

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 Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No.: _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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

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

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Landmark Resources, Inc.
Well Name	KOEHN 1-9
Doc ID	1348552

All Electric Logs Run

Dual Induction
Microresistivity
Borehole Compensated Sonic
Dual Comp Porosity

Form	ACO1 - Well Completion
Operator	Landmark Resources, Inc.
Well Name	KOEHN 1-9
Doc ID	1348552

Tops

Name	Top	Datum
Anhydrite	2533	759
B/ Anhydrite	2556	736
Topeka	3747	-455
Heebner	3987	-695
Toronto	4005	-713
Lansing	4034	-742
C	4071	-779
D	4089	-797
E	4121	-829
F	4129	-837
G	4146	-854
Muncie Creek	4201	-909
H	4209	-917
I	4245	-953
J	4270	-978
Stark Shale	4294	-1002
K	4301	-1009
L	4341	-1049
BKC	4378	-1086
Marmaton	4430	-1138
Altamont	4454	-1162
Pawnee	4506	-1214
Myrick Station	4549	1257
Fort Scott	4565	-1273

Form	ACO1 - Well Completion
Operator	Landmark Resources, Inc.
Well Name	KOEHN 1-9
Doc ID	1348552

Tops

Name	Top	Datum
Cherokee	4598	-1306
Johnson Zone	4646	-1354
Morrow Shale	4737	-1445
U. Morrow Sd	4790	-1498
Missippian	4798	-1506



DRILL STEM TEST REPORT

Prepared For: **Landmark Resources, Inc.**

1616 S Voss Rd Ste 600
Houston, TX 77057

ATTN: Terry McLeod

Koehn #1-9

9-16s-36w Wichita,KS

Start Date: 2017.02.11 @ 16:45:00

End Date: 2017.02.12 @ 00:11:00

Job Ticket #: 61313 DST #: 1

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

Printed: 2017.02.17 @ 10:22:35



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Landmark Resources, Inc.

9-16s-36w Wichita, KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61313

DST#: 1

ATTN: Terry McLeod

Test Start: 2017.02.11 @ 16:45:00

GENERAL INFORMATION:

Formation: **LKC F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:02:15

Time Test Ended: 00:11:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 4137.00 ft (KB) To 4160.00 ft (KB) (TVD)

Reference Elevations: 3292.00 ft (KB)

Total Depth: 4160.00 ft (KB) (TVD)

3281.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8845 Outside

Press@RunDepth: 780.07 psig @ 4138.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.02.11

End Date:

2017.02.12

Last Calib.: 2017.02.12

Start Time: 16:45:05

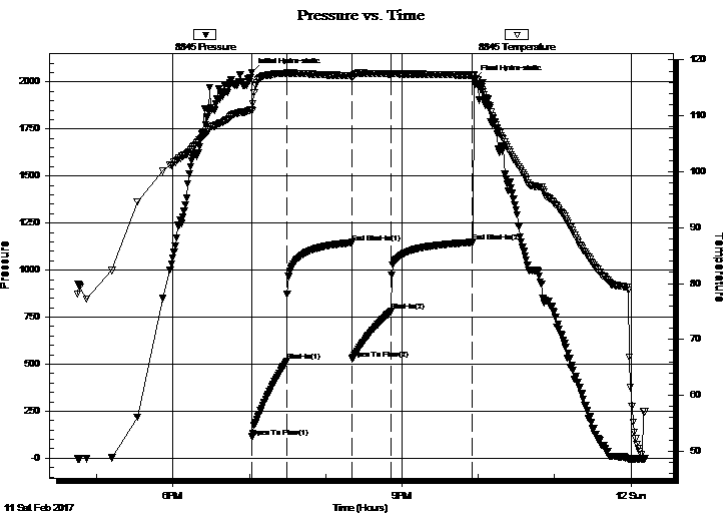
End Time:

00:10:59

Time On Btm: 2017.02.11 @ 19:01:45

Time Off Btm: 2017.02.11 @ 21:56:30

TEST COMMENT: IF: BOB @ 2 min.
IS: No return.
FF: BOB @ 3 min.
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2050.48	111.13	Initial Hydro-static
1	113.94	110.92	Open To Flow (1)
28	515.31	117.55	Shut-In(1)
79	1146.33	117.17	End Shut-In(1)
80	529.47	116.81	Open To Flow (2)
110	780.07	117.47	Shut-In(2)
174	1147.32	117.30	End Shut-In(2)
175	2012.38	117.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1450.00	smcw 2m 98w	18.11

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61313

DST#: 1

ATTN: Terry McLeod

Test Start: 2017.02.11 @ 16:45:00

Tool Information

Drill Pipe:	Length: 3896.00 ft	Diameter: 3.80 inches	Volume: 54.65 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: 245.00 ft	Diameter: 2.25 inches	Volume: 1.20 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 55.85 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4137.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	46.00 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			4115.00	
Shut In Tool	5.00			4120.00	
Hydraulic tool	5.00			4125.00	
Safety Joint	2.00			4127.00	
Change Over Sub	1.00			4128.00	
Packer	5.00			4133.00	23.00 Bottom Of Top Packer
Packer	4.00			4137.00	
Stubb	1.00			4138.00	
Recorder	0.00	8365	Inside	4138.00	
Recorder	0.00	8845	Outside	4138.00	
Perforations	19.00			4157.00	
Bullnose	3.00			4160.00	23.00 Bottom Packers & Anchor

Total Tool Length: 46.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61313

DST#: 1

ATTN: Terry McLeod

Test Start: 2017.02.11 @ 16:45:00

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:

61000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1450.00	smcw 2m 98w	18.108

Total Length: 1450.00 ft Total Volume: 18.108 bbl

Num Fluid Samples: 0

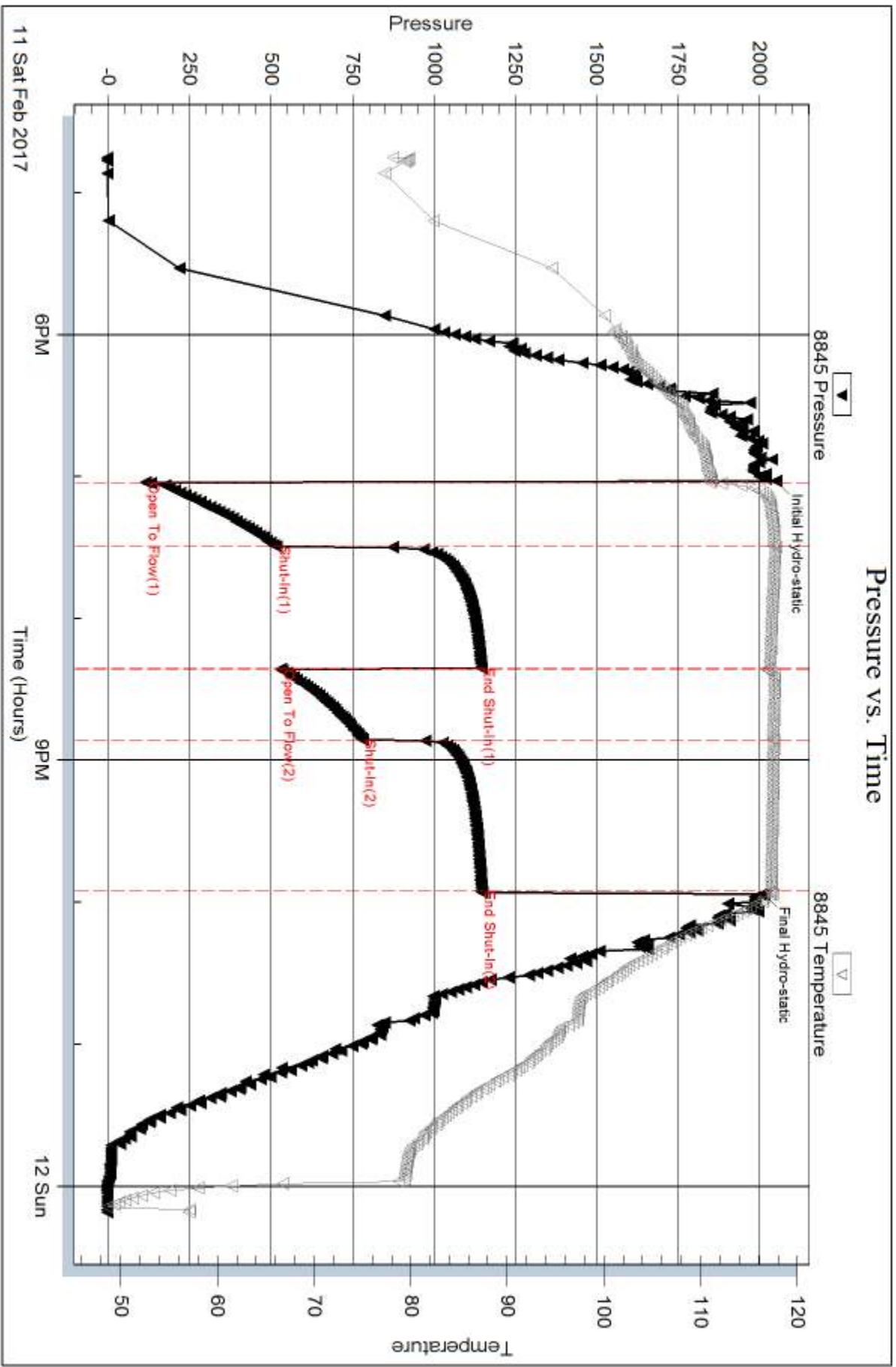
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .172 @ 49 F = 61000ppm



