



DRILL STEM TEST REPORT

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

1616 S Voss Rd STE 600
Houston, TX 77057

ATTN: Wess Hanson

Wilkinson #1-15

15-17s-34w Scott,KS

Start Date: 2015.02.02 @ 18:25:00

End Date: 2015.02.03 @ 03:36:30

Job Ticket #: 59569 DST #: 1

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

Printed: 2015.02.06 @ 13:37:21



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Landmark Resources, Inc.

15-17s-34w Scott,KS

1616 S Voss Rd STE 600
Houston, TX 77057

Wilkinson #1-15

Job Ticket: 59569

DST#: 1

ATTN: Wess Hanson

Test Start: 2015.02.02 @ 18:25:00

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:41:00

Time Test Ended: 03:36:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley

Unit No: 69

Interval: 4476.00 ft (KB) To 4520.00 ft (KB) (TVD)

Reference Elevations: 3133.00 ft (KB)

Total Depth: 4520.00 ft (KB) (TVD)

3123.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8365 Inside

Press@RunDepth: 353.82 psig @ 4477.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.02.02

End Date:

2015.02.03

Last Calib.: 2015.02.03

Start Time: 18:25:05

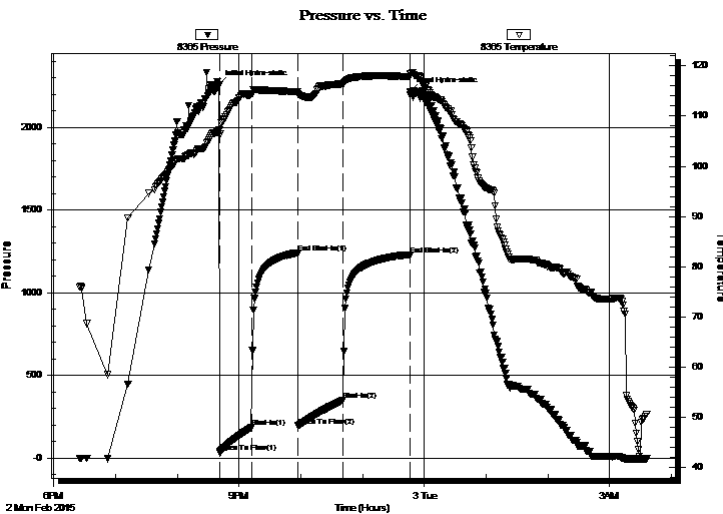
End Time:

03:36:30

Time On Btm: 2015.02.02 @ 20:40:30

Time Off Btm: 2015.02.02 @ 23:46:00

TEST COMMENT: IF: BOB @ 6 min.
IS: 2" return.
FF: BOB @ 6 min.
FS: 2" return, died @ 45 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2256.23	107.23	Initial Hydro-static
1	33.48	106.12	Open To Flow (1)
32	185.31	114.25	Shut-In(1)
76	1241.86	114.85	End Shut-In(1)
77	196.66	114.41	Open To Flow (2)
121	353.82	116.45	Shut-In(2)
185	1226.84	117.87	End Shut-In(2)
186	2215.98	118.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
185.00	gmco 30g 15m 55o	2.60
665.00	gsmco 25g 5m 70o	9.33
0.00	270' GIP	0.00

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Landmark Resources, Inc.

15-17s-34w Scott,KS

1616 S Voss Rd STE 600
Houston, TX 77057

Wilkinson #1-15

Job Ticket: 59569

DST#: 1

ATTN: Wess Hanson

Test Start: 2015.02.02 @ 18:25:00

Tool Information

Drill Pipe:	Length: 4469.00 ft	Diameter: 3.80 inches	Volume: 62.69 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 62.69 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4476.00 ft			Final 75000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	71.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4450.00	
Shut In Tool	5.00			4455.00	
Hydraulic tool	5.00			4460.00	
Jars	5.00			4465.00	
Safety Joint	2.00			4467.00	
Packer	5.00			4472.00	27.00 Bottom Of Top Packer
Packer	4.00			4476.00	
Stubb	1.00			4477.00	
Recorder	0.00	8365	Inside	4477.00	
Recorder	0.00	8522	Outside	4477.00	
Perforations	6.00			4483.00	
Change Over Sub	1.00			4484.00	
Drill Pipe	32.00			4516.00	
Change Over Sub	1.00			4517.00	
Bullnose	3.00			4520.00	44.00 Bottom Packers & Anchor

Total Tool Length: 71.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Landmark Resources, Inc.

