			3909.00	
Recorder	0.00	6771	Inside	3909.00	
Recorder	0.00	8367	Outside	3909.00	
Perforations	28.00			3937.00	
Bullnose	3.00			3940.00	32.00 Bottom Packers & Anchor

**Total Tool Length: 65.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68863

**DST#: 1**

ATTN: Clayton Camozzi

Test Start: 2022.06.01 @ 01:30:00

### 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: 75.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud 100%	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

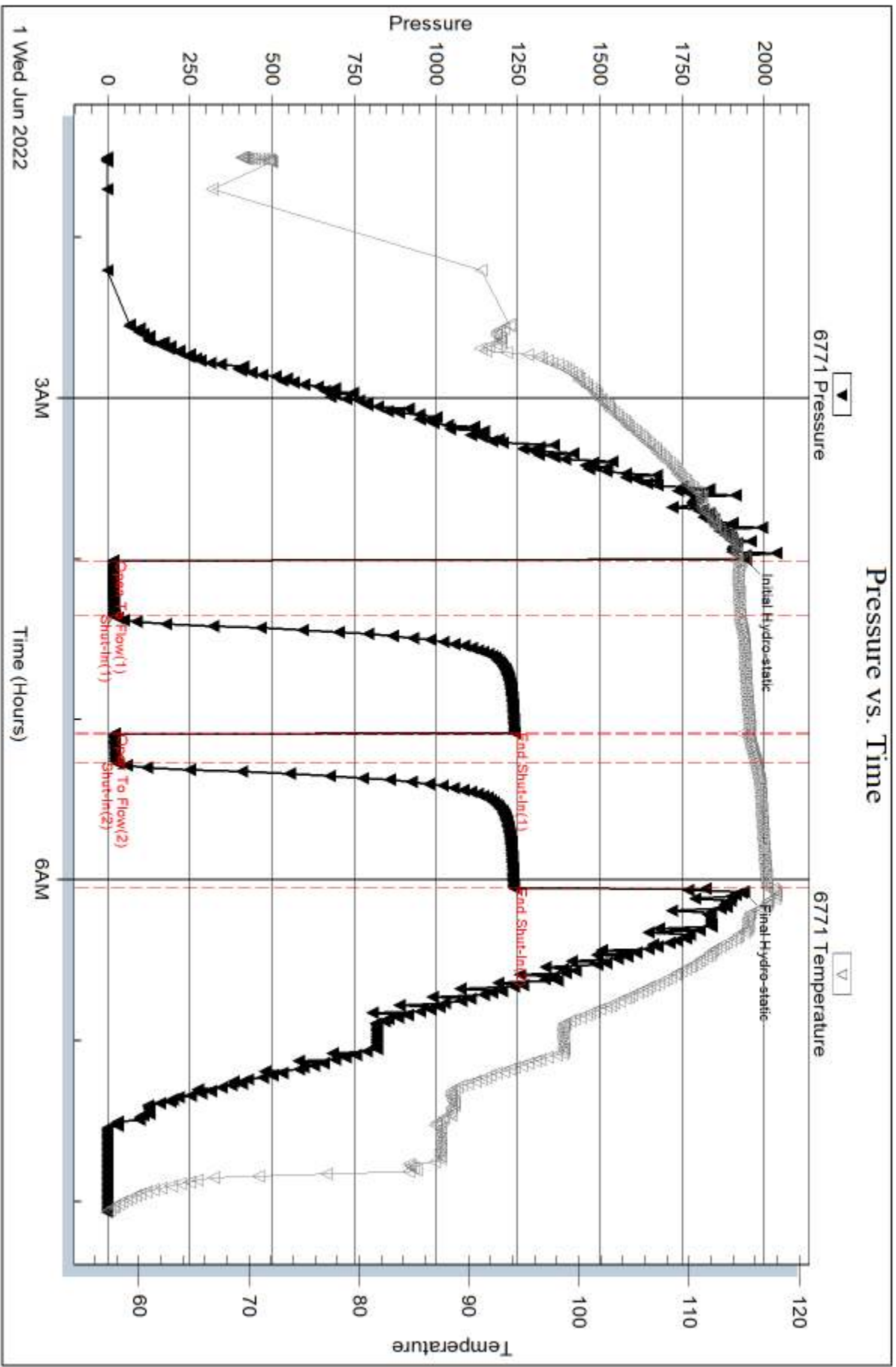
Num Gas Bombs: 0

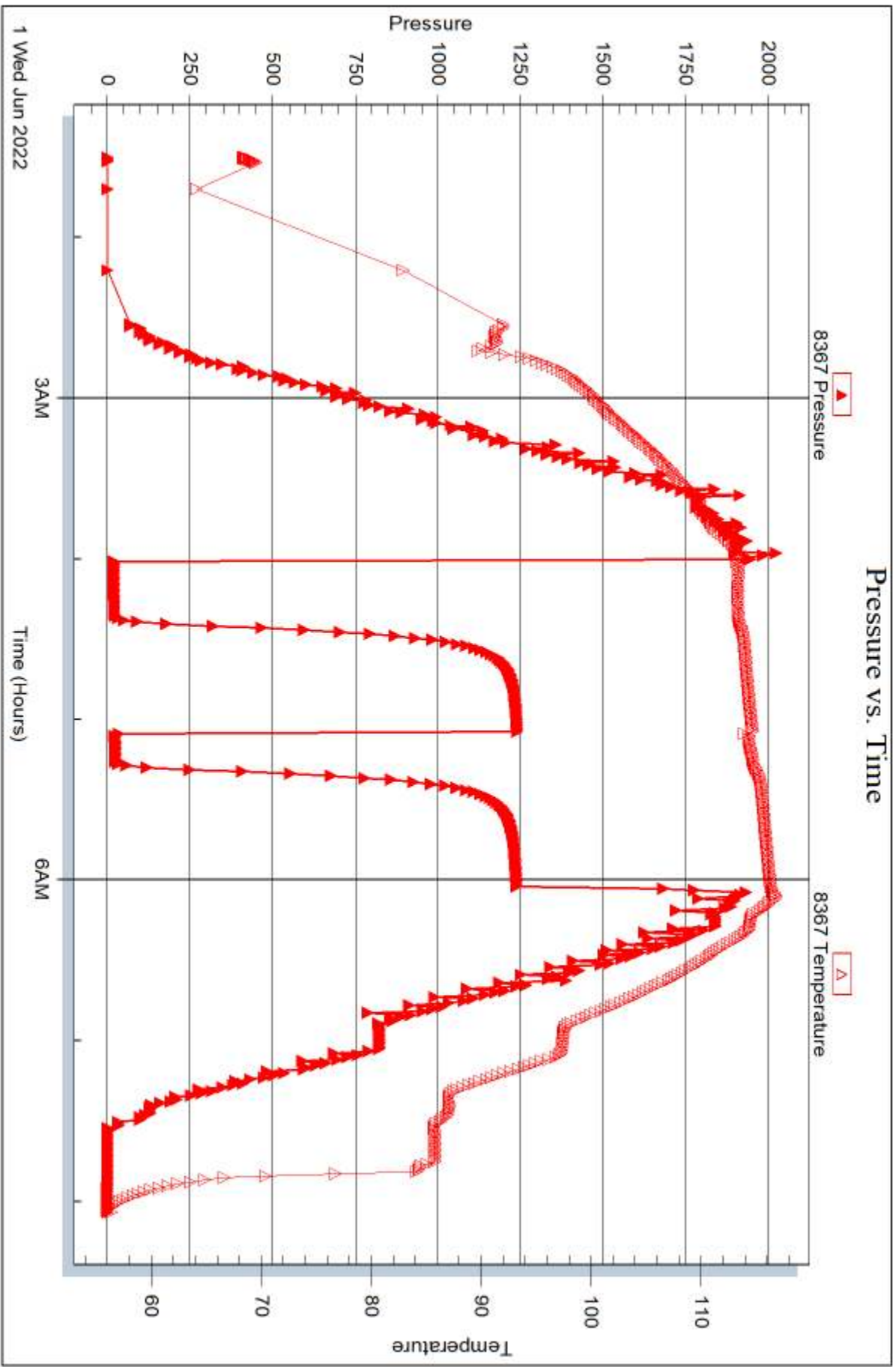
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration LLC**

1474 S St Paul St.  
Denver, CO 80210

ATTN: Clayton Camozzi

**DJ #1-22**

**22-5s-30w Decatur,KS**

Start Date: 2022.06.01 @ 17:11:00

End Date: 2022.06.01 @ 22:25:21

Job Ticket #: 68864                      DST #: 2

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

Printed: 2022.06.06 @ 12:11:49

Black Oak Exploration LLC  
22-5s-30w Decatur,KS  
DJ #1-22  
DST # 2  
LKC: "C"  
2022.06.01



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68864

**DST#: 2**

ATTN: Clayton Camozzi

Test Start: 2022.06.01 @ 17:11:00

## GENERAL INFORMATION:

Formation: **LKC. "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:02:06

Time Test Ended: 22:25:21

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 73

**Interval: 3938.00 ft (KB) To 3960.00 ft (KB) (TVD)**

Reference Elevations: 2881.00 ft (KB)

Total Depth: 3960.00 ft (KB) (TVD)

2876.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

## Serial #: 6771

Inside

Press@RunDepth: 26.78 psig @ 3939.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.06.01

End Date: 2022.06.01

Last Calib.: 2022.06.01

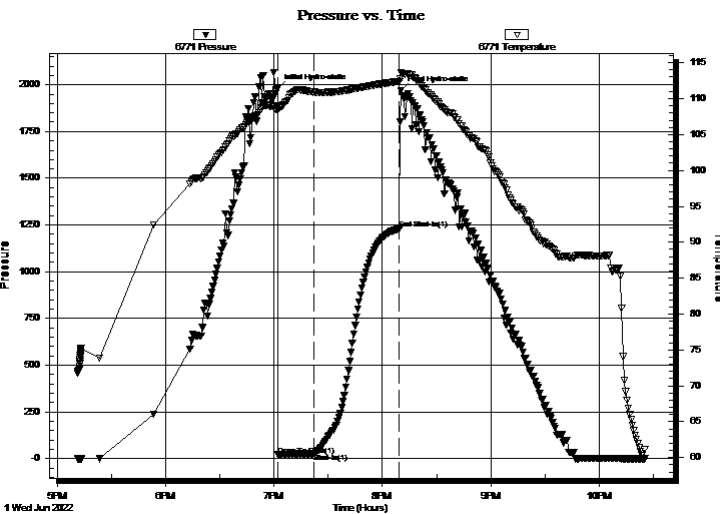
Start Time: 17:11:01

End Time: 22:25:21

Time On Btm: 2022.06.01 @ 19:01:51

Time Off Btm: 2022.06.01 @ 20:10:21

**TEST COMMENT:** 20 - IF: 1/8" Blow at open, built to almost 1/2", stayed there till close  
45 - ISI: No blow  
Pulled tools



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1978.03	108.83	Initial Hydro-static
1	19.96	108.36	Open To Flow (1)
20	26.78	110.91	Shut-In(1)
68	1228.90	112.42	End Shut-In(1)
69	1969.42	113.65	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	SOCM 92% m, 8% o	0.10
5.00	OM 50% o, 50% m	0.02

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68864

**DST#: 2**

ATTN: Clayton Camozzi

Test Start: 2022.06.01 @ 17:11:00

## Tool Information

Drill Pipe:	Length: 3675.00 ft	Diameter: 3.80 inches	Volume: 51.55 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: 20000.00 lb
Drill Collar:	Length: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 52.71 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3938.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3906.00	
Shut In Tool	5.00			3911.00	
Hydraulic tool	5.00			3916.00	
Jars	5.00			3921.00	
EM Tool	4.00			3925.00	
Safety Joint	3.00			3928.00	
Packer	5.00			3933.00	33.00 Bottom Of Top Packer
Packer	5.00			3938.00	
Stubb	1.00			3939.00	
Recorder	0.00	6771	Inside	3939.00	
Recorder	0.00	8367	Outside	3939.00	
Perforations	18.00			3957.00	
Bullnose	3.00			3960.00	22.00 Bottom Packers & Anchor

**Total Tool Length: 55.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68864

**DST#: 2**

ATTN: Clayton Camozzi

Test Start: 2022.06.01 @ 17:11:00

### 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: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.98 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	SOCM 92% <i>m</i> , 8% <i>o</i>	0.098
5.00	OM 50% <i>o</i> , 50% <i>m</i>	0.025

Total Length: 25.00 ft      Total Volume: 0.123 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

