

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 _____ Recompletion Date _____

API No.: _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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

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

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

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	Arcadian Resources, LLC
Well Name	LIAM 3
Doc ID	1633586

All Electric Logs Run

Dual Induction Log
Dual Compensated Porosity Log
Micro Log
Cement Bond Log

Section 37, LLC

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY Arcadian Resources LLC

LEASE Liam #3

FIELD Wildcat

LOCATION 750' FSL & 1260' FWL

SEC 20 TWP 8S RGE 32W

COUNTY Thomas STATE Kansas

CONTRACTOR White Knight Drilling

SPUD 11/07/21 COMP 11/17/21

RTD 4734' LTD 4736'

MUD UP 3400' TYPE MUD Chemical

SAMPLES SAVED FROM 3740' TO RTD

DRILLING TIME KEPT FROM 3600' TO RTD

SAMPLES EXAMINED FROM 3740' TO RTD

GEOLOGICAL SUPERVISION FROM 3700'

REFERENCE WELL Liam #2-19

ELEVATIONS

KB 3116'

DF

GL 3111'

Measurements Are All From Kelly Bushing

CASING

CONDUCTOR

SURFACE 8-5/8" at 253'

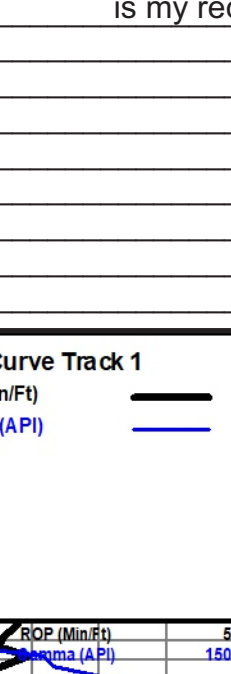
PRODUCTION 5.5" @ TD

ELECTRICAL SURVEYS

Midwest Wireline

CND/DIL. MIC

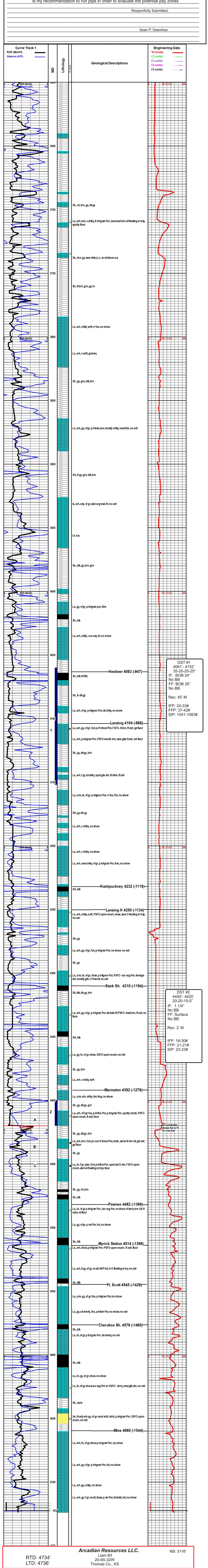
Formation	Sample Tops	E-log Tops	Struct. Fes.
Anhydrite	2718 (+398)	2718 (+398)	
Hebner Sh.	4064 (-988)	4065 (-949)	
Lansing	4105 (-989)	4104 (-988)	
Stark Shale	4309 (-1193)	4309 (-1193)	
Marmaton	4392 (-1276)	4392 (-1276)	
Pawnee	4482 (-1366)	4482 (-1366)	
Mississipp	4660 (-1544)	4660 (-1544)	



REMARKS The Liam #3 had multiple shows of oil including in the Altamont, Pawnee, and Myrick Station. Drill stem tests were not ran because of a broken surface pipe situation. It is my recommendation to run pipe in order to evaluate the potential pay zones

Respectfully Submitted,

Sean P. Deenihan



DST #1
4061' - 4152'
35-20-20-25"
IF: BOB 24"
No BB
FF: BOB 26"
No BB
Rec: 45' M
IFP: 24-33#
FFP: 37-42#
SIP: 1041-1083#

DST #2
4400' - 4420'
20-20-15-0"
IF: 1 1/4"
No BB
FF: Surface
No BB
Rec: 2' M
IFP: 19-30#
FFP: 21-21#
SIP: 23-23#

Section 37, LLC

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

COMPANY Arcadian Resources LLC

LEASE Liam #3

FIELD Wiclat

LOCATION 750' FSL & 1260' FWL

SEC 20 TWP 8S RGE 32W

COUNTY Thomas STATE Kansas

CONTRACTOR White Knight Drilling

SPUD 11/07/21 COMP 11/17/21

RTD 4734' LTD 4736'

MUD UP 3400' TYPE MUD Chemical

SAMPLES SAVED FROM 3740' TO RTD

DRILLING TIME KEPT FROM 3600' TO RTD

SAMPLES EXAMINED FROM 3740' TO RTD

GEOLOGICAL SUPERVISION FROM 3700'

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DF

GL 3111'

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CONDUCTOR

SURFACE 8-5/8" at 253'

