

**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Shakespeare Oil Co. Inc.**

**CONFIDENTIAL**  
202 W. Main St.  
Salem, IL 62881

OCT 28 2009

**KCC**

ATTN: Steve Davis

**S15-14-32 Logan, KS**

**Ottley #4-15**

Start Date: 2009.09.19 @ 10:28:20

End Date: 2009.09.19 @ 15:43:05

Job Ticket #: 34842      DST #: 1

RECEIVED  
NOV 02 2009  
KCC WICHITA

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

ATTN: Steve Davis

Job Ticket: 34842

DST#: 1

Test Start: 2009.09.19 @ 10:28:20

## GENERAL INFORMATION:

Formation: **Lansing 'B'**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:21:05

Time Test Ended: 15:43:05

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 37

Interval: **3775.00 ft (KB) To 3800.00 ft (KB) (TVD)**

Total Depth: 3800.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2764.00 ft (KB)

2752.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: **8351**

Inside

Press@RunDepth: 26.79 psig @ 3780.00 ft (KB)

Start Date: 2009.09.19

End Date: 2009.09.19

Capacity: 8000.00 psig

Last Calib.: 2009.09.19

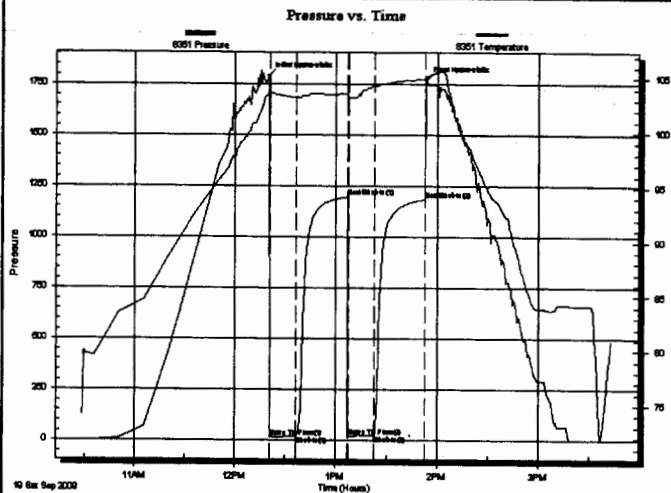
Start Time: 10:28:21

End Time: 15:43:05

Time On Btrr: 2009.09.19 @ 12:20:05

Time Off Btrr: 2009.09.19 @ 13:53:35

TEST COMMENT: IF: Weak surface blow died @ 15 sec.  
IS: No return.  
FF: No blow, flushed tool @ 6 1/2 min., surge died.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.39	103.56	Initial Hydro-static
1	16.50	103.17	Open To Flow (1)
17	19.69	103.26	Shut-In (1)
48	1197.86	103.62	End Shut-In (1)
48	21.78	103.27	Open To Flow (2)
63	26.79	104.30	Shut-In (2)
93	1185.77	104.98	End Shut-In (2)
94	1768.10	105.20	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 3%O 97%M	0.05
0.00	No GP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34842

**DST#: 1**

ATTN: Steve Davis

Test Start: 2009.09.19 @ 10:28:20

**Tool Information**

Drill Pipe:	Length: 3625.00 ft	Diameter: 3.80 inches	Volume: 50.85 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: 155.00 ft	Diameter: 2.25 inches	Volume: 0.76 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 51.61 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.50 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	3775.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	52.50 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			3748.50	
Shut In Tool	5.00			3753.50	
Hydraulic tool	5.00			3758.50	
Jars	5.00			3763.50	
Safety Joint	2.50			3766.00	
Packer	5.00			3771.00	27.50      Bottom Of Top Packer
Packer	4.00			3775.00	
Stubb	1.00			3776.00	
Perforations	4.00			3780.00	
Recorder	0.00	8359	inside	3780.00	
Recorder	0.00	8351	inside	3780.00	
Perforations	15.00			3795.00	
Bullnose	5.00			3800.00	25.00      Bottom Packers & Anchor

**Total Tool Length:    52.50**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34842

**DST#: 1**

ATTN: Steve Davis

Test Start: 2009.09.19 @ 10:28:20

## 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: 54.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OCM 3%O 97%M	0.049
0.00	No GP	0.000

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8351

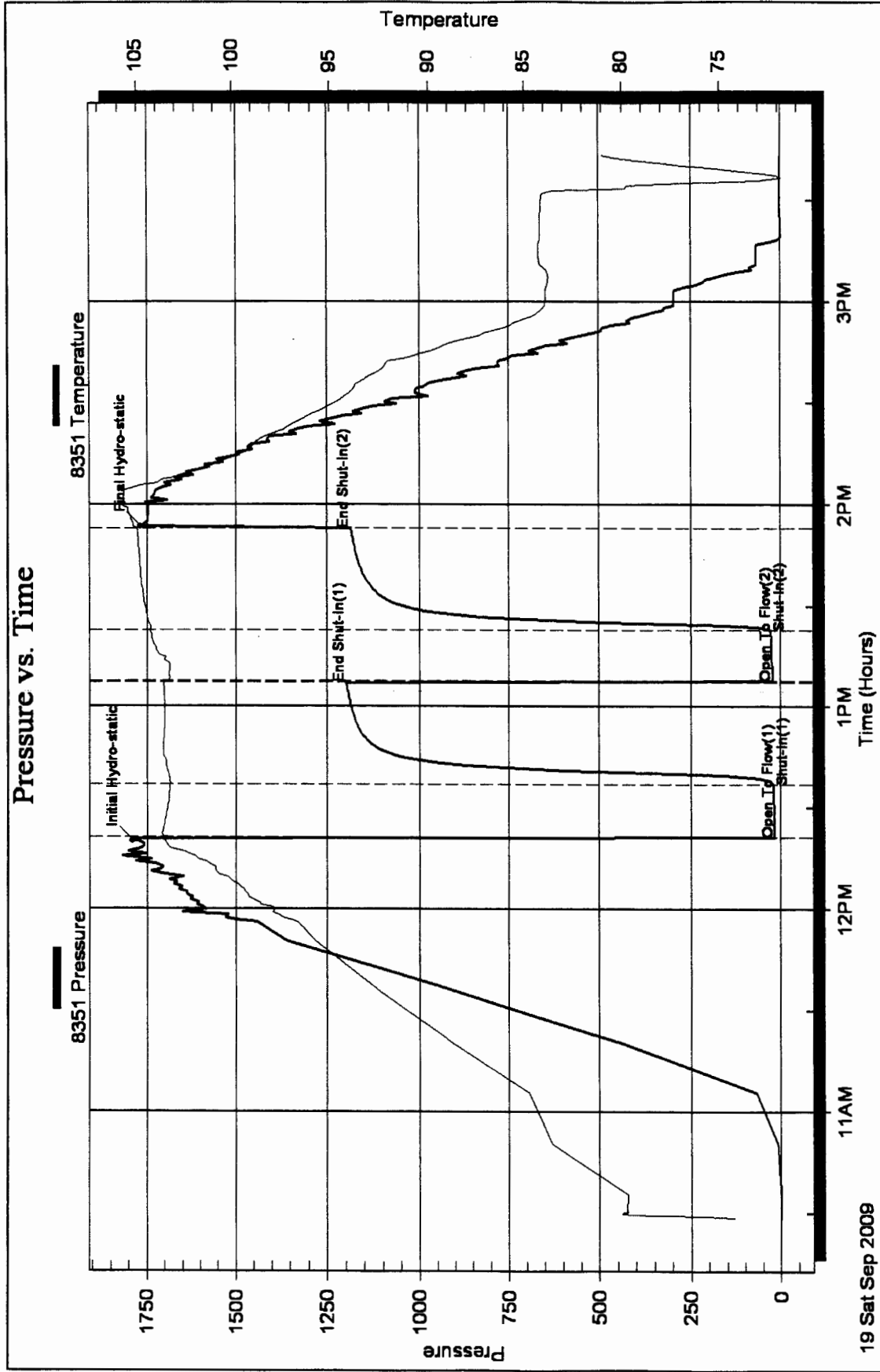
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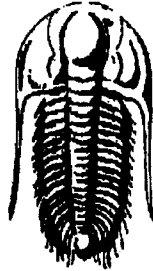
Shakespeare Oil Co. Inc.

S15-14-32 Logan, KS

DST Test Number: 1

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co. Inc.**

202 W. Main St.  
Salem, IL 62881

ATTN: Steve Davis

**S15-14-32 Logan, KS**

**Ottley #4-15**

Start Date: 2009.09.20 @ 00:48:00

End Date: 2009.09.20 @ 09:32:45

Job Ticket #: 34843                      DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Shakespeare Oil Co. Inc.