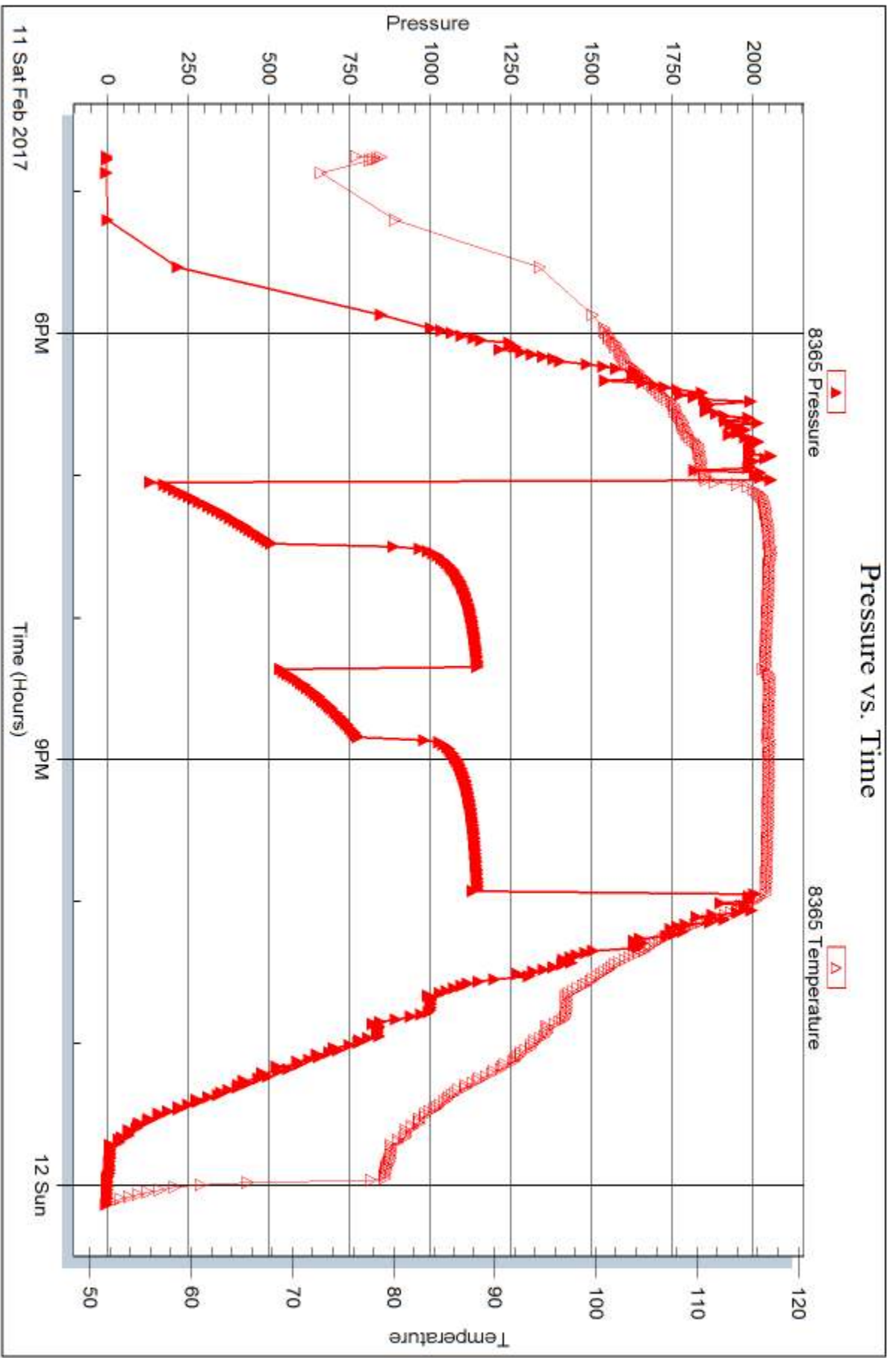
Serial #: 8365

Inside

Landmark Resources, Inc.

Koehn #1-9

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 61313

Printed: 2017.02.17 @ 10:22:36



DRILL STEM TEST REPORT

Prepared For: **Landmark Resources, Inc.**

1616 S Voss Rd Ste 600
Houston, TX 77057

ATTN: Terry McLeod

Koehn #1-9

9-16s-36w Wichita,KS

Start Date: 2017.02.12 @ 11:27:00

End Date: 2017.02.14 @ 05:15:45

Job Ticket #: 61314 DST #: 2

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

Printed: 2017.02.17 @ 11:26:54



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61314

DST#: 2

ATTN: Terry McLeod

Test Start: 2017.02.12 @ 11:27:00

GENERAL INFORMATION:

Formation: **LKC H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:33:00

Time Test Ended: 05:15:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4201.00 ft (KB) To 42501.0 ft (KB) (TVD)

Reference Elevations: 3292.00 ft (KB)

Total Depth: 4250.00 ft (KB) (TVD)

3281.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8845 Outside

Press@RunDepth: 171.18 psig @ 4202.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.02.12

End Date:

2017.02.14

Last Calib.:

2017.02.14

Start Time: 11:27:05

End Time:

05:15:45

Time On Btm:

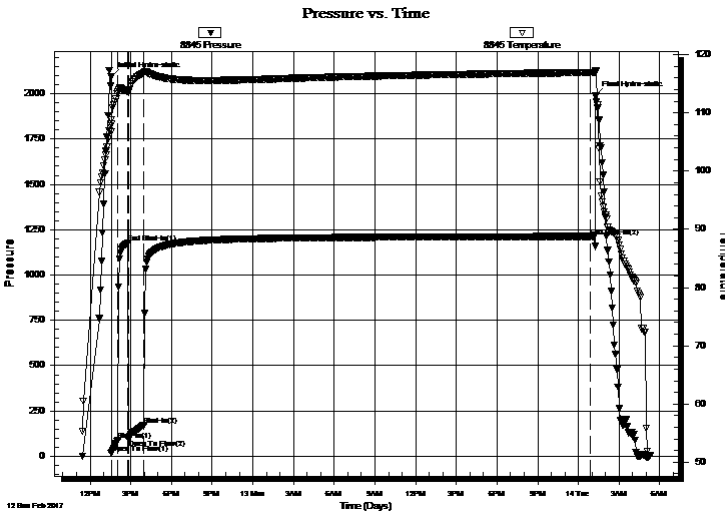
2017.02.12 @ 13:32:45

Time Off Btm:

2017.02.14 @ 01:16:00

TEST COMMENT: IF: 3" blow,
IS: No return.
FF: 2 1/2" blow.
FS: No return. string w as stuck in hole.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2095.52	108.08	Initial Hydro-static
1	16.11	106.78	Open To Flow (1)
31	89.27	113.65	Shut-In(1)
75	1177.15	113.67	End Shut-In(1)
76	94.71	113.48	Open To Flow (2)
147	171.18	116.88	Shut-In(2)
2121	1212.57	116.91	End Shut-In(2)
2144	1989.56	117.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	socm 2o 98m	0.59
0.00	oil spots in tool.	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

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61314

DST#: 2

ATTN: Terry McLeod

Test Start: 2017.02.12 @ 11:27:00

Tool Information

Drill Pipe:	Length: 3958.00 ft	Diameter: 3.80 inches	Volume: 55.52 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: 2500.00 lb
Drill Collar:	Length: 245.00 ft	Diameter: 2.25 inches	Volume: 1.20 bbl	Weight to Pull Loose: 200000.0 lb
			<u>Total Volume: 56.72 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4201.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	72.00 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			4179.00	
Shut In Tool	5.00			4184.00	
Hydraulic tool	5.00			4189.00	
Safety Joint	2.00			4191.00	
Change Over Sub	1.00			4192.00	
Packer	5.00			4197.00	23.00 Bottom Of Top Packer
Packer	4.00			4201.00	
Stubb	1.00			4202.00	
Recorder	0.00	8365	Inside	4202.00	
Recorder	0.00	8845	Outside	4202.00	
Perforations	12.00			4214.00	
Change Over Sub	1.00			4215.00	
Drill Pipe	31.00			4246.00	
Change Over Sub	1.00			4247.00	
Bullnose	3.00			4250.00	49.00 Bottom Packers & Anchor

Total Tool Length: 72.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61314

DST#: 2

ATTN: Terry McLeod

Test Start: 2017.02.12 @ 11:27:00

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	socm 2o 98m	0.590
0.00	oil spots in tool.	0.000

Total Length: 120.00 ft Total Volume: 0.590 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

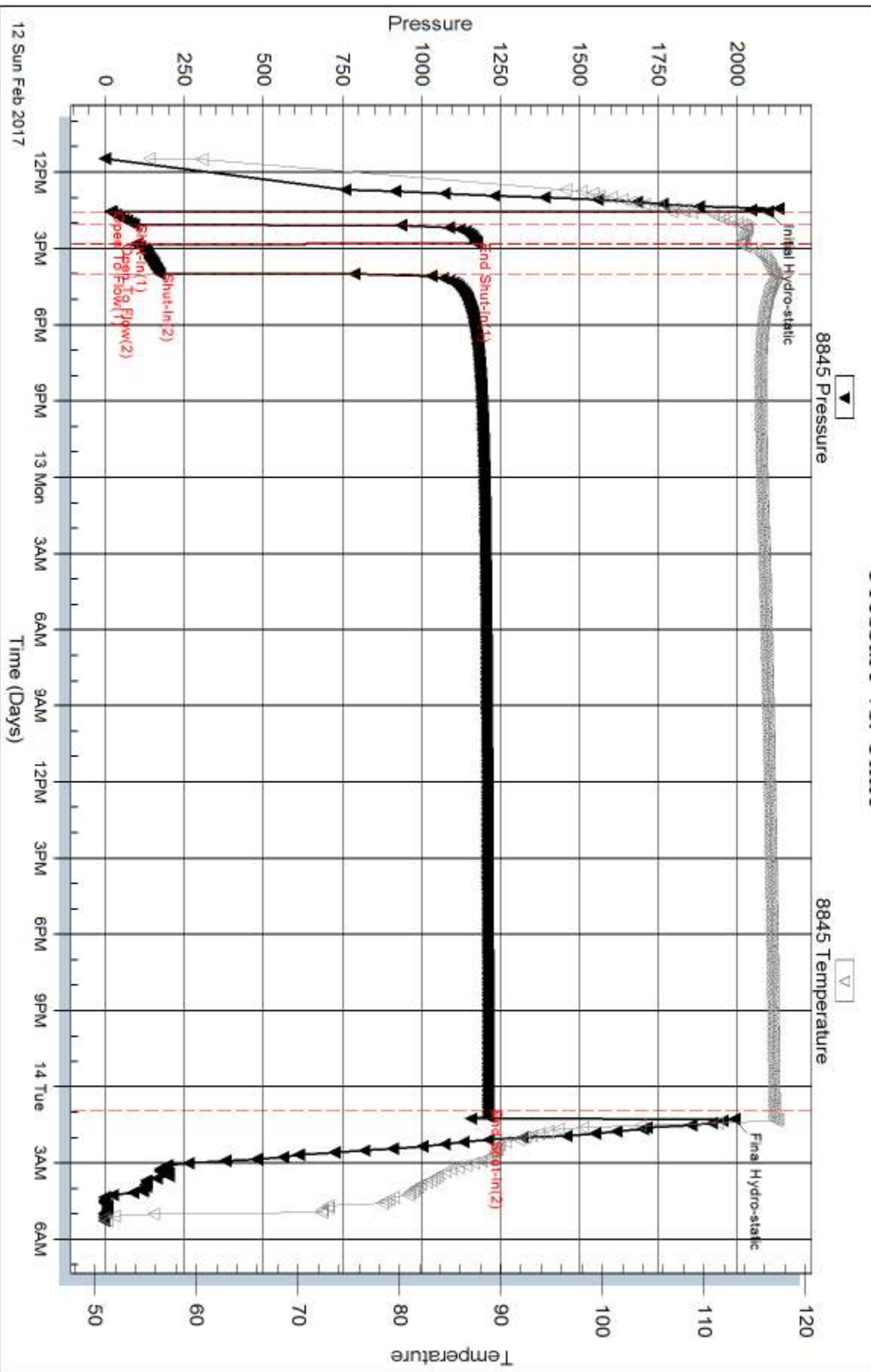
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: string got stuck above tool, circulated through circ sub to spot oil. samples were very thick