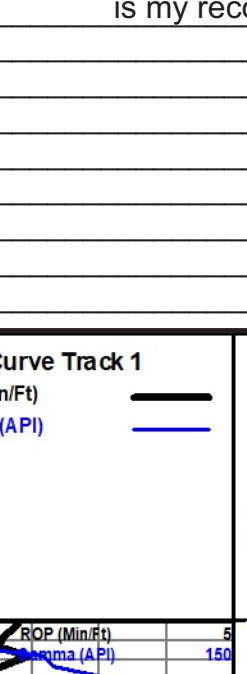
PRODUCTION 5.5" @ TD

ELECTRICAL SURVEYS

Midwest Wireline

CND/DIL. MIC

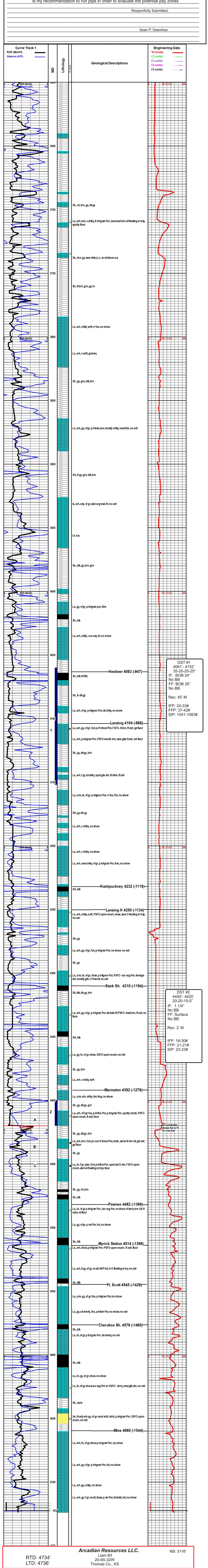
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4400' - 4420'
20-20-15-0"
IF: 1 1/4"
No BB
FF: Surface
No BB
Rec: 2' M
IFP: 19-30#
FFP: 21-21#
SIP: 23-23#

FRANKS Oilfield Service

◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269
 ◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 0448
 LOCATION Harvie
 FOREMAN Tom Williams

FIELD TICKET & TREATMENT REPORT CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
11-10-21	35252	Liam #3	20	R.5	32W	Thomas
CUSTOMER Arcadian Resources LLC			TRUCK #			
MAILING ADDRESS 313 E Kansas St.			DRIVER			
CITY Glen Elder			TRUCK #			
STATE KS			DRIVER			
ZIP CODE 67496			TRUCK #			
			DRIVER			

JOB TYPE Surface HOLE SIZE 12 1/4" HOLE DEPTH 253' CASING SIZE & WEIGHT 6 5/8" 23#
 CASING DEPTH 251' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 14.8 SLURRY VOL 1.4 WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT 14.6 Bbl DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: safety meeting & rig up White Knite. Circulate made. Pump 5 Bbl
water + mix 1855x 3% ca 2% gel. ~~DP~~ Displace 14.6 Bbl. Shut in
Cement did circulate

Thanks Tom & Scott

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
P002	1	PUMP CHARGE	\$1150 ⁰⁰	\$1150 ⁰⁰
M001	30	MILEAGE	\$6 ⁵⁰	\$195 ⁰⁰
M002	9.13 tons	Ton Mileage delivery	\$400 ⁰⁰	\$400 ⁰⁰
C004	1855x	Class A 3% calcium 2% gel	\$24 ⁵⁰	\$4,532 ⁵⁰
			sub total	\$6,477 ⁵⁰
			less 25% disc.	\$1,619 ³⁸
			sub total	\$4,828 ¹²
			SALES TAX	280.45
			ESTIMATED TOTAL	5138.57

AUTHORIZATION _____ TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

FRANKS Oilfield Service

◆ 815 Main Street Victoria, KS 67671 ◆ 24 Hour Phone (785) 639-7269
 ◆ Office Phone (785) 639-3949 ◆ Email: franksoilfield@yahoo.com

TICKET NUMBER 0452
 LOCATION Hoxie
 FOREMAN Tam Williams

FIELD TICKET & TREATMENT REPORT CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
11-19-21	35252	Liam #3	20	9S	32W	Thomas
CUSTOMER Arcadian Resources LLC			TRUCK #			
MAILING ADDRESS 313 E Kansas St.			DRIVER			
CITY Glen Elder			TRUCK #			
STATE KS			DRIVER			
ZIP CODE 67496			TRUCK #			
			DRIVER			

JOB TYPE top to bottom HOLE SIZE _____ HOLE DEPTH 47 CASING SIZE & WEIGHT 5 1/2"
 CASING DEPTH 4647' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 11.7/14.7 SLURRY VOL 228/1.4 WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT 113 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting & rig up on White Knight Circulate mod.
Mix 500gal mod flush followed by 20 Bbl KCL water. Mix 475 sy ^{wt} 140
& pump down hole, 30 sacks in rat hole, followed by 250 sy DWL.
Pump latch down plug with 113 Bbl Release pressure. Ruckup more of

Thanks Tam & Crew

cement did circulate.