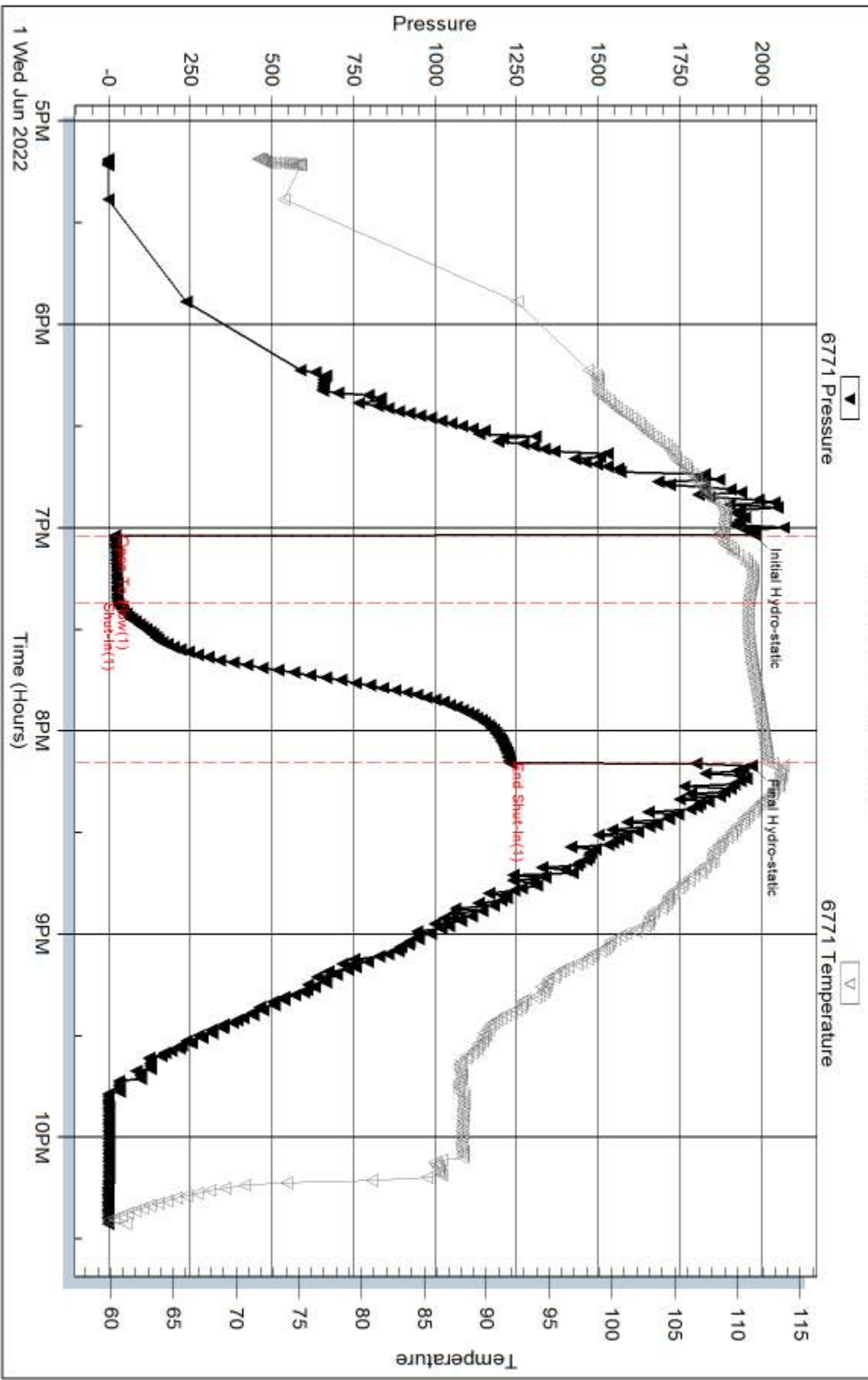
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

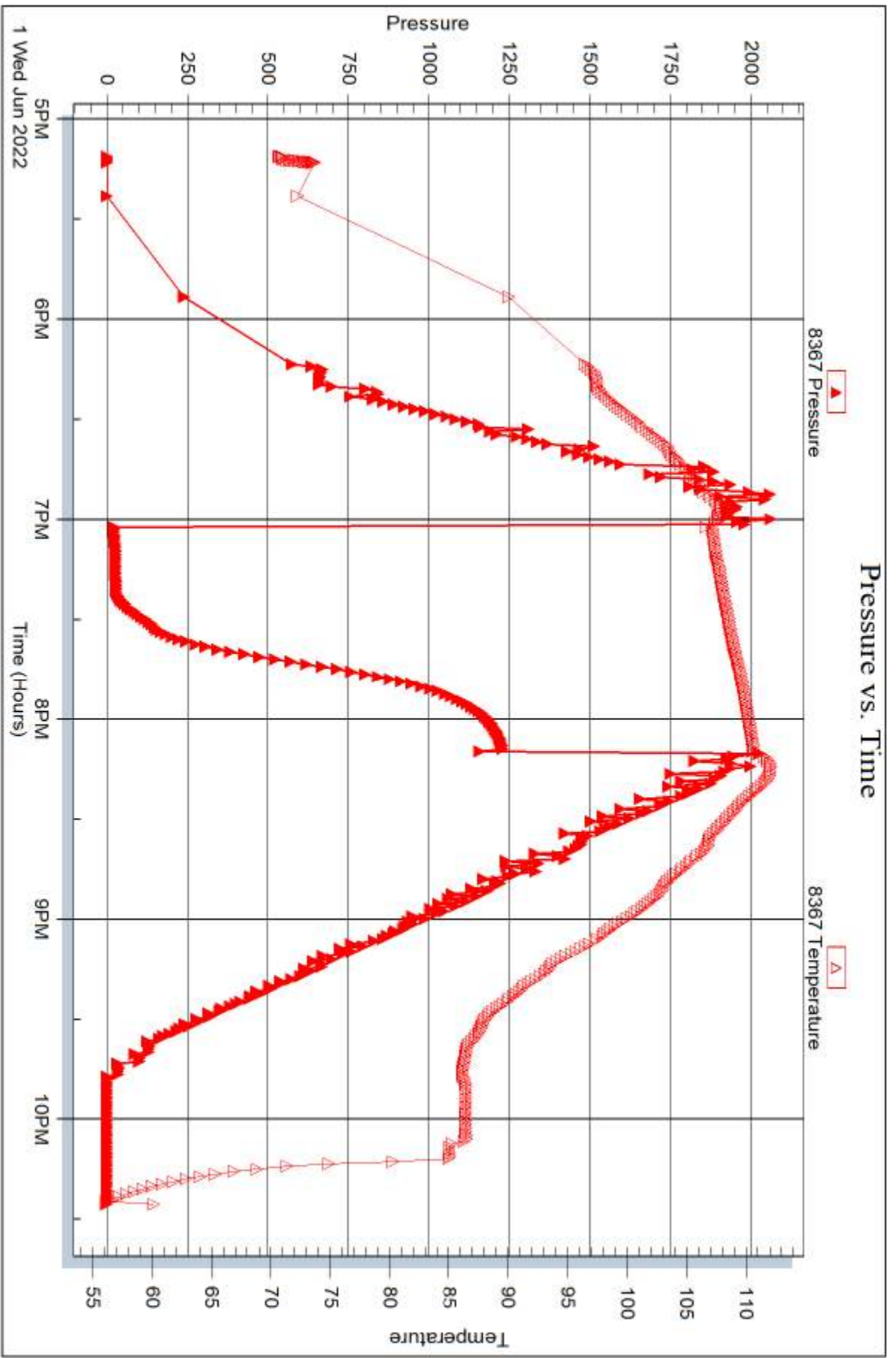


Serial #: 8367

Outside Black Oak Exploration LLC

DJ#1-22

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration LLC**

1474 S St Paul St.  
Denver, CO 80210

ATTN: Clayton Camozzi

**DJ #1-22**

**22-5s-30w Decatur,KS**

Start Date: 2022.06.02 @ 05:38:00

End Date: 2022.06.02 @ 11:46:21

Job Ticket #: 68865                      DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2022.06.06 @ 12:11:15



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**22-5s-30w Decatur, KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68865

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2022.06.02 @ 05:38:00

## GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:14:36

Time Test Ended: 11:46:21

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 73

**Interval: 3961.00 ft (KB) To 3980.00 ft (KB) (TVD)**

Reference Elevations: 2881.00 ft (KB)

Total Depth: 3980.00 ft (KB) (TVD)

2876.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6771**

**Inside**

Press@RunDepth: 213.46 psig @ 3962.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.06.02

End Date:

2022.06.02

Last Calib.:

2022.06.02

Start Time: 05:38:01

End Time:

11:46:21

Time On Btm:

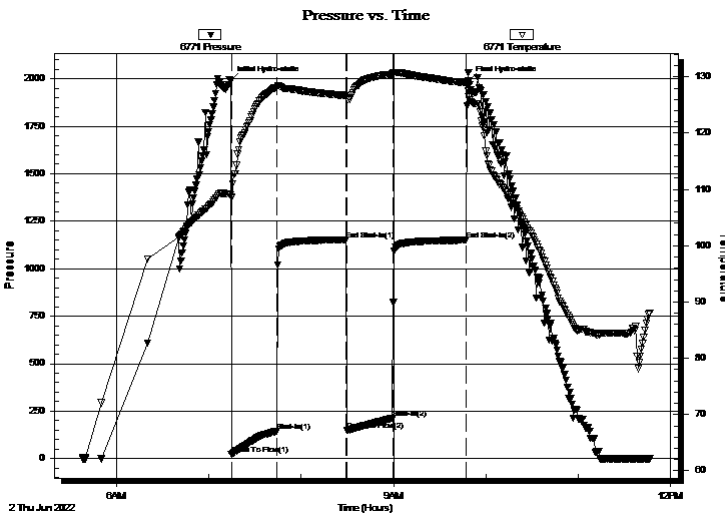
2022.06.02 @ 07:14:21

Time Off Btm:

2022.06.02 @ 09:48:51

**TEST COMMENT:** 30 - IF: Blow built to 8"  
45 - IS: No blow back  
30 - FF: Blow built to 9 3/4"  
45 - FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1990.35	109.07	Initial Hydro-static
1	21.66	108.48	Open To Flow (1)
30	144.45	128.15	Shut-In(1)
75	1152.54	126.68	End Shut-In(1)
76	150.08	126.17	Open To Flow (2)
105	213.46	130.49	Shut-In(2)
153	1150.40	128.97	End Shut-In(2)
155	1987.85	126.49	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
300.00	SMCW w/trace oil 94%w, 6%m	2.06
135.00	MCW w/trace oil 72%w, 28%m	1.89

\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68865

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2022.06.02 @ 05:38:00

## Tool Information

Drill Pipe:	Length: 3707.00 ft	Diameter: 3.80 inches	Volume: 52.00 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:	20000.00 lb
Drill Collar:	Length: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose:	76000.00 lb
			<u>Total Volume: 53.16 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	3961.00 ft			Final	72000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	19.00 ft				
Tool Length:	52.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3929.00	
Shut In Tool	5.00			3934.00	
Hydraulic tool	5.00			3939.00	
Jars	5.00			3944.00	
EM Tool	4.00			3948.00	
Safety Joint	3.00			3951.00	
Packer	5.00			3956.00	33.00 Bottom Of Top Packer
Packer	5.00			3961.00	
Stubb	1.00			3962.00	
Recorder	0.00	6771	Inside	3962.00	
Recorder	0.00	8367	Outside	3962.00	
Perforations	15.00			3977.00	
Bullnose	3.00			3980.00	19.00 Bottom Packers & Anchor

**Total Tool Length: 52.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68865

**DST#: 3**

ATTN: Clayton Camozzi

Test Start: 2022.06.02 @ 05:38:00

### 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:

36000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
300.00	SMCW w /trace oil 94%w , 6%m	2.058
135.00	MCW w /trace oil 72%w , 28%m	1.894