Ottley #4-15

S15-14-32 Logan, KS

DST # 2

Lansing 'C,D,E'

2009.09.20



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc.

202 W. Main St.  
Salem, IL 62881

ATTN: Steve Davis

**Ottley #4-15**

**S15-14-32 Logan, KS**

Job Ticket: 34843

DST#: 2

Test Start: 2009.09.20 @ 00:48:00

## GENERAL INFORMATION:

Formation: **Lansing 'C,D,E**  
 Deviated: **No Whipsstock** ft (KB)  
 Time Tool Opened: 02:27:30  
 Time Test Ended: 09:32:45

Test Type: **Conventional Bottom Hole**  
 Tester: **Chuck Smith**  
 Unit No: **37**

Interval: **3804.00 ft (KB) To 3848.00 ft (KB) (TVD)**  
 Total Depth: **3848.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2764.00 ft (KB)**  
**2752.00 ft (CF)**  
 KB to GR/CF: **12.00 ft**

## Serial #: 8351

**Inside**

Press@RunDepth: **899.27 psig @ 3806.00 ft (KB)**

Capacity: **8000.00 psig**

Start Date: **2009.09.20**

End Date:

**2009.09.20**

Last Calib.:

**2009.09.20**

Start Time: **00:48:01**

End Time:

**09:32:45**

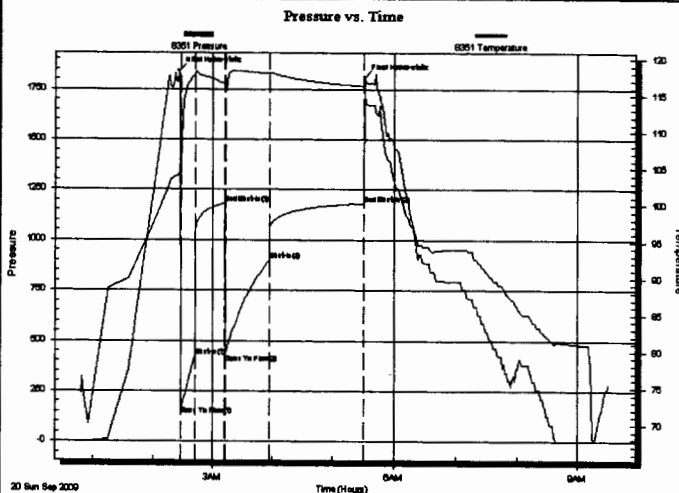
Time On Btrn:

**2009.09.20 @ 02:26:00**

Time Off Btrn:

**2009.09.20 @ 05:31:15**

TEST COMMENT: IF: B.O.B. @ 1 3/4 min.  
 IS: 1 1/2" Return.  
 FF: B.O.B. @ 2 min.  
 FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1840.06	104.26	Initial Hydro-static
2	131.35	104.07	Open To Flow (1)
17	423.64	117.79	Shut-In(1)
47	1180.72	116.51	End Shut-In(1)
47	431.49	116.19	Open To Flow (2)
92	899.27	117.97	Shut-In(2)
185	1182.03	116.24	End Shut-In(2)
186	1808.08	114.99	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1159.00	W 100%W	14.85
369.00	GOSMW 5%G 10%M 85%W	5.18
366.00	GOMCW 5%G 2%O Emulsion 40%M 53%W	5.13
61.00	GOWCM 5%G 8%O 37%W 50%M	0.86
0.00	62 Feet GP	0.00
0.00	RW: .145 @ 68 Degrees F = 50,000 chl	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34843

**DST#: 2**

ATTN: Steve Davis

Test Start: 2009.09.20 @ 00:48:00

### Tool Information

Drill Pipe:	Length: 3649.00 ft	Diameter: 3.80 inches	Volume: 51.19 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: 155.00 ft	Diameter: 2.25 inches	Volume: 0.76 bbl	Weight to Pull Loose: 95000.00 lb
			<b>Total Volume: 51.95 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.50 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	3804.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	71.50 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			3777.50	
Shut In Tool	5.00			3782.50	
Hydraulic tool	5.00			3787.50	
Jars	5.00			3792.50	
Safety Joint	2.50			3795.00	
Packer	5.00			3800.00	27.50 Bottom Of Top Packer
Packer	4.00			3804.00	
Stubb	1.00			3805.00	
Perforations	1.00			3806.00	
Recorder	0.00	8359	Inside	3806.00	
Recorder	0.00	8351	Inside	3806.00	
Perforations	5.00			3811.00	
Change Over Sub	1.00			3812.00	
Drill Pipe	30.00			3842.00	
Change Over Sub	1.00			3843.00	
Bullnose	5.00			3848.00	44.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>71.50</b>				



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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34843

**DST#: 2**

ATTN: Steve Davis

Test Start: 2009.09.20 @ 00:48:00

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 35 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 50000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.38 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 3600.00 ppm		
Filter Cake: 2.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1159.00	W 100%W	14.846
369.00	GOSMW 5%G 10%M 85%W	5.176
366.00	GOMCW 5%G 2%O Emulsion 40%M 53%W	5.134
61.00	GOWCM 5%G 8%O 37%W 50%M	0.856
0.00	62 Feet GP	0.000
0.00	RW: .145 @ 68 Degrees F = 50,000 chlorid	0.000

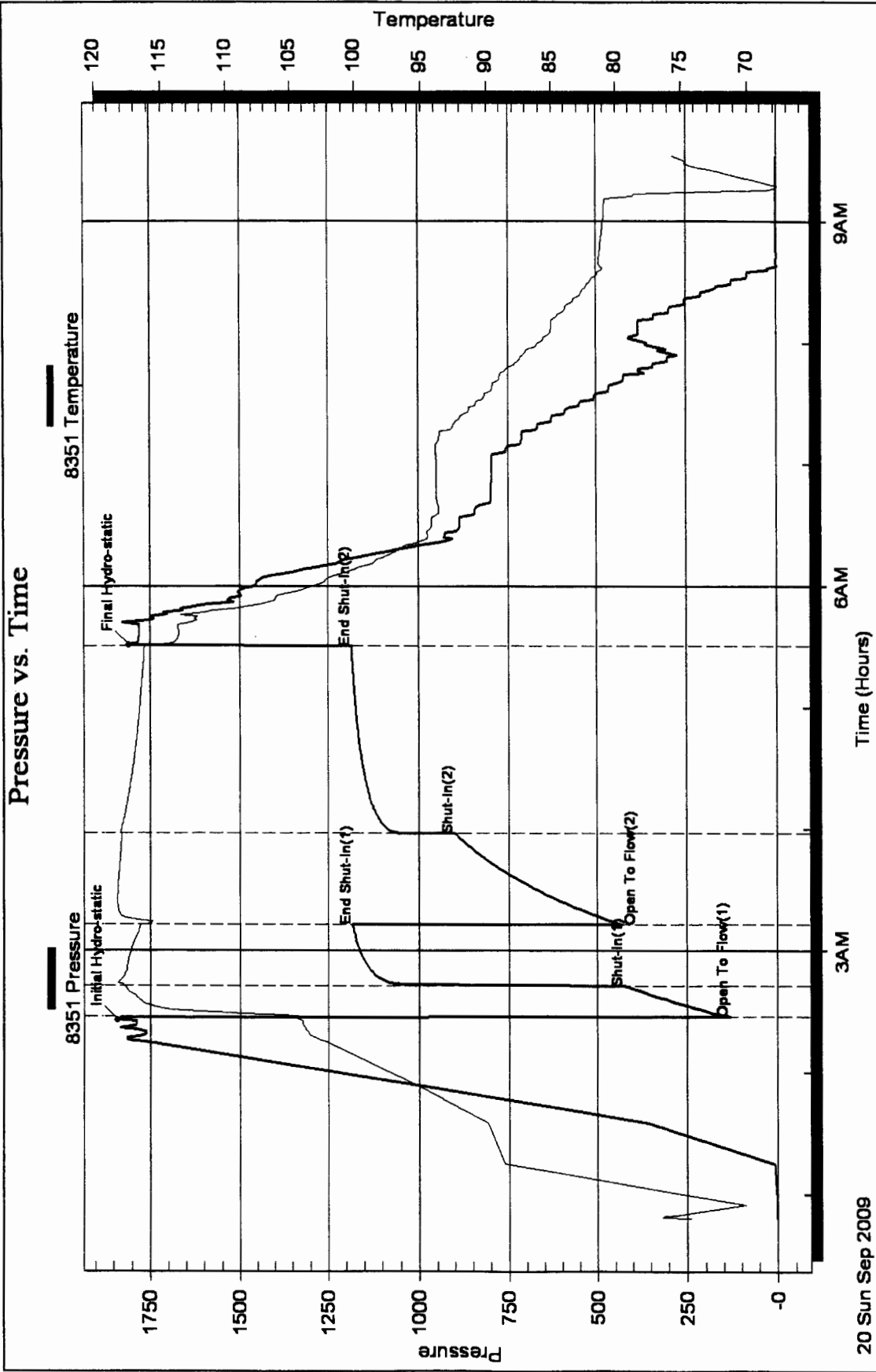
Total Length: 1955.00 ft      Total Volume: 26.012 bbl

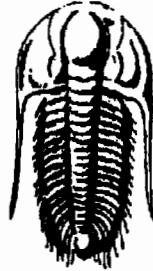
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: API: 35 @ 60 Degrees F = 35.