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
PL004	1	PUMP CHARGE	\$2500 ⁰⁰	\$2500 ⁰⁰
M001	32	MILEAGE	\$6 ⁵⁰	\$208 ⁰⁰
M002	35.41	Tan mileage delivery	\$1699 ⁴⁸	\$1699 ⁴⁸
CB026	475 sy	60/20 2% plaster 10% salt	\$24 ⁴⁰	\$11590 ⁰⁰
CB030	250 sy	Class A 6% plaster 10% salt 5# KCL	\$28 ⁵⁵	\$7,157 ⁵⁰
FE096	16	reciprocating scratchers	\$75 ⁰⁰	\$1200 ⁰⁰
FE013	10	5 1/2" centralizer turbolizers	\$108 ⁰⁰	\$1080 ⁰⁰
FE012	4	5 1/2" stop ring	\$35 ⁰⁰	\$140 ⁰⁰
FE022	4	5 1/2" baskets	\$385 ⁰⁰	\$1540 ⁰⁰
FE0033	1	5 1/2" guide shoe AFL	\$600 ⁰⁰	\$600 ⁰⁰
CP014	2	KLH gallons	\$50 ⁰⁰	\$100 ⁰⁰
U013	500 gal	mod flush	\$1 ⁰⁰	\$500 ⁰⁰
FE051	1	5 1/2" latch down plug assy.	\$695 ⁰⁰	\$695 ⁰⁰
			sub total	\$28,950 ¹⁸
			less 25% disc.	\$7,237 ⁵⁵
			sub total	\$21,712 ⁶³
			SALES TAX	1518.57
			ESTIMATED TOTAL	23231.20

AUTHORIZATION _____ TITLE _____ DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

Conservation Division
266 N. Main St., Ste. 220
Wichita, KS 67202-1513



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Dwight D. Keen, Chair
Susan K. Duffy, Commissioner
Andrew J. French, Commissioner

Laura Kelly, Governor

March 11, 2022

Jim Deverman
Arcadian Resources, LLC
313 E KANSAS ST
GLEN ELDER, KS 67446-9416

Re: ACO-1
API 15-193-21098-00-00
LIAM 3
SW/4 Sec.20-08S-32W
Thomas County, Kansas

Dear Jim Deverman:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 11/10/2021 and the ACO-1 was received on March 11, 2022 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department



DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources, LLC**

313 E Kansas St
Glen Elder, KS 67446

ATTN: Sean Deenihan

Liam #3

20 8s 32w Thomas,KS

Start Date: 2021.11.14 @ 19:01:00

End Date: 2021.11.15 @ 01:56:15

Job Ticket #: 67738 DST #: 1

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

Printed: 2021.11.18 @ 17:12:21



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Arcadian Resources, LLC

20 8s 32w Thomas,KS

313 E Kansas St
Glen Elder, KS 67446

Liam #3

Job Ticket: 67738

DST#: 1

ATTN: Sean Deenihan

Test Start: 2021.11.14 @ 19:01:00

GENERAL INFORMATION:

Formation: **LKC A**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:33:00

Time Test Ended: 01:56:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 4061.00 ft (KB) To 4152.00 ft (KB) (TVD)

Reference Elevations: 3116.00 ft (KB)

Total Depth: 4152.00 ft (KB) (TVD)

3111.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press@RunDepth: 42.18 psig @ 4062.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2021.11.14

End Date:

2021.11.15

Last Calib.: 2021.11.15

Start Time: 19:01:05

End Time:

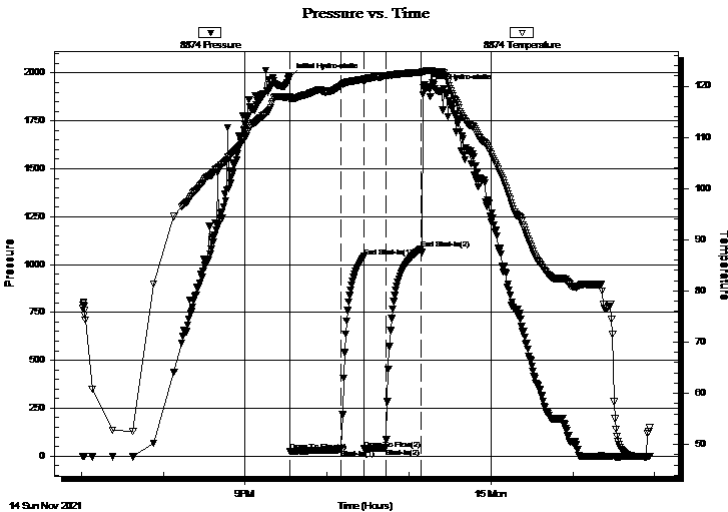
01:56:14

Time On Btm: 2021.11.14 @ 21:32:45

Time Off Btm: 2021.11.14 @ 23:10:45

TEST COMMENT: IF: 2 3/4" blow .
IS: No return.
FF: 1/2" blow .
FS: No return. 35-15-15-30

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1975.08	117.98	Initial Hydro-static
1	23.75	117.24	Open To Flow (1)
38	33.35	120.05	Shut-In(1)
55	1041.74	121.36	End Shut-In(1)
55	36.95	120.84	Open To Flow (2)
71	42.18	122.05	Shut-In(2)
97	1083.43	122.70	End Shut-In(2)
98	1920.20	122.86	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud 100m	0.63