15-17s-34w Scott,KS

1616 S Voss Rd STE 600
Houston, TX 77057

Wilkinson #1-15

Job Ticket: 59569

DST#: 1

ATTN: Wess Hanson

Test Start: 2015.02.02 @ 18:25:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

26 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	gmco 30g 15m 55o	2.595
665.00	gsmco 25g 5m 70o	9.328
0.00	270' GIP	0.000

Total Length: 850.00 ft Total Volume: 11.923 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

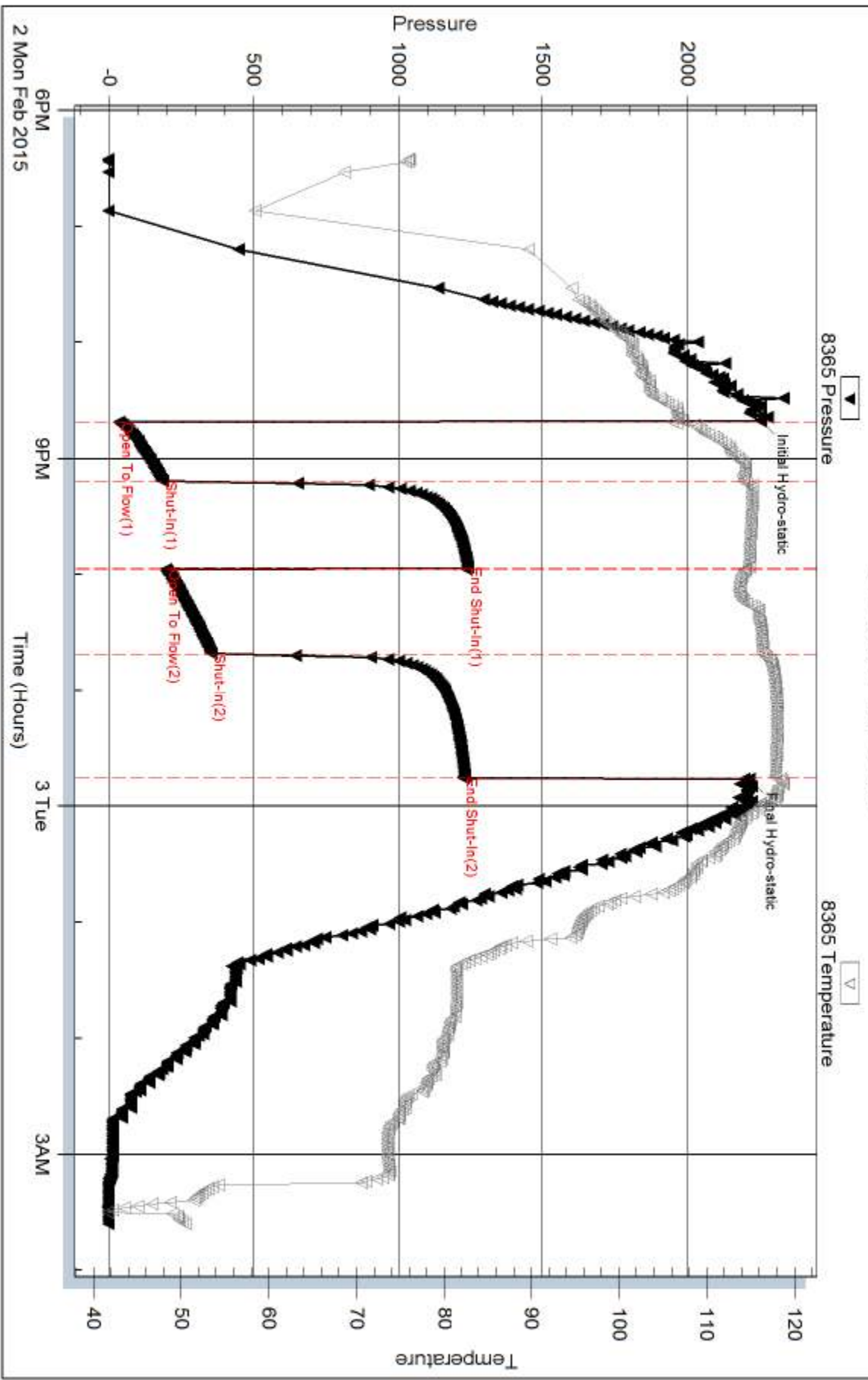
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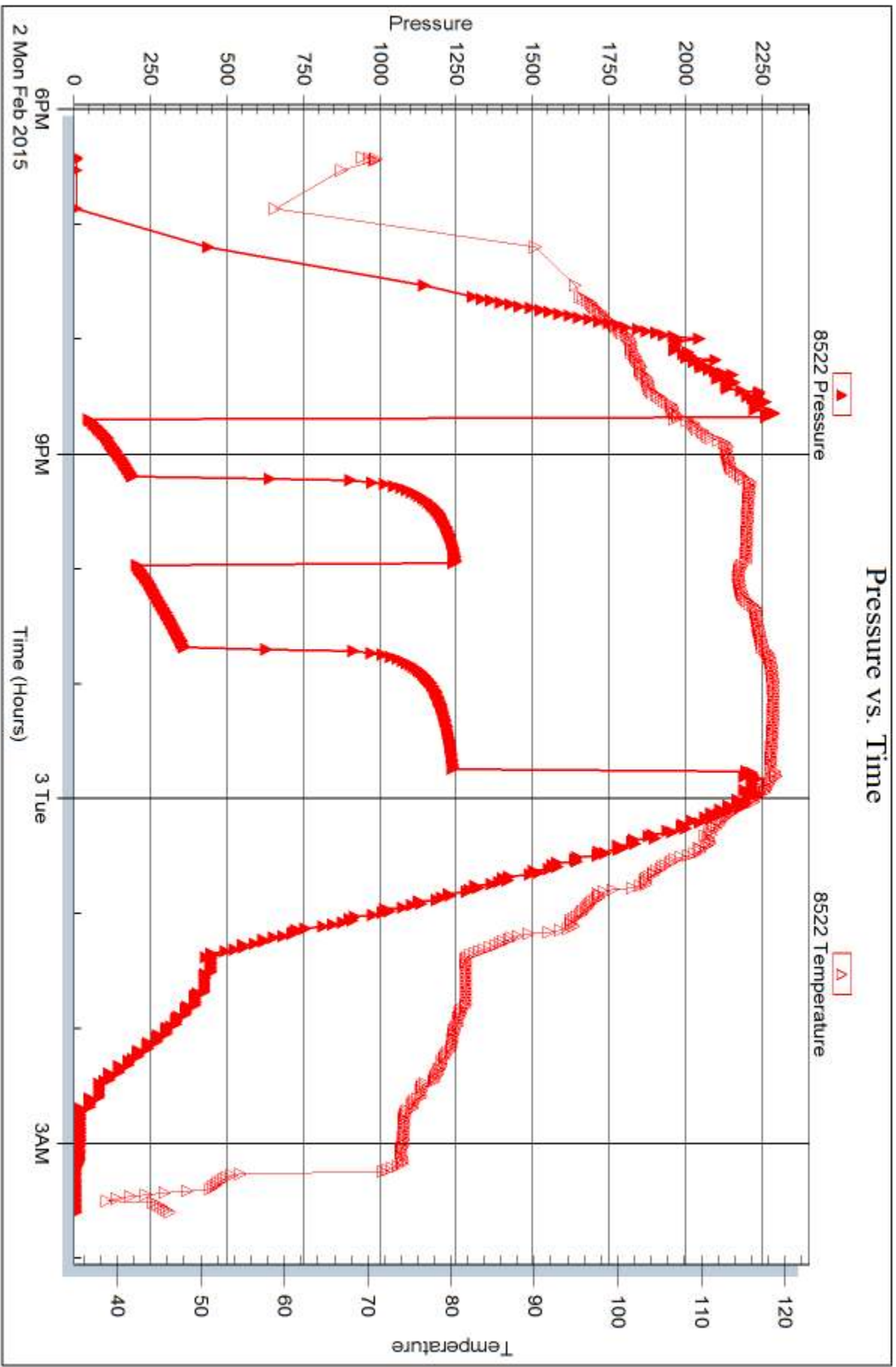
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

