



DRILL STEM TEST REPORT

Prepared For: **Bickle Energies Inc.**

PO Box 816
Hays KS 67601

ATTN: Keith Reavis

Kuhl-Hart Unit #26-1

26-12s-33w Logan, KS

Start Date: 2017.06.26 @ 00:01:15

End Date: 2017.06.26 @ 07:37:15

Job Ticket #: 63748 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.07.03 @ 07:37:48



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

Job Ticket: 63748

DST#: 1

ATTN: Keith Reavis

Test Start: 2017.06.26 @ 00:01:15

GENERAL INFORMATION:

Formation: **LKC K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:22:00

Time Test Ended: 07:37:15

Test Type: Conventional Bottom Hole (Initial)

Tester: Mike Roberts

Unit No: 81

Interval: 4308.00 ft (KB) To 4336.00 ft (KB) (TVD)

Reference Elevations: 3109.00 ft (KB)

Total Depth: 4336.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6749 Outside

Press@RunDepth: 37.96 psig @ 4309.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.06.26

End Date:

2017.06.26

Last Calib.:

2017.06.27

Start Time: 00:01:15

End Time:

07:37:15

Time On Btm:

2017.06.26 @ 02:21:45

Time Off Btm:

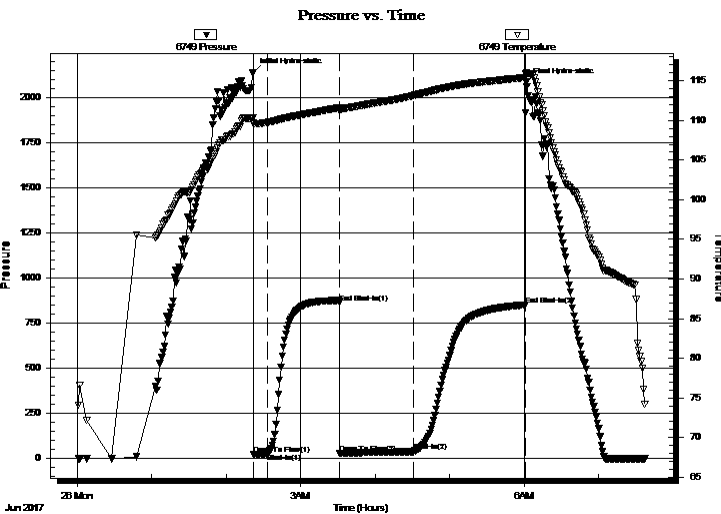
2017.06.26 @ 06:02:00

TEST COMMENT: IF: Built to weak surface blow

IS: No return blow

FF: Built to 1/4" blow

FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2137.61	110.31	Initial Hydro-static
1	24.32	109.59	Open To Flow (1)
12	27.04	109.75	Shut-In(1)
70	863.48	111.60	End Shut-In(1)
70	29.44	111.25	Open To Flow (2)
130	37.96	113.15	Shut-In(2)
220	850.99	115.39	End Shut-In(2)
221	2083.75	116.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	ocm 10%o 90%m	0.15

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

Job Ticket: 63748

DST#: 1

ATTN: Keith Reavis

Test Start: 2017.06.26 @ 00:01:15

Tool Information

Drill Pipe:	Length: 4173.00 ft	Diameter: 3.80 inches	Volume: 58.54 bbl	Tool Weight: 1500.00 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: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 59.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4308.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	56.00 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			4281.00	
Shut In Tool	5.00			4286.00	
Hydraulic tool	5.00			4291.00	
Jars	5.00			4296.00	
Safety Joint	3.00			4299.00	
Packer	5.00			4304.00	28.00 Bottom Of Top Packer
Packer	4.00			4308.00	
Stubb	1.00			4309.00	
Recorder	0.00	8672	Inside	4309.00	
Recorder	0.00	6749	Outside	4309.00	
Perforations	22.00			4331.00	
Bullnose	5.00			4336.00	28.00 Bottom Packers & Anchor

Total Tool Length: 56.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

Job Ticket: 63748

DST#: 1

ATTN: Keith Reavis

Test Start: 2017.06.26 @ 00:01:15

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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.54 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	ocm 10%o 90%m	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

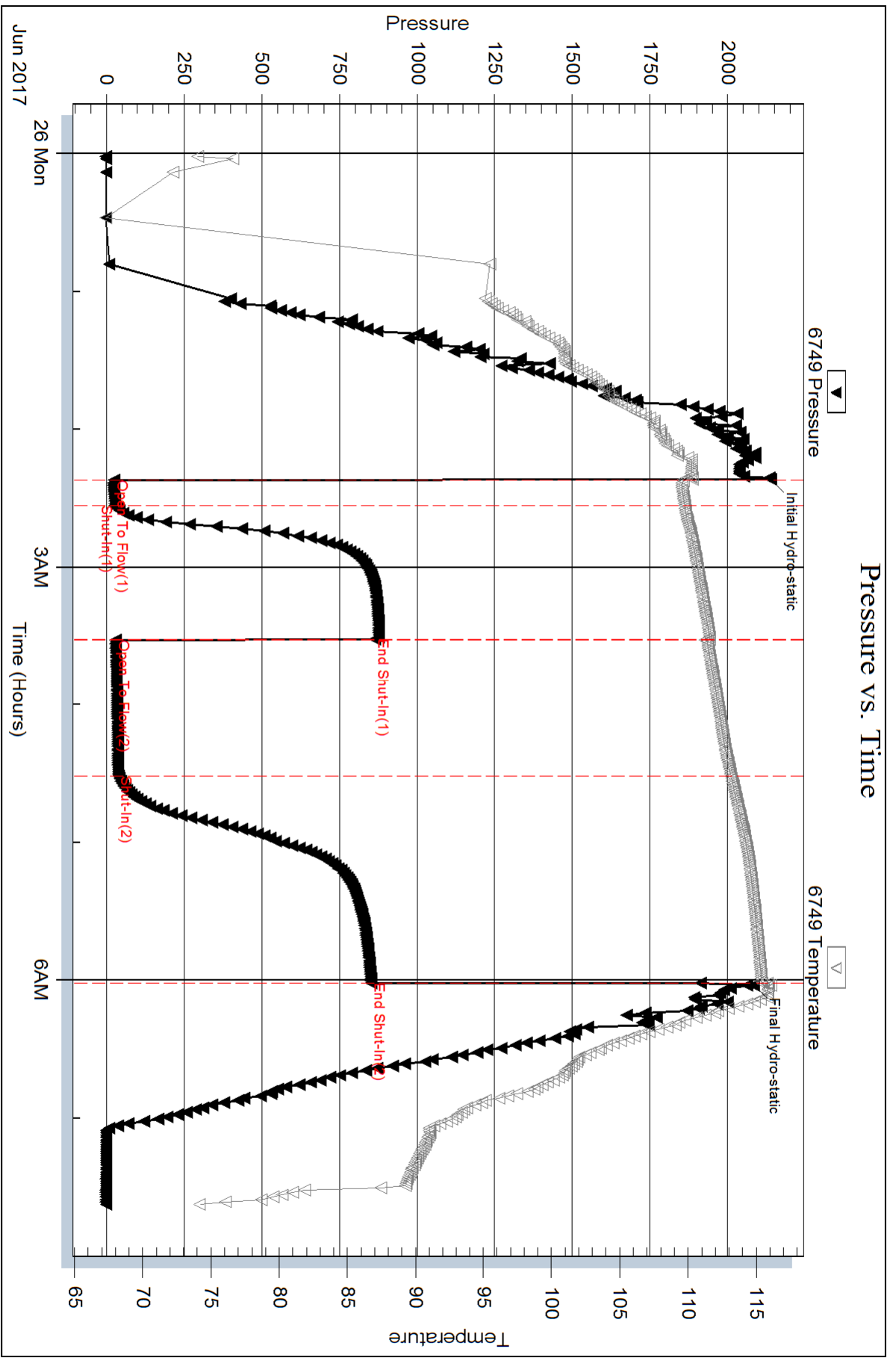
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