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Arcadian Resources, LLC

20 8s 32w Thomas,KS

313 E Kansas St
Glen Elder, KS 67446

Liam #3

Job Ticket: 67738

DST#: 1

ATTN: Sean Deenihan

Test Start: 2021.11.14 @ 19:01:00

Tool Information

Drill Pipe:	Length: 4061.00 ft	Diameter: 3.80 inches	Volume: 56.97 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 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: 75000.00 lb
			<u>Total Volume: 56.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4061.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	91.00 ft			
Tool Length:	121.00 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			4032.00	
Shut In Tool	5.00		Fluid	4037.00	
Hydraulic tool	5.00			4042.00	
Em Tool	3.00			4045.00	
Jars	5.00			4050.00	
Safety Joint	2.00			4052.00	
Packer	5.00		Inside	4057.00	30.00 Bottom Of Top Packer
Packer	4.00			4061.00	
Stubb	1.00			4062.00	
Recorder	0.00	8874	Inside	4062.00	
Recorder	0.00	8319	Outside	4062.00	
Perforations	22.00			4084.00	
Change Over Sub	1.00			4085.00	
Drill Pipe	63.00			4148.00	
Change Over Sub	1.00			4149.00	
Bullnose	3.00			4152.00	91.00 Bottom Packers & Anchor
Total Tool Length:	121.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Arcadian Resources, LLC

20 8s 32w Thomas,KS

313 E Kansas St
Glen Elder, KS 67446

Liam #3

Job Ticket: 67738

DST#: 1

ATTN: Sean Deenihan

Test Start: 2021.11.14 @ 19:01:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 600.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	Mud 100m	0.631

Total Length: 45.00 ft Total Volume: 0.631 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

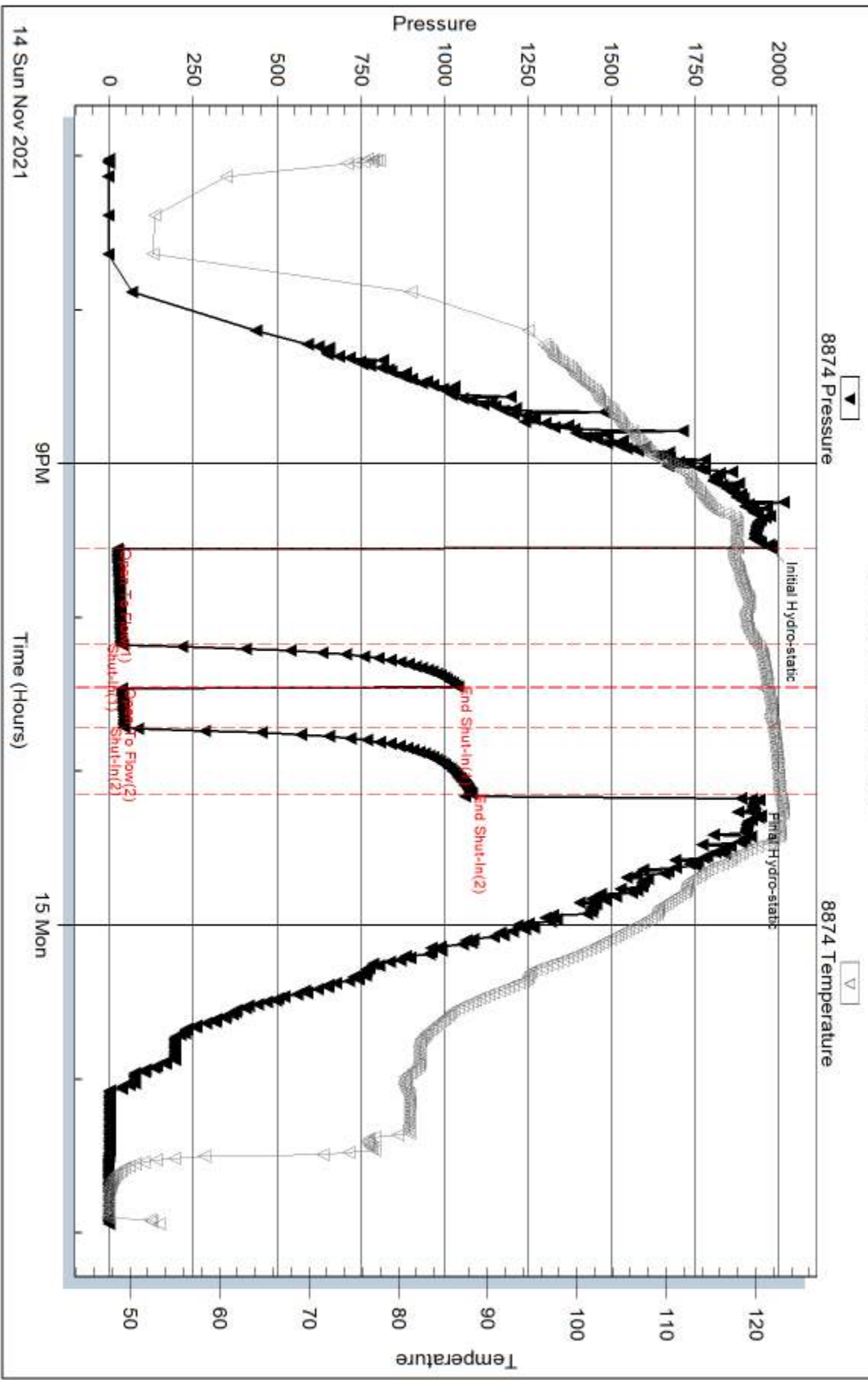
Serial #:

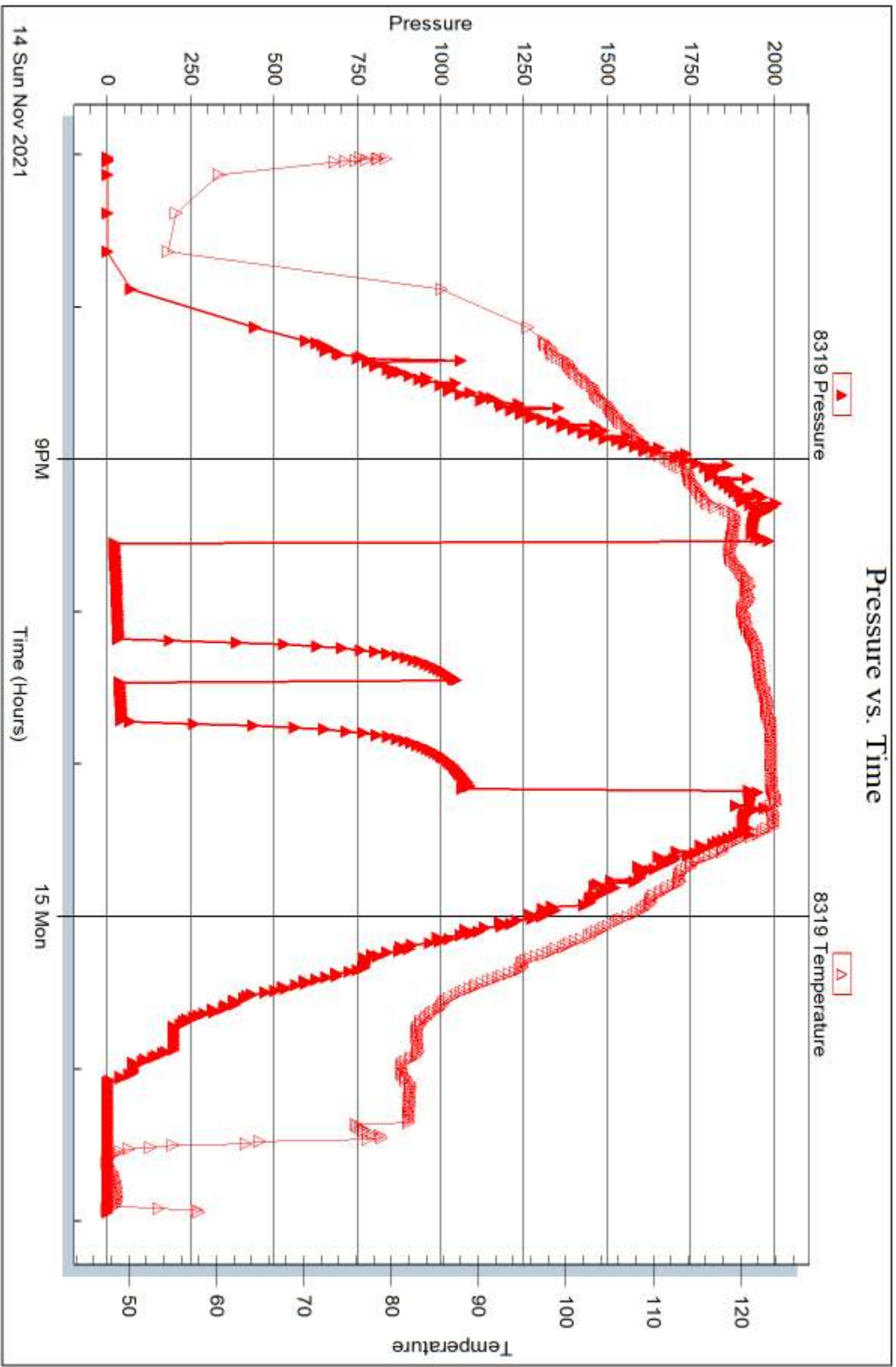
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Arcadian Resources, LLC**

313 E Kansas St
Glen Elder, KS 67446

ATTN: Sean Deenihan

Liam #3

20 8s 32w Thomas,KS

Start Date: 2021.11.15 @ 20:09:00

End Date: 2021.11.16 @ 03:19:45

Job Ticket #: 67739 DST #: 2

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

Printed: 2021.11.18 @ 17:11:20



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Arcadian Resources, LLC

20 8s 32w Thomas,KS

313 E Kansas St
Glen Elder, KS 67446

Liam #3

Job Ticket: 67739

DST#: 2

ATTN: Sean Deenihan

Test Start: 2021.11.15 @ 20:09:00

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:25:00

Time Test Ended: 03:19:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4400.00 ft (KB) To 4420.00 ft (KB) (TVD)