Pressure vs. Time



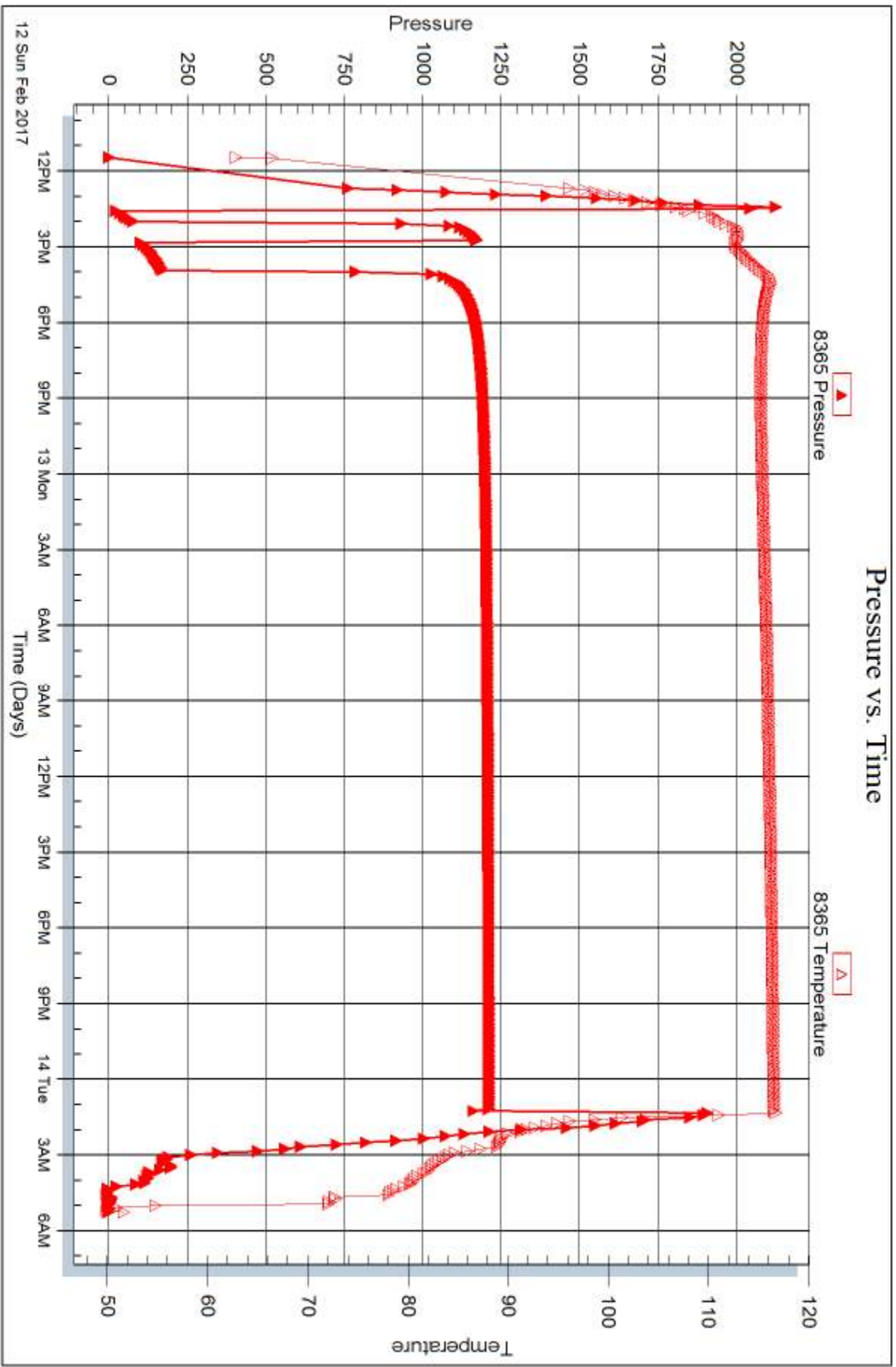
Serial #: 8365

Inside

Landmark Resources, Inc.

Koehn #1-9

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 61314

Printed: 2017.02.17 @ 11:26:55



DRILL STEM TEST REPORT

Prepared For: **Landmark Resources, Inc.**

1616 S Voss Rd Ste 600
Houston, TX 77057

ATTN: Terry McLeod

Koehn #1-9

9-16s-36w Wichita,KS

Start Date: 2017.02.15 @ 09:30:00

End Date: 2017.02.15 @ 16:33:45

Job Ticket #: 61315 DST #: 3

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

Printed: 2017.02.17 @ 11:24:58



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61315

DST#: 3

ATTN: Terry McLeod

Test Start: 2017.02.15 @ 09:30:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:51:00

Time Test Ended: 16:33:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4443.00 ft (KB) To 4490.00 ft (KB) (TVD)

Reference Elevations: 3292.00 ft (KB)

Total Depth: 4490.00 ft (KB) (TVD)

3281.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8845 Outside

Press@RunDepth: 190.37 psig @ 4444.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.02.15

End Date:

2017.02.15

Last Calib.: 2017.02.15

Start Time: 09:30:05

End Time:

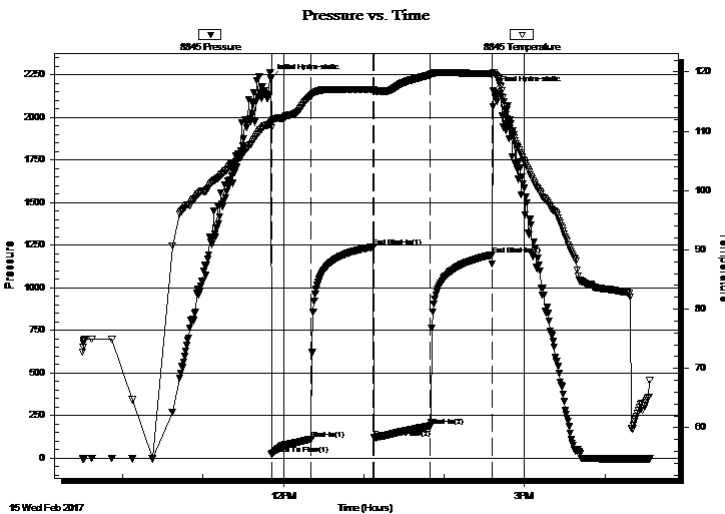
16:33:44

Time On Btm: 2017.02.15 @ 11:50:45

Time Off Btm: 2017.02.15 @ 14:36:45

TEST COMMENT: IF: 8" blow.
IS: No return
FF: 8" blow.
FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2224.99	111.39	Initial Hydro-static
1	21.44	110.62	Open To Flow (1)
30	112.09	115.96	Shut-In(1)
77	1240.12	117.04	End Shut-In(1)
77	119.51	116.78	Open To Flow (2)
119	190.37	119.50	Shut-In(2)
165	1192.83	119.66	End Shut-In(2)
166	2155.15	119.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	somcw 3o 10m 87w	3.09
60.00	gocm 10g 30o 60m	0.84
110.00	gmco 10g 20m 70o	1.54

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61315

DST#: 3

ATTN: Terry McLeod

Test Start: 2017.02.15 @ 09:30:00

Tool Information

Drill Pipe:	Length: 4310.00 ft	Diameter: 3.80 inches	Volume: 60.46 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:	20000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 61.06 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	4443.00 ft			Final	59000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	47.00 ft				
Tool Length:	70.00 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			4421.00	
Shut In Tool	5.00			4426.00	
Hydraulic tool	5.00			4431.00	
Safety Joint	2.00			4433.00	
Change Over Sub	1.00			4434.00	
Packer	5.00			4439.00	23.00 Bottom Of Top Packer
Packer	4.00			4443.00	
Stubb	1.00			4444.00	
Recorder	0.00	8365	Inside	4444.00	
Recorder	0.00	8845	Outside	4444.00	
Perforations	10.00			4454.00	
Change Over Sub	1.00			4455.00	
Drill Pipe	31.00			4486.00	
Change Over Sub	1.00			4487.00	
Bullnose	3.00			4490.00	47.00 Bottom Packers & Anchor

Total Tool Length: 70.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61315

DST#: 3

ATTN: Terry McLeod

Test Start: 2017.02.15 @ 09:30:00

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:

37000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
300.00	somcw 3o 10m 87w	3.088
60.00	gocm 10g 30o 60m	0.842
110.00	gmco 10g 20m 70o	1.543