Total Length: 435.00 ft      Total Volume: 3.952 bbl

Num Fluid Samples: 0

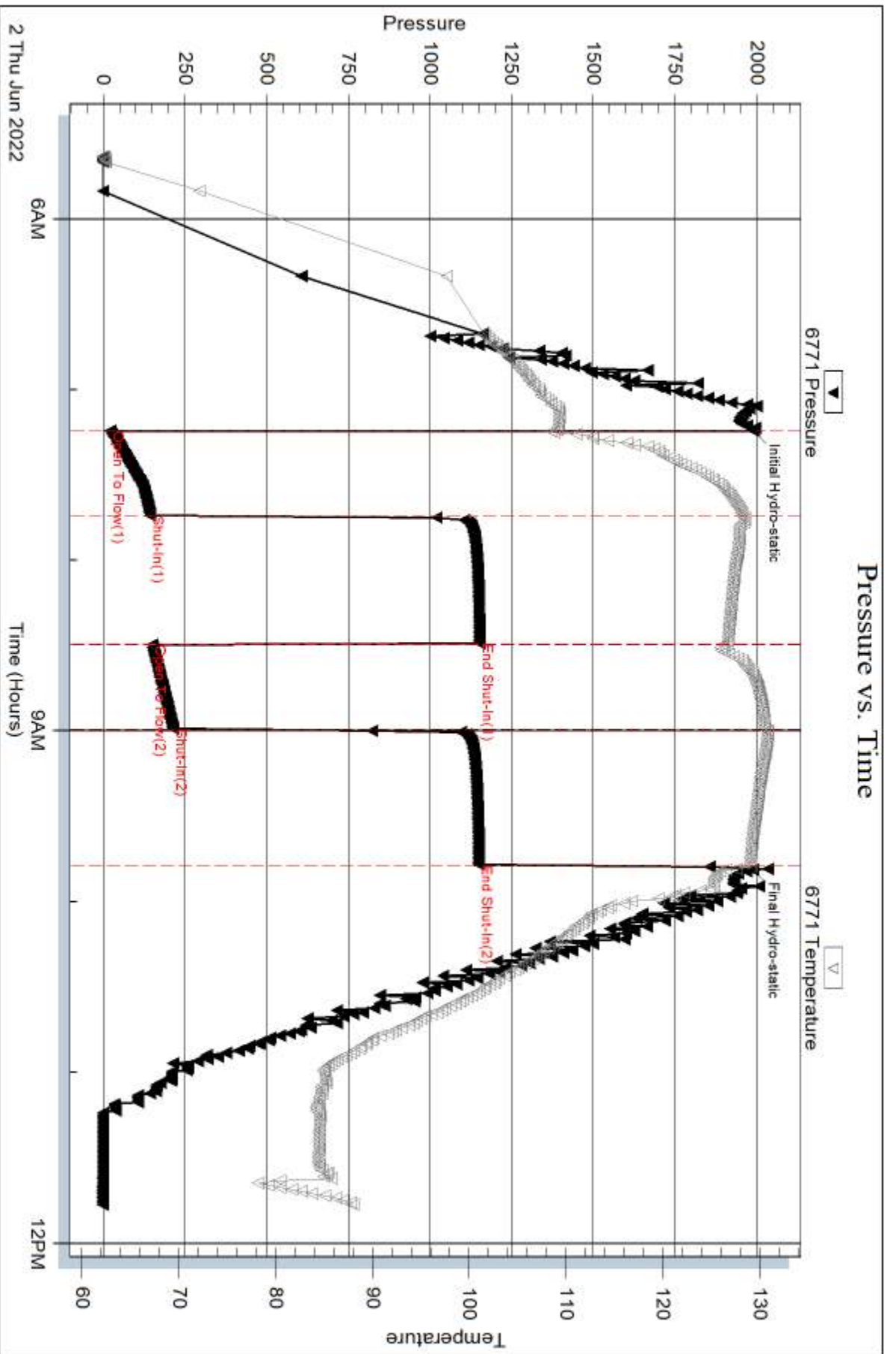
Num Gas Bombs: 0

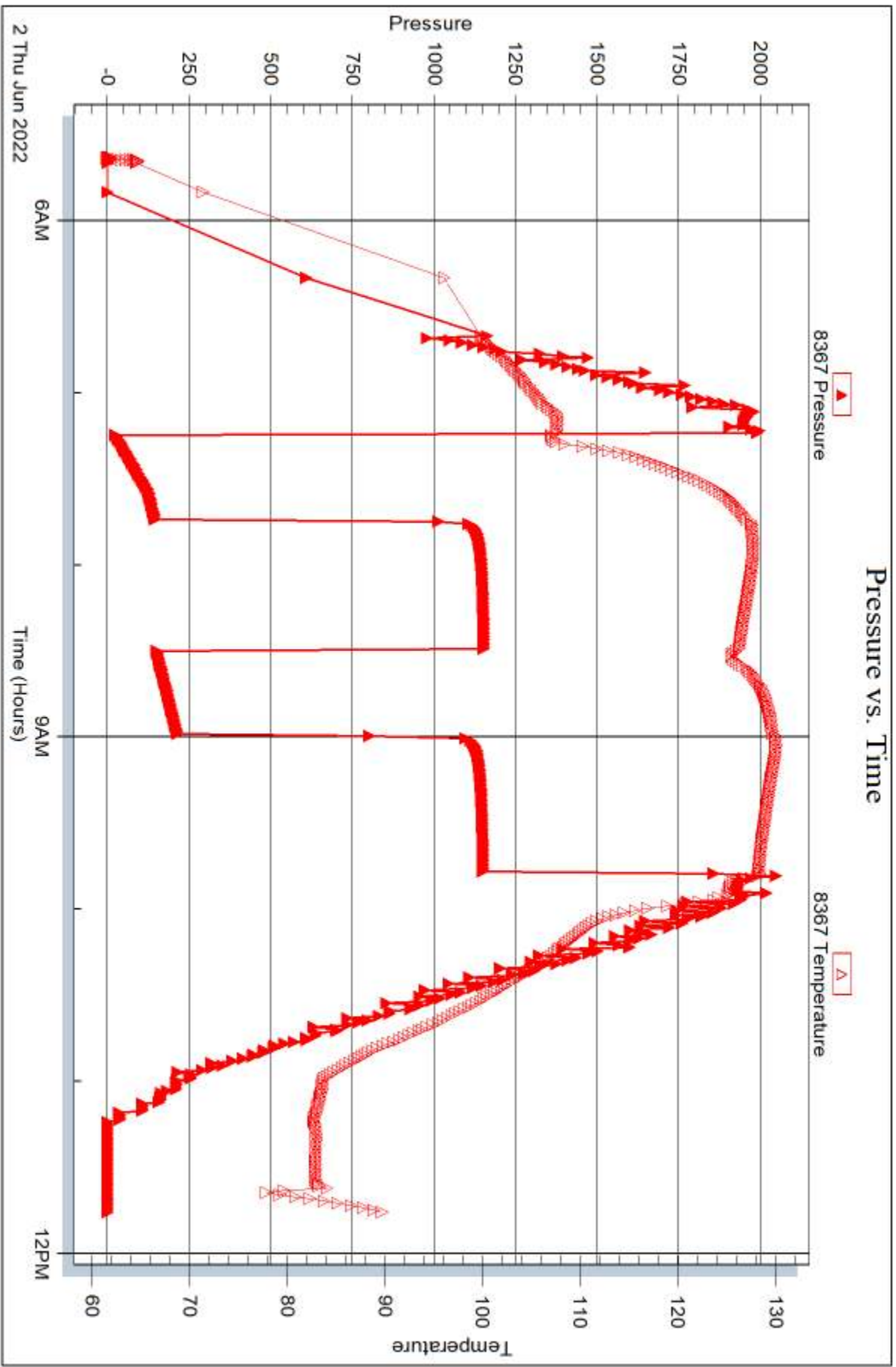
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .175 ohms @ 83 deg F Chlorides = 36,000 ppm







## DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration LLC**

1474 S St Paul St.  
Denver, CO 80210

ATTN: Clayton Camozzi

**DJ #1-22**

**22-5s-30w Decatur,KS**

Start Date: 2022.06.02 @ 19:30:00

End Date: 2022.06.03 @ 02:10:06

Job Ticket #: 68866                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2022.06.06 @ 12:08:03

Black Oak Exploration LLC  
22-5s-30w Decatur,KS  
DJ #1-22  
DST # 4  
LKC "F"  
2022.06.02



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**22-5s-30w Decatur, KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68866

**DST#: 4**

ATTN: Clayton Camozzi

Test Start: 2022.06.02 @ 19:30:00

## GENERAL INFORMATION:

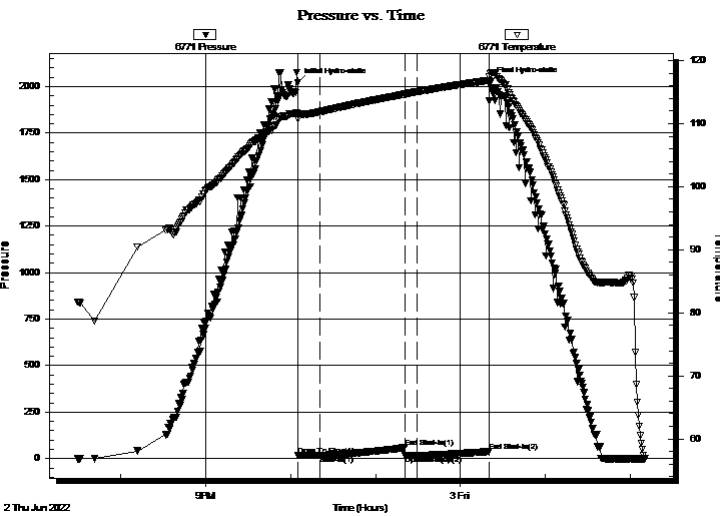
Formation: **LKC "F"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:05:36  
 Time Test Ended: 02:10:06  
 Interval: **3982.00 ft (KB) To 3998.00 ft (KB) (TVD)**  
 Total Depth: 3998.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 73  
 Reference Elevations: 2881.00 ft (KB)  
 2876.00 ft (CF)  
 KB to GR/CF: 5.00 ft

## Serial #: 6771

Inside

Press@RunDepth: 18.20 psig @ 3983.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2022.06.02 End Date: 2022.06.03 Last Calib.: 2022.06.03  
 Start Time: 19:30:01 End Time: 02:10:06 Time On Btm: 2022.06.02 @ 22:05:21  
 Time Off Btm: 2022.06.03 @ 00:21:06

TEST COMMENT: 15 - IF: Weak surface blow, dead by 11 min.  
 60 - IS: No blow  
 10 - FF: No blow  
 45 - FS: No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2021.98	111.63	Initial Hydro-static
1	16.76	110.75	Open To Flow (1)
16	18.11	111.90	Shut-In(1)
76	59.51	114.67	End Shut-In(1)
76	17.57	114.66	Open To Flow (2)
84	18.20	115.07	Shut-In(2)
135	37.85	116.87	End Shut-In(2)
136	2024.61	117.99	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	OCM 80% m, 20% o	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68866

**DST#: 4**

ATTN: Clayton Camozzi

Test Start: 2022.06.02 @ 19:30:00

## Tool Information

Drill Pipe:	Length: 3738.00 ft	Diameter: 3.80 inches	Volume: 52.43 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: 20000.00 lb
Drill Collar:	Length: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 53.59 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 67000.00 lb
Depth to Top Packer:	3982.00 ft			Final 67000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3950.00	
Shut In Tool	5.00			3955.00	
Hydraulic tool	5.00			3960.00	
Jars	5.00			3965.00	
EM Tool	4.00			3969.00	
Safety Joint	3.00			3972.00	
Packer	5.00			3977.00	33.00 Bottom Of Top Packer
Packer	5.00			3982.00	
Stubb	1.00			3983.00	
Recorder	0.00	6771	Inside	3983.00	
Recorder	0.00	8367	Outside	3983.00	
Perforations	12.00			3995.00	
Bullnose	3.00			3998.00	16.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68866

**DST#: 4**

ATTN: Clayton Camozzi

Test Start: 2022.06.02 @ 19:30:00

### 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: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	OCM 80% <sub>m</sub> , 20% <sub>o</sub>	0.005