Reference Elevations: 3116.00 ft (KB)

Total Depth: 4420.00 ft (KB) (TVD)

3111.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874 Inside

Press@RunDepth: 20.97 psig @ 4401.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2021.11.15

End Date: 2021.11.16

Last Calib.: 2021.11.16

Start Time: 20:09:05

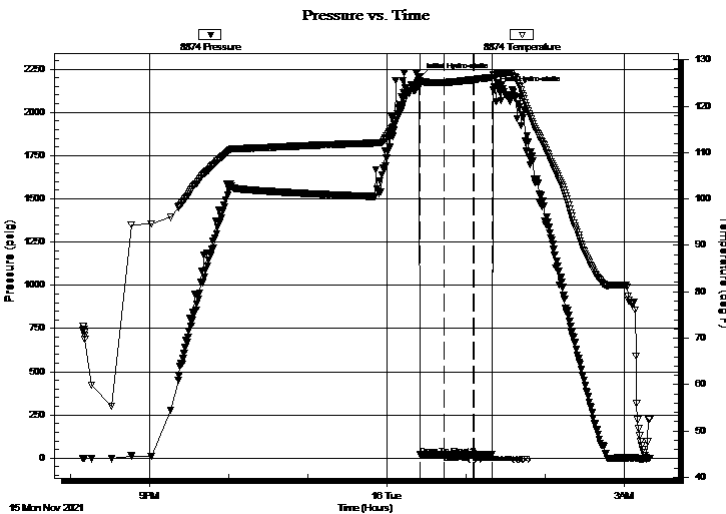
End Time: 03:19:44

Time On Btm: 2021.11.16 @ 00:24:45

Time Off Btm: 2021.11.16 @ 01:20:45

TEST COMMENT: IF: 1 1/4" blow .
IS: No return.
FF: 1/4" blow .
Pulled test.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2203.38	125.59	Initial Hydro-static
1	19.44	124.55	Open To Flow (1)
19	20.97	125.10	Shut-In(1)
41	22.76	125.70	End Shut-In(1)
42	20.59	125.72	Open To Flow (2)
55	20.90	126.19	Shut-In(2)
56	2128.21	126.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud 100m	0.03

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Arcadian Resources, LLC

20 8s 32w Thomas,KS

313 E Kansas St
Glen Elder, KS 67446

Liam #3

Job Ticket: 67739

DST#: 2

ATTN: Sean Deenihan

Test Start: 2021.11.15 @ 20:09:00

Tool Information

Drill Pipe:	Length: 4390.00 ft	Diameter: 3.80 inches	Volume: 61.58 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 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:	80000.00 lb
			<u>Total Volume: 61.58 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4400.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	20.00 ft				
Tool Length:	50.00 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			4371.00	
Shut In Tool	5.00		Fluid	4376.00	
Hydraulic tool	5.00			4381.00	
Em Tool	3.00			4384.00	
Jars	5.00			4389.00	
Safety Joint	2.00			4391.00	
Packer	5.00		Inside	4396.00	30.00 Bottom Of Top Packer
Packer	4.00			4400.00	
Stubb	1.00			4401.00	
Recorder	0.00	8874	Inside	4401.00	
Recorder	0.00	8319	Outside	4401.00	
Perforations	16.00			4417.00	
Bullnose	3.00			4420.00	20.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Arcadian Resources, LLC

20 8s 32w Thomas,KS

313 E Kansas St
Glen Elder, KS 67446

Liam #3

Job Ticket: 67739

DST#: 2

ATTN: Sean Deenihan

Test Start: 2021.11.15 @ 20:09:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud 100m	0.028