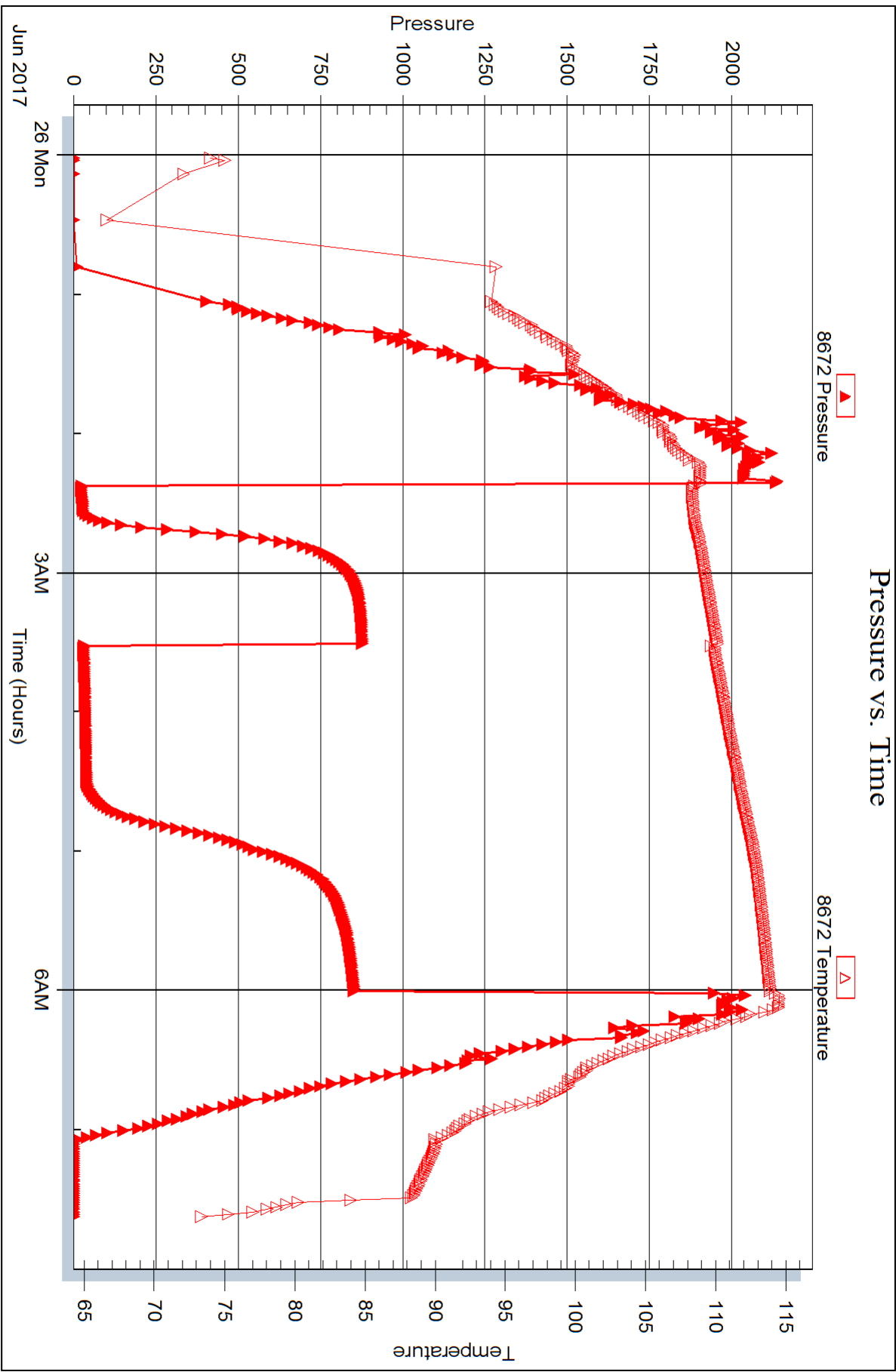
Serial #: 8672

Inside

Bickle Energies Inc.

Kuhl-Hart Unit #26-1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Bickle Energies Inc.**

PO Box 816
Hays KS 67601

ATTN: Keith Reavis

Kuhl-Hart Unit #26-1

26-12s-33w Logan, KS

Start Date: 2017.06.28 @ 03:05:15

End Date: 2017.06.28 @ 09:14:15

Job Ticket #: 63749 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.07.03 @ 07:37:21



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

ATTN: Keith Reavis

Job Ticket: 63749

DST#: 2

Test Start: 2017.06.28 @ 03:05:15

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:28:15

Time Test Ended: 09:14:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4424.00 ft (KB) To 4504.00 ft (KB) (TVD)

Reference Elevations: 3109.00 ft (KB)

Total Depth: 4504.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6749 Outside

Press@RunDepth: 60.90 psig @ 4499.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.06.28

End Date:

2017.06.28

Last Calib.:

2017.06.28

Start Time: 03:05:15

End Time:

09:14:15

Time On Btm:

2017.06.28 @ 05:28:00

Time Off Btm:

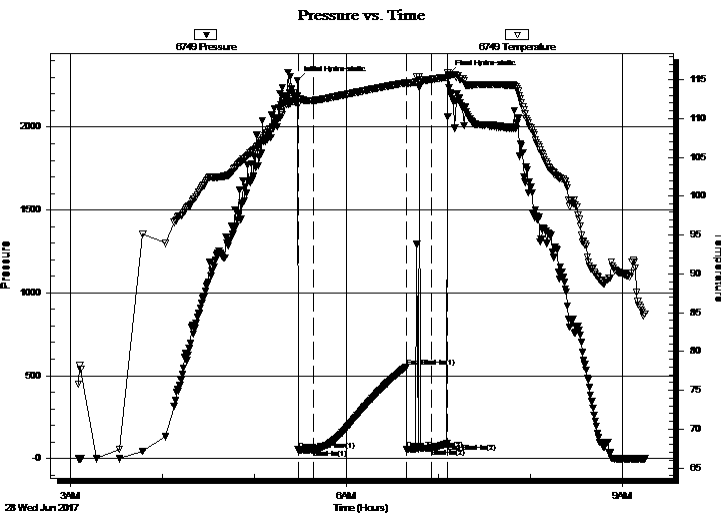
2017.06.28 @ 07:06:15

TEST COMMENT: IF: Built to weak surface blow

IS: No return blow

FF: No blow ----flushed tool----weak surface blow died in 30 seconds.

FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2279.02	112.95	Initial Hydro-static
1	52.51	111.77	Open To Flow (1)
11	53.10	112.33	Shut-In(1)
71	553.20	114.61	End Shut-In(1)
71	53.57	114.43	Open To Flow (2)
87	60.90	115.04	Shut-In(2)
98	90.89	115.33	End Shut-In(2)
99	2316.50	115.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	w cm 2%w 98%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

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

Job Ticket: 63749

DST#: 2

ATTN: Keith Reavis

Test Start: 2017.06.28 @ 03:05:15

Tool Information

Drill Pipe:	Length: 4300.00 ft	Diameter: 3.80 inches	Volume: 60.32 bbl	Tool Weight: 1500.00 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: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 60.91 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	4424.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	108.00 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			4397.00	
Shut In Tool	5.00			4402.00	
Hydraulic tool	5.00			4407.00	
Jars	5.00			4412.00	
Safety Joint	3.00			4415.00	
Packer	5.00			4420.00	28.00 Bottom Of Top Packer
Packer	4.00			4424.00	
Stubb	1.00			4425.00	
Perforations	4.00			4429.00	
Change Over Sub	1.00			4430.00	
Drill Pipe	63.00			4493.00	
Change Over Sub	1.00			4494.00	
Perforations	5.00			4499.00	
Recorder	0.00	8672	Inside	4499.00	
Recorder	0.00	6749	Outside	4499.00	
Bullnose	5.00			4504.00	80.00 Bottom Packers & Anchor
Total Tool Length:	108.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

Job Ticket: 63749

DST#: 2

ATTN: Keith Reavis

Test Start: 2017.06.28 @ 03:05:15

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: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.95 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	w cm 2%w 98%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

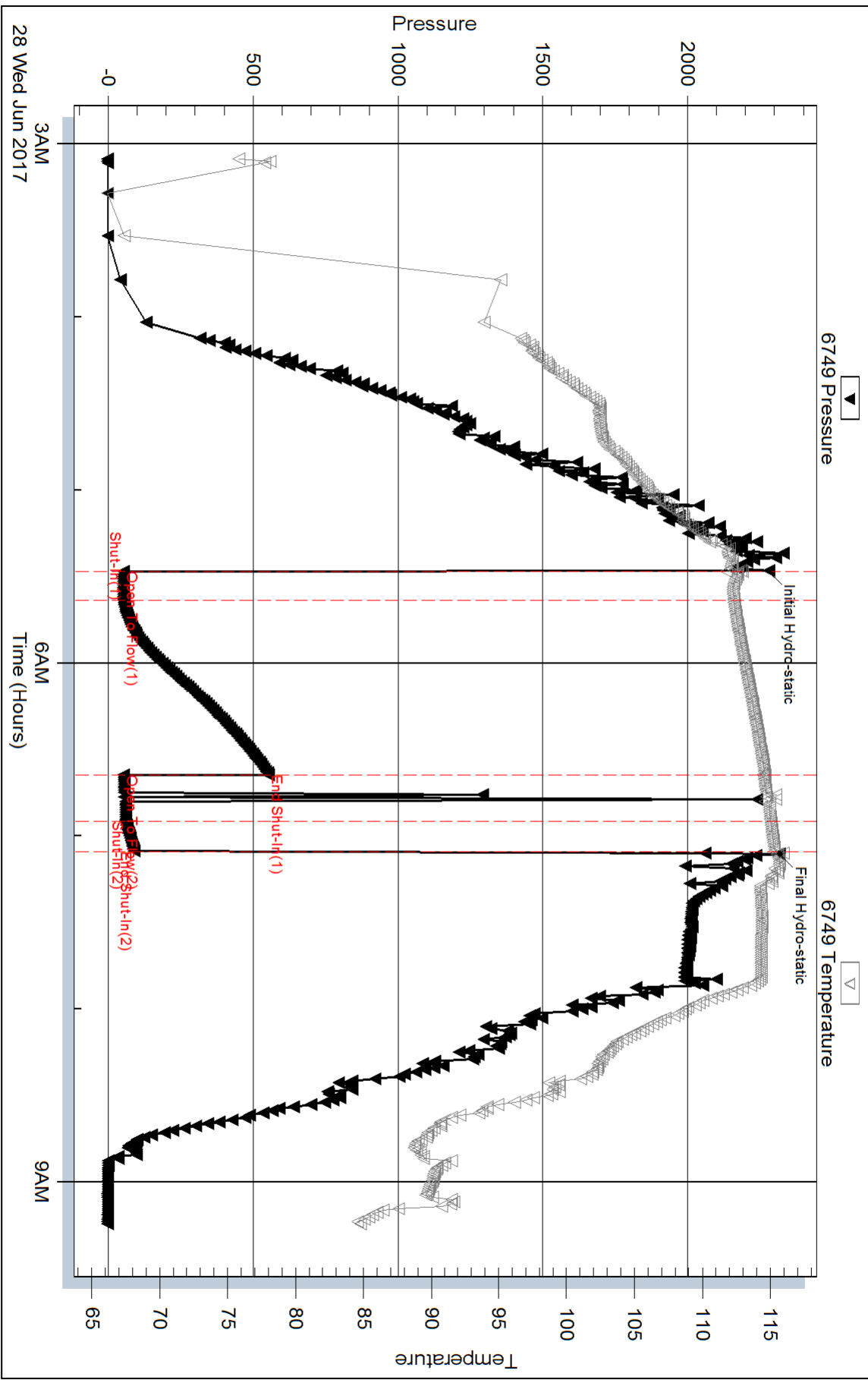
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