Total Length: 1.00 ft      Total Volume: 0.005 bbl

Num Fluid Samples: 0

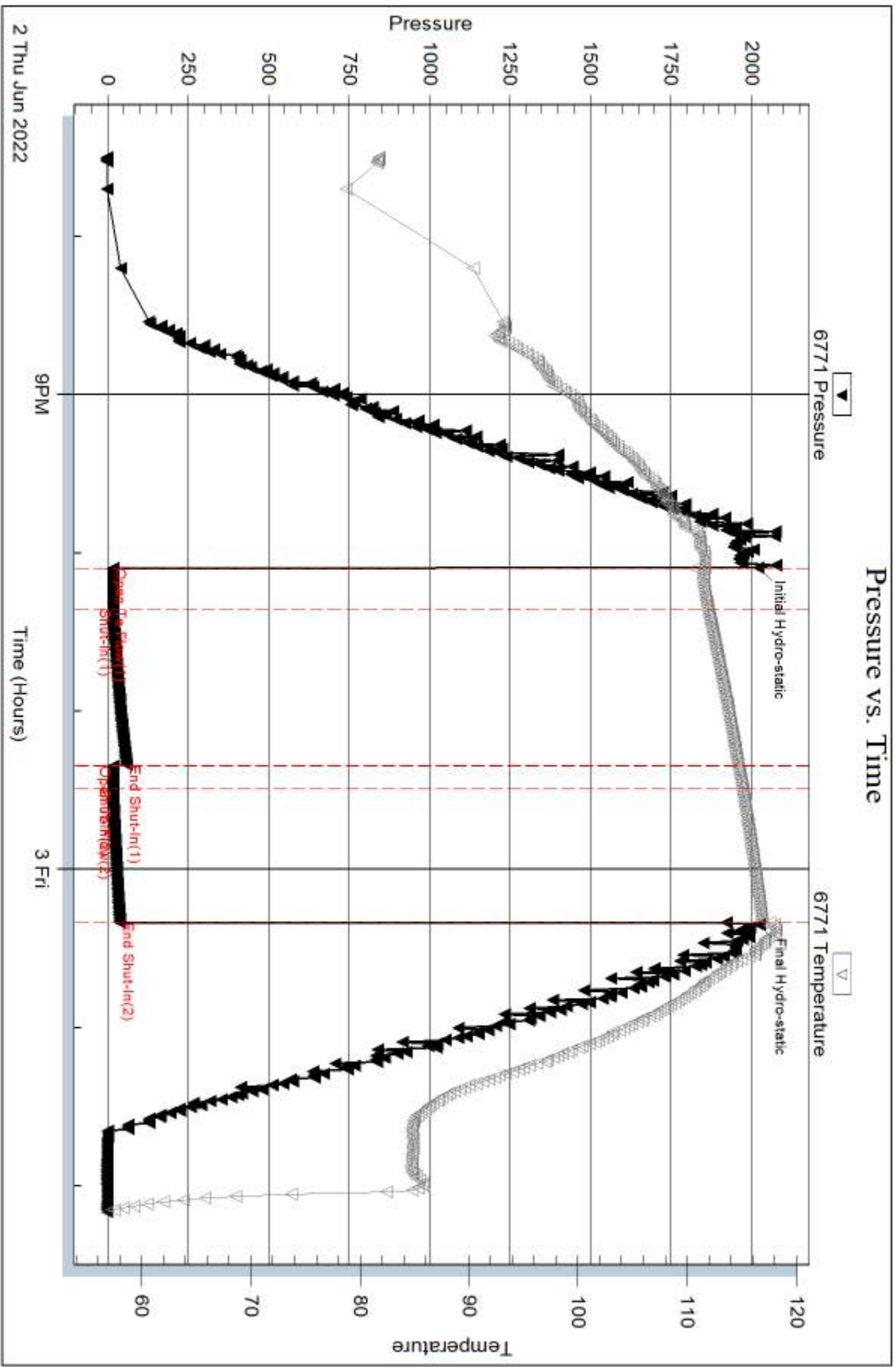
Num Gas Bombs: 0

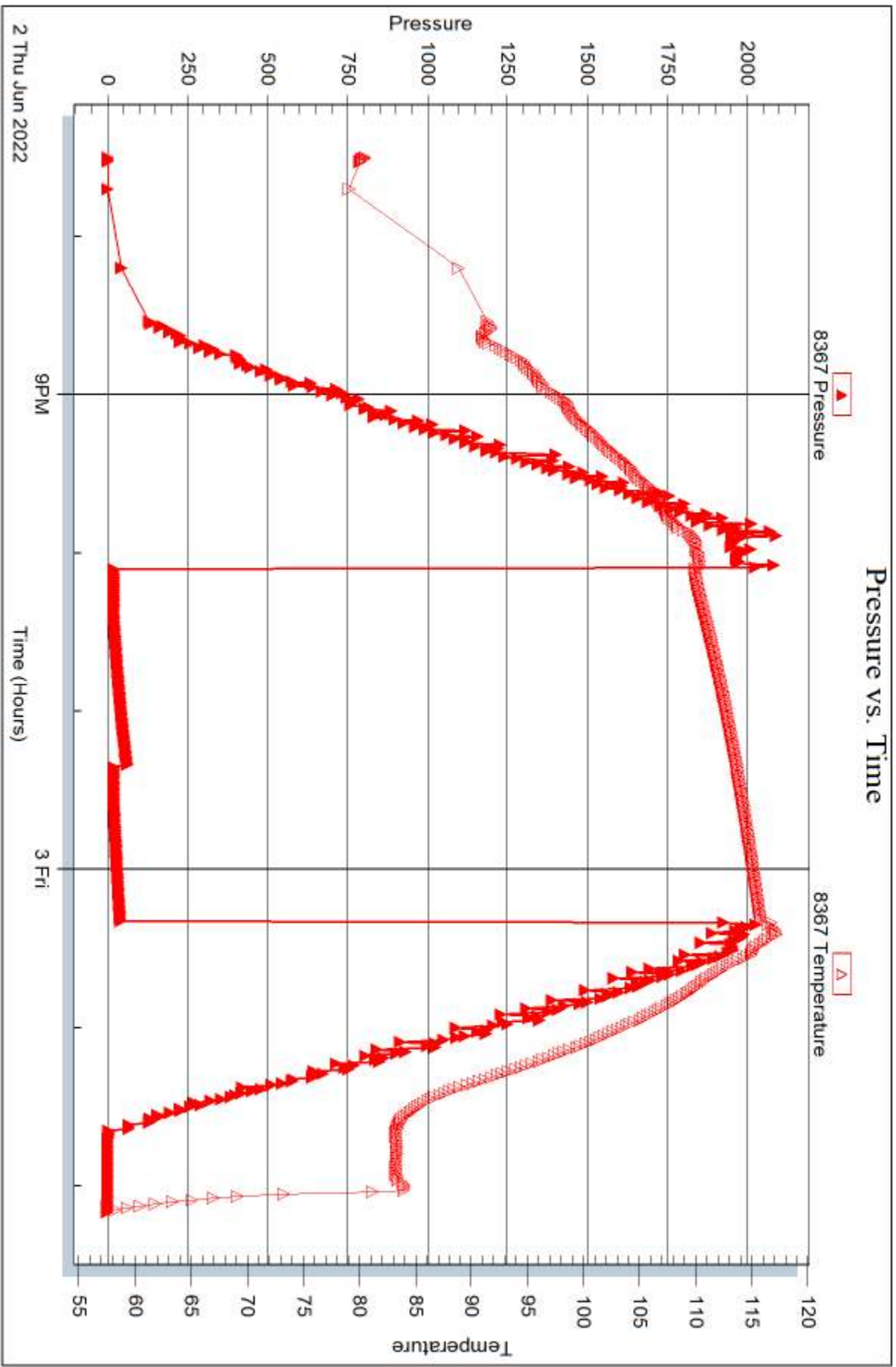
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration LLC**

1474 S St Paul St.  
Denver, CO 80210

ATTN: Clayton Camozzi

**DJ #1-22**

**22-5s-30w Decatur,KS**

Start Date: 2022.06.03 @ 08:47:00

End Date: 2022.06.03 @ 14:57:36

Job Ticket #: 68867                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2022.06.06 @ 12:07:33



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**22-5s-30w Decatur, KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68867

**DST#: 5**

ATTN: Clayton Camozzi

Test Start: 2022.06.03 @ 08:47:00

## GENERAL INFORMATION:

Formation: **LKC "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:51:21

Time Test Ended: 14:57:36

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 73

**Interval: 3981.00 ft (KB) To 4005.00 ft (KB) (TVD)**

Reference Elevations: 2881.00 ft (KB)

Total Depth: 4005.00 ft (KB) (TVD)

2876.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6771**

**Inside**

Press@RunDepth: 27.15 psig @ 3982.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.06.03

End Date:

2022.06.03

Last Calib.:

2022.06.03

Start Time:

08:47:01

End Time:

14:57:36

Time On Btm:

2022.06.03 @ 10:51:06

Time Off Btm:

2022.06.03 @ 12:46:06

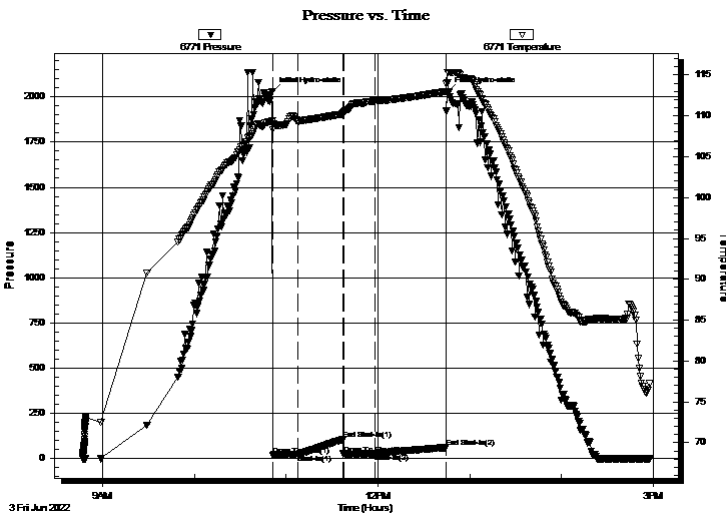
**TEST COMMENT:** 15 - IF: 1/8" Blow at open, built slightly then died back to surface blow

30 - IS: No blow

20 - FF: Very weak surface blow, dead by close

45 - FS: No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2028.54	109.47	Initial Hydro-static
1	19.75	108.28	Open To Flow (1)
17	22.97	109.37	Shut-In(1)
46	104.62	110.22	End Shut-In(1)
47	25.30	110.32	Open To Flow (2)
67	27.15	111.82	Shut-In(2)
114	61.16	112.99	End Shut-In(2)
115	2026.40	115.26	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM 83% m, 17% o	0.07

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68867

**DST#: 5**

ATTN: Clayton Camozzi

Test Start: 2022.06.03 @ 08:47:00

## Tool Information

Drill Pipe:	Length: 3738.00 ft	Diameter: 3.80 inches	Volume: 52.43 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: 20000.00 lb
Drill Collar:	Length: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 76000.00 lb
			<u>Total Volume: 53.59 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3981.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3949.00	
Shut In Tool	5.00			3954.00	
Hydraulic tool	5.00			3959.00	
Jars	5.00			3964.00	
EM Tool	4.00			3968.00	
Safety Joint	3.00			3971.00	
Packer	5.00			3976.00	33.00 Bottom Of Top Packer
Packer	5.00			3981.00	
Stubb	1.00			3982.00	
Recorder	0.00	6771	Inside	3982.00	
Recorder	0.00	8367	Outside	3982.00	
Perforations	20.00			4002.00	
Bullnose	3.00			4005.00	24.00 Bottom Packers & Anchor

**Total Tool Length: 57.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68867

**DST#: 5**

ATTN: Clayton Camozzi

Test Start: 2022.06.03 @ 08:47:00

### 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: 69.00 sec/qt

Cushion Volume: bbl

Water Loss: 6.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 1100.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	OCM 83% <sub>m</sub> , 17% <sub>o</sub>	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

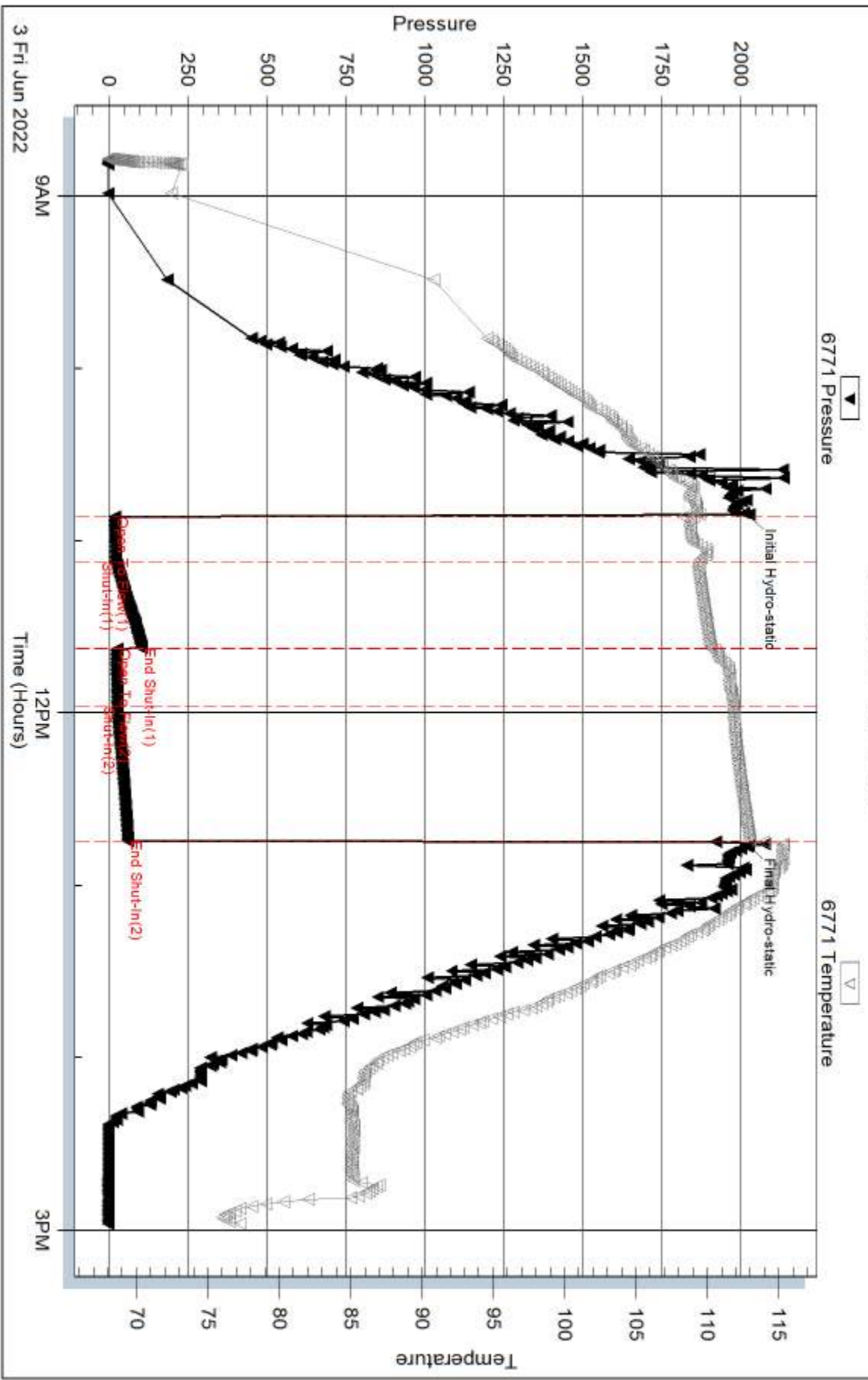
Laboratory Name:

Laboratory Location:

Recovery Comments:



### Pressure vs. Time

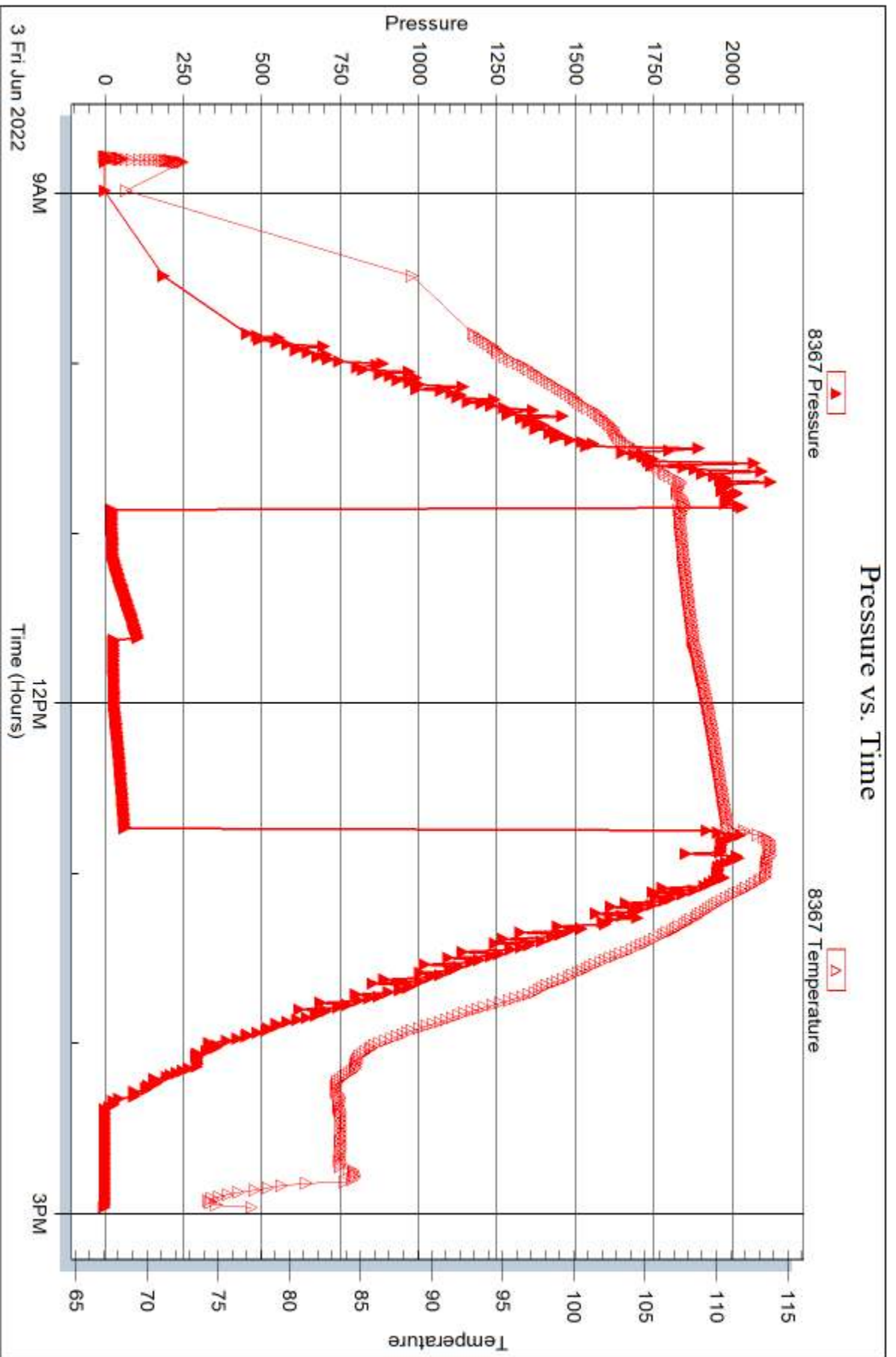


Serial #: 8367

Outside Black Oak Exploration LLC

DJ #1-22

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 68867

Printed: 2022.06.06 @ 12:07:34



## DRILL STEM TEST REPORT

Prepared For: **Black Oak Exploration LLC**

1474 S St Paul St.  
Denver, CO 80210

ATTN: Clayton Camozzi

**DJ #1-22**

**22-5s-30w Decatur,KS**

Start Date: 2022.06.04 @ 10:07:00

End Date: 2022.06.04 @ 18:54:05

Job Ticket #: 68868                      DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2022.06.06 @ 12:06:55



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Black Oak Exploration LLC

**22-5s-30w Decatur, KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68868

**DST#: 6**

ATTN: Clayton Camozzi

Test Start: 2022.06.04 @ 10:07:00

## GENERAL INFORMATION:

Formation: **LKC "K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:00:06

Time Test Ended: 18:54:05

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 73

**Interval: 4088.00 ft (KB) To 4121.00 ft (KB) (TVD)**

Reference Elevations: 2881.00 ft (KB)

Total Depth: 4121.00 ft (KB) (TVD)

2876.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6771**

**Inside**

Press@RunDepth: 143.02 psig @ 4089.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2022.06.04

End Date:

2022.06.04

Last Calib.:

2022.06.04

Start Time: 10:07:01

End Time:

18:54:05

Time On Btm:

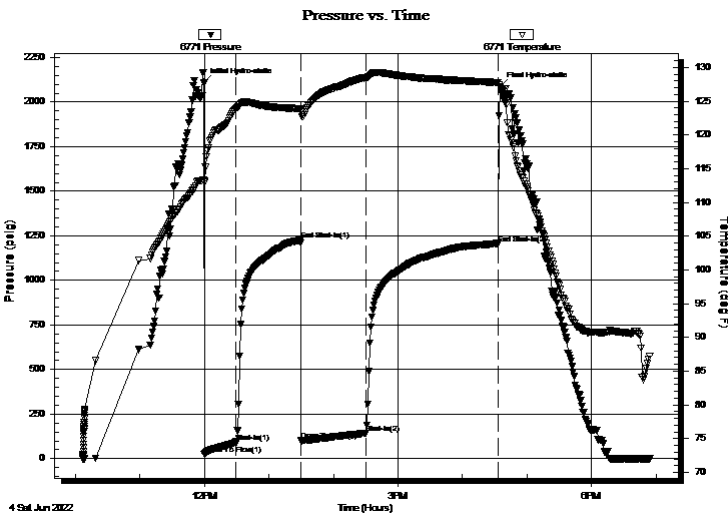
2022.06.04 @ 11:59:51

Time Off Btm:

2022.06.04 @ 16:34:51

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") at 28 min.  
60 - ISI: Blow back built to just under 1" then died back  
60 - FF: Blow built to BOB at 17 min., built to 20 1/2"  
120 - FSI: Blow back built to 2" then died back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2106.79	113.23	Initial Hydro-static
1	25.44	112.99	Open To Flow (1)
30	90.49	123.89	Shut-In(1)
90	1226.45	123.90	End Shut-In(1)
91	100.37	123.47	Open To Flow (2)
151	143.02	128.47	Shut-In(2)
273	1206.52	127.76	End Shut-In(2)
275	2088.00	126.98	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
80.00	GHOCM 50% m, 33% o, 17% g	0.39
266.00	CGO 79% o, 21% g	2.31
0.00	GIP = 645'+	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68868

**DST#: 6**

ATTN: Clayton Camozzi

Test Start: 2022.06.04 @ 10:07:00

## Tool Information

Drill Pipe:	Length: 3834.00 ft	Diameter: 3.80 inches	Volume: 53.78 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: 20000.00 lb
Drill Collar:	Length: 236.00 ft	Diameter: 2.25 inches	Volume: 1.16 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 54.94 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 71000.00 lb
Depth to Top Packer:	4088.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	33.00 ft			
Tool Length:	66.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4056.00	
Shut In Tool	5.00			4061.00	
Hydraulic tool	5.00			4066.00	
Jars	5.00			4071.00	
EM Tool	4.00			4075.00	
Safety Joint	3.00			4078.00	
Packer	5.00			4083.00	33.00 Bottom Of Top Packer
Packer	5.00			4088.00	
Stubb	1.00			4089.00	
Recorder	0.00	6771	Inside	4089.00	
Recorder	0.00	8367	Outside	4089.00	
Perforations	29.00			4118.00	
Bullnose	3.00			4121.00	33.00 Bottom Packers & Anchor

**Total Tool Length: 66.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Black Oak Exploration LLC

**22-5s-30w Decatur,KS**

1474 S St Paul St.  
Denver, CO 80210

**DJ #1-22**

Job Ticket: 68868

**DST#: 6**

ATTN: Clayton Camozzi

Test Start: 2022.06.04 @ 10:07:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32.8 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 70.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
80.00	GHOCM 50%m, 33%o, 17%g	0.393
266.00	CGO 79%o, 21%g	2.310
0.00	GIP = 645'+	0.000

Total Length: 346.00 ft      Total Volume: 2.703 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

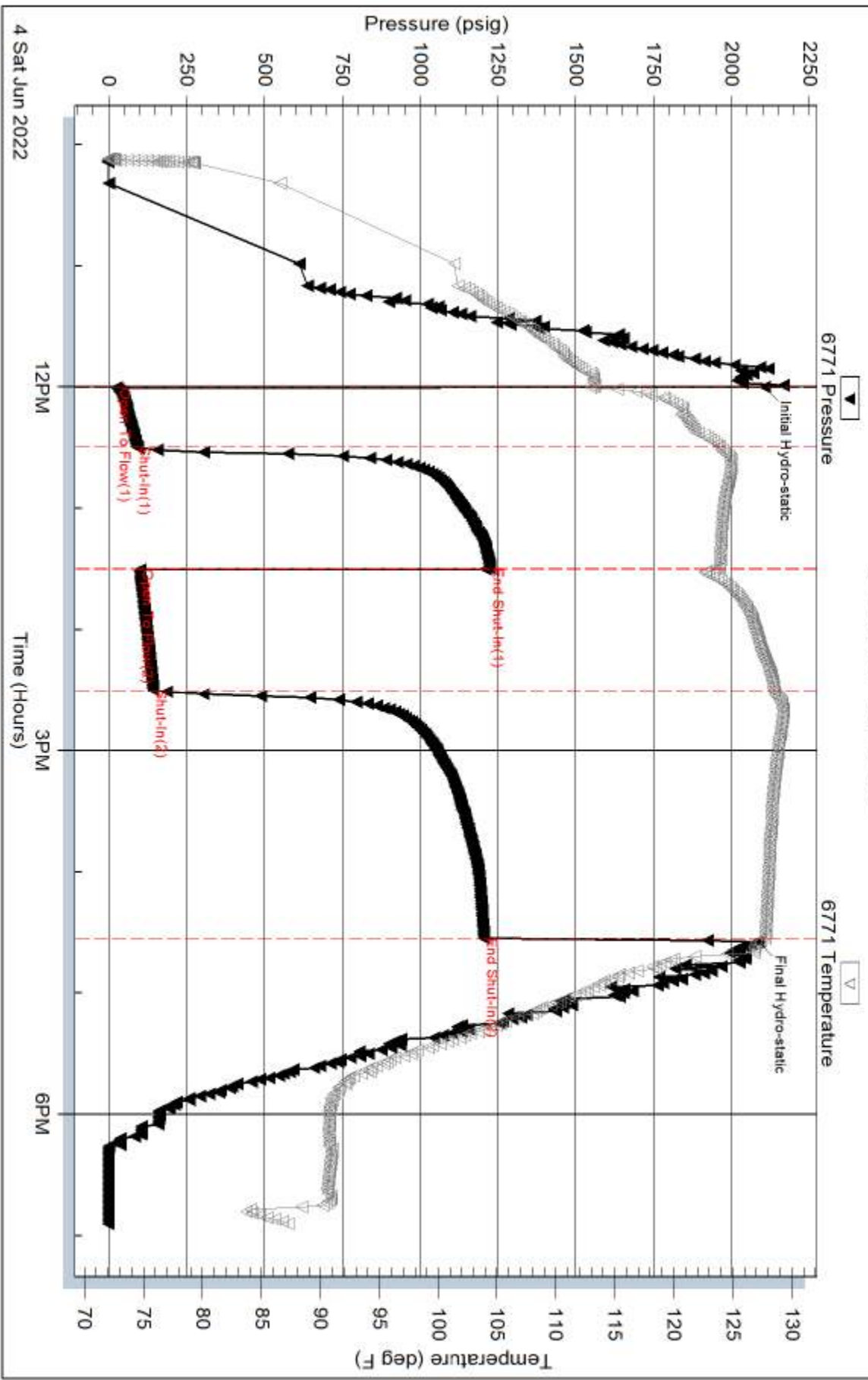
Serial #:

Laboratory Name:

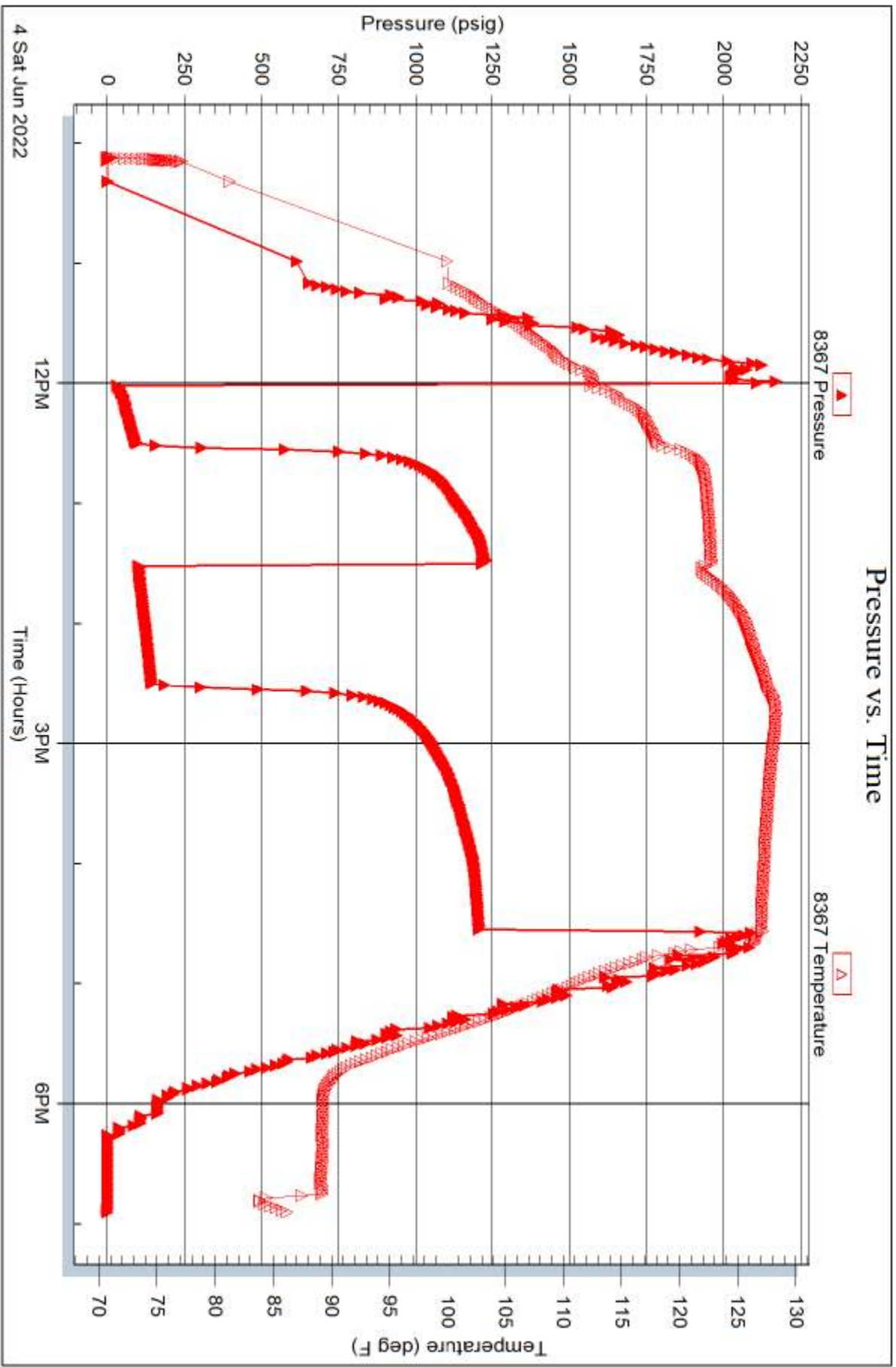
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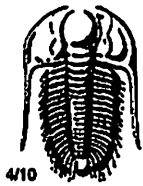
Recovery Comments: Gravity = 35.6 api @ 88 deg F Corrected Gravity = 32.8 api

### Pressure vs. Time









# TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 68863 27004

Well Name & No. DJ #1-22 Test No. 1 Date 6-1-22  
 Company Black Oak Exploration LLC Elevation 2881 KB 2876 GL  
 Address 1474 S. St Paul St Denver CO 80210  
 Co. Rep / Geo. Clayton Camozzi Rig Murfin #7  
 Location: Sec. 22 Twp 5S Rge. 30W Co. Decatur State KS

Interval Tested 3908 - 3940 Zone Tested Toronto - Lans. "A"  
 Anchor Length 32 Drill Pipe Run 3644 Mud Wt. 8.8  
 Top Packer Depth 3903 Drill Collars Run 236 Vls 75  
 Bottom Packer Depth 3908 Wt. Pipe Run - WL 6.0  
 Total Depth 3940 Chlorides 600 ppm System LCM 5  
 Blow Description IF: 1/4" Blow at open, died back to 1/8" at end of open  
ISI: No blow  
FF: No blow  
FST: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

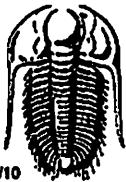
Rec Total 15 BHT 117 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1945  Test 1800 T-On Location 23:50 5/31  
 (B) First Initial Flow 16  Jars 300 T-Started 1:30  
 (C) First Final Flow 19  Safety Joint \_\_\_\_\_ T-Open 4:00  
 (D) Initial Shut-In 1240  Circ Sub \_\_\_\_\_ T-Pulled 6:02  
 (E) Second Initial Flow 21  Hourly Standby \_\_\_\_\_ T-Out 8:00 6/1  
 (F) Second Final Flow 23  Mileage 48 RT 72 Comments \_\_\_\_\_  
 (G) Final Shut-In 1237  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1937  Straddle \_\_\_\_\_  EM Tool \_\_\_\_\_

Initial Open 20  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 45  Ruined Packer \_\_\_\_\_  
 Final Flow 10  Extra Copies \_\_\_\_\_  
 Final Shut-In 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 2172  
 Accessibility \_\_\_\_\_ Sub Total 2172 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative James Winder

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



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 68864

Well Name & No. DJ #1-22 Test No. 2 Date 6-1-22  
 Company Black Oak Exploration LLC Elevation 2881 KB 2876 GL  
 Address 1474 S. St Paul St. Denver CO 80210  
 Co. Rep / Geo. Clayton Camozzi Rig murfm #7  
 Location: Sec. 22 Twp 5s Rge. 30w Co. Decatur State KS

Interval Tested 3938-3960 Zone Tested Lans. "C"  
 Anchor Length 22 Drill Pipe Run 3675 Mud Wt. 9.1  
 Top Packer Depth 3933 Drill Collars Run 236 Vis 63  
 Bottom Packer Depth 3938 Wt. Pipe Run - WL 6.0  
 Total Depth 3960 Chlorides 600 ppm System LCM 5  
 Blow Description IF: 1/8" Blow at open, built to almost 1/2", stayed there till close  
ISI: No blow  
Pulled Tools

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>OM</u>	<u>50</u>		<u>50</u>	
<u>20</u>	<u>50CM</u>	<u>8</u>		<u>92</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 25 BHT 112 Gravity 1800 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1978  Test 1800 T-On Location 14:05  
 (B) First Initial Flow 20  Jars 300 T-Started 17:11  
 (C) First Final Flow 27  Safety Joint \_\_\_\_\_ T-Open 19:02  
 (D) Initial Shut-In 1229  Circ Sub \_\_\_\_\_ T-Pulled 20:09  
 (E) Second Initial Flow -  Hourly Standby \_\_\_\_\_ T-Out 22:25  
 (F) Second Final Flow -  Mileage 48RT 72 Comments Rig hit tight spot  
 (G) Final Shut-In -  Sampler \_\_\_\_\_ had to go back CTC#  
 (H) Final Hydrostatic 1969  Straddle \_\_\_\_\_  EM Tool \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 20  Day Standby \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 45  Accessibility \_\_\_\_\_ Total 2172  
 Final Flow - Sub Total 2172 MP/DST Disc't \_\_\_\_\_  
 Final Shut-In -

Approved By \_\_\_\_\_ Our Representative James Warden  
 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. 68865

Well Name & No. DJ #1-22 Test No. 3 Date 6-2-22  
 Company Black Oak Exploration LLC Elevation 2881 KB 2876 GL  
 Address 1474 S St Paul St Denver CO 80210  
 Co. Rep / Geo. Clayton Camozzi Rig Murfin #7  
 Location: Sec. 22 Twp 5S Rge. 30W Co. Decatur State KS

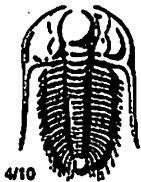
Interval Tested 3961 - 3980 Zone Tested Lans. "D"  
 Anchor Length 19 Drill Pipe Run 3707 Mud Wt. 9.1  
 Top Packer Depth 3956 Drill Collars Run 236 Vis 63  
 Bottom Packer Depth 3961 Wt. Pipe Run - WL 6.0  
 Total Depth 3980 Chlorides 600 ppm System LCM 5  
 Blow Description IF: Blow built to 8"  
ISI: No blowback  
FF: Blow built to 9 3/4"  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>135</u>	<u>mcw w/trace oil</u>	<u>trace</u>	<u>72</u>	<u>28</u>	<u></u>
<u>300</u>	<u>smcw w/trace oil</u>	<u>trace</u>	<u>94</u>	<u>6</u>	<u></u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 435 BHT 129 Gravity API RW 175 @ 83 °F Chlorides 36 000 ppm

(A) Initial Hydrostatic 1990  Test 1800 T-On Location 4:55  
 (B) First Initial Flow 22  Jars 300 T-Started 5:38  
 (C) First Final Flow 145  Safety Joint T-Open 7:14  
 (D) Initial Shut-In 1153  Circ Sub T-Pulled 9:47  
 (E) Second Initial Flow 150  Hourly Standby T-Out 11:45  
 (F) Second Final Flow 213  Mileage 48 RT 72 Comments \_\_\_\_\_  
 (G) Final Shut-In 1150  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1988  Straddle \_\_\_\_\_  EM Tool \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total 0  
 Accessibility \_\_\_\_\_ Total 2172  
 Sub Total 2172 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative James Winder  
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# TRIOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 68866

Well Name & No. DJ #1-22 Test No. 4 Date 6-2-22  
 Company Black Oak Exploration LLC Elevation 2881 KB 2876 GL  
 Address 1474 S St Paul St Denver CO 80210  
 Co. Rep / Geo. Clayton Camozzi Rig Murfin #7  
 Location: Sec. 22 Twp 5S Rge. 30W Co. Decatur State KS

Interval Tested 3982-3998 Zone Tested Lans "F"  
 Anchor Length 16 Drill Pipe Run 3738 Mud Wt. 9.1  
 Top Packer Depth 3977 Drill Collars Run 236 Vis 62  
 Bottom Packer Depth 3982 Wt. Pipe Run - WL 6.4  
 Total Depth 3998 Chlorides 700 ppm System LCM 4

Blow Description IF: weak surface blow, dead by 11 min.  
ISI: No blow  
FF: No blow  
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>OCM</u>	<u>20</u>		<u>80</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

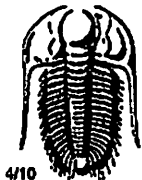
Rec Total 1 BHT 117 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2022  Test 1800 T-On Location 18:40 6/2  
 (B) First Initial Flow 17  Jars 300 T-Started 19:30  
 (C) First Final Flow 18  Safety Joint \_\_\_\_\_ T-Open 22:05  
 (D) Initial Shut-In 60  Circ Sub \_\_\_\_\_ T-Pulled 00:20  
 (E) Second Initial Flow 18  Hourly Standby \_\_\_\_\_ T-Out 2:10 6/3  
 (F) Second Final Flow 18  Mileage 48RT 72 Comments \_\_\_\_\_  
 (G) Final Shut-In 38  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2025  Straddle \_\_\_\_\_  EM Tool \_\_\_\_\_

Initial Open 15  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 60  Ruined Packer \_\_\_\_\_  
 Final Flow 10  Extra Copies \_\_\_\_\_  
 Final Shut-In 45  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 2172  
 Accessibility \_\_\_\_\_ Sub Total 2172 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative James Wink

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 68867

Well Name & No. DJ #1-22 Test No. 5 Date 6-3-22  
 Company Black Oak Exploration LLC Elevation 2881 KB 2876 GL  
 Address 1474 S St Paul St. Denver CO 80210  
 Co. Rep / Geo. Clayton ~~Camozzi~~ Camozzi Rig Murfin #7  
 Location: Sec. 22 Twp 5s Rge. 30w Co. Decatur State KS

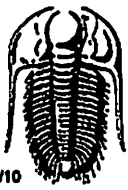
Interval Tested 3981 - 4005 Zone Tested Lans "F"  
 Anchor Length 24 Drill Pipe Run 3738 Mud Wt. 9.3  
 Top Packer Depth 3976 Drill Collars Run 236 Vls 69  
 Bottom Packer Depth 3981 Wt. Pipe Run - WL 6.8  
 Total Depth 4005 Chlorides 1100 ppm System LCM 4  
 Blow Description IF: 1/8" Blow at open, built slightly then died back to surface  
ISI: No blow blow  
FF: Very weak surface blow, dead by close  
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>OCM</u>	<u>17</u>		<u>83</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15 BHT 113 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 2029  Test 1950 T-On Location 7:50  
 (B) First Initial Flow 20  Jars 300 T-Started 8:47  
 (C) First Final Flow 23  Safety Joint \_\_\_\_\_ T-Open 10:51  
 (D) Initial Shut-In 105  Circ Sub \_\_\_\_\_ T-Pulled 12:44  
 (E) Second Initial Flow 25  Hourly Standby \_\_\_\_\_ T-Out 14:55  
 (F) Second Final Flow 27  Mileage 48RT 72 Comments \_\_\_\_\_  
 (G) Final Shut-In 61  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2026  Straddle \_\_\_\_\_  EM Tool \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 2322 Sub Total 2322 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative James Winder  
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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 68868