Total Length: 470.00 ft Total Volume: 5.473 bbl

Num Fluid Samples: 0

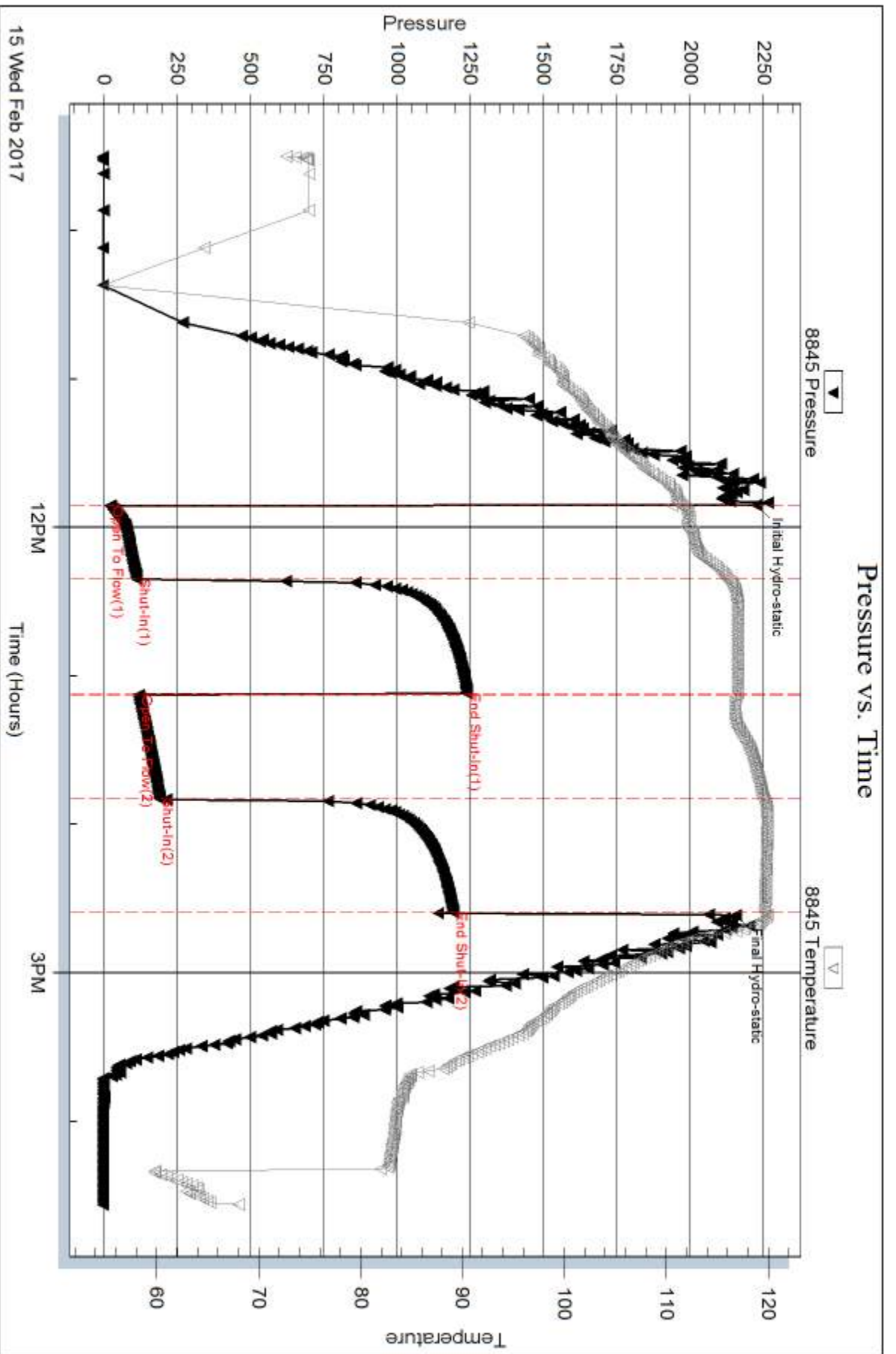
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .239 @ 62 F = 37000ppm



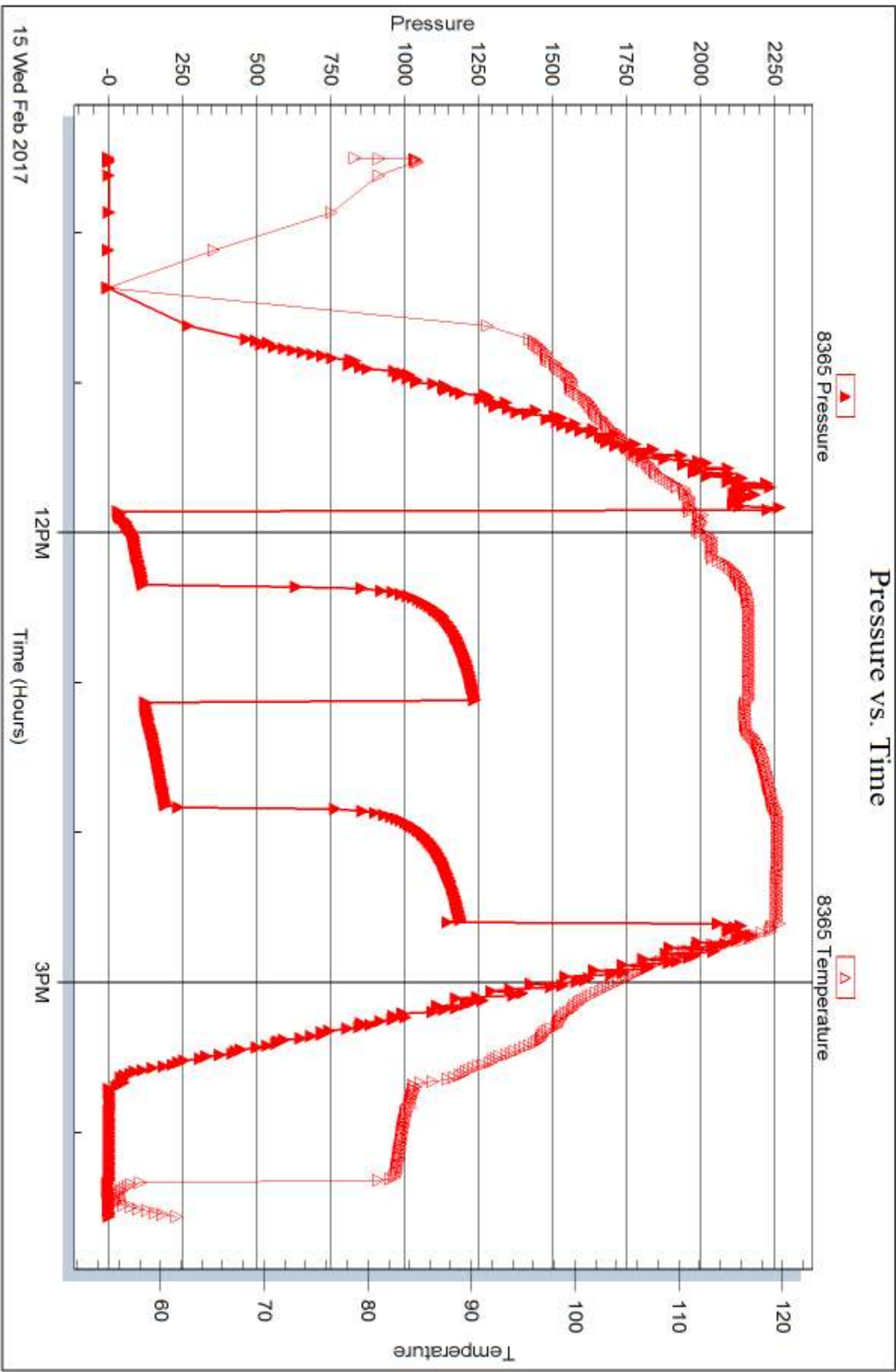
Serial #: 8365

Inside

Landmark Resources, Inc.

Koehn #1-9

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 61315

Printed: 2017.02.17 @ 11:24:59



DRILL STEM TEST REPORT

Prepared For: **Landmark Resources, Inc.**

1616 S Voss Rd Ste 600
Houston, TX 77057

ATTN: Terry McLeod

Koehn #1-9

9-16s-36w Wichita,KS

Start Date: 2017.02.16 @ 05:31:00

End Date: 2017.02.16 @ 12:30:00

Job Ticket #: 61316 DST #: 4

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

Printed: 2017.02.17 @ 11:24:28



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Landmark Resources, Inc.

9-16s-36w Wichita, KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61316

DST#: 4

ATTN: Terry McLeod

Test Start: 2017.02.16 @ 05:31:00

GENERAL INFORMATION:

Formation: **Myric Station - Ft.**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:40:30
 Time Test Ended: 12:30:00
 Interval: **4541.00 ft (KB) To 4600.00 ft (KB) (TVD)**
 Total Depth: 4600.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 3292.00 ft (KB)
 3281.00 ft (CF)
 KB to GR/CF: 11.00 ft

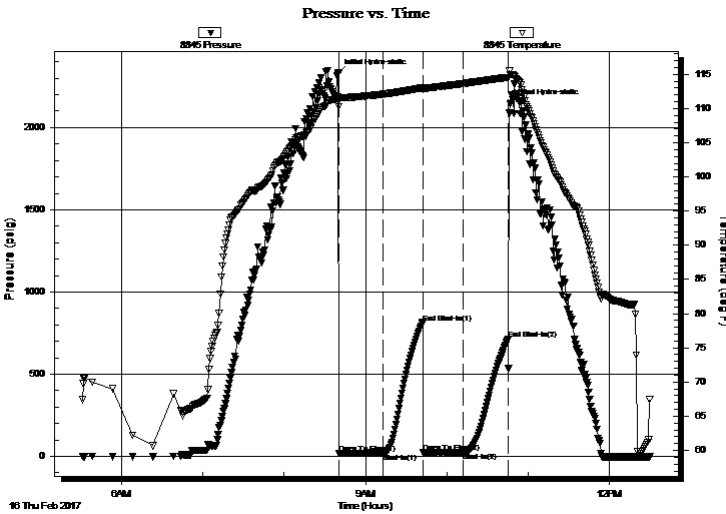
Serial #: 8845

Outside

Press@RunDepth: 24.63 psig @ 4542.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.02.16 End Date: 2017.02.16 Last Calib.: 2017.02.16
 Start Time: 05:31:05 End Time: 12:29:59 Time On Btm: 2017.02.16 @ 08:40:00
 Time Off Btm: 2017.02.16 @ 10:47:15

TEST COMMENT: IF: 1/2" blow , receded to weak surface blow .
 IS: No return.
 FF: No blow .
 FS: No return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2328.89	111.75	Initial Hydro-static
1	17.76	110.29	Open To Flow (1)
34	21.04	112.11	Shut-In(1)
63	812.79	113.03	End Shut-In(1)
63	22.67	112.81	Open To Flow (2)
93	24.63	113.67	Shut-In(2)
126	714.55	114.57	End Shut-In(2)
128	2146.76	115.01	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud 100m oil spots	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

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61316

DST#: 4

ATTN: Terry McLeod

Test Start: 2017.02.16 @ 05:31:00

Tool Information

Drill Pipe:	Length: 4395.00 ft	Diameter: 3.80 inches	Volume: 61.65 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: 20000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 62.25 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 59000.00 lb
Depth to Top Packer:	4541.00 ft			Final 59000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	59.00 ft			
Tool Length:	88.00 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			4513.00	
Shut In Tool	5.00			4518.00	
Hydraulic tool	5.00			4523.00	
Jars	5.00			4528.00	
Safety Joint	2.00			4530.00	
Change Over Sub	1.00			4531.00	
Change Over Sub	1.00			4532.00	
Packer	5.00			4537.00	29.00 Bottom Of Top Packer
Packer	4.00			4541.00	
Stubb	1.00			4542.00	
Recorder	0.00	8365	Inside	4542.00	
Recorder	0.00	8845	Outside	4542.00	
Perforations	22.00			4564.00	
Change Over Sub	1.00			4565.00	
Drill Pipe	31.00			4596.00	
Change Over Sub	1.00			4597.00	
Bullnose	3.00			4600.00	59.00 Bottom Packers & Anchor
Total Tool Length:	88.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61316