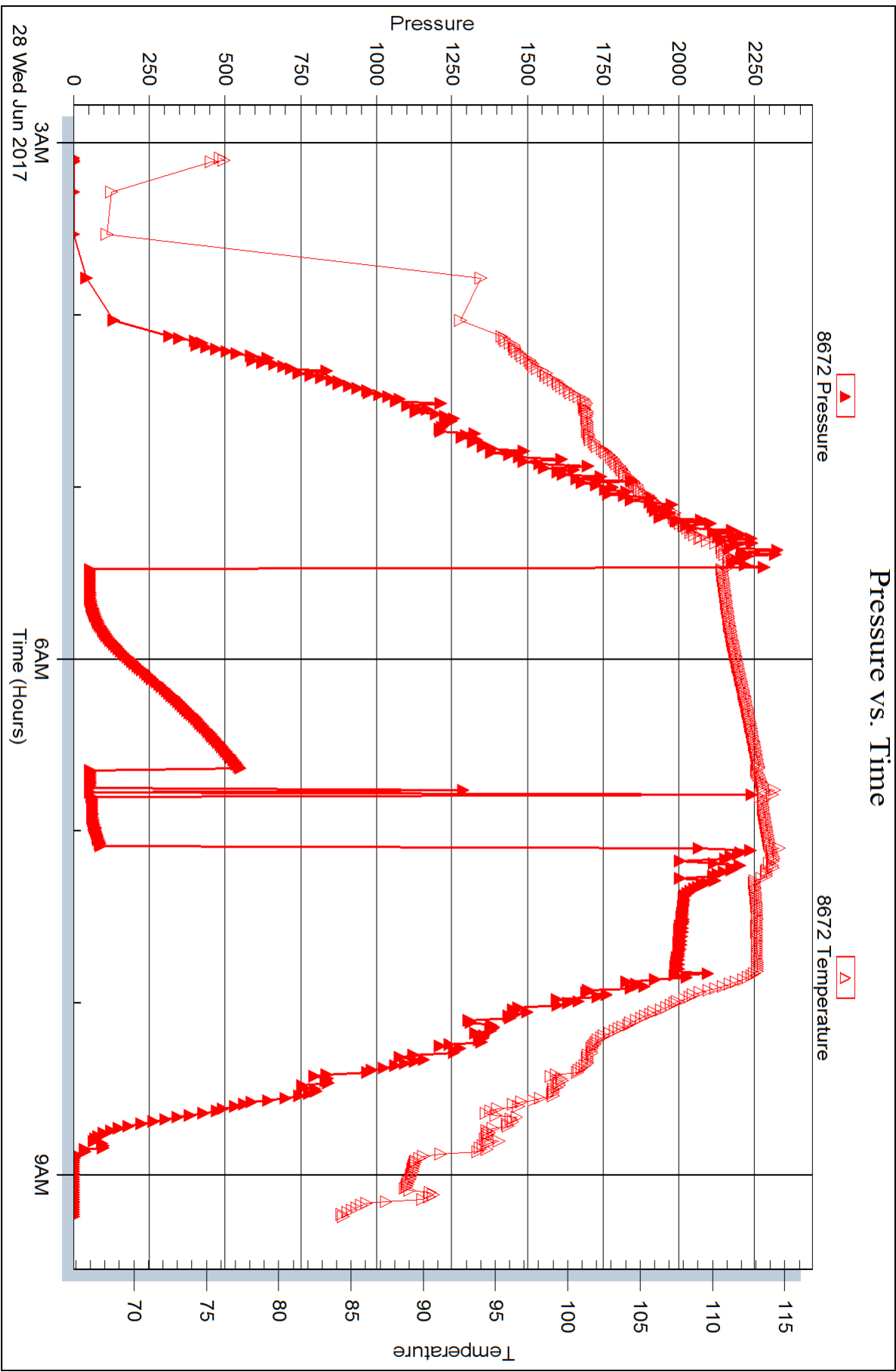
Serial #: 8672

Inside

Bickle Energies Inc.

Kuhl-Hart Unit #26-1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Bickle Energies Inc.**

PO Box 816
Hays KS 67601

ATTN: Keith Reavis

Kuhl-Hart Unit #26-1

26-12s-33w Logan, KS

Start Date: 2017.06.29 @ 03:20:15

End Date: 2017.06.29 @ 10:17:45

Job Ticket #: 63750 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.07.03 @ 07:36:55



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

ATTN: Keith Reavis

Job Ticket: 63750

DST#: 3

Test Start: 2017.06.29 @ 03:20:15

GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:56:30

Time Test Ended: 10:17:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4614.00 ft (KB) To 4673.00 ft (KB) (TVD)

Reference Elevations: 3109.00 ft (KB)

Total Depth: 4673.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6749 Outside

Press@RunDepth: 43.24 psig @ 4668.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.06.29

End Date:

2017.06.29

Last Calib.:

2017.06.29

Start Time: 03:20:15

End Time:

10:17:45

Time On Btm:

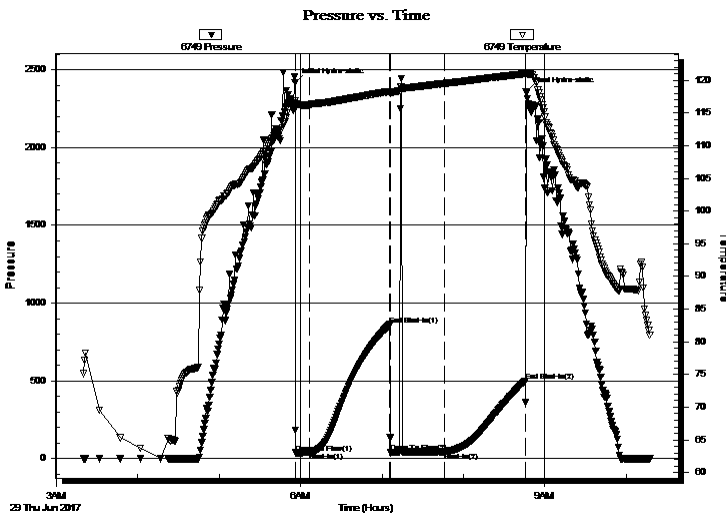
2017.06.29 @ 05:56:00

Time Off Btm:

2017.06.29 @ 08:46:15

TEST COMMENT: IF: Built to 1/8" blow
IS: No return blow
FF: No blow
FS: No return blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2418.84	116.87	Initial Hydro-static
1	36.50	116.32	Open To Flow (1)
11	37.91	116.24	Shut-In(1)
70	860.85	118.30	End Shut-In(1)
71	37.87	118.09	Open To Flow (2)
110	43.24	119.50	Shut-In(2)
170	499.81	121.00	End Shut-In(2)
171	2358.35	121.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100%m	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

Job Ticket: 63750

DST#: 3

ATTN: Keith Reavis

Test Start: 2017.06.29 @ 03:20:15

Tool Information

Drill Pipe:	Length: 4490.00 ft	Diameter: 3.80 inches	Volume: 62.98 bbl	Tool Weight: 1500.00 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: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 63.57 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4614.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	59.00 ft			
Tool Length:	87.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4587.00	
Shut In Tool	5.00			4592.00	
Hydraulic tool	5.00			4597.00	
Jars	5.00			4602.00	
Safety Joint	3.00			4605.00	
Packer	5.00			4610.00	28.00 Bottom Of Top Packer
Packer	4.00			4614.00	
Stubb	1.00			4615.00	
Perforations	5.00			4620.00	
Change Over Sub	1.00			4621.00	
Drill Pipe	31.00			4652.00	
Change Over Sub	1.00			4653.00	
Perforations	15.00			4668.00	
Recorder	0.00	8672	Inside	4668.00	
Recorder	0.00	6749	Outside	4668.00	
Bullnose	5.00			4673.00	59.00 Bottom Packers & Anchor
Total Tool Length:	87.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

Job Ticket: 63750

DST#: 3

ATTN: Keith Reavis

Test Start: 2017.06.29 @ 03:20:15

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: 57.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.57 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