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

1616 S Voss Rd STE 600
Houston, TX 77057

ATTN: Wess Hanson

Wilkinson #1-15

15-17s-34w Scott,KS

Start Date: 2015.02.03 @ 17:23:00

End Date: 2015.02.04 @ 01:14:15

Job Ticket #: 59570 DST #: 2

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

Printed: 2015.02.06 @ 13:36:45



**TRILOBITE
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DRILL STEM TEST REPORT

Landmark Resources, Inc.

15-17s-34w Scott,KS

1616 S Voss Rd STE 600
Houston, TX 77057

Wilkinson #1-15

Job Ticket: 59570

DST#: 2

ATTN: Wess Hanson

Test Start: 2015.02.03 @ 17:23:00

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:38:30

Time Test Ended: 01:14:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley

Unit No: 69

Interval: 4520.00 ft (KB) To 4580.00 ft (KB) (TVD)

Reference Elevations: 3133.00 ft (KB)

Total Depth: 4580.00 ft (KB) (TVD)

3123.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 10.00 ft

Serial #: 8365 Inside

Press@RunDepth: 76.69 psig @ 4521.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.02.03

End Date:

2015.02.04

Last Calib.: 2015.02.04

Start Time: 17:23:05

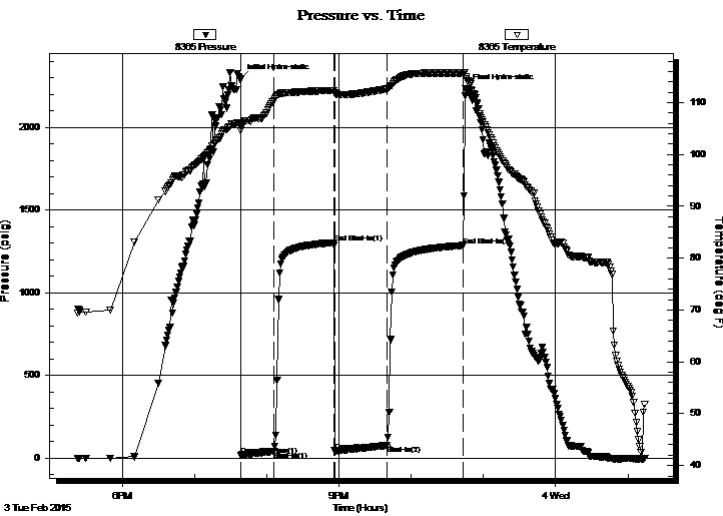
End Time:

01:14:14

Time On Btm: 2015.02.03 @ 19:38:15

Time Off Btm: 2015.02.03 @ 22:45:15

TEST COMMENT: IF: 8" blow.
IS: No return.
FF: BOB @ 35 min.
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2293.78	106.06	Initial Hydro-static
1	18.06	104.53	Open To Flow (1)
28	41.51	110.29	Shut-In(1)
78	1303.57	112.31	End Shut-In(1)
78	43.96	111.90	Open To Flow (2)
122	76.69	112.68	Shut-In(2)
185	1286.15	115.69	End Shut-In(2)
187	2237.06	114.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	gmco 30g 30m 40o	0.84
90.00	gsmco 35g 5m 60o	1.26
0.00	90' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

Landmark Resources, Inc.