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co. Inc.**

202 W. Main St.  
Salem, IL 62881

ATTN: Steve Davis

**S15-14-32 Logan, KS**

**Ottley #4-15**

Start Date: 2009.09.20 @ 23:04:00

End Date: 2009.09.21 @ 06:22:47

Job Ticket #: 34844                      DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Shakespeare Oil Co. Inc.

Ottley #4-15

S15-14-32 Logan, KS

DST # 3

LKC 'H'

2009.09.20



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

ATTN: Steve Davis

Job Ticket: 34844

DST#: 3

Test Start: 2009.09.20 @ 23:04:00

## GENERAL INFORMATION:

Formation: LKC 'H'

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:41:12

Time Test Ended: 06:22:47

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 37

Interval: 3921.00 ft (KB) To 3950.00 ft (KB) (TVD)

Total Depth: 3950.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2764.00 ft (KB)

2752.00 ft (CF)

KB to GRV/CF: 12.00 ft

Serial #: 8359

Inside

Press@RunDepth: 578.44 psig @ 3925.00 ft (KB)

Start Date: 2009.09.20

End Date:

2009.09.21

Capacity:

8000.00 psig

Start Time: 23:04:05

End Time:

06:22:48

Last Calib.:

2009.09.21

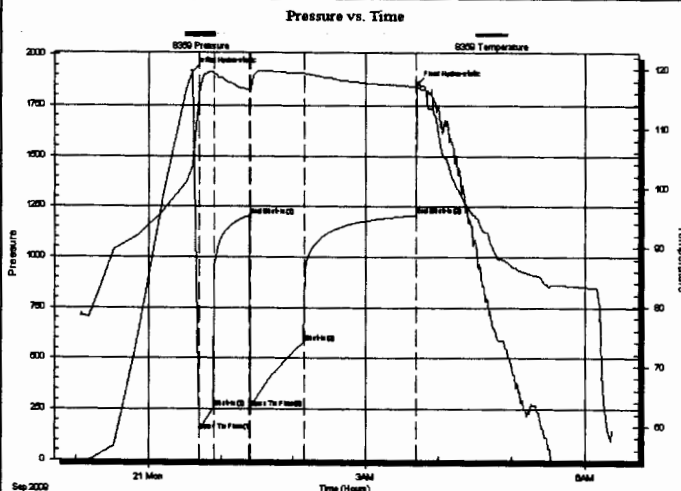
Time On Btrr:

2009.09.21 @ 00:36:00

Time Off Btrr:

2009.09.21 @ 03:42:36

TEST COMMENT: IF: B.O.B. @ 3 3/4 min.  
IS: No return.  
FF: B.O.B. @ 4 1/2 min.  
FSI: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1917.32	103.69	Initial Hydro-static
6	142.35	115.37	Open To Flow (1)
18	255.72	119.53	Shut-In(1)
48	1205.26	116.48	End Shut-In(1)
48	257.09	116.67	Open To Flow (2)
93	578.44	119.31	Shut-In(2)
187	1206.94	117.13	End Shut-In(2)
187	1852.19	117.25	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
856.00	W 100%W	10.60
366.00	OSMW 35%M 65%W	5.13
0.00	RW: .145 @ 59 Degrees F = 55000 chlr	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34844

**DST#: 3**

ATTN: Steve Davis

Test Start: 2009.09.20 @ 23:04:00

### Tool Information

Drill Pipe:	Length: 3770.00 ft	Diameter: 3.80 inches	Volume: 52.88 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: 155.00 ft	Diameter: 2.25 inches	Volume: 0.76 bbl	Weight to Pull Loose: 90000.00 lb
		Total Volume: 53.64 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	31.50 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3921.00 ft			Final 75000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	56.50 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			3894.50	
Shut In Tool	5.00			3899.50	
Hydraulic tool	5.00			3904.50	
Jars	5.00			3909.50	
Safety Joint	2.50			3912.00	
Packer	5.00			3917.00	27.50 Bottom Of Top Packer
Packer	4.00			3921.00	
Stubb	1.00			3922.00	
Perforations	3.00			3925.00	
Recorder	0.00	8359	Inside	3925.00	
Recorder	0.00	8351	Inside	3925.00	
Perforations	20.00			3945.00	
Bullnose	5.00			3950.00	29.00 Bottom Packers & Anchor

**Total Tool Length: 56.50**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34844

**DST#: 3**

ATTN: Steve Davis

Test Start: 2009.09.20 @ 23:04:00

### 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:

55000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

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

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 2.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
856.00	W 100%W	10.595
366.00	OSMW 35%M 65%W	5.134
0.00	RW: .145 @ 59 Degrees F = 55000 chloride	0.000

Total Length: 1222.00 ft

Total Volume: 15.729 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8359

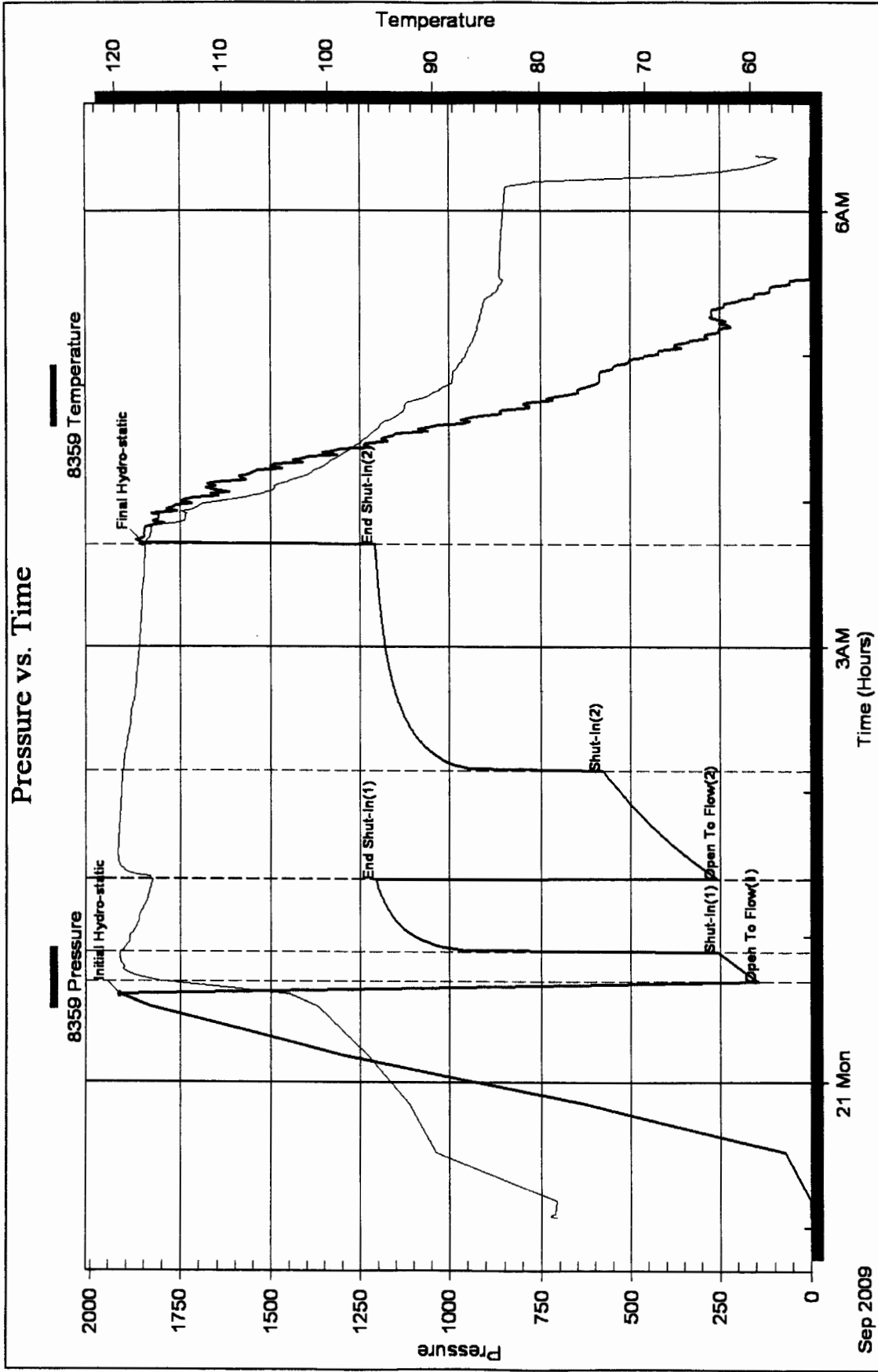
Inside

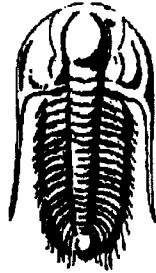
Shakespeare Oil Co. Inc.