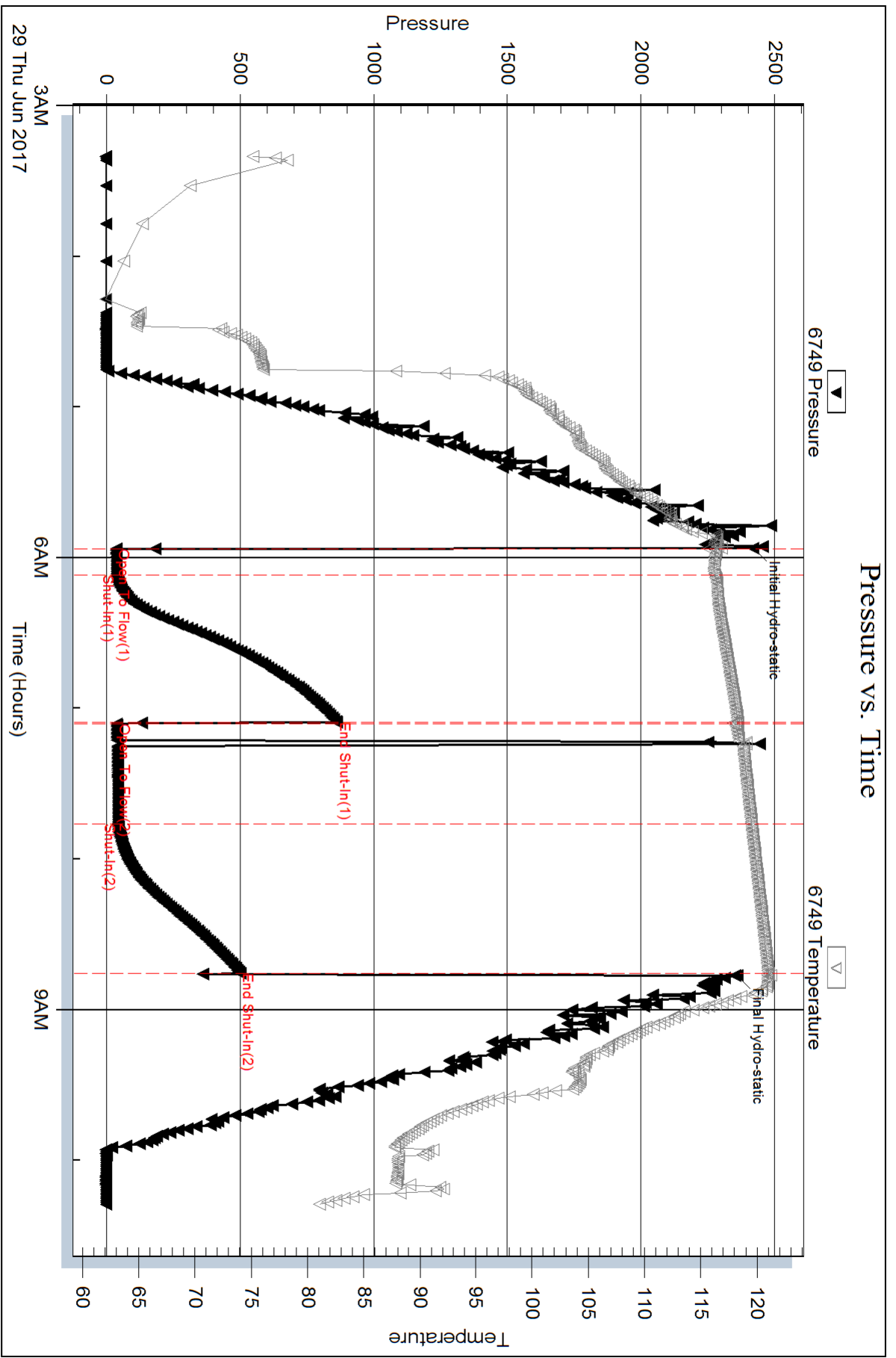
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



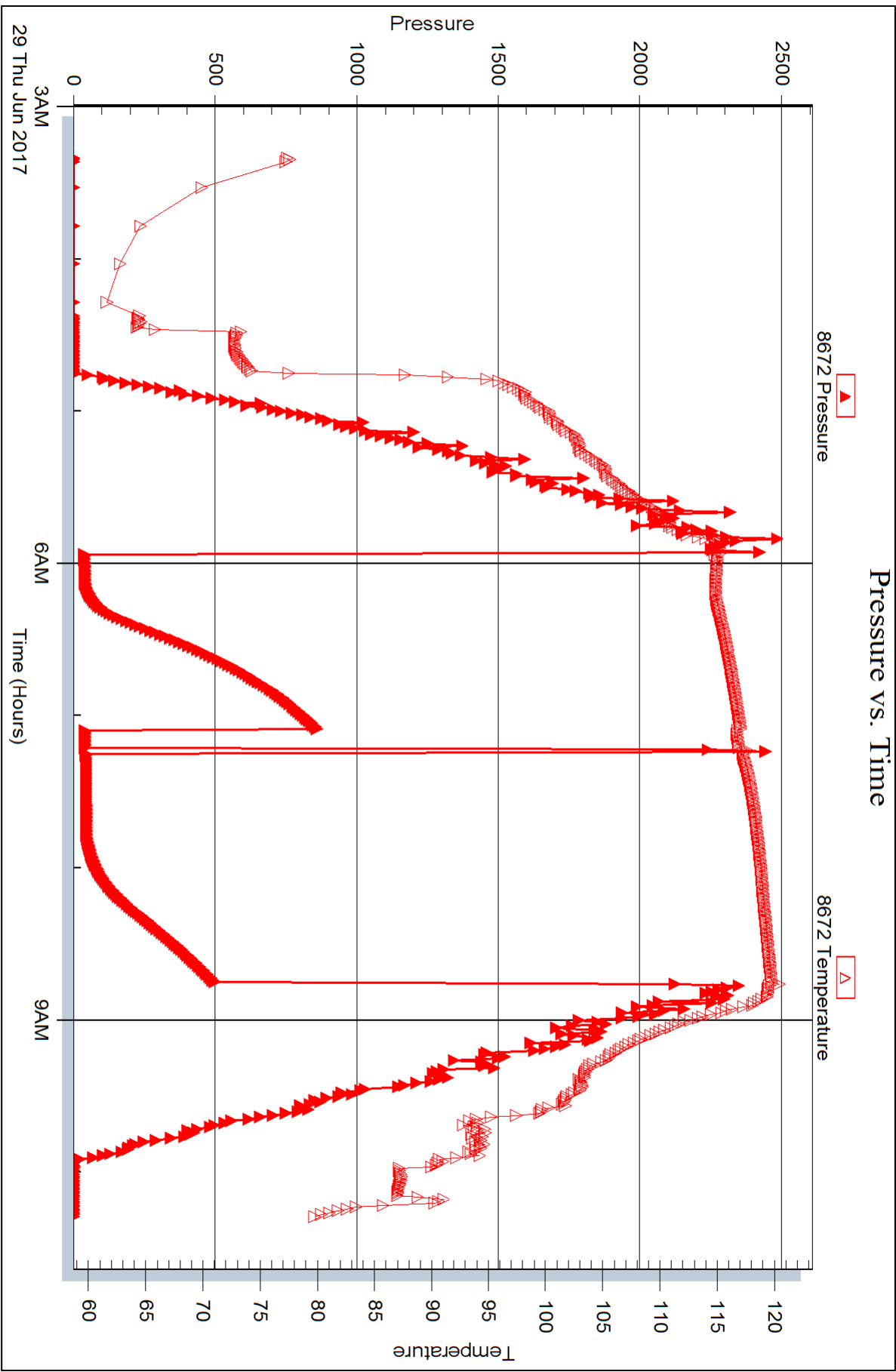
Serial #: 8672

Inside

Bickle Energies Inc.