15-17s-34w Scott,KS

1616 S Voss Rd STE 600
Houston, TX 77057

Wilkinson #1-15

Job Ticket: 59570

DST#: 2

ATTN: Wess Hanson

Test Start: 2015.02.03 @ 17:23:00

Tool Information

Drill Pipe:	Length: 4500.00 ft	Diameter: 3.80 inches	Volume: 63.12 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 87000.00 lb
			<u>Total Volume: 63.12 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	4520.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 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			4494.00	
Shut In Tool	5.00			4499.00	
Hydraulic tool	5.00			4504.00	
Jars	5.00			4509.00	
Safety Joint	2.00			4511.00	
Packer	5.00			4516.00	27.00 Bottom Of Top Packer
Packer	4.00			4520.00	
Stubb	1.00			4521.00	
Recorder	0.00	8365	Inside	4521.00	
Recorder	0.00	8522	Outside	4521.00	
Perforations	22.00			4543.00	
Change Over Sub	1.00			4544.00	
Drill Pipe	32.00			4576.00	
Change Over Sub	1.00			4577.00	
Bullnose	3.00			4580.00	60.00 Bottom Packers & Anchor

Total Tool Length: 87.00



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FLUID SUMMARY

Landmark Resources, Inc.

15-17s-34w Scott,KS

1616 S Voss Rd STE 600
Houston, TX 77057

Wilkinson #1-15

Job Ticket: 59570

DST#: 2

ATTN: Wess Hanson

Test Start: 2015.02.03 @ 17:23:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

22 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: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5100.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	gmco 30g 30m 40o	0.842
90.00	gsmco 35g 5m 60o	1.262
0.00	90' GIP	0.000