S15-14-32 Logan, KS

DST Test Number: 3

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co. Inc.**

202 W. Main St.  
Salem, IL 62881

ATTN: Steve Davis

**S15-14-32 Logan, KS**

**Ottley #4-15**

Start Date: 2009.09.21 @ 14:14:00

End Date: 2009.09.21 @ 20:15:36

Job Ticket #: 34845                      DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Shakespeare Oil Co. Inc.

Ottley #4-15

S15-14-32 Logan, KS

DST # 4

LKC 'r

2009.09.21



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

ATTN: Steve Davis

Job Ticket: 34845

DST#: 4

Test Start: 2009.09.21 @ 14:14:00

## GENERAL INFORMATION:

Formation: LKC 'I'

Deviated: No Whipstock ft (KB)

Time Tool Opened: 16:06:00

Time Test Ended: 20:15:36

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 37

Interval: 3952.00 ft (KB) To 3982.00 ft (KB) (TVD)

Total Depth: 3982.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2764.00 ft (KB)

2752.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8359

Inside

Press@RunDepth: 261.29 psig @ 3957.00 ft (KB)

Start Date: 2009.09.21

End Date:

2009.09.21

Capacity: 8000.00 psig

Last Calib.: 2009.09.21

Start Time: 14:14:05

End Time:

20:15:36

Time On Btm: 2009.09.21 @ 16:05:48

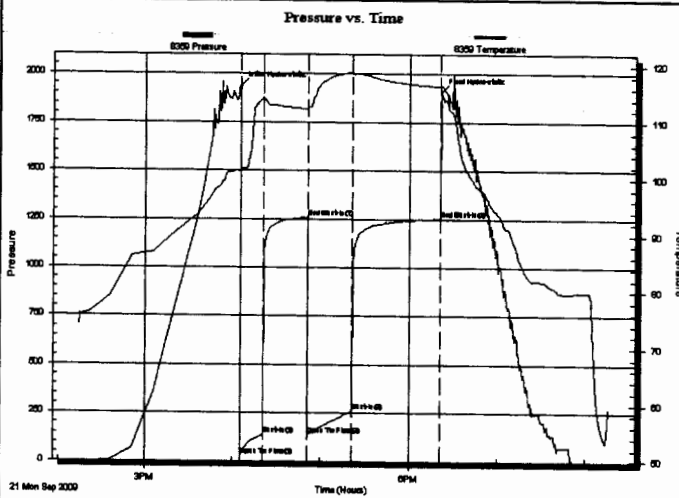
Time Off Btm: 2009.09.21 @ 18:21:48

TEST COMMENT: IF: B.O.B. @ 11 min.

IS: No return.

FF: B.O.B. @ 11 1/2 min.

FSI: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1935.70	101.44	Initial Hydro-static
1	29.01	101.65	Open To Flow (1)
16	139.00	114.54	Shut-in(1)
46	1258.88	112.37	End Shut-in(1)
46	140.41	112.67	Open To Flow (2)
76	261.29	118.91	Shut-in(2)
136	1253.55	116.40	End Shut-in(2)
136	1908.19	116.54	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	MW 15%M 85%W	0.61
339.00	MW 50%M 50%W	4.47
30.00	OSMW 50%M 50%W	0.42
0.00	RW: .170 @ 58 Degrees F = 50000 chlori	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34845

**DST#: 4**

ATTN: Steve Davis

Test Start: 2009.09.21 @ 14:14:00

## Tool Information

Drill Pipe:	Length: 3802.00 ft	Diameter: 3.80 inches	Volume: 53.33 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: 155.00 ft	Diameter: 2.25 inches	Volume: 0.76 bbl	Weight to Pull Loose: 82000.00 lb
			<u>Total Volume: 54.09 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.50 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3952.00 ft			Final 71000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	57.50 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			3925.50	
Shut In Tool	5.00			3930.50	
Hydraulic tool	5.00			3935.50	
Jars	5.00			3940.50	
Safety Joint	2.50			3943.00	
Packer	5.00			3948.00	27.50 Bottom Of Top Packer
Packer	4.00			3952.00	
Stubb	1.00			3953.00	
Perforations	4.00			3957.00	
Recorder	0.00	8359	Inside	3957.00	
Recorder	0.00	8351	Inside	3957.00	
Perforations	20.00			3977.00	
Bullnose	5.00			3982.00	30.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>		<b>57.50</b>			



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34845

**DST#: 4**

ATTN: Steve Davis

Test Start: 2009.09.21 @ 14:14:00

## 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:

50000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7500.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	MW 15%M 85%W	0.610
339.00	MW 50%M 50%W	4.473
30.00	OSMW 50%M 50%W	0.421
0.00	RW: .170 @ 58 Degrees F = 50000 chloride	0.000

Total Length: 493.00 ft

Total Volume: 5.504 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

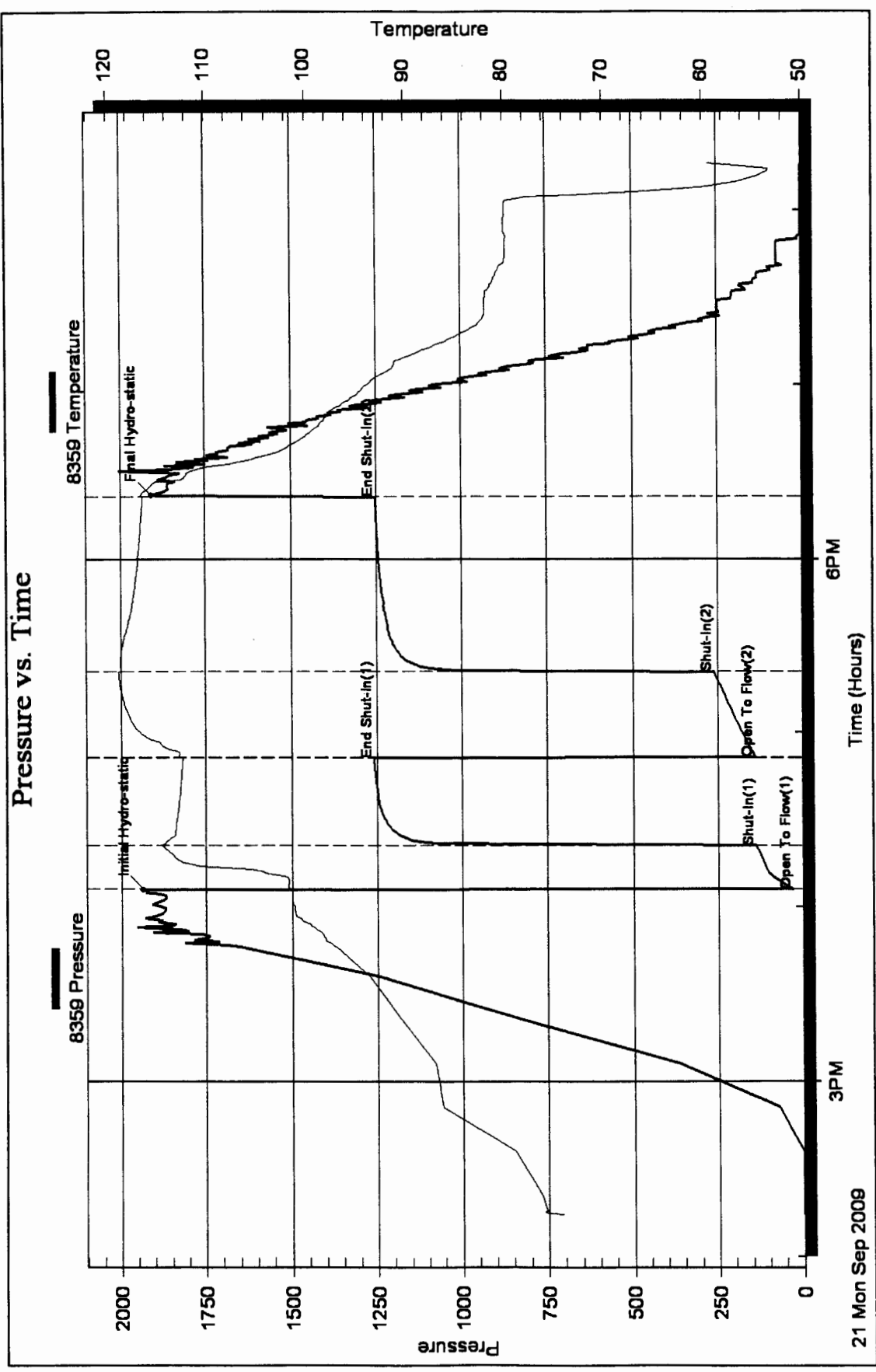
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time