DST#: 4

ATTN: Terry McLeod

Test Start: 2017.02.16 @ 05:31:00

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	mud 100m oil spots	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

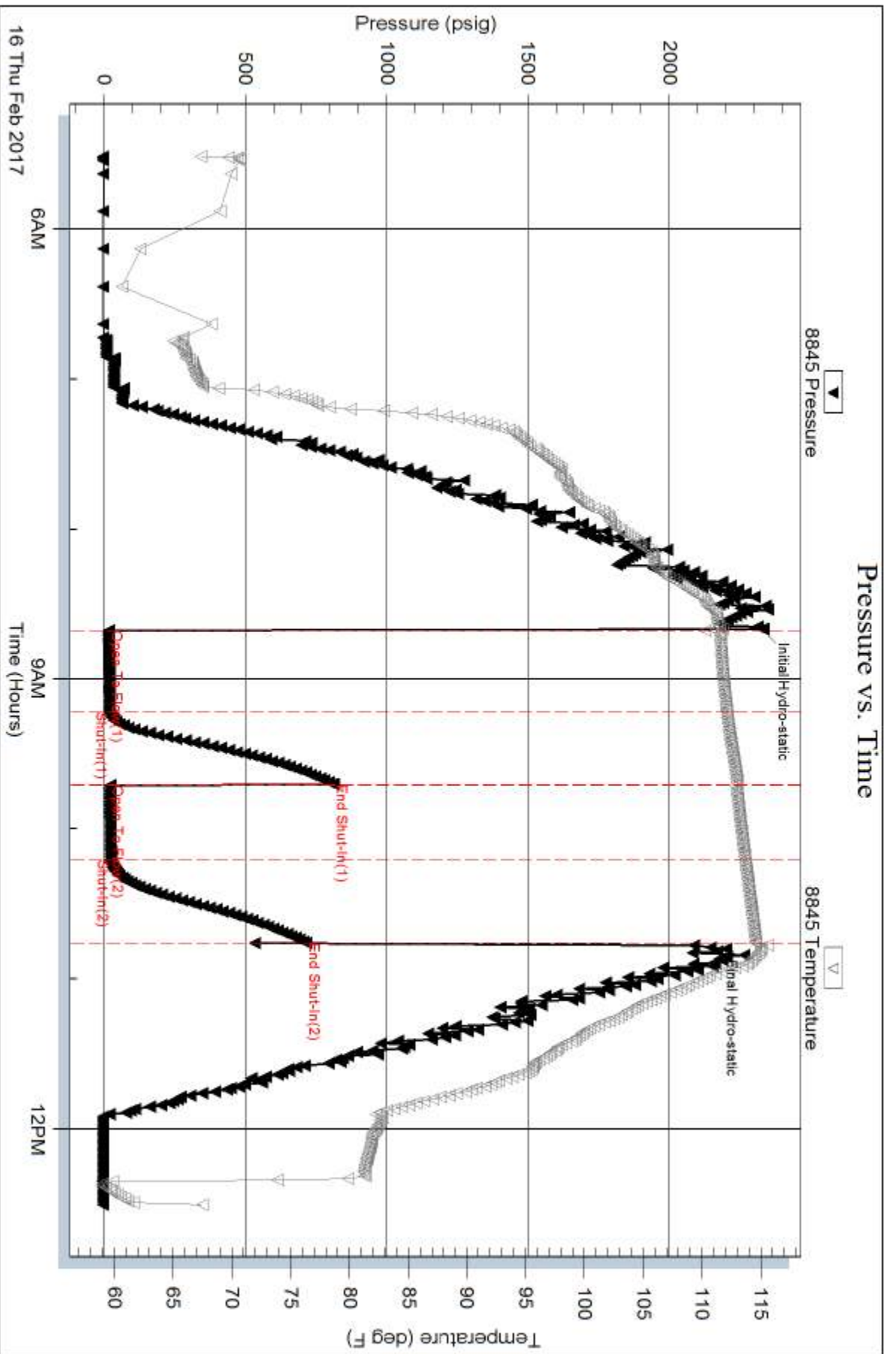
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



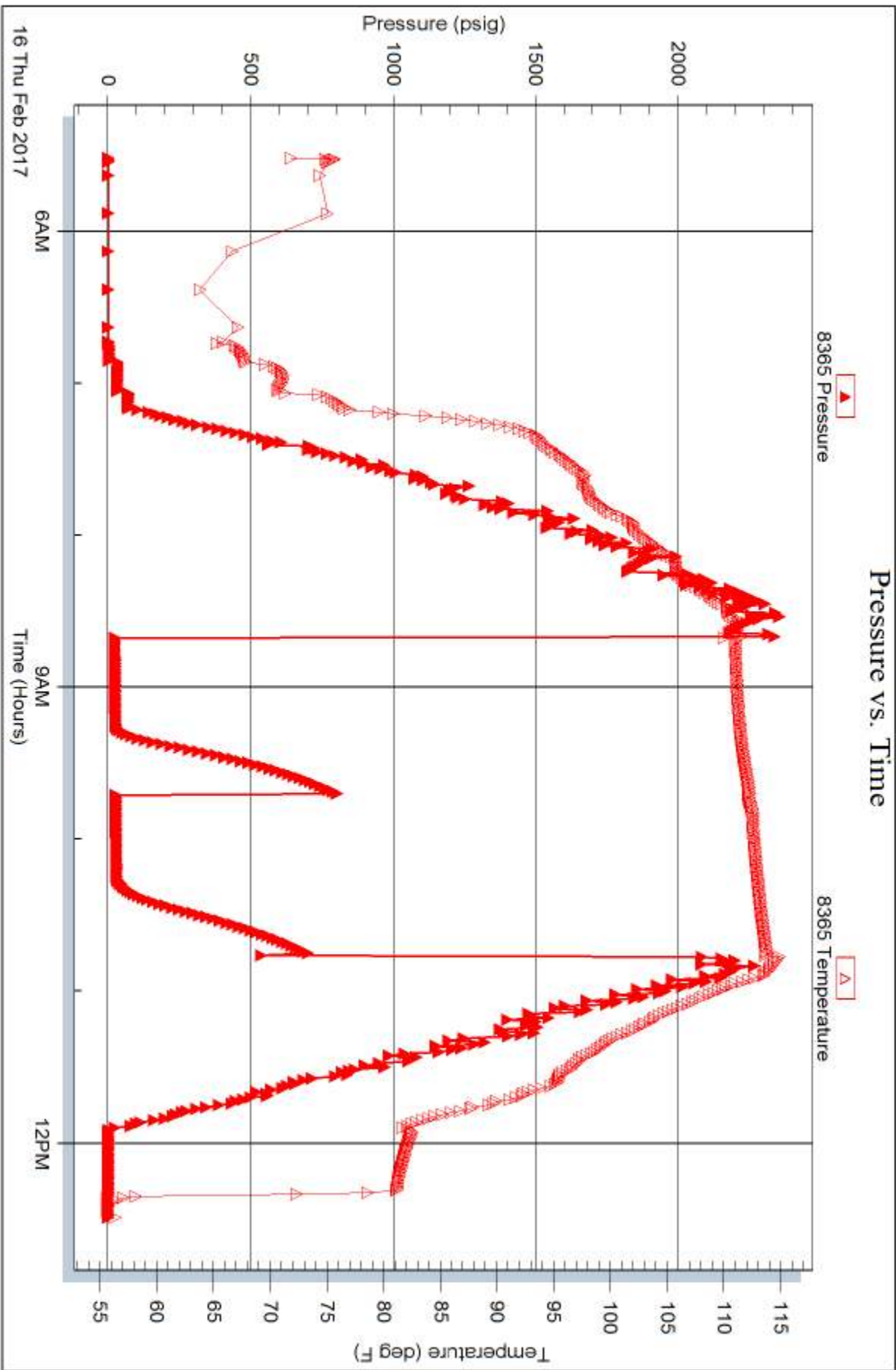
Serial #: 8365

Inside

Landmark Resources, Inc.

Koehn #1-9

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Landmark Resources, Inc.**

1616 S Voss Rd Ste 600
Houston, TX 77057

ATTN: Terry McLeod

Koehn #1-9

9-16s-36w Wichita,KS

Start Date: 2017.02.17 @ 21:00:00

End Date: 2017.02.18 @ 06:28:00

Job Ticket #: 61317 DST #: 5

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

Printed: 2017.02.20 @ 09:22:25



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61317

DST#: 5

ATTN: Terry McLeod

Test Start: 2017.02.17 @ 21:00:00

GENERAL INFORMATION:

Formation: **LKC H**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:44:45

Time Test Ended: 06:28:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4195.00 ft (KB) To 4260.00 ft (KB) (TVD)

Reference Elevations: 3292.00 ft (KB)

Total Depth: 4920.00 ft (KB) (TVD)

3281.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

Serial #: 8365

Inside

Press@RunDepth: 161.84 psig @ 4196.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.02.17

End Date:

2017.02.18

Last Calib.: 2017.02.18

Start Time: 21:00:05

End Time:

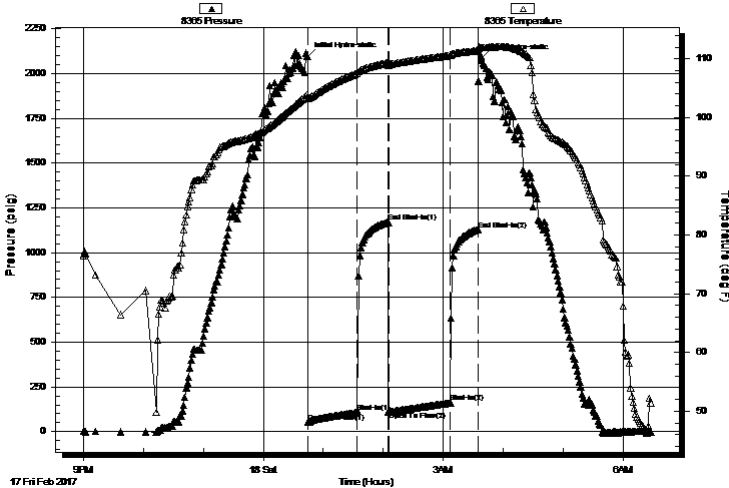
06:28:00

Time On Btm: 2017.02.18 @ 00:44:15

Time Off Btm: 2017.02.18 @ 03:38:15

TEST COMMENT: IF: 5" blow.
IS: No return.
FF: 4" blow.
FS: No return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2096.13	103.90	Initial Hydro-static
1	52.15	103.33	Open To Flow (1)
50	107.93	107.55	Shut-In(1)
81	1169.78	109.36	End Shut-In(1)
82	112.06	109.12	Open To Flow (2)
143	161.84	110.56	Shut-In(2)
171	1130.00	111.37	End Shut-In(2)
174	2085.92	111.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
280.00	mcw 20m 80w (oil spots)	3.37