Total Length: 2.00 ft Total Volume: 0.028 bbl

Num Fluid Samples: 0

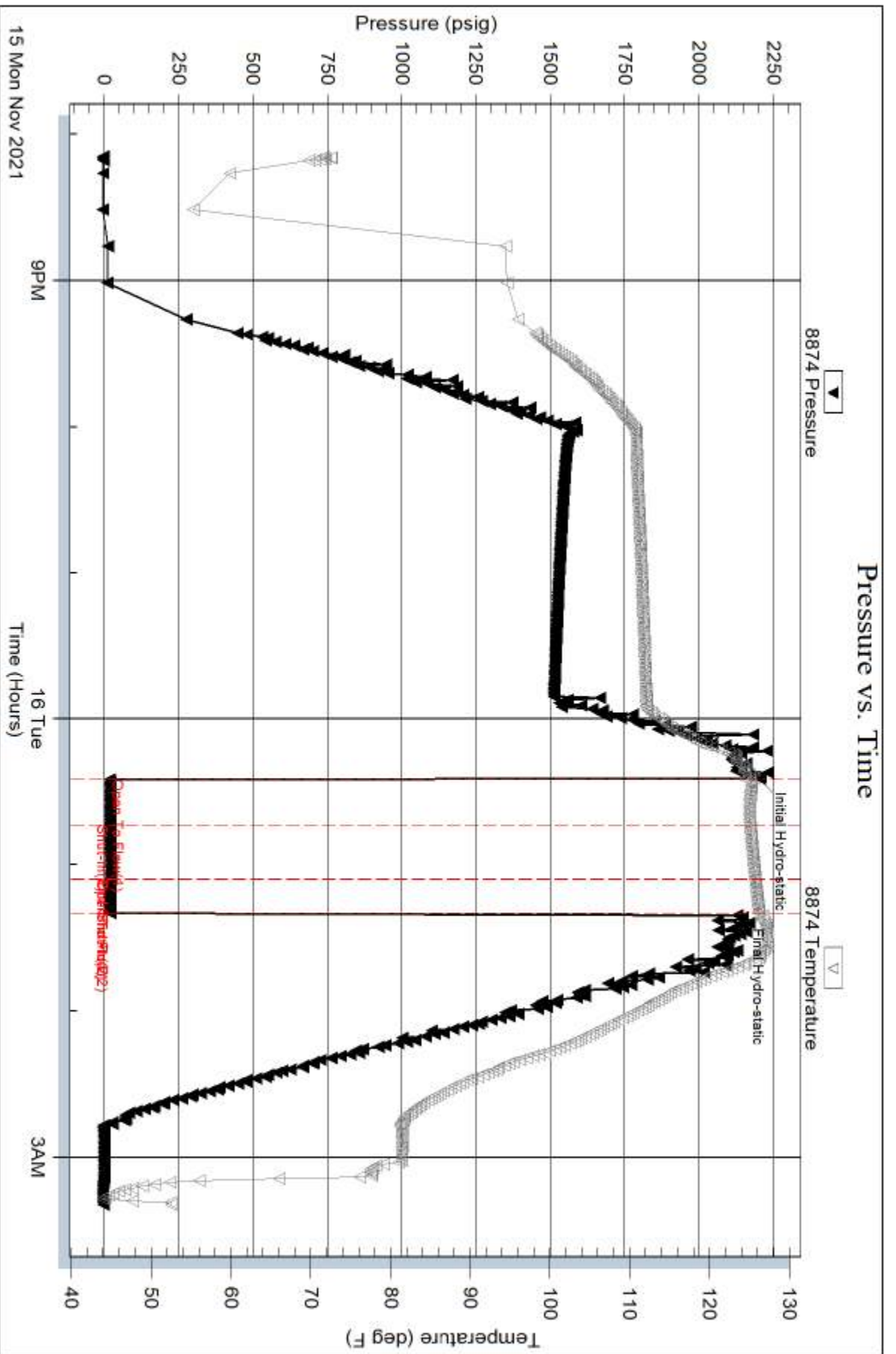
Num Gas Bombs: 0

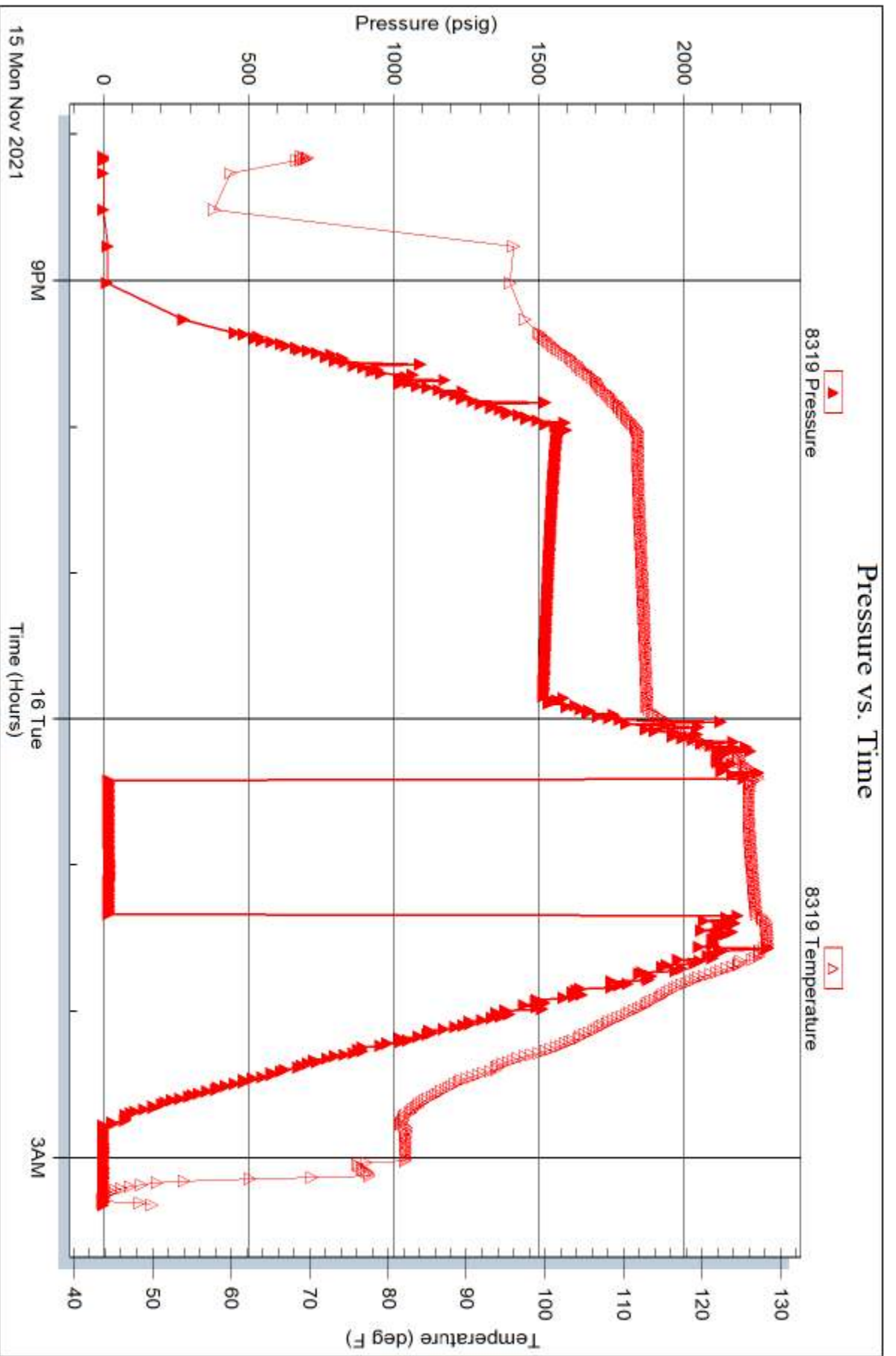
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 67738