21 Mon Sep 2009

3PM

6PM

Time (Hours)

8359 Pressure

8359 Temperature

2000

1750

1500

1250

1000

750

500

250

0

120

110

100

90

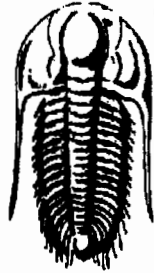
80

70

60

50

Temperature



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co. Inc.**

202 W. Main St.  
Salem, IL 62881

ATTN: Steve Davis

**S15-14-32 Logan, KS**

**Ottley #4-15**

Start Date: 2009.09.22 @ 03:50:15

End Date: 2009.09.22 @ 10:38:45

Job Ticket #: 34846                      DST #: 5

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Shakespeare Oil Co. Inc.

Ottley #4-15

S15-14-32 Logan, KS

DST # 5

LKC 'J'

2009.09.22



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc.

202 W. Main St.  
Salem, IL 62881

ATTN: Steve Davis

**Ottley #4-15**

**S15-14-32 Logan, KS**

Job Ticket: 34846

**DST#: 5**

Test Start: 2009.09.22 @ 03:50:15

## GENERAL INFORMATION:

Formation: **LKC 'J'**

Deviated: **No Whipstock** ft (KB)

Time Tool Opened: 05:31:00

Time Test Ended: 10:38:45

Interval: **3984.00 ft (KB) To 4010.00 ft (KB) (TVD)**

Total Depth: **4010.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Test Type: **Conventional Bottom Hole**

Tester: **Chuck Smith**

Unit No: **37**

Reference Elevations: **2764.00 ft (KB)**

**2752.00 ft (CF)**

**KB to GR/CF: 12.00 ft**

**Serial #: 8351**

**Inside**

Press@RunDepth: **65.57 psig @ 3985.00 ft (KB)**

Start Date: **2009.09.22**

End Date:

**2009.09.22**

Capacity: **8000.00 psig**

Last Calib.: **2009.09.22**

Start Time: **03:50:16**

End Time:

**10:38:45**

Time On Btrn: **2009.09.22 @ 05:29:45**

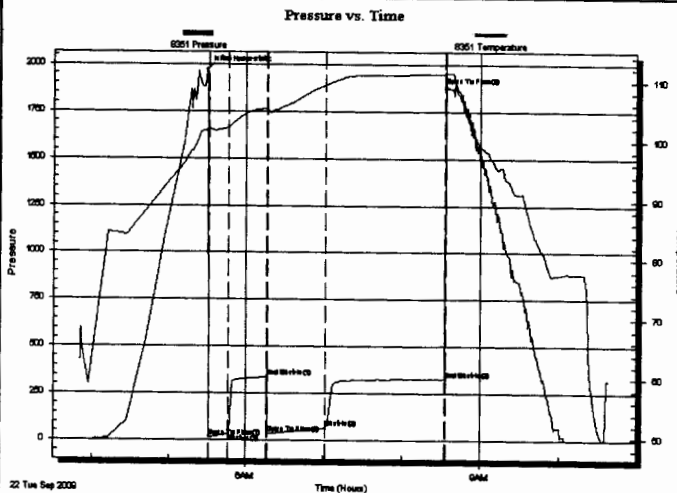
Time Off Btrn:

TEST COMMENT: **IF: 2" Blow.**

**IS: Weak return.**

**FF: 3 1/2" Blow.**

**FSI: No return.**



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1968.55	101.59	Initial Hydro-static
2	15.64	101.47	Open To Flow (1)
17	31.18	102.30	Shut-In(1)
47	338.53	105.40	End Shut-In(1)
47	35.08	105.25	Open To Flow(2)
92	65.57	109.41	Shut-In(2)
183	330.21	111.27	End Shut-In(2)
184	1889.44	111.56	Open To Flow(3)

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	WOCM 10%W 35%O 55%M	0.22
62.00	OCWM 2%O 38%W 60%M	0.30
0.00	RW: .220 @ 64 Degrees F = 35000 chlori	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34846

**DST#: 5**

ATTN: Steve Davis

Test Start: 2009.09.22 @ 03:50:15

**Tool Information**

Drill Pipe:	Length: 3832.00 ft	Diameter: 3.80 inches	Volume: 53.75 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: 155.00 ft	Diameter: 2.25 inches	Volume: 0.76 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 54.51 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.50 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3984.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	53.50 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			3957.50	
Shut In Tool	5.00			3962.50	
Hydraulic tool	5.00			3967.50	
Jars	5.00			3972.50	
Safety Joint	2.50			3975.00	
Packer	5.00			3980.00	27.50 Bottom Of Top Packer
Packer	4.00			3984.00	
Stubb	1.00			3985.00	
Recorder	0.00	8359	Inside	3985.00	
Recorder	0.00	8351	Inside	3985.00	
Perforations	20.00			4005.00	
Bullnose	5.00			4010.00	26.00 Bottom Packers & Anchor

**Total Tool Length: 53.50**



**TRILOBITE**  
**TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34846

**DST#: 5**

ATTN: Steve Davis

Test Start: 2009.09.22 @ 03:50:15

## 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:

35000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7500.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
45.00	WOCM 10%W 35%O 55%M	0.221
62.00	OCWM 2%O 38%W 60%M	0.305
0.00	RW: .220 @ 64 Degrees F = 35000 chloride	0.000

Total Length: 107.00 ft

Total Volume:

0.526 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

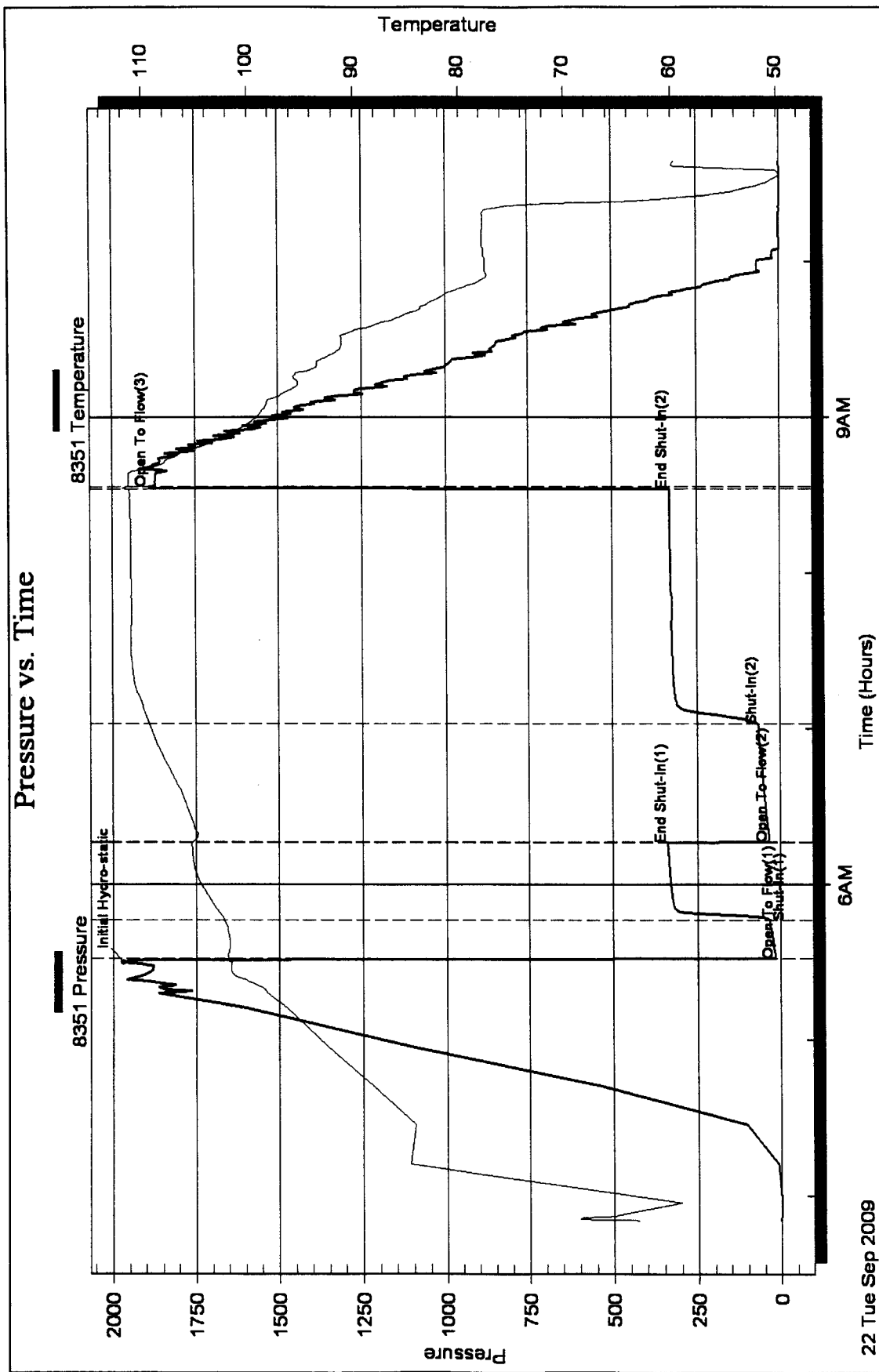
Serial #:

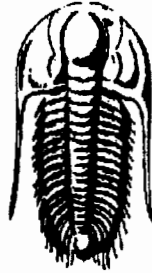
Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co. Inc.**

202 W. Main St.  
Salem, IL 62881

ATTN: Steve Davis

**S15-14-32 Logan, KS**

**Ottley #4-15**

Start Date: 2009.09.23 @ 17:42:00

End Date: 2009.09.23 @ 22:50:00

Job Ticket #: 34847                      DST #: 6

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Shakespeare Oil Co. Inc.

Ottley #4-15

S15-14-32 Logan, KS

DST # 6

Myric St. -- Ft. Sco

2009.09.23



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34847

**DST#: 6**

ATTN: Steve Davis

Test Start: 2009.09.23 @ 17:42:00

## GENERAL INFORMATION:

Formation: **Myric St. -- Ft. Sco**

Deviated: **No Whipstock** ft (KB)

Time Tool Opened: 19:28:12

Time Test Ended: 22:50:00

Test Type: **Conventional Bottom Hole**

Tester: **Chuck Smith**

Unit No: **37**

Interval: **4242.00 ft (KB) To 4295.00 ft (KB) (TVD)**

Total Depth: **4295.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2764.00 ft (KB)**

**2752.00 ft (CF)**

KB to GR/CF: **12.00 ft**

**Serial #: 8359**

**Inside**

Press@RunDepth: **26.35 psig @ 4243.00 ft (KB)**

Start Date: **2009.09.23**

End Date:

**2009.09.23**

Capacity:

**8000.00 psig**

Start Time:

**17:42:05**

End Time:

**22:49:59**

Last Calib.:

**2009.09.23**

Time On Btrr:

**2009.09.23 @ 19:28:00**

Time Off Btrr:

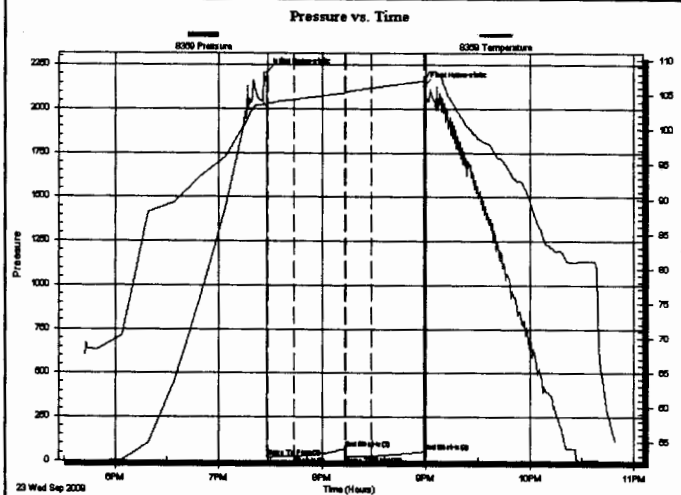
**2009.09.23 @ 20:58:48**

TEST COMMENT: **IF: 1/2" Blow receded to weak surface blow.**

**IS: No return.**

**FF: No blow.**

**FSI: No return.**



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2206.25	103.39	Initial Hydro-static
1	23.14	103.28	Open To Flow (1)
16	25.18	104.30	Shut-In(1)
46	70.37	105.27	End Shut-In(1)
46	25.82	105.32	Open To Flow (2)
61	26.35	105.99	Shut-In(2)
91	52.21	107.02	End Shut-In(2)
91	2130.00	107.07	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	OSM 100%M	0.02

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34847

**DST#: 6**

ATTN: Steve Davis

Test Start: 2009.09.23 @ 17:42:00

### Tool Information

Drill Pipe:	Length: 4074.00 ft	Diameter: 3.80 inches	Volume: 57.15 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: 155.00 ft	Diameter: 2.25 inches	Volume: 0.76 bbl	Weight to Pull Loose: 105000.0 lb
			<u>Total Volume: 57.91 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.50 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4242.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	80.50 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			4215.50	
Shut In Tool	5.00			4220.50	
Hydraulic tool	5.00			4225.50	
Jars	5.00			4230.50	
Safety Joint	2.50			4233.00	
Packer	5.00			4238.00	27.50 Bottom Of Top Packer
Packer	4.00			4242.00	
Stubb	1.00			4243.00	
Recorder	0.00	8359	Inside	4243.00	
Recorder	0.00	8351	Inside	4243.00	
Perforations	15.00			4258.00	
Change Over Sub	1.00			4259.00	
Drill Pipe	30.00			4289.00	
Change Over Sub	1.00			4290.00	
Bullnose	5.00			4295.00	53.00 Bottom Packers & Anchor

**Total Tool Length: 80.50**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34847

**DST#: 6**

ATTN: Steve Davis

Test Start: 2009.09.23 @ 17:42:00

## 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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 8600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
5.00	OSM 100%M	0.025