Well Name & No. DJ #1-22 Test No. 6 Date 6-4-22  
 Company Black Oak Exploration LLC Elevation 2881 KB 2876 GL  
 Address 1474 S St Paul St Denver CO 80210  
 Co. Rep / Geo. Clayton Camozzi Rig Murfin #7  
 Location: Sec. 22 Twp 5S Rge. 30W Co. Decatur State KS

Interval Tested 4088 - 4121 Zone Tested Lans. "K"  
 Anchor Length 33 Drill Pipe Run 3834 Mud.Wt. 9.2  
 Top Packer Depth 4083 Drill Collars Run 236 Vis 70  
 Bottom Packer Depth 4088 Wt. Pipe Run - WL 6.4  
 Total Depth 4121 Chlorides 1100 ppm System LCM 4

Blow Description IF: Blow built to BOB (11") at 28 min.  
ISI: Blowback built to just under 1", then died back  
FF: Blow built to BOB at 17 min., built to 20 1/2"  
FSI: Blowback built to 2" then died back

Rec	Feet of	%gas	%oil	%water	%mud
<u>266</u>	<u>CGO</u>	<u>21</u>	<u>79</u>		
<u>80</u>	<u>GHOCM</u>	<u>17</u>	<u>33</u>	<u>50</u>	
	<u>GIP = 645'</u>				

Rec Total 346 BHT 128 Gravity 32.8 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 2107  
 (B) First Initial Flow 25  
 (C) First Final Flow 90  
 (D) Initial Shut-In 1226  
 (E) Second Initial Flow 100  
 (F) Second Final Flow 143  
 (G) Final Shut-In 1207  
 (H) Final Hydrostatic 2088

Test 1950  
 Jars 300  
 Safety Joint  
 Circ Sub  
 Hourly Standby  
 Mileage 48RTx2 144  
 Sampler  
 Straddle  
 Shale Packer  
 Extra Packer  
 Extra Recorder  
 Day Standby ? 1d 1.75h  
 Accessibility  
 Sub Total 2394

T-On Location 9:20  
 T-Started 10:07  
 T-Open 12:00  
 T-Pulled 16:32  
 T-Out 18:55  
 Comments Tools loaded  
20:45 6-5-22  
 EM Tool -350  
 Ruined Shale Packer  
 Ruined Packer  
 Extra Copies  
 Sub Total 800 -350  
 Total 2844  
 MP/DST Disc't

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 120

Approved By \_\_\_\_\_

Our Representative James Winder

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# BLACK OAK



## EXPLORATION

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

Well Name: DJ 1-22  
Well Id:  
Location: Section 22 - 5S - 30W Decatur Co, Kansas  
License Number: API # 15-039-21283  
Spud Date: May 28th 2022  
Surface Coordinates: 2380' FSL & 1085' FWL  
Region: Unknown  
Drilling Completed: June 5th 2022

Bottom Hole  
Coordinates:  
Ground Elevation (ft): 2876'      K.B. Elevation (ft): 2881'  
Logged Interval (ft): 3650      To: 4240'      Total Depth (ft): 4240'  
Formation: Lansing Kansas City  
Type of Drilling Fluid: Chemical Gel/Polymer Fresh Water -Based

Printed by WellSight LogViewer from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

### OPERATOR

Company: BLACK OAK EXPLORATION, LLC  
Address: 1474 S St Paul St  
Denver CO 80210

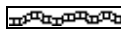
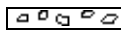
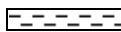

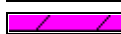





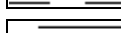



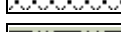




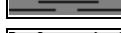



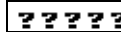
### GEOLOGIST

Name: TIM HEDRICK  
Company: EARTH TECH OGL,INC  
Address: Po BOX 683  
Hooker, okla. 73945  
580-754-0062 Cell



## ROCK TYPES
















### LITHOLOGY

-  Anhy
-  Bent
-  Brec
-  Cht
-  Clyst
-  Coal
-  Congl
-  Dol
-  Gyp
-  Igne
-  Lmst
-  Meta
-  Mrst
-  Salt
-  Shale
-  Shcol
-  Shgy
-  Slst
-  Ss
-  Till
-  Slstsn
-  Shale
-  Sandylms
-  Lms
-  Gry sh
-  Dtd
-  Dol
-  Carb sh
-  pipesymbol
-  unknown lith
-  Red shale

### FOSSIL

-  Oomoldic
-  Fuss
-  Algae

### MINERAL

-  Sltly
-  Sand
-  Dol
-  Chlorite
-  Anhy
-  Arggrn
-  Arg
-  Bent
-  Bit
-  Brecfrag
-  Calc
-  Carb
-  Chtdk
-  Chtlt
-  Dol

### STRINGER

-  Sh
-  Sandylms
-  Lms
-  Gryslt
-  Grysh
-  Dol
-  Clystn
-  Carbsh
-  Anhy
-  Arg
-  Bent
-  Coal
-  Dol
-  Gyp
-  Ls
-  Mrst
-  Slststrg












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

- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymn
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff








Ssstrg





### TEXTURE

-  Boundst
-  Chalky
-  Cryxln
-  Earthy
-  Finexln
-  Grainst
-  Lithogr
-  Microxln
-  Mudst
-  Packst
-  Wackest






### OIL SHOW

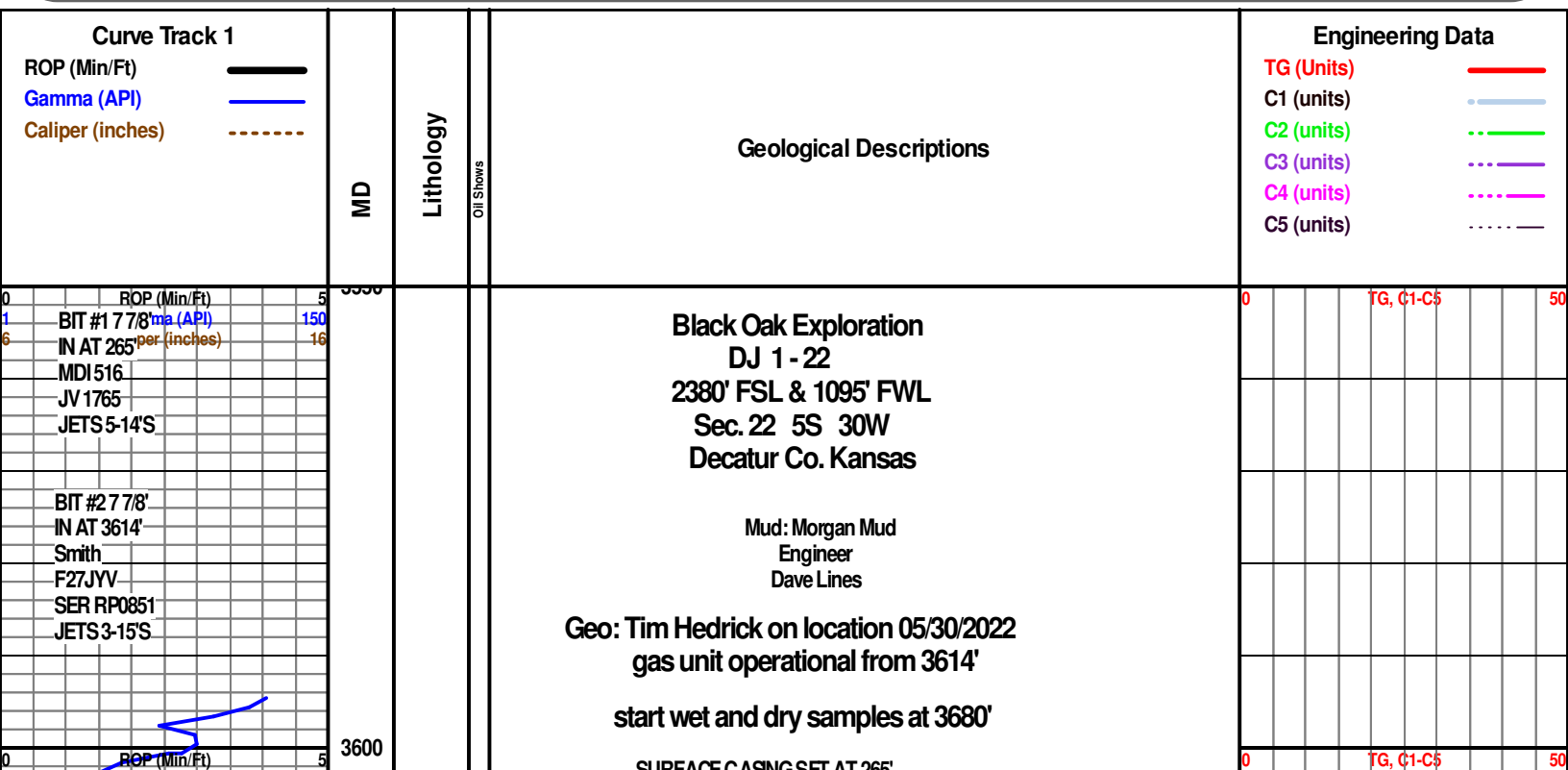
-  Gas show
-  Even
-  Spotted
-  Ques
-  Dead

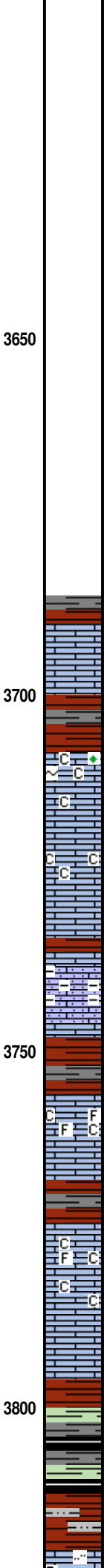
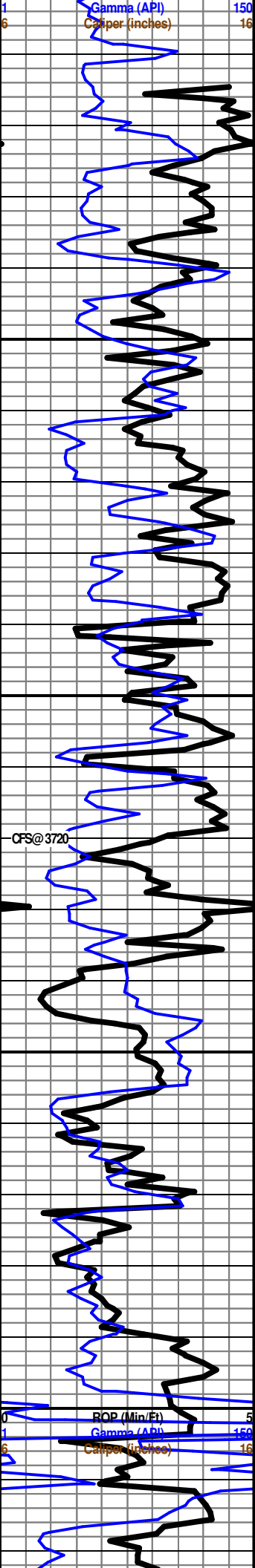
### INTERVAL

-  Dst
-  Core
-  Dst
-  Straddle test tail pip

### EVENT

-  Rft
-  Sidewall
-  Dst
-  Open hole
-  Perforations





Limestone- cream light tan hard dense to trace brittle micro crystalline very tight sucrosic in part with embed red soft shale in part, no fluorescence, no visible porosity, no visible show or cut

**Topeka 3708' - ( 827')**

Limestone- cream off white hard very brittle, sucrosic sub chalky matrix grading to firm to soft white chalk in part, embed chlorite and or glauconite in part, dull yellow fluorescence, no visible porosity, no visible show

Limestone- cream Off white to white, hard brittle to soft in part, very sucrosic to sucrosic sub chalky matrix, trace of small calcite crystals in part, dull yellow fluorescence in part, no visible porosity, no visible show

Limestone- cream light gray, hard brittle very sucrosic matrix abundant embed very fine clear quartz grains thruout with embed finely disseminated shale thruout, no fluorescence, poor intergranular porosity in part, no visible show