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61317

DST#: 5

ATTN: Terry McLeod

Test Start: 2017.02.17 @ 21:00:00

Tool Information

Drill Pipe:	Length: 4137.00 ft	Diameter: 3.80 inches	Volume: 58.03 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: 61.00 ft	Diameter: 2.25 inches	Volume: 0.30 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 58.33 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4195.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	725.00 ft			
Tool Length:	752.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			4169.00	
Shut In Tool	5.00			4174.00	
Hydraulic tool	5.00			4179.00	
Jars	5.00			4184.00	
Safety Joint	2.00			4186.00	
Packer	5.00			4191.00	27.00 Bottom Of Top Packer
Packer	4.00			4195.00	
Stubb	1.00			4196.00	
Recorder	0.00	8365	Inside	4196.00	
Recorder	0.00	8522	Outside	4196.00	
Perforations	10.00			4206.00	
Change Over Sub	1.00			4207.00	
Drill Pipe	31.00			4238.00	
Change Over Sub	1.00			4239.00	
Perforations	17.00			4256.00	
Blank Off Sub	1.00			4257.00	725.00 Tool Interval
Packer	3.00			4260.00	
Blank Spacing	1.00			4261.00	
Perforations	19.00			4280.00	
Change Over Sub	1.00			4281.00	
Recorder	0.00	8845	Below	4281.00	
Drill Pipe	635.00			4916.00	
Change Over Sub	1.00			4917.00	
Bullnose	3.00			4920.00	1000751.00 Bottom Packers & Anchor
Total Tool Length:	752.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Landmark Resources, Inc.

9-16s-36w Wichita,KS

1616 S Voss Rd Ste 600
Houston, TX 77057

Koehn #1-9

Job Ticket: 61317

DST#: 5

ATTN: Terry McLeod

Test Start: 2017.02.17 @ 21:00:00

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:

31000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
280.00	mcw 20m 80w (oil spots)	3.372

Total Length: 280.00 ft Total Volume: 3.372 bbl

Num Fluid Samples: 0

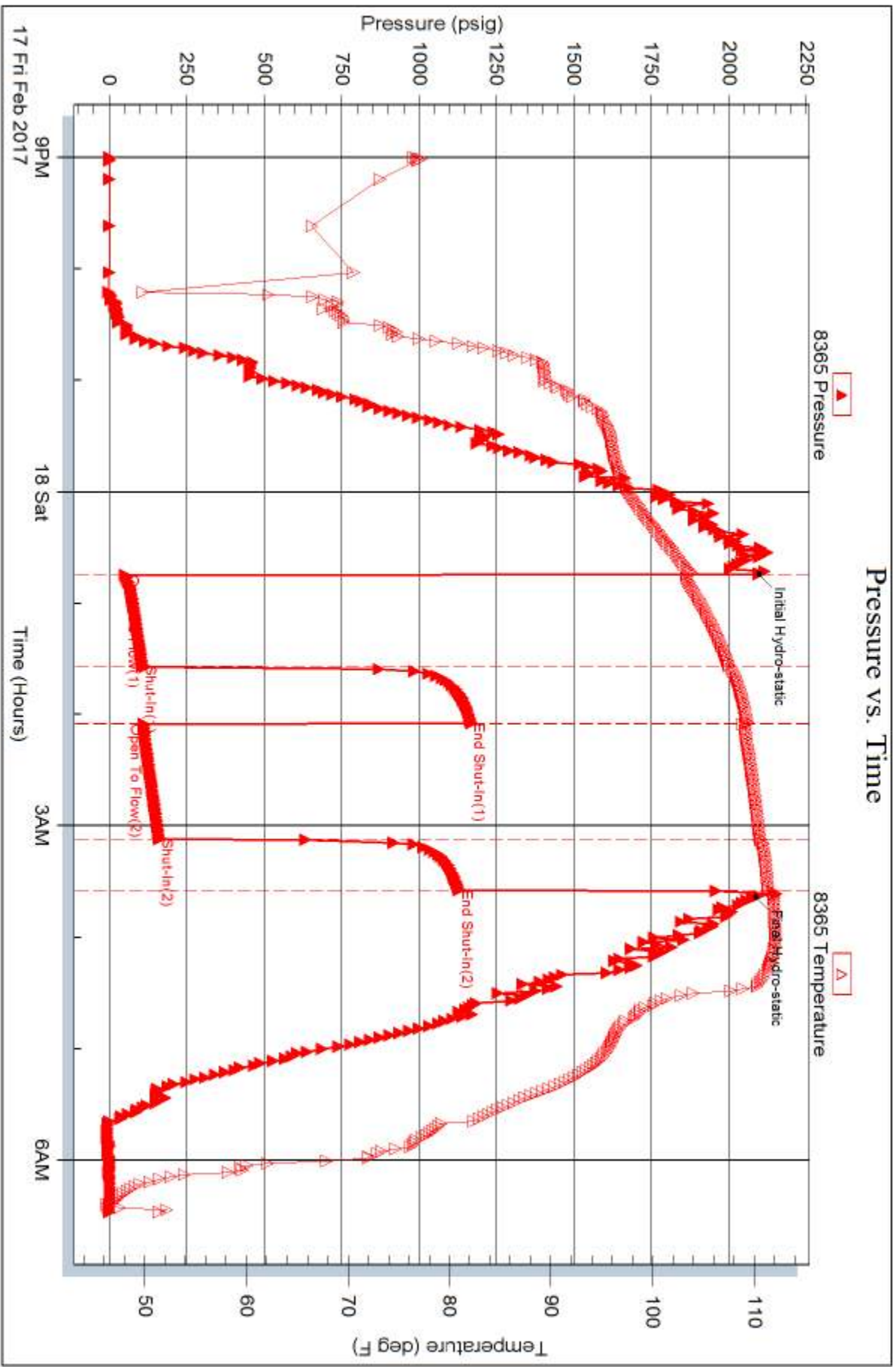
Num Gas Bombs: 0

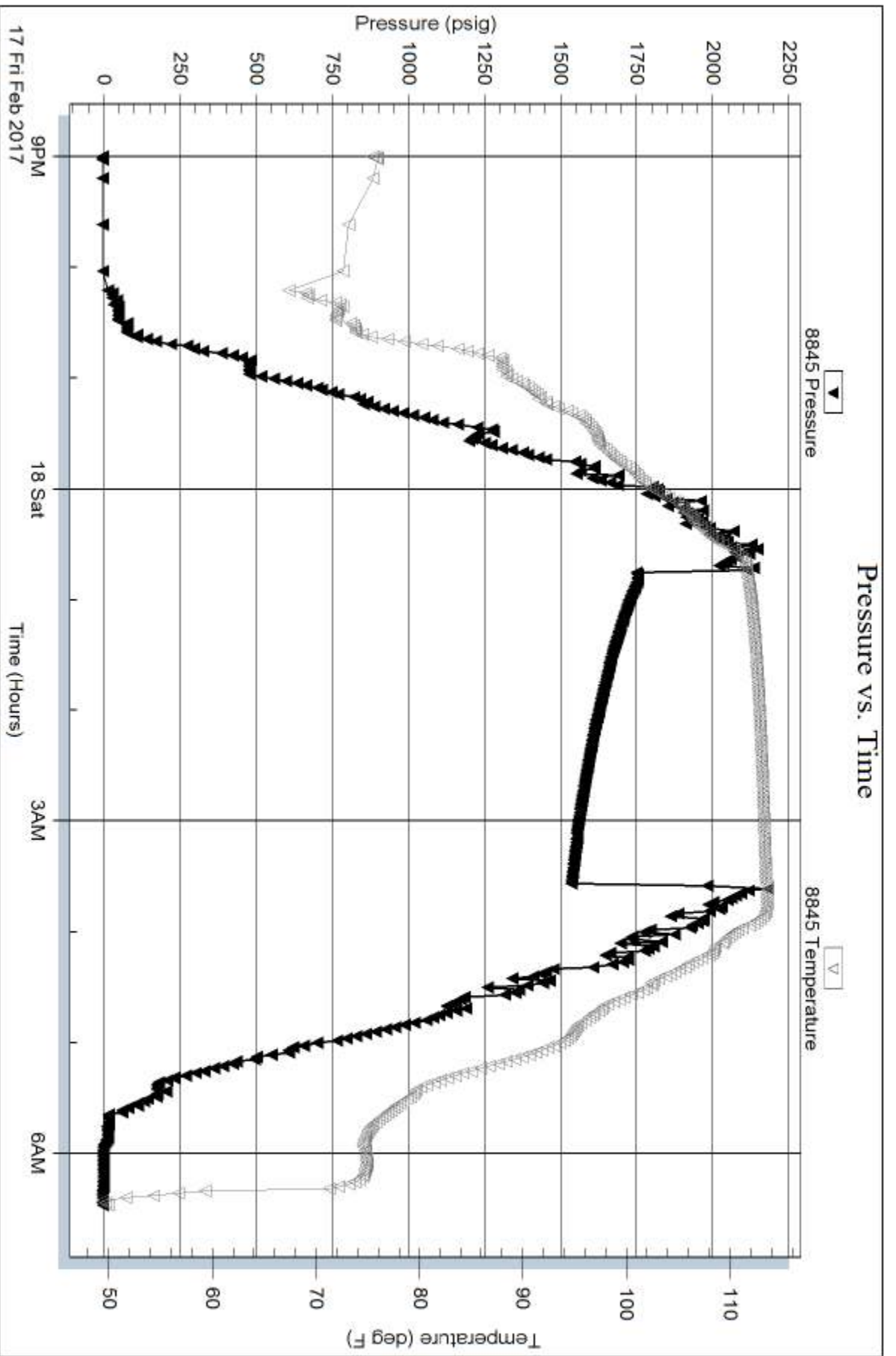
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .315 @ 49 F = 31000ppm