Total Length: 5.00 ft      Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

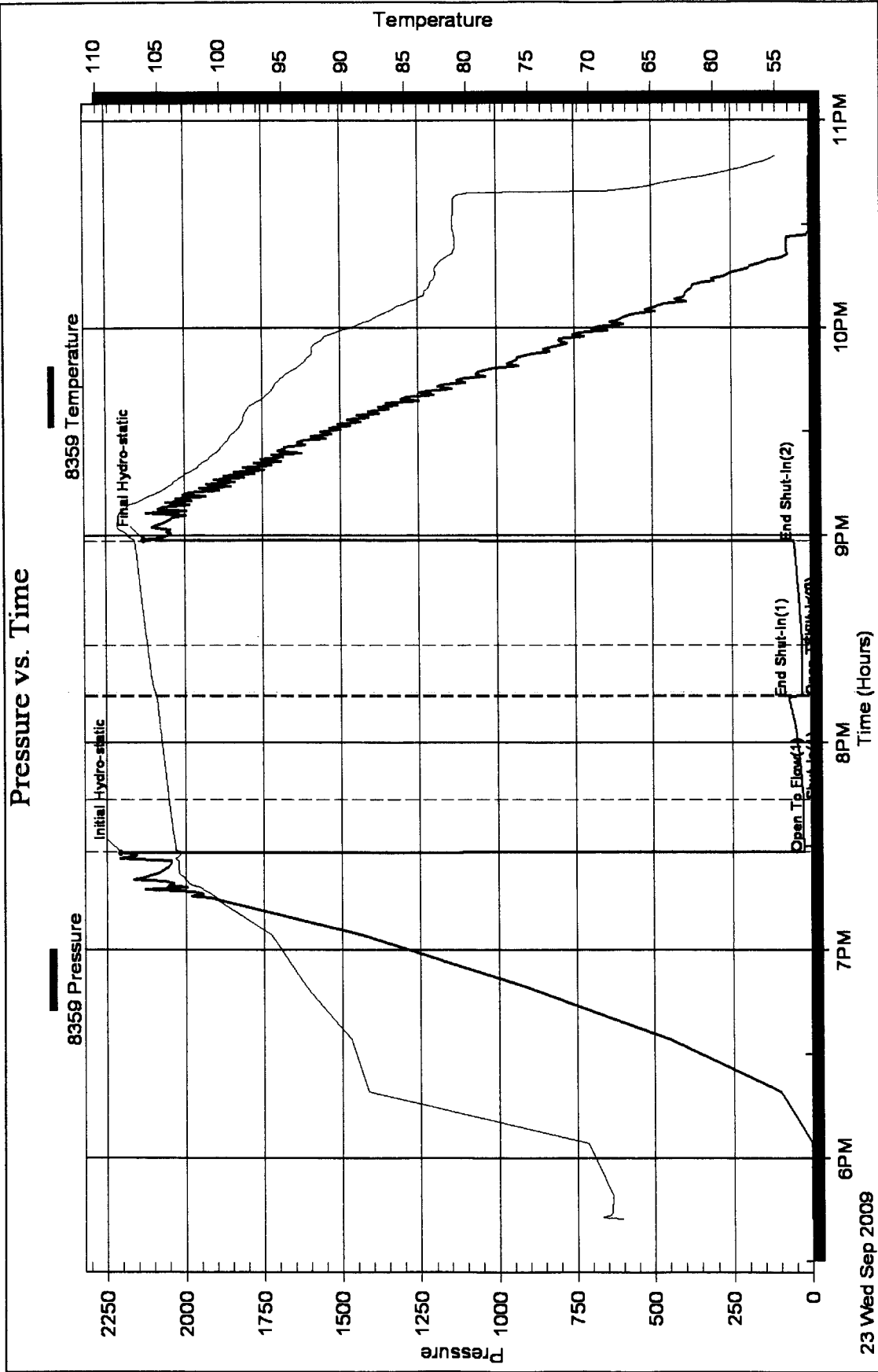
Serial #:

Laboratory Name:

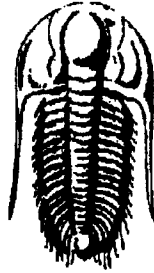
Laboratory Location:

Recovery Comments:

### Pressure vs. Time



23 Wed Sep 2009



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co. Inc.**

202 W. Main St.  
Salem, IL 62881

ATTN: Steve Davis

**S15-14-32 Logan, KS**

**Ottley #4-15**

Start Date: 2009.09.24 @ 10:36:20

End Date: 2009.09.24 @ 18:02:35

Job Ticket #: 34848                      DST #: 7

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Shakespeare Oil Co. Inc.

Ottley #4-15

S15-14-32 Logan, KS

DST # 7

Johnson

2009.09.24



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

ATTN: Steve Davis

Job Ticket: 34848

DST#: 7

Test Start: 2009.09.24 @ 10:36:20

## GENERAL INFORMATION:

Formation: **Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:28:20

Time Test Ended: 18:02:35

Interval: **4318.00 ft (KB) To 4358.00 ft (KB) (TVD)**

Total Depth: 4358.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Chuck Smith

Unit No: 37

Reference Elevations: 2764.00 ft (KB)

2752.00 ft (CF)

KB to GR/CF: 12.00 ft

**Serial #: 8351**

Inside

Press@RunDepth: 62.32 psig @ 4321.00 ft (KB)

Start Date: 2009.09.24

End Date:

2009.09.24

Capacity:

8000.00 psig

Start Time: 10:36:21

End Time:

18:02:35

Last Calib.:

2009.09.24

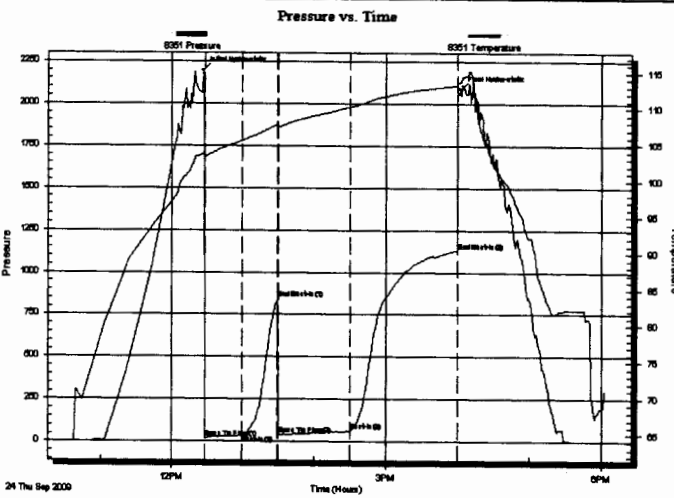
Time On Btm:

2009.09.24 @ 12:26:20

Time Off Btm:

2009.09.24 @ 16:02:20

**TEST COMMENT:** IF: 4 1/2" Blow.  
IS: 1/2" return receded to a surface return.  
FF: 10" Blow.  
FS: Surface return died @ 25 min.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2193.46	103.76	Initial Hydro-static
2	20.17	103.32	Open To Flow (1)
34	34.95	105.61	Shut-In(1)
64	844.03	107.79	End Shut-In(1)
64	39.04	107.55	Open To Flow (2)
124	62.32	110.23	Shut-In(2)
214	1129.79	113.25	End Shut-In(2)
216	2086.14	113.76	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	GMCO 5%G 40%M 55%O	0.10
62.00	GMCO 15%G 40%M 45%O	0.30
210.00	Feet GIP	2.28

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34848      **DST#:7**

ATTN: Steve Davis

Test Start: 2009.09.24 @ 10:36:20

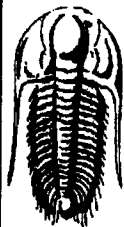
### Tool Information

Drill Pipe:	Length: 4165.00 ft	Diameter: 3.80 inches	Volume: 58.42 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: 155.00 ft	Diameter: 2.25 inches	Volume: 0.76 bbl	Weight to Pull Loose: 110000.0 lb
			<u>Total Volume: 59.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.50 ft			String Weight: Initial 73000.00 lb
Depth to Top Packer:	4318.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	67.50 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			4291.50	
Shut In Tool	5.00			4296.50	
Hydraulic tool	5.00			4301.50	
Jars	5.00			4306.50	
Safety Joint	2.50			4309.00	
Packer	5.00			4314.00	27.50      Bottom Of Top Packer
Packer	4.00			4318.00	
Stubb	1.00			4319.00	
Perforations	2.00			4321.00	
Recorder	0.00	8359	Inside	4321.00	
Recorder	0.00	8351	Inside	4321.00	
Change Over Sub	1.00			4322.00	
Drill Pipe	30.00			4352.00	
Change Over Sub	1.00			4353.00	
Bullnose	5.00			4358.00	40.00      Bottom Packers & Anchor

**Total Tool Length: 67.50**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34848      **DST#: 7**

ATTN: Steve Davis

Test Start: 2009.09.24 @ 10:36:20

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 8400.00 ppm			
Filter Cake: 2.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	GMCO 5%G 40%M 55%O	0.098
62.00	GMCO 15%G 40%M 45%O	0.305
210.00	Feet GIP	2.281

Total Length: 292.00 ft      Total Volume: 2.684 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