Total Length: 150.00 ft Total Volume: 2.104 bbl

Num Fluid Samples: 0

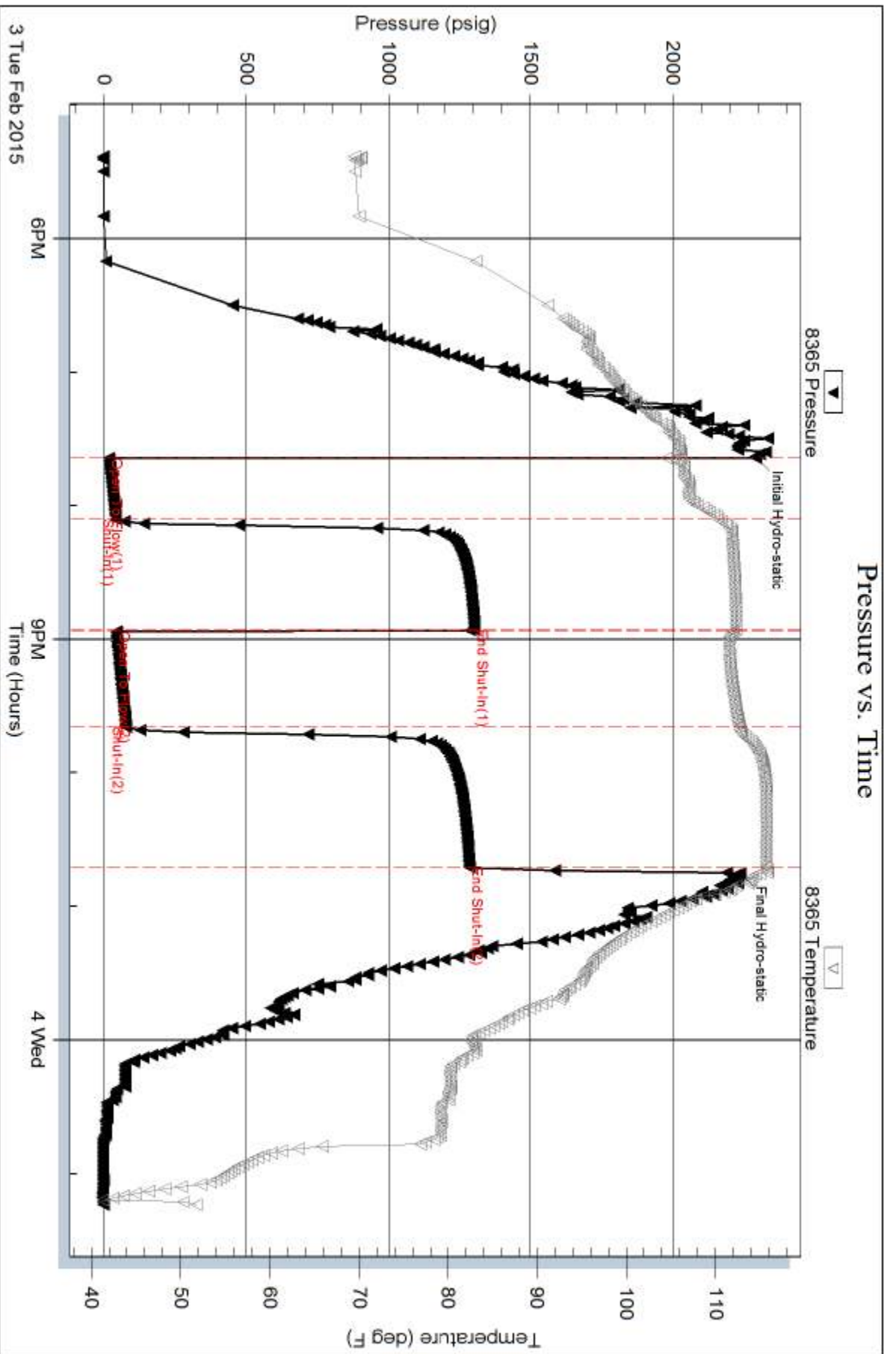
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