**Deer Creek 3756' - ( 875')**

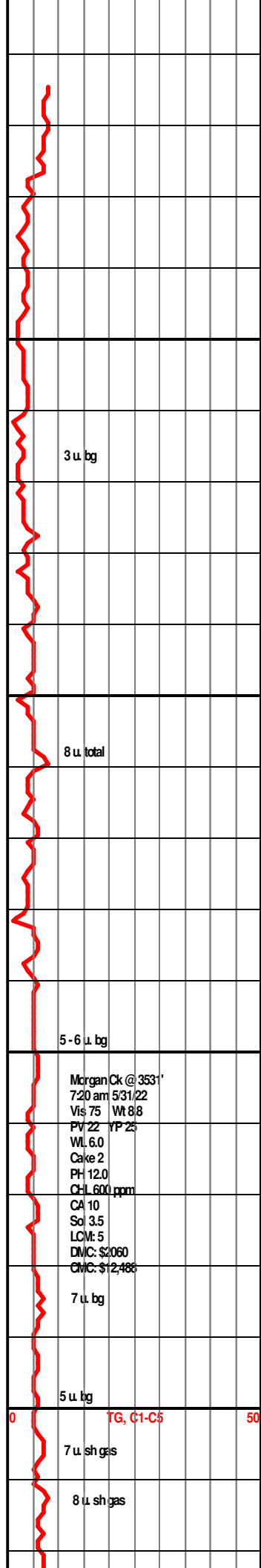
Limestone- off white cream hard brittle to soft in part, sucrosic in part to Recrystalline with embed fossil fragments scattered thruout, heavy trace of embed chalk in part to free soft white chalk , dull to light yellow fluorescence, poor visible inter-fossiliferous porosity in part, no visible show or cut

Shale- red soft gummy texture

limestone- off white white to cream, hard to very brittle in part, very sucrosic sub chalky matrix, re-crystalline in part, scattered embed small fossil fragments in part, abundant free soft white chalk, dull yellow mineral fluorescence, no visible porosity. no show or cut

Shale - black soft carbonaceous to green to greenish gray smooth texture to reddish slightly silty in part

**LeCompton 3819' - ( 938')**



3 u. bg

8 u. total

5 - 6 u. bg

Morgan Ck @ 3531'  
7:20 am 5/31/22  
Vis 75 Wt 8.8  
PV 22 YP 25  
WL 6.0  
Cake 2  
PH 12.0  
CHL 600 ppm  
CA 10  
Sol 3.5  
LOM: 5  
DMC: \$2060  
CMC: \$12,486

7 u. bg

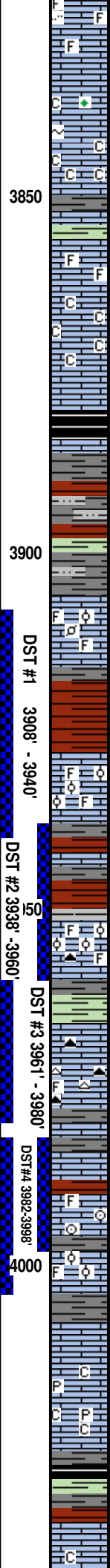
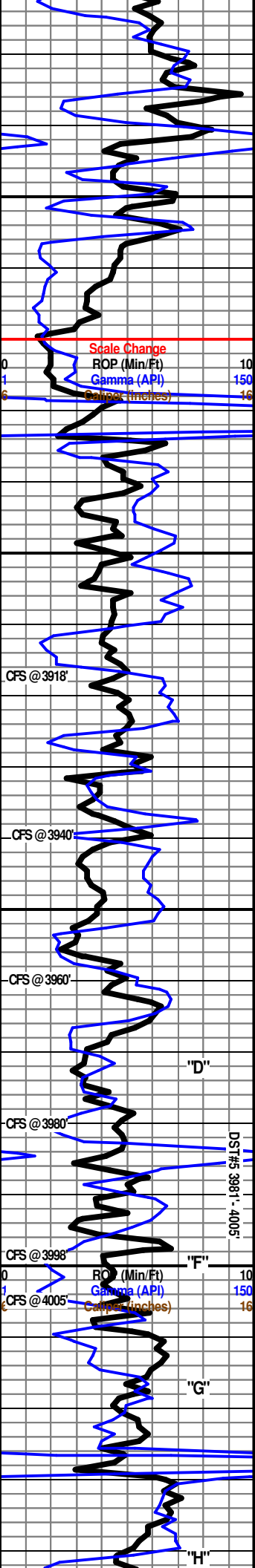
5 u. bg

7 u. sh gas

8 u. sh gas

TG, C1-C5

50



Limestone- cream light tan- hard dense traces brittle, very fine crystalline to sucrosic in part, traces of fossil fragments in part to traces of embed very fine grain quartz in part, no fluorescence, no visible porosity, no visible show

Limestone- cream off white to white, hard very brittle re-crystalline matrix embed fossil fragments scattered in 60%, embed glauconite or chlorite, grading to abundant firm to soft white chalk dull to tight yellow mineral fluorescence, no visible porosity, no visible show

Shale green to greenish gray firm blocky smooth texture very calcareous

Limestone, cream, hard to very brittle, sucrosic matrix in upper with embed fossil fragments embed grading to sucrosic sub chalky, abundant white free soft chalk, dull yellow fluorescence. poor inter fossiliferous to poor micro vug porosity in 20% to no porosity in part, no visible show or cut

**Heebner 3880' - (999')**

Limestone- tan light tan, hard dense very fine to crypto-crystalline, trace small calcite crystals in part, dull yellow mineral fluorescence, no visible porosity, no visible show

Shales- red green gray mottled, firm blocky in part smooth texture to very soft silty in part

**Toronto 3906' - (1025')**

Limestone - white with dark tan to black live oil stain thruout, hard to brittle in part, fine crystalline re-crystalline with embed fossil fragments, small oolites embed in part, some free oolites in tray, small embed calcite crystals in part and traces of large free calcite crystals, live oil drops in tray, good odor in cup, dull yellow gold fluor. thruout, fair scattered vugular porosity, poor inter-oolitic porosity in part, poss fractured porosity, excellent flush to slow stream cut

**Lansing 3928' - (1047')**

Limestone- cream tan dark brown due to live oil stain thruout, very sucrosic matrix, embed fossil fragments thruout, small oolites embed thru, small calcite crystals in micro vugs, dull yellow gold fluorescence thruout, poor fair to good visible microvugular porosity, fair visible inter-crystalline porosity, fair inter-oolitic porosity in part, excellent flush to excellent slow stream cut thruout, fair oil odor live oil in dish

**Lansing C 3952' - (1071')**

Limestone- tan to light brown due to even oil stain thruout, hard in part to brittle very sucrosic re-crystalline matrix, embed fossil frags, embed and free small oolites, calcite crystals on one faces with oolites, traces gray chert, dull yellow gold fluorescence thruout, fair to good inter-crystalline to fair to good vugular porosity in 35%, traces good inter-oolitic porosity, excellent flush to excellent slow stream cut thruout, fair oil odor, free oil in tray skim oil in cup, trace of DOS

Limestone- cream light tan to dark brown oil stain thruout, hard to very brittle in part, fine crystalline to very coarse sucrosic matrix, embed fossil fragments in part, free gray reworked chert, free soft white chalk in part, dull yellow gold fluorescence thruout, poor to fair scattered microvug to vugular porosity in 30%, fair inter-crystalline porosity in 20%, excellent flush and slow stream cut thruout. abundant free oil, very good oil odor.

Limestone- (4 pieces) hard to brittle sucrosic matrix to fine crystalline in part, light tan oil stain thruout, dull yellow gold fluorescence, poor micro pinpoint porosity, light oil odor, oil drops in tray, excellent flush cut and slow stream cut thruout, stain on dish

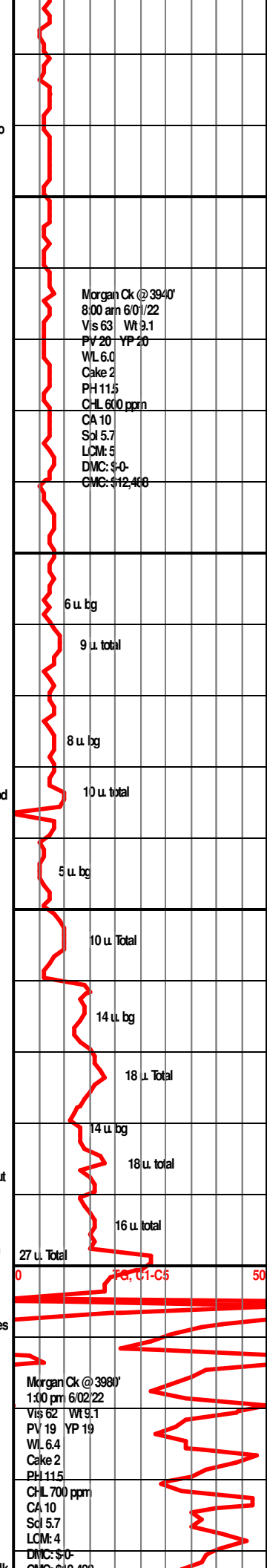
.3990-3996' Limestone hard dense in part to very brittle, tan oil stain thruout (5 pieces) fine crystalline re-crystalline matrix trace embed fossil fragments trace of free crinoid stems, small calcite crystals veragated on one faces with light oil stain on two rocks, dull yellow gold fluorescence thruout, trace of microvug porosity in part, live oil drops in tray, light oil odor, very good flush to very good slow stream cut thruout,

.3999-4003' Limestone cream light tan due to oil stain in 80%, hard to brittle, fine crystalline re-crystalline. micro oolites in 20% fossil fragments in 30%, soft white free chalk in part, dull yellow gold fluorescence thru to bright yellow gold fluorescence in 20%, poor interoolitic porosity to poor to fair inter-crystalline porosity in 10%, traces free oil in cup, very good flush cut to very good slow stream cut thruout, light oil odor

"G" - Limestone cream light tan to white hard dense micro crystalline with small calcite crystal embed grading to sucrosic sub chalky to chalky, trace of embed pyrite in part, light yellow mineral fluorescence in part, no visible porosity, no visible show or cut

Shale - green red soft gummy texture to very dark gray trace black carbonaceous

Limestone- cream light tan trace DOS in 18%, hard to brittle sucrosic sub chalky matrix with embed firm white chalk





4050

Shale black hard splinty

Shale- abundant gray reddish very soft gummy texture

**Lansing J 4078' - (1197')**

Limestone- hard to brittle cream light tan light brown due to oil stain medium to fine crystalline with spotted oil stain grading to sucrosic with even light brown oil stain thruout, dull yellow gold fluorescence thruout, poor visible micro pin point porosity to trace of microvugular porosity in part, good flush cut to good slow stream cut thruout , light oil odor

CFS@4092

**Lansing K 4101' - (1220')**

4101- 4106 Limestone cream light tan tan due to oil stain and traces of live oil in vugs, very brittle very sucrosic matrix re-crystalline in part, traces of fossil fragments in part dull yellow gold fluorescence thruout, poor to fair visible inter-crystalline to pin point porosity, very good flush cut to very good slow stream cut thruout, light oil odor, some free oil drops in tray

4106' - 4116 Limestone cream light tan tan with spotted tan oil stain in part, fine crystalline to sucrosic in part with oil stain on sucrosic part and spotted on the fine crystalline, dull yellow gold fluorescence thruout, poor pinpoint porosity in part to no porosity, very good flush cut thruout and good slow stream cut thruout, light oil odor , traces free oil in tray

CFS@4121

Limestone- white cream reddish brown, hard tight micro crystalline with laminated red shales thruout, fairly non descript, no fluorescence no visible porosity, no visible show

**BKC 4132' - 1251'**

Shale- red green purple black firm blocky to to gummy texture

Limestone and interbedded shales, white off white light gray, very soft white chalk to very soft gummy gray shales, no fluorescence, no visible porosity, no visible show or cut

4150

Shale - red to reddish brown - very soft gummy texture

Shale - red to green - mottled, firm blocky smooth texture to soft gummy in part

4200

Shales - red green gray- mottled very soft gummy texture to firm blocky in part

Shales- brownish red red to grayish green, firm blocky smooth texture to silty in part with traces of Limestone- gray very grainy to silty texture with laminated shales and quartz grains embed, trace of pellets, no fluorescence, no visible porosity, no visible show

Shale - light gray gray - very soft gummy texture

RTD @ 4240'

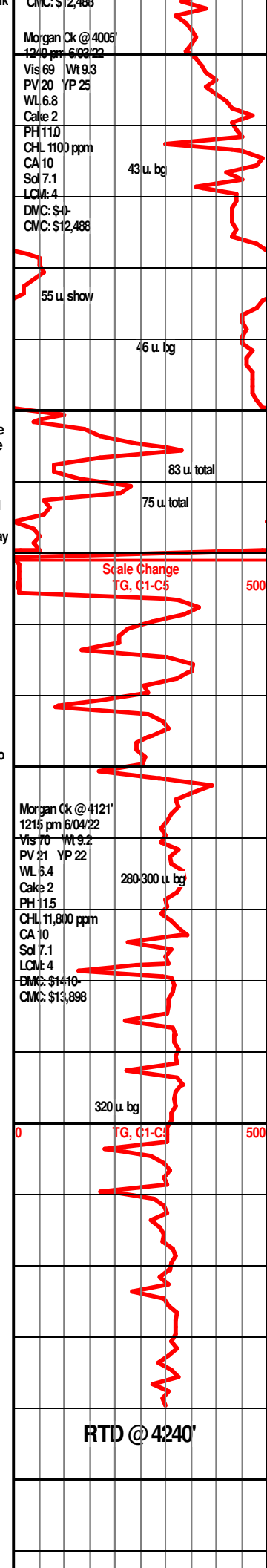
4250

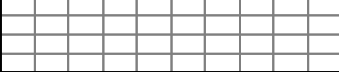
RTD @ 8:34 am June 5th 2022

CFS 1 hour

Short trip 10 stands

CTCH 1.5 hours





TOFL