Kuhl-Hart Unit #26-1

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Bickle Energies Inc.**

PO Box 816
Hays KS 67601

ATTN: Keith Reavis

Kuhl-Hart Unit #26-1

26-12s-33w Logan, KS

Start Date: 2017.06.29 @ 18:25:15

End Date: 2017.06.30 @ 00:44:00

Job Ticket #: 63826 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2017.07.03 @ 07:36:22



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

ATTN: Keith Reavis

Job Ticket: 63826

DST#: 4

Test Start: 2017.06.29 @ 18:25:15

GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:18:15

Time Test Ended: 00:44:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Mike Roberts

Unit No: 81

Interval: 4669.00 ft (KB) To 4719.00 ft (KB) (TVD)

Reference Elevations: 3109.00 ft (KB)

Total Depth: 4719.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6749 Outside

Press@RunDepth: 48.76 psig @ 4714.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.06.29

End Date:

2017.06.30

Last Calib.: 2017.06.30

Start Time: 18:25:15

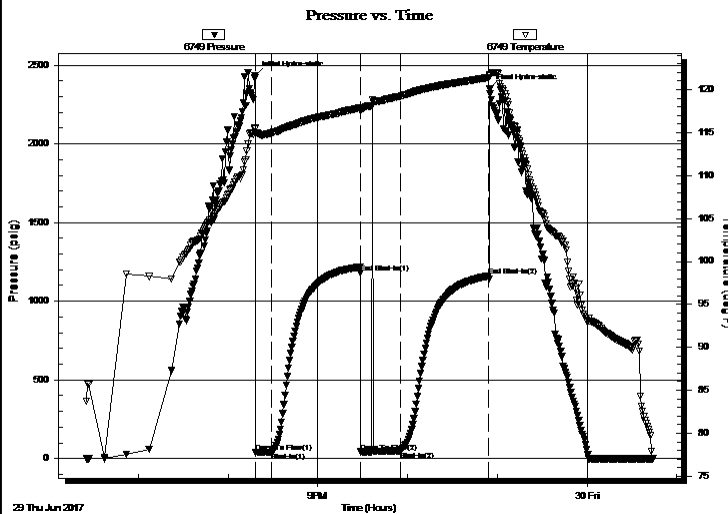
End Time:

00:44:00

Time On Btm: 2017.06.29 @ 20:18:00

Time Off Btm: 2017.06.29 @ 22:55:00

TEST COMMENT: IF: Built to weak surface blow
IS: No return blow
FF: No blow ----flushed tool----no blow
FS: No return blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2433.21	115.53	Initial Hydro-static
1	37.46	114.89	Open To Flow (1)
11	39.05	114.95	Shut-In(1)
71	1177.63	117.86	End Shut-In(1)
71	42.06	117.54	Open To Flow (2)
97	48.76	119.23	Shut-In(2)
157	1159.78	121.41	End Shut-In(2)
157	2347.79	121.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	ocm 1%o 99%m	0.02

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

Job Ticket: 63826

DST#: 4

ATTN: Keith Reavis

Test Start: 2017.06.29 @ 18:25:15

Tool Information

Drill Pipe:	Length: 4549.00 ft	Diameter: 3.80 inches	Volume: 63.81 bbl	Tool Weight: 1500.00 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: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 64.40 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4669.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	78.00 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			4642.00	
Shut In Tool	5.00			4647.00	
Hydraulic tool	5.00			4652.00	
Jars	5.00			4657.00	
Safety Joint	3.00			4660.00	
Packer	5.00			4665.00	28.00 Bottom Of Top Packer
Packer	4.00			4669.00	
Stubb	1.00			4670.00	
Perforations	5.00			4675.00	
Change Over Sub	1.00			4676.00	
Drill Pipe	32.00			4708.00	
Change Over Sub	1.00			4709.00	
Perforations	5.00			4714.00	
Recorder	0.00	8672	Inside	4714.00	
Recorder	0.00	6749	Outside	4714.00	
Bullnose	5.00			4719.00	50.00 Bottom Packers & Anchor
Total Tool Length:	78.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies Inc.

26-12s-33w Logan, KS

PO Box 816
Hays KS 67601

Kuhl-Hart Unit #26-1

Job Ticket: 63826

DST#: 4

ATTN: Keith Reavis

Test Start: 2017.06.29 @ 18:25:15

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: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.58 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	ocm 1%o 99%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

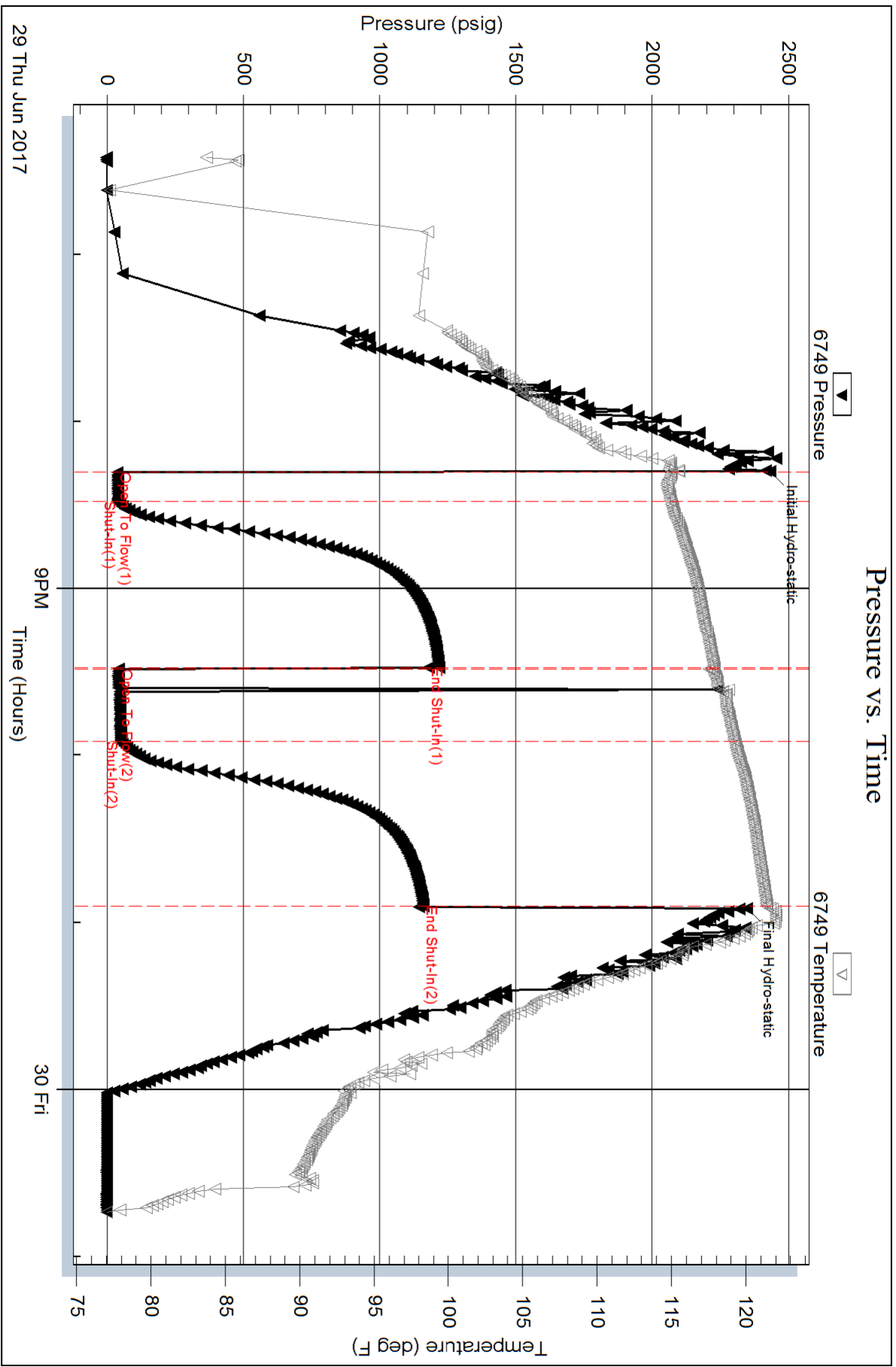
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