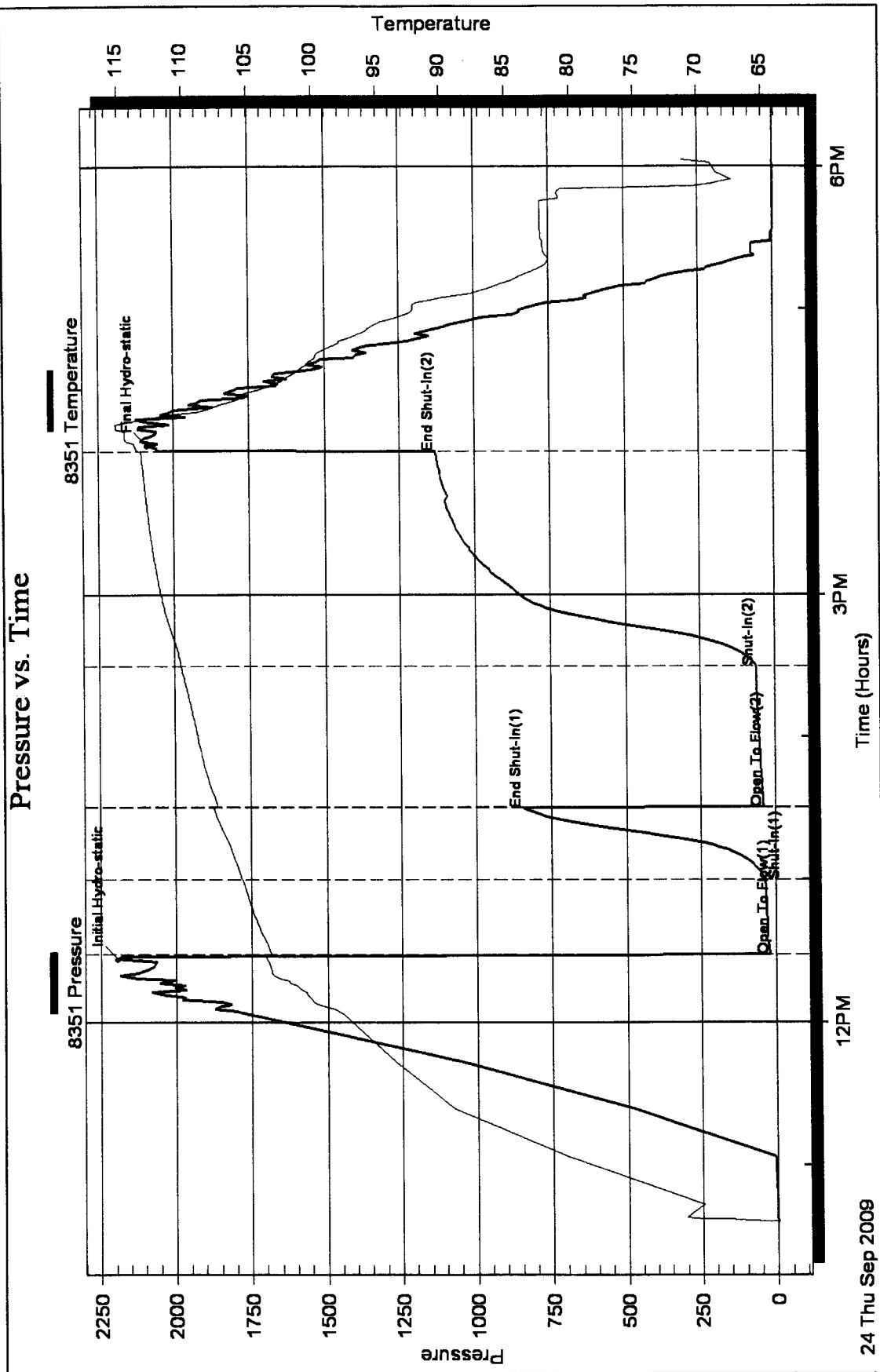
Serial #:

Laboratory Name:

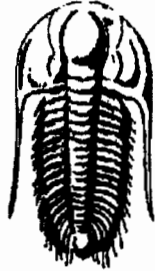
Laboratory Location:

Recovery Comments:

### Pressure vs. Time



24 Thu Sep 2009



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co. Inc.**

202 W. Main St.  
Salem, IL 62881

ATTN: Steve Davis

**S15-14-32 Logan, KS**

**Ottley #4-15**

Start Date: 2009.09.25 @ 09:11:00

End Date: 2009.09.25 @ 16:50:36

Job Ticket #: 34849                      DST #: 8

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Shakespeare Oil Co. Inc.

Ottley #4-15

S15-14-32 Logan, KS

DST # 8

Morrow

2009.09.25



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

ATTN: Steve Davis

Job Ticket: 34849

**DST#: 8**

Test Start: 2009.09.25 @ 09:11:00

## GENERAL INFORMATION:

Formation: **Morrow**

Deviated: **No Whipstock** ft (KB)

Time Tool Opened: 11:15:12

Time Test Ended: 16:50:36

Test Type: **Conventional Bottom Hole**

Tester: **Chuck Smith**

Unit No: **37**

Interval: **4360.00 ft (KB) To 4435.00 ft (KB) (TVD)**

Total Depth: **4435.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2764.00 ft (KB)**

**2752.00 ft (CF)**

KB to GR/CF: **12.00 ft**

**Serial #: 8359**

**Inside**

Press@RunDepth: **104.98 psig @ 4368.00 ft (KB)**

Start Date: **2009.09.25**

End Date:

**2009.09.25**

Capacity:

**8000.00 psig**

Start Time: **09:11:05**

End Time:

**16:50:36**

Last Calib.:

**2009.09.25**

Time On Btrr:

**2009.09.25 @ 11:14:12**

Time Off Btrr:

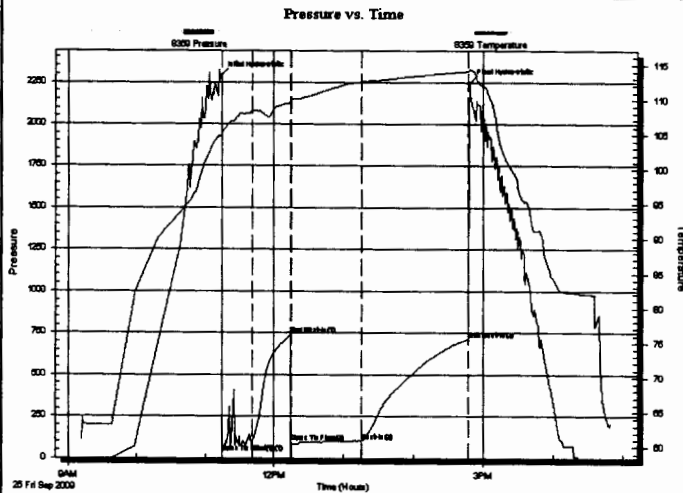
**2009.09.25 @ 14:48:47**

TEST COMMENT: **IF: 4 1/2" Blow.**

**IS: No return.**

**FF: B.O.B. @ 40 min.**

**FS: Surface return died @ 21 min.**



## PRESSURE SUMMARY

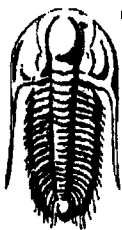
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2287.53	104.87	Initial Hydro-static
1	35.28	105.09	Open To Flow (1)
28	86.26	108.40	Shut-in(1)
61	742.78	109.53	End Shut-in(1)
62	98.24	109.96	Open To Flow (2)
122	104.98	112.55	Shut-in(2)
214	713.35	114.07	End Shut-in(2)
215	2244.29	114.41	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	GOWCM 7%G 1%O 2%W 90%M	0.61
61.00	GOCM 10%G 30%O 60%M	0.57
0.00	No GIP observed.	0.00
0.00	Not enough water for a chloride test.	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34849

**DST#: 8**

ATTN: Steve Davis

Test Start: 2009.09.25 @ 09:11:00

## Tool Information

Drill Pipe:	Length: 4196.00 ft	Diameter: 3.80 inches	Volume: 58.86 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: 155.00 ft	Diameter: 2.25 inches	Volume: 0.76 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 59.62 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.50 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4360.00 ft			Final 75000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	102.50 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			4333.50	
Shut In Tool	5.00			4338.50	
Hydraulic tool	5.00			4343.50	
Jars	5.00			4348.50	
Safety Joint	2.50			4351.00	
Packer	5.00			4356.00	27.50 Bottom Of Top Packer
Packer	4.00			4360.00	
Stubb	1.00			4361.00	
Perforations	7.00			4368.00	
Recorder	0.00	8359	Inside	4368.00	
Recorder	0.00	8351	Inside	4368.00	
Change Over Sub	1.00			4369.00	
Drill Pipe	60.00			4429.00	
Change Over Sub	1.00			4430.00	
Bullnose	5.00			4435.00	75.00 Bottom Packers & Anchor

**Total Tool Length: 102.50**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Shakespeare Oil Co. Inc.

**Ottley #4-15**

202 W. Main St.  
Salem, IL 62881

**S15-14-32 Logan, KS**

Job Ticket: 34849

**DST#: 8**

ATTN: Steve Davis

Test Start: 2009.09.25 @ 09:11:00

**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: 54.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.38 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 3600.00 ppm		
Filter Cake: 2.00 inches		

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
124.00	GOWCM 7%G 1%O 2%W 90%M	0.610
61.00	GOCM 10%G 30%O 60%M	0.573
0.00	No GIP observed.	0.000
0.00	Not enough water for a chloride test.	0.000

Total Length: 185.00 ft      Total Volume: 1.183 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time