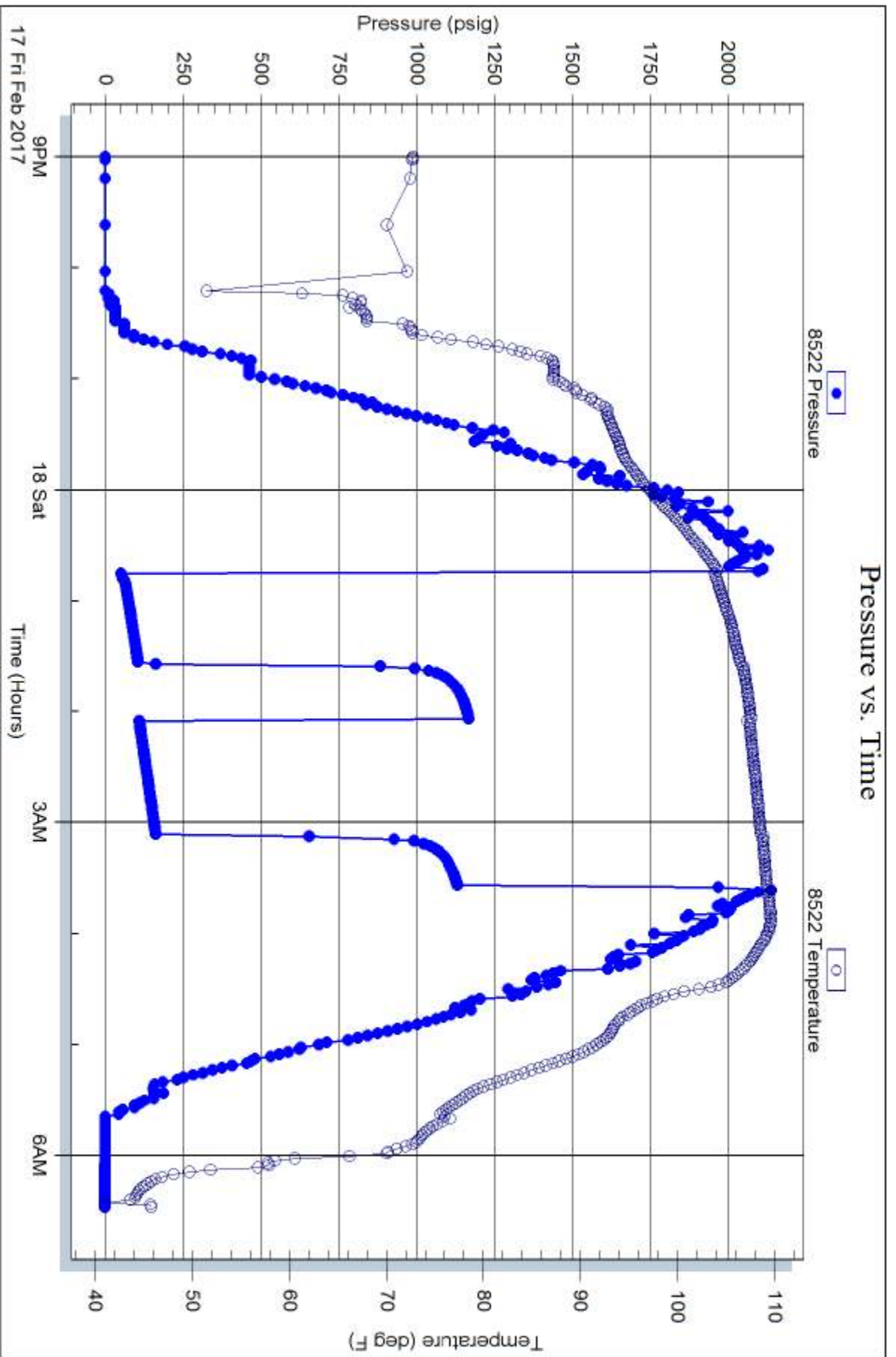


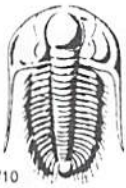
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Outside Landmark Resources, Inc.

Koehn #1-9

DST Test Number: 5





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61313

4/10

Well Name & No. Koehn 1-9 Test No. 1 Date 2/11/2017
 Company Landmark Resources, Inc Elevation 3292 KB 3281 GL
 Address 1616 S Voss Rd Ste 600 Houston, Tx 77057
 Co. Rep / Geo. Terry McLeod Rig MuAa 21
 Location: Sec. 9 Twp. 16s Rge. 36 w Co. Wichita State Ks

Interval Tested 4137-4160 Zone Tested LKC F
 Anchor Length 23' Drill Pipe Run 3896 Mud Wt. 9.2
 Top Packer Depth 4132 Drill Collars Run 245 Vis 55
 Bottom Packer Depth 4137 Wt. Pipe Run 0 WL 7.2
 Total Depth 4160 Chlorides 4000 ppm System LCM 4#

Blow Description IF BOB @ 2 min.
ISI No return.
FF BOB @ 3 min.
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1450</u>	<u>smcw</u>		<u>98</u>	<u>2</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 1450 BHT 117 Gravity — API RW 172 @ 49° F Chlorides 61000 ppm

- (A) Initial Hydrostatic 2050
- (B) First Initial Flow 114
- (C) First Final Flow 515
- (D) Initial Shut-In 1146
- (E) Second Initial Flow 529
- (F) Second Final Flow 780
- (G) Final Shut-In 1147
- (H) Final Hydrostatic 2012

- Test 1150
- Jars
- Safety Joint 75
- Circ Sub N/C
- Hourly Standby
- Mileage 92 rt 69
- Sampler
- Straddle
- Shale Packer 250
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total 1544

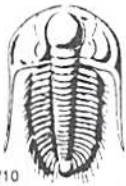
T-On Location 1660
 T-Started 1645
 T-Open 1858
 T-Pulled 2148
 T-Out 0008 2/12

Comments _____
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1544.00
 MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 60

Approved By _____ Our Representative 

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61314

4/10

Well Name & No. Koehn 1-9 Test No. 2 Date 2/12/2017
 Company Landmark Resources, Inc Elevation 3292 KB 3281 GL
 Address 1616 S Voss Rd Ste 600 Houston, Tx 77057
 Co. Rep / Geo. Terry McLead Rig Murfin 21
 Location: Sec. 9 Twp. 16s Rge. 36 w Co. Wichita State Ks

Interval Tested 4201 - 4250 Zone Tested LKC H
 Anchor Length 49' Drill Pipe Run _____ Mud Wt. 9.3
 Top Packer Depth 4196 Drill Collars Run 245 Vis 55
 Bottom Packer Depth 4201 Wt. Pipe Run Ø WL 8.0
 Total Depth 4250 Chlorides 4000 ppm System LCM 4#

Blow Description IF: 3" blow
ISI: No return
FF: 2 1/2" blow
FBI: No return

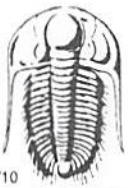
Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>50cm</u>	<u>2</u>		<u>98</u>	
Rec	Feet of <u>OTL spots in tool</u>	%gas	%oil	%water	%mud
Rec	Feet of <u>Thick mud</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 120 BHT 116 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic	<u>2096</u>	<input checked="" type="checkbox"/> Test	<u>1150</u>	T-On Location	<u>1100 2/12</u>
(B) First Initial Flow	<u>16</u>	<input type="checkbox"/> Jars		T-Started	<u>1127</u>
(C) First Final Flow	<u>89</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>13:35</u>
(D) Initial Shut-In	<u>1177</u>	<input checked="" type="checkbox"/> Circ Sub	<u>used/washed 50</u>	T-Pulled	<u>1650</u>
(E) Second Initial Flow	<u>95</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>0516 2/14</u>
(F) Second Final Flow	<u>171</u>	<input checked="" type="checkbox"/> Mileage	<u>92 R4 69 + 69</u>	Comments	<u>String stuck in hole post test</u>
(G) Final Shut-In	<u>1213</u>	<input type="checkbox"/> Sampler		<input type="checkbox"/> Ruined Shale Packer	
(H) Final Hydrostatic	<u>1990</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Packer	
Initial Open	<u>30</u>	<input checked="" type="checkbox"/> Shale Packer	<u>250</u>	<input type="checkbox"/> Extra Copies	
Initial Shut-In	<u>49</u>	<input type="checkbox"/> Extra Packer		Sub Total	
Final Flow	<u>60</u>	<input type="checkbox"/> Extra Recorder		Total	
Final Shut-In	<u>60</u>	<input checked="" type="checkbox"/> Standby		MP/DST Disc't	
		<input type="checkbox"/> Accessibility			
		Sub Total			

Approved By _____ Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **61315**

4/10

Well Name & No. Koehn 1-9 Test No. 3 Date 2/15/2017
 Company Landmark Resources, Inc Elevation 3292 KB 3281 GL
 Address 1616 S Voss Rd Ste 600 Houston, Tx 77057
 Co. Rep / Geo. Terry McLeod Rig Martin 21
 Location: Sec. 9 Twp. 16s Rge. 36w Co. Wichita State Ks

Interval Tested 4443-4490 Zone Tested Marmaton
 Anchor Length 47' Drill Pipe Run 4310 Mud Wt. 9.3
 Top Packer Depth 4438 Drill Collars Run 123 Vis 56
 Bottom Packer Depth 4443 Wt. Pipe Run 0 WL 7.2
 Total Depth 4490 Chlorides 7500 ppm System LCM 3rd

Blow Description IF : 8" blow
ISI : No return
FF : 8" blow
FSI : No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>110</u>	<u>gmco</u>	<u>10</u>	<u>70</u>	<u>20</u>	<u>0</u>
<u>60</u>	<u>gocm</u>	<u>10</u>	<u>30</u>	<u>60</u>	<u>0</u>
<u>300</u>	<u>gmco somcu</u>	<u>0</u>	<u>3</u>	<u>87</u>	<u>10</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 470 BHT 120 Gravity - API RW 239@ 62 °F Chlorides 37,000 ppm

(A) Initial Hydrostatic <u>2225</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0845</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0930</u>
(C) First Final Flow <u>112</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1151</u>
(D) Initial Shut-In <u>1240</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1436</u>
(E) Second Initial Flow <u>120</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1634</u>
(F) Second Final Flow <u>190</u>	<input checked="" type="checkbox"/> Mileage <u>12 RT 69</u>	Comments
(G) Final Shut-In <u>1193</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2153</u>	<input type="checkbox"/> Straddle	
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>45</u>	<input checked="" type="checkbox"/> Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1794</u>
	Sub Total <u>1794</u>	MP/DST Disc't

Approved By _____ Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61316

Well Name & No. Koehn 1-9 Test No. 4 Date 2/16/2017
 Company Landmark Resources, Inc Elevation 3292 KB 5281 GL
 Address 1616 Voss Rd Ste 600 Houston, Tx 77057
 Co. Rep / Geo. Terry McLeod Rig Mo-Am 21
 Location: Sec. 9 Twp. 16S Rge. 36W Co. Wichita State KS

Interval Tested 4541-4600 Zone Tested Myrc Station / Ft Scott
 Anchor Length 59 Drill Pipe Run 4395 Mud Wt. 9.3
 Top Packer Depth 4530 Drill Collars Run 123 Vis 60
 Bottom Packer Depth 4541 Wt. Pipe Run 0 WL 8.8
 Total Depth 4600 Chlorides 8000 ppm System LCM 2#

Blow Description IF 1/2" blow receded to surface
ISF No return
FF No blow
FSF No return.