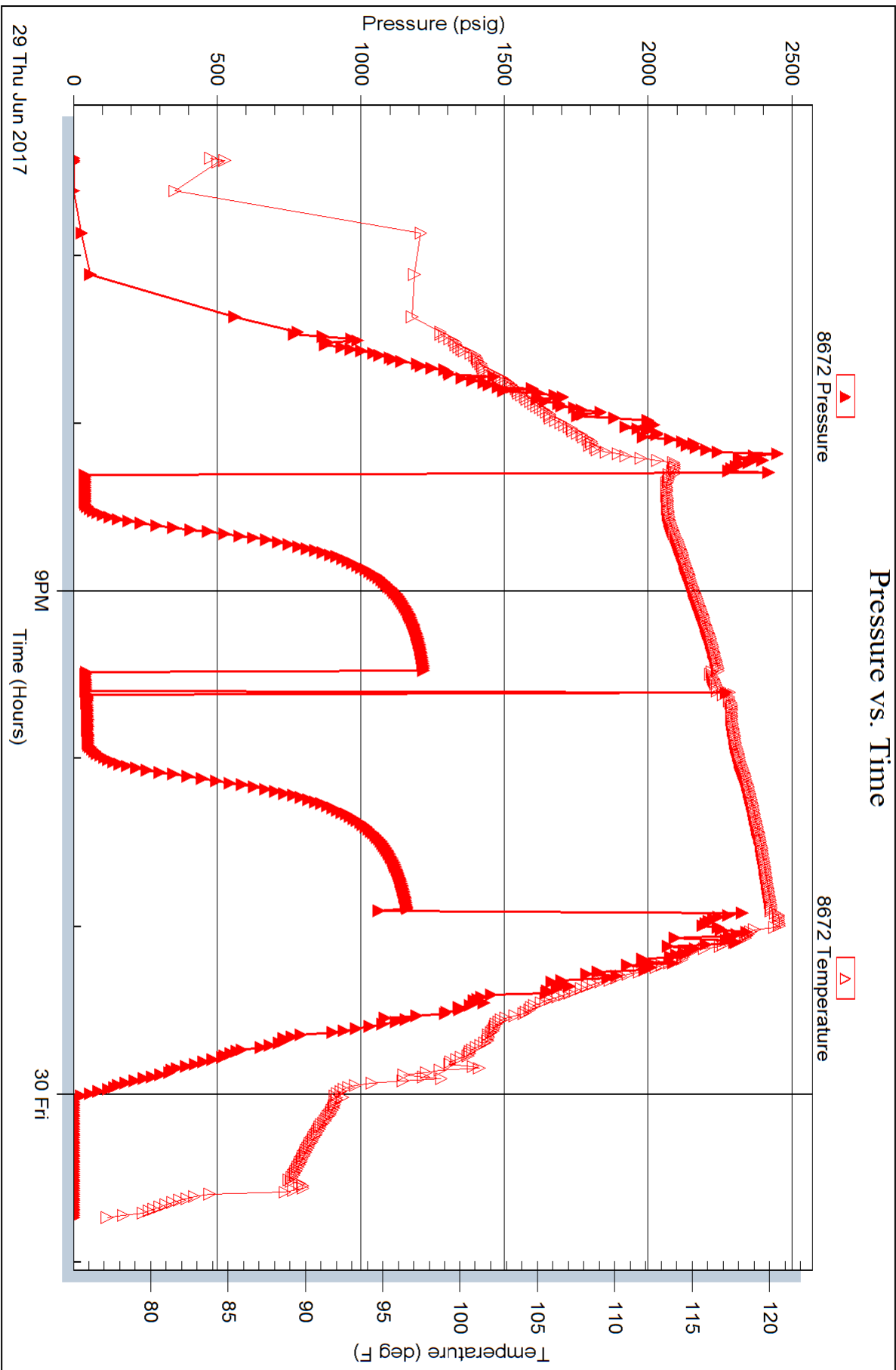
Serial #: 8672

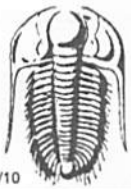
Inside

Bickle Energies Inc.

Kuhl-Hart Unit #26-1

DST Test Number: 4





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63748**

Well Name & No. Kuhl-Hart Unit 26-1 Test No. 1 Date 6-20-17
 Company Bickle Energies Inc Elevation 3109 KB 3104 GL
 Address P.O. Box 818 Hays KS 67601
 Co. Rep / Geo. Keith Reavis Rig WL10
 Location: Sec. 26 Twp. 12 Rge. 33W Co. Logan State KS

Interval Tested 4308-4336 Zone Tested K
 Anchor Length 28 Drill Pipe Run 4173 Mud Wt. 9.1
 Top Packer Depth 4303 Drill Collars Run 119 Vis 51
 Bottom Packer Depth 4308 Wt. Pipe Run Ø WL 7.4
 Total Depth 4336 Chlorides 8000 ppm System LCM 2
 Blow Description IF: Built to Weak Surface Blow
IS: No Return Blow
FF: Built to 1/4" Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>OCM</u>	<u>10</u>		<u>90</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 115 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2137</u>	<input checked="" type="checkbox"/> Test <u>\$1150.00/-</u>	T-On Location <u>19:45</u>
(B) First Initial Flow <u>24</u>	<input checked="" type="checkbox"/> Jars <u>\$250.00/-</u>	T-Started <u>12:01</u>
(C) First Final Flow <u>27</u>	<input checked="" type="checkbox"/> Safety Joint <u>\$75.00/-</u>	T-Open <u>02:21</u>
(D) Initial Shut-In <u>863</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>06:01</u>
(E) Second Initial Flow <u>29</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>07:37</u>
(F) Second Final Flow <u>37</u>	<input checked="" type="checkbox"/> Mileage <u>96RT = \$72.00/-</u>	Comments
(G) Final Shut-In <u>850</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2083</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>10</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1547</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>\$1547.00/-</u>	