Well Name & No. Liam #3 Test No. 1 Date 11/15/2021
 Company Arcadian Resources, LLC Elevation 3116 KB 3111 GL
 Address 313 E Kansas St Glen Elder, Ks 67446
 Co. Rep / Geo. Sean Deenanhan Rig White Knight
 Location: Sec. 20 Twp 8s Rge. 32w Co. Thomas State Ks

Interval Tested 4061-4152 Zone Tested LRC A
 Anchor Length 91' Drill Pipe Run 4061 Mud Wt. 9.1
 Top Packer Depth 4056 Drill Collars Run Ø Vis 48
 Bottom Packer Depth 4061 Wt. Pipe Run Ø WL 2.0
 Total Depth 4152 Chlorides 600 ppm System LCM 2#

Blow Description IF 2 3/4" blow
ISI No return.
FF 1/2" blow
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</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 Total 45 BHT 127 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1975 Test 1450 T-On Location 1800
 (B) First Initial Flow 23 Jars 250 T-Started 1901
 (C) First Final Flow 33 Safety Joint 75 T-Open 2133
 (D) Initial Shut-In 1041 Circ Sub _____ T-Pulled 2313
 (E) Second Initial Flow 36 Hourly Standby _____ T-Out 0156 11/15
 (F) Second Final Flow 42 Mileage 145 RT 97rt 121.25 Comments _____
 (G) Final Shut-In 1083 Sampler _____
 (H) Final Hydrostatic 1920 Straddle _____
 Shale Packer 250 EM Tool 350
 Extra Packer _____ Ruined Shale Packer _____
 Extra Recorder _____ Ruined Packer _____
 Day Standby _____ Extra Copies _____
 Accessibility _____ Sub Total _____
 Sub Total 2146.25 Total _____

Initial Open 35
 Initial Shut-In 15
 Final Flow 15
 Final Shut-In 30

Approved By _____ Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 67739

Well Name & No. Liam #3 Test No. 2 Date 11/16/2021
 Company Arcadian Resources, LLC Elevation 3116 KB 3111 GL
 Address 313 E Kansas St Glen Elder, Ks 67446
 Co. Rep / Geo. Sean Deauihan Rig White Knight
 Location: Sec. 20 Twp 8S Rge. 32 W Co. Thomas State Ks

Interval Tested 4400-4420 Zone Tested Altamont
 Anchor Length 20' Drill Pipe Run 4390 Mud Wt. 9.4
 Top Packer Depth 4395 Drill Collars Run 0 Vis 50
 Bottom Packer Depth 4400 Wt. Pipe Run 0 WL 8.8
 Total Depth 4420 Chlorides 900 ppm System LCM 1.5#
 Blow Description IF: 1/4" blow
ISI: No return
FF: 1/4"
Polled Test

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>Mud</u>			<u>100</u>	

Rec Total 2 BHT 126 Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic <u>2203</u>	<input checked="" type="checkbox"/> Test <u>1450</u>	T-On Location <u>1700</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2009</u>
(C) First Final Flow <u>20</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0021</u>
(D) Initial Shut-In <u>22</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>0126</u>
(E) Second Initial Flow <u>20</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0320</u>
(F) Second Final Flow <u>20</u>	<input checked="" type="checkbox"/> Mileage <u>14521 x 2</u> 242.50	Comments <u>f/u Tool 11/16-1500</u>
(G) Final Shut-In <u>—</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2129</u>	<input type="checkbox"/> Straddle	<input checked="" type="checkbox"/> EM Tool <u>350</u>
Initial Open <u>20</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>20</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>10</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>Pol</u>	<input type="checkbox"/> Day Standby	Sub Total <u>350</u>
	<input type="checkbox"/> Accessibility	Total <u>2617.50</u>
	Sub Total <u>2267.50</u>	MP/DST Disc't

Approved By _____ Our Representative [Signature]
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