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

Rec Total 15 BHT 115 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2324</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0430</u>
(B) First Initial Flow <u>18</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0531</u>
(C) First Final Flow <u>21</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0843</u>
(D) Initial Shut-In <u>813</u>	<input checked="" type="checkbox"/> Circ Sub <u>NYC</u>	T-Pulled <u>1043</u>
(E) Second Initial Flow <u>23</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1230</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>92 NY 69 + 69</u>	Comments <u>loaded tools 2/17 10:30</u>
(G) Final Shut-In <u>715</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2147</u>	<input type="checkbox"/> Straddle	

Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1863</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1863</u>	

Approved By _____ Our Representative 

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 61317

4/10

Well Name & No. Koehn 1-9 Test No. S Date 2-18-2017
 Company Landmark Resources, LLC Inc Elevation 3292 KB 3251 GL
 Address 1616 Yoss Rd Ste 600 Houston Tx 77057
 Co. Rep / Geo. Terry McLeod Rig Martin 21
 Location: Sec. 9 Twp. 16S Rge. 36W Co. Wichita State Ks

Interval Tested 4195 - 4260 Zone Tested LKC M
 Anchor Length 65 - 660 Drill Pipe Run 4137 Mud Wt. 9.4
 Top Packer Depth 4190 - 4195 Drill Collars Run 61 Vis 58
^{Strat} Bottom Packer Depth 4260 Wt. Pipe Run 0 WL 7.2
 Total Depth 4920 Chlorides 7000 ppm System LCM 4#

Blow Description IF 5" blow
ISI No return
FF 4" blow
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>280</u>	<u>ncw</u>			<u>80</u>	<u>20</u>
	<u>OTL SPOTS</u>				

Rec Total 280 BHT 111 Gravity — API RW 315 @ 49° F Chlorides 31000 ppm

(A) Initial Hydrostatic <u>2096</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2045</u>
(B) First Initial Flow <u>52</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>2100</u>
(C) First Final Flow <u>108</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0045</u>
(D) Initial Shut-In <u>1170</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>0338</u>
(E) Second Initial Flow <u>112</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0628</u>
(F) Second Final Flow <u>162</u>	<input checked="" type="checkbox"/> Mileage <u>92 Rt</u> <u>69</u>	Comments
(G) Final Shut-In <u>1130</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2086</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input type="checkbox"/> Ruined Shale Packer
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer

Initial Open <u>45</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	Total <u>2394</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	
	Sub Total <u>2394</u>	

Approved By _____ Our Representative 

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Remit To: BJ Services LLC
P.O. Box 733585
DALLAS, TX 75373-3585

INVOICE

Invoice Number: 153948

Invoice Date: Feb 11, 2017

Page: 1

Voice: (832) 482-3742

Fax: (832) 482-3738

Federal Tax I.D.#: 81-1373543

Bill To:
LANDMARK RESOURCES INC 1616 S. VOSS SUITE 600 HOUSTON, TX 77057-1264

Customer ID	Field Ticket #	Payment Terms	
LANDMARK	68276	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS101	Oakley	Feb 7, 2017	3/13/17

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Koehn 1-9		
1.00	CEMENT SERVICE	Pump Casing Cement 0-500	1,512.25	1,512.25
191.00	CEMENT SERVICE	PHDL	2.48	473.68
605.00	CEMENT SERVICE	DRYG	2.75	1,663.75
70.00	CEMENT SERVICE	MILV	4.40	308.00
70.00	CEMENT SERVICE	MIHV	7.70	539.00
175.00	CEMENT MATERIALS	Class A Common	17.90	3,132.50
494.00	CEMENT MATERIALS	Calcium Chloride	1.10	543.40
1.00	JOB DISCOUNT	Job Discount if paid within agreed terms - Cement Services	1,708.73	-1,708.73
1.00	JOB DISCOUNT	Job Discount if paid within agreed terms - Materials	1,398.75	-1,398.75
1.00	E-FORSLUND.MERRELL	SERVICE SUPERVISOR		
1.00	E-MCGHGHY.WAYNE	EQUIPMENT OPERATOR		
1.00	E-BROWN.CORY	MECHANIC		

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. ONLY IF PAID ON OR BEFORE <div style="border: 1px solid black; padding: 2px; display: inline-block;">Mar 13, 2017</div> 1 1/2% CHARGED THEREAFTER.	Subtotal	5,065.10
	Sales Tax	193.56
	Total Invoice Amount	5,258.66
	Payment/Credit Applied	
	TOTAL	5,258.66

SERVICE POINT:

Ogkley

DATE <u>2-7-17</u>	SEC. <u>9</u>	TWP. <u>16S</u>	RANGE <u>36</u>	CALLED OUT	ON LOCATION <u>12:30 Pm</u>	JOB START <u>2:00pm</u>	JOB FINISH <u>2:30pm</u>
LEASE <u>Koehn</u>	WELL # <u>1-9</u>	LOCATION <u>Leat' 14N 3 3/4 E Sinto</u>			COUNTY <u>Wichita</u>	STATE <u>KS</u>	
OLD OR <u>(NEW)</u> (Circle one)							

CONTRACTOR MurFin 21
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 T.D. 289'
 CASING SIZE 8 5/8 DEPTH 293'
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 15'
 PERFS.
 DISPLACEMENT 17,70 BBL

OWNER Same
 CEMENT
 AMOUNT ORDERED 175 sks com 39% cc

EQUIPMENT
 PUMP TRUCK CEMENTER Andrew Forstland
 # 431 HELPER Wayne Maghey
 BULK TRUCK
 # 890 DRIVER Cory Brown
 BULK TRUCK
 # DRIVER

COMMON 175 sks @ 17.90 3132.50
 POZMIX @
 GEL @
 CHLORIDE 494# @ 1.10 543.40
 ASC @
 @
 @
 @
 @
 @
 @
 @

REMARKS:

Circulated 6 BBL TO PT

Thank you

CHARGE TO: Landmark
 STREET _____
 CITY _____ STATE _____ ZIP _____

TOTAL 3,680.90
 DISCOUNT 38% 1,398.75

SERVICE

HANDLING 191 cu/ft @ 2.48 473.68
 MILEAGE 2.75 ton/mile 1663.25
 DEPTH OF JOB _____
 PUMP TRUCK CHARGE _____ 152.25
 EXTRA FOOTAGE @ _____
 HV MILEAGE 20 miles @ 2.70 539.00
 LV MILEAGE 20 miles @ 4.40 308.00
 @ _____
 @ _____

TOTAL 4,496.68
 DISCOUNT 38% 1,708.73

PLUG & FLOAT EQUIPMENT

@ _____
 @ _____
 @ _____
 @ _____
 @ _____

TOTAL _____
 DISCOUNT _____ %

To: BJ Services LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Juan Tinoco

SIGNATURE Juan Tinoco

SALES TAX (If Any) _____
 TOTAL CHARGES 8,177.58
 DISCOUNT 3,107.48 (38%) IF PAID IN 30 DAYS
 NET TOTAL 5030.9 IF PAID IN 30 DAYS

Operator Name: Landmark Resources, Inc.
 Well Name: Koehn 1-9
 January 24, 2017



Cost Estimate

8 5/8 " Surface

Operations	Qty	UoM	Unit Price	Total	Net Price
PUMP,CASING CEMENT 0-500 FT	1.00	min. 4 hr	\$1,512.25	\$1,512.25	\$937.60
			Subtotal:	\$1,512.25	\$937.60
Equipment Sales					
Wooden Plug	1.00	each	\$110.00	\$110.00	\$68.20
			Subtotal:	\$110.00	\$68.20
Products					
CLASS A COMMON	175	sack	\$17.90	\$3,132.50	\$1,942.15
CALCIUM CHLORIDE, PELLETS OR FLAKE	494	pound	\$1.10	\$543.40	\$336.91
			Subtotal:	\$4,021.35	\$2,493.24
Transport					
Products handling service charge	191.00	per cu. Ft.	\$2.48	\$473.68	\$293.68
Drayage for Products	605.00	ton-mile	\$2.75	\$1,663.75	\$1,031.53
Light Vehicle Mileage	70.00	per mile	\$4.40	\$308.00	\$190.96
Heavy Vehicle Mileage	70.00	per mile	\$7.70	\$539.00	\$334.18
			Subtotal:	\$2,984.43	\$1,850.35

TOTAL INVOICE EXCLUDING ADDITIONAL ITEMS				\$8,628.03	\$5,349.38
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Additional Items	Qty	UoM	Unit Price	Total	Net Price
Additional hours, in excess of set hours	1.00	per hour	\$ 440.00	\$ 440.00	\$ 220.00
			Subtotal:	\$ 440.00	\$ 220.00

The data contained in this proposal is based on the best information available at the time of writing and is subject to further analysis and testing. The prices contained in this proposal are estimates and may vary depending on the work actually performed. Pricing does not include federal, state and local taxes or royalties. This quotation is based on being awarded the work on a first call basis and may be subject to change for second or third call. This quotation is valid for thirty (30) days after listed proposal date, and may be subject to change if the work is performed more than thirty (30) days after the listed proposal date.

TERMS and CONDITIONS

Allied OFS' performance of services and sale of materials is expressly conditioned upon the applicability of the Terms and Conditions listed on the service ticket provided at the job site. The Terms and Conditions include, among other things, an indemnity in favor of Allied OFS from Customer for damage to the well bore, reservoir damage, loss of the hole, blowouts and loss of control of the well, even if caused by the negligence or other fault of Allied OFS. The Terms and Conditions also limit the warranties provided by Allied OFS and the remedies to which Customer may be entitled in the event of a breach of warranty by Allied OFS. For these reasons, we strongly recommend that you carefully review a copy of the Terms and Conditions.

By requesting that Allied OFS perform the services described herein, Customer acknowledges that such Terms and Conditions are applicable to the services. Further, by requesting the services, Customer warrants that its representative on the well location or other service site will be fully authorized to acknowledge such Terms and Conditions by executing a service ticket or other document presented by Allied OFS containing such Terms and Conditions.

In the event that Customer and Allied OFS have executed a Master Services Agreement covering the work to be performed, such Master Services Agreement shall govern in place of the Terms and Conditions.