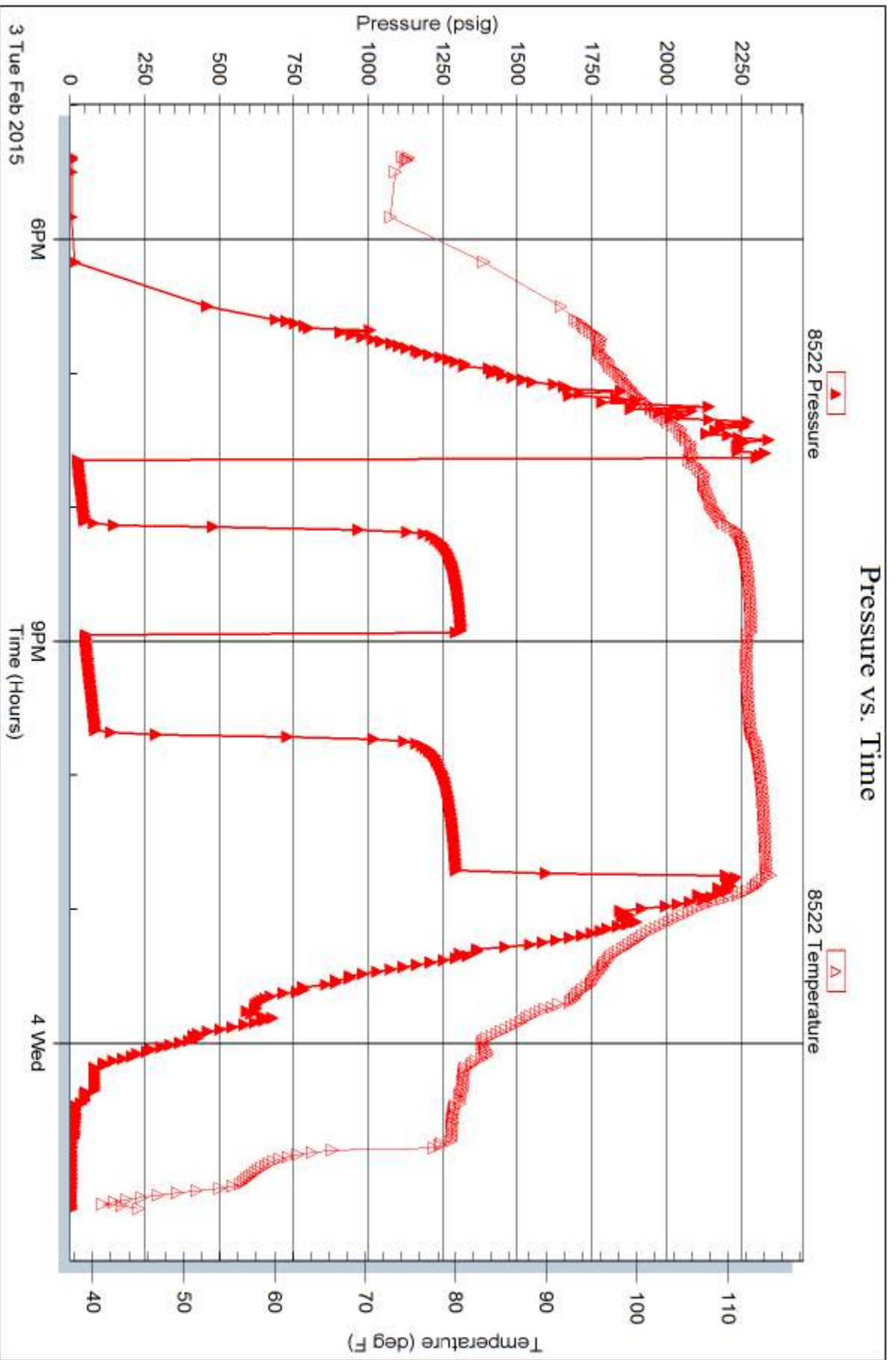


Serial #: 8522

Outside Landmark Resources, Inc.

Wilkinson #1-15

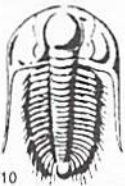
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 59570

Printed: 2015.02.06 @ 13:36:47



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **59569**

4/10

Well Name & No. Wilkinson #1-15 Test No. 1 Date 2/03/2015
 Company Landmark Resources, Inc Elevation 3133 KB 3123 GL
 Address 1616 Voss Rd Ste 600 Houston, Tx 77057
 Co. Rep / Geo. Wess Hanson Rig Val #1
 Location: Sec. 15 Twp. 17s Rge. 34w Co. Scott State Ks

Interval Tested 4476 4520 Zone Tested Marmaton
 Anchor Length 44 Drill Pipe Run 4469 Mud Wt. 9.4
 Top Packer Depth 4471 Drill Collars Run 0 Vis 5.7
 Bottom Packer Depth 4476 Wt. Pipe Run 0 WL 8.0
 Total Depth 4520 Chlorides 5,000 ppm System LCM 1#

Blow Description IF: BOB@ 6 min.
ISL: 2' return
FF: BOB@ 6 min
FSS: 2' return died @ 45 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>665</u>	<u>GSMCO</u>	<u>25</u>	<u>70</u>	<u>5</u>	
<u>185</u>	<u>G MCO</u>	<u>30</u>	<u>55</u>	<u>15</u>	
	<u>270' GIP</u>				

Rec Total 850 BHT 118 Gravity 26 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 2256 Test 1150 T-On Location 1720
 (B) First Initial Flow 33 Jars 250 T-Started 1825
 (C) First Final Flow 185 Safety Joint 75 T-Open 2041
 (D) Initial Shut-In 1242 Circ Sub 4 T-Pulled 2347
 (E) Second Initial Flow 197 Hourly Standby — T-Out 0337
 (F) Second Final Flow 354 Mileage 36 36 Comments —
 (G) Final Shut-In 1227 Sampler —
 (H) Final Hydrostatic 2216 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —

Initial Open 30 Extra Packer — Extra Copies —
 Initial Shut-In 45 Extra Recorder — Sub Total 0
 Final Flow 45 Day Standby — Total 1511
 Final Shut-In 60 Accessibility — MP/DST Disc't —
 Sub Total 1511

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. **59570**

4/10

Well Name & No.	<u>Wilkinson #1-15</u>	Test No.	<u>2</u>	Date	<u>2/03/2015</u>
Company	<u>Landmark Resources, Inc</u>	Elevation	<u>3133</u>	KB	<u>3123</u> GL
Address	<u>1616 Voss Rd Ste 600 Houston, Tx 77057</u>				
Co. Rep / Geo.	<u>Wes Hanson</u>	Rig	<u>Val #1</u>		
Location: Sec.	<u>15</u>	Twp.	<u>17S</u>	Rge.	<u>34W</u> Co. <u>Scott</u> State <u>Ks</u>

Interval Tested	<u>4520 4580</u>	Zone Tested	<u>Altamont</u>
Anchor Length	<u>60</u>	Drill Pipe Run	<u>4500</u>
Top Packer Depth	<u>4515</u>	Drill Collars Run	<u>0</u>
Bottom Packer Depth	<u>4520</u>	Wt. Pipe Run	<u>0</u>
Total Depth	<u>4580</u>	Chlorides	<u>5100</u> ppm System
		LCM	<u>1 #</u>

Blow Description JF! 8" blow
JSI! No return
FF! BOB@ 35 min
FSI! No return.

Rec	<u>90</u>	Feet of	<u>65mco</u>	<u>35</u> %gas	<u>60</u> %oil	%water	<u>5</u>	%mud
Rec	<u>60</u>	Feet of		<u>30</u> %gas	<u>40</u> %oil	%water	<u>30</u>	%mud
Rec		Feet of	<u>90' GIP</u>	%gas	%oil	%water		%mud
Rec		Feet of		%gas	%oil	%water		%mud
Rec		Feet of		%gas	%oil	%water		%mud

Rec Total	<u>150</u>	BHT	<u>116</u>	Gravity	<u>22</u>	API RW	<u>—</u> @ <u>—</u> °F	Chlorides	<u>—</u> ppm
(A) Initial Hydrostatic	<u>2294</u>	<input checked="" type="checkbox"/> Test	<u>1150</u>	T-On Location	<u>1700</u>				
(B) First Initial Flow	<u>18</u>	<input checked="" type="checkbox"/> Jars	<u>250</u>	T-Started	<u>1723</u>				
(C) First Final Flow	<u>42</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>1937</u>				
(D) Initial Shut-In	<u>1304</u>	<input checked="" type="checkbox"/> Circ Sub	<u>NC</u>	T-Pulled	<u>2257</u>				
(E) Second Initial Flow	<u>44</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>0114</u>				
(F) Second Final Flow	<u>77</u>	<input checked="" type="checkbox"/> Mileage	<u>36</u> ³⁶	Comments					
(G) Final Shut-In	<u>1286</u>	<input type="checkbox"/> Sampler		<input type="checkbox"/> Ruined Shale Packer					
(H) Final Hydrostatic	<u>2237</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Packer					
Initial Open	<u>30</u>	<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Extra Copies					
Initial Shut-In	<u>45</u>	<input type="checkbox"/> Extra Packer		Sub Total	<u>0</u>				
Final Flow	<u>45</u>	<input type="checkbox"/> Extra Recorder		Total	<u>1511</u>				
Final Shut-In	<u>60</u>	<input type="checkbox"/> Day Standby		MP/DST Disc'y					
		<input type="checkbox"/> Accessibility							
		Sub Total	<u>1511</u>						

Approved By _____ Our Representative [Signature]

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