Approved By Keith Reavis Our Representative Mike Roberts

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. **63749**

Well Name & No. Kuhl-Hart Unit 26-1 Test No. 2 Date 6-28-17
 Company Bickle Energies Inc Elevation 3109 KB 3104 GL
 Address P.O. Box 816 Hays KS 67601
 Co. Rep / Geo. Keith Reavis Rig WW10
 Location: Sec. 26 Twp. 12 Rge. 33w Co. Fogant State KS

Interval Tested 4424-4504 Zone Tested Marmaton
 Anchor Length 80 Drill Pipe Run 4300 Mud Wt. 9.0
 Top Packer Depth 4419 Drill Collars Run 119 Vis 46
 Bottom Packer Depth 4424 Wt. Pipe Run Ø WL 8.0
 Total Depth 4504 Chlorides 9500 ppm System LCM 2
 Blow Description IF: Built to Weak Surface Blow
IS: No Return Blow
FF: No Blow --- Flushed- weak Blow died in 30sec.
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>WCM</u>		<u>2</u>	<u>98</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 116 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2279</u>	<input checked="" type="checkbox"/> Test <u>\$1150.00/-</u>	T-On Location <u>02:25</u>
(B) First Initial Flow <u>52</u>	<input checked="" type="checkbox"/> Jars <u>\$250.00/-</u>	T-Started <u>03:05</u>
(C) First Final Flow <u>53</u>	<input checked="" type="checkbox"/> Safety Joint <u>\$75.00/-</u>	T-Open <u>05:28</u>
(D) Initial Shut-In <u>553</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>07:05</u>
(E) Second Initial Flow <u>53</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>09:14</u>
(F) Second Final Flow <u>60</u>	<input checked="" type="checkbox"/> Mileage <u>96 RT = \$72.00/-</u>	Comments
(G) Final Shut-In <u>90</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2314</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Open <u>10</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Initial Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1547</u>
Final Flow <u>16</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
Final Shut-In <u>11</u>	Sub Total <u>\$1547.00/-</u>	

Approved By Keith Reavis Our Representative Mike Rohlf

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63750**

Well Name & No. Kuhl-Hart Unit 26-1 Test No. 3 Date 6-29-17
 Company Bickle Energies Inc Elevation 3109 KB 3104 GL
 Address P.O. Box 816 Hays KS 67601
 Co. Rep / Geo. Keith Reavis Rig WW10
 Location: Sec. 26 Twp. 12 Rge. 33W Co. Logan State KS

Interval Tested 4614-4673 Zone Tested Johnson
 Anchor Length 59 Drill Pipe Run 4490 Mud Wt. 9.2
 Top Packer Depth 4609 Drill Collars Run 119 Vis 57
 Bottom Packer Depth 4614 Wt. Pipe Run Ø WL 7.6
 Total Depth 4673 Chlorides 8000 ppm System LCM 2
 Blow Description IF: Built to 1/8" Blow
IS: No Return Blow
FF: No Blow -- Flushed -- No Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</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 5 BHT 121 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2418</u>	<input checked="" type="checkbox"/> Test <u>\$150.00/-</u>	T-On Location <u>02:35</u>
(B) First Initial Flow <u>36</u>	<input checked="" type="checkbox"/> Jars <u>\$250.00/-</u>	T-Started <u>03:20</u>
(C) First Final Flow <u>37</u>	<input checked="" type="checkbox"/> Safety Joint <u>\$75.00/-</u>	T-Open <u>05:56</u>
(D) Initial Shut-In <u>860</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>08:45</u>
(E) Second Initial Flow <u>37</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>10:17</u>
(F) Second Final Flow <u>43</u>	<input checked="" type="checkbox"/> Mileage <u>96 RT = \$72.00/-</u>	Comments
(G) Final Shut-In <u>499</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2358</u>	<input type="checkbox"/> Straddle	

Initial Open 10
 Initial Shut-In 60
 Final Flow 38
 Final Shut-In 60

Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1547
 MP/DST Disc't

Approved By Keith Reavis Our Representative Mike Roberts
 Sub Total \$1547.00/-

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63826**

Well Name & No. Kuhl - Hart Unit 26-1 Test No. 4 Date 6-29-17
 Company Bickle Energies Inc Elevation 3109 KB 3104 GL
 Address P.O. Box 816 Hays KS 67601
 Co. Rep / Geo. Keith Reavis Rig WW10
 Location: Sec. 26 Twp. 12 Rge. 33W Co. Logan State KS

Interval Tested 4669-4719 Zone Tested Morrow
 Anchor Length 50 Drill Pipe Run 4549 Mud Wt. 9.2
 Top Packer Depth 4664 Drill Collars Run 119 Vis 45
 Bottom Packer Depth 4669 Wt. Pipe Run Ø WL 7.6
 Total Depth 4719 Chlorides 9500 ppm System LCM 2
 Blow Description IF: Built to Weak Surface Blow
IS: No Return Blow
FF: No Blow - Flusted Tool No Blow
FS: No Return Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>OCM</u>		<u>1</u>		<u>99</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 5 BHT 122 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	<u>2433</u>	<input checked="" type="checkbox"/> Test	<u>\$1150.00/-</u>	T-On Location	<u>18:00</u>
(B) First Initial Flow	<u>37</u>	<input checked="" type="checkbox"/> Jars	<u>\$250.00/-</u>	T-Started	<u>18:25</u>
(C) First Final Flow	<u>39</u>	<input checked="" type="checkbox"/> Safety Joint	<u>\$75.00/-</u>	T-Open	<u>20:18</u>
(D) Initial Shut-In	<u>1177</u>	<input checked="" type="checkbox"/> Circ Sub	<u>NC</u>	T-Pulled	<u>23:00 22:52</u>
(E) Second Initial Flow	<u>42</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>00:44</u>
(F) Second Final Flow	<u>48</u>	<input checked="" type="checkbox"/> Mileage	<u>96RT = \$72.00/-</u>	Comments	
(G) Final Shut-In	<u>1159</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>2347</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	
Initial Open	<u>10</u>	<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Ruined Packer	
Initial Shut-In	<u>30</u>	<input type="checkbox"/> Extra Packer		<input type="checkbox"/> Extra Copies	
Final Flow	<u>30</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>0</u>
Final Shut-In	<u>60</u>	<input type="checkbox"/> Day Standby		Total	<u>1547</u>
		<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1547</u>		

Approved By _____ Our Representative Mike Roberts

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