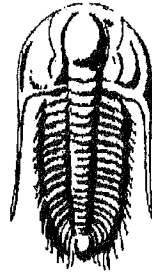


15-101-21998

34-18s-29w

KCS



TRILOBITE
TESTING, INC.

KCC
MAY 26 2007
CONFIDENTIAL

DRILL STEM TEST REPORT

Prepared For: **Larson Operating CO**

562 West Hwy 4
Olmitz KS 67564

RECEIVED
KANSAS CORPORATION COMMISSION

ATTN: Bob Lewellyn

MAY 29 2007

CONSERVATION DIVISION
WICHITA, KS

34 18 29 Lane KS

Lucille #2-34

Start Date: 2007.02.05 @ 00:46:38

End Date: 2007.02.05 @ 08:40:17

Job Ticket #: 26434 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Larson Operating CO

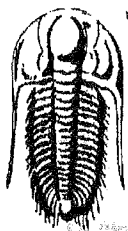
Lucille #2-34

34 18 29 Lane KS

DST # 1

KC

2007.02.05



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Larson Operating CO

562 West Hwy 4
Olmritz KS 67564

ATTN: Bob Lew ellyn

Lucille #2-34

34 18 29 Lane KS

Job Ticket: 26434

DST#: 1

Test Start: 2007.02.05 @ 00:46:38

GENERAL INFORMATION:

Formation: **KC**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 03:17:48
Time Test Ended: 08:40:17

Interval: **4136.00 ft (KB) To 4208.00 ft (KB) (TVD)**
Total Depth: **4208.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Test Type: **Conventional Bottom Hole**
Tester: **Shane McBride**
Unit No: **40**

Reference Elevations: **2828.00 ft (KB)**
2817.00 ft (CF)
KB to GR/CF: **11.00 ft**

Serial #: 6667

Inside

Press@RunDepth: **119.41 psig @ 4137.00 ft (KB)**

Start Date: **2007.02.05**

End Date: **2007.02.05**

Start Time: **00:46:38**

End Time: **08:32:17**

Capacity: **7000.00 psig**

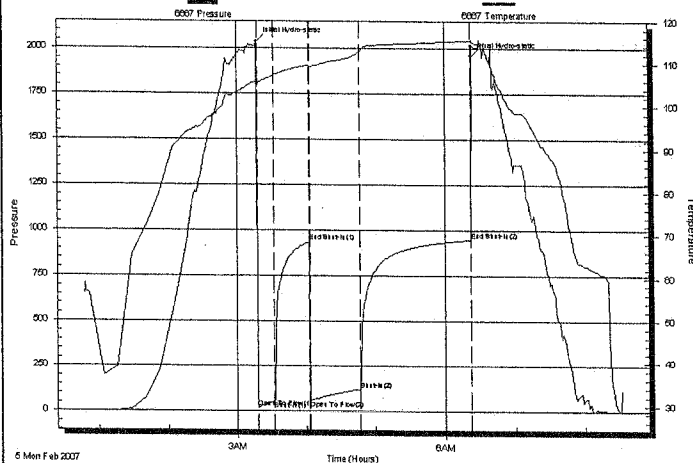
Last Calib.: **2007.02.05**

Time On Btm: **2007.02.05 @ 03:17:33**

Time Off Btm: **2007.02.05 @ 06:22:32**

TEST COMMENT: **1/2 " @ open built to 1 1/4 "**
No return
Surface blow built to 3 3/4 "
No return

Pressure vs. Time



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2035.96	105.88	Initial Hydro-static
1	17.51	104.60	Open To Flow (1)
15	55.67	107.20	Shut-In (1)
45	935.10	109.61	End Shut-In (1)
46	58.20	109.36	Open To Flow (2)
90	119.41	112.72	Shut-In (2)
185	948.30	115.46	End Shut-In (2)
185	1960.66	115.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	SO&CWM 5%O 10%W 85%M	0.89

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Operating CO

Lucille #2-34

562 West Hwy 4
Olmitz KS 67564

34 18 29 Lane KS

Job Ticket: 26434

DST#: 1

ATTN: Bob Lewellyn

Test Start: 2007.02.05 @ 00:46:38

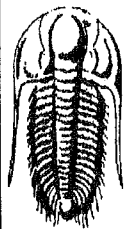
Tool Information

Drill Pipe:	Length: 3913.00 ft	Diameter: 3.80 inches	Volume: 54.89 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: 25000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 95000.00 lb
		Total Volume: 55.96 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4136.00 ft			Final 81000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	72.00 ft			
Tool Length:	98.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4115.00	
Hydraulic tool	5.00			4120.00	
Jars	5.00			4125.00	
Safety Joint	2.00			4127.00	
Packer	5.00			4132.00	26.00 Bottom Of Top Packer
Packer	4.00		Inside	4136.00	
Stubb	1.00			4137.00	
Recorder	0.00	6667	Inside	4137.00	
Perforations	33.00			4170.00	
Change Over Sub	1.00			4171.00	
Drill Pipe	31.00			4202.00	
Change Over Sub	1.00			4203.00	
Recorder	0.00	11058		4203.00	
Bullnose	5.00			4208.00	72.00 Bottom Packers & Anchor

Total Tool Length: 98.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Operating CO

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

Lucille #2-34

34 18 29 Lane KS

Job Ticket: 26434

DST#: 1

Test Start: 2007.02.05 @ 00:46:38

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 44.00 sec/qt

Water Loss: 7.12 in³

Resistivity: 0.00 ohm.m

Salinity: 2100.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

0 deg API

Water Salinity:

0 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	SO&CWM 5%O 10%W 85%M	0.885

Total Length: 180.00 ft

Total Volume: 0.885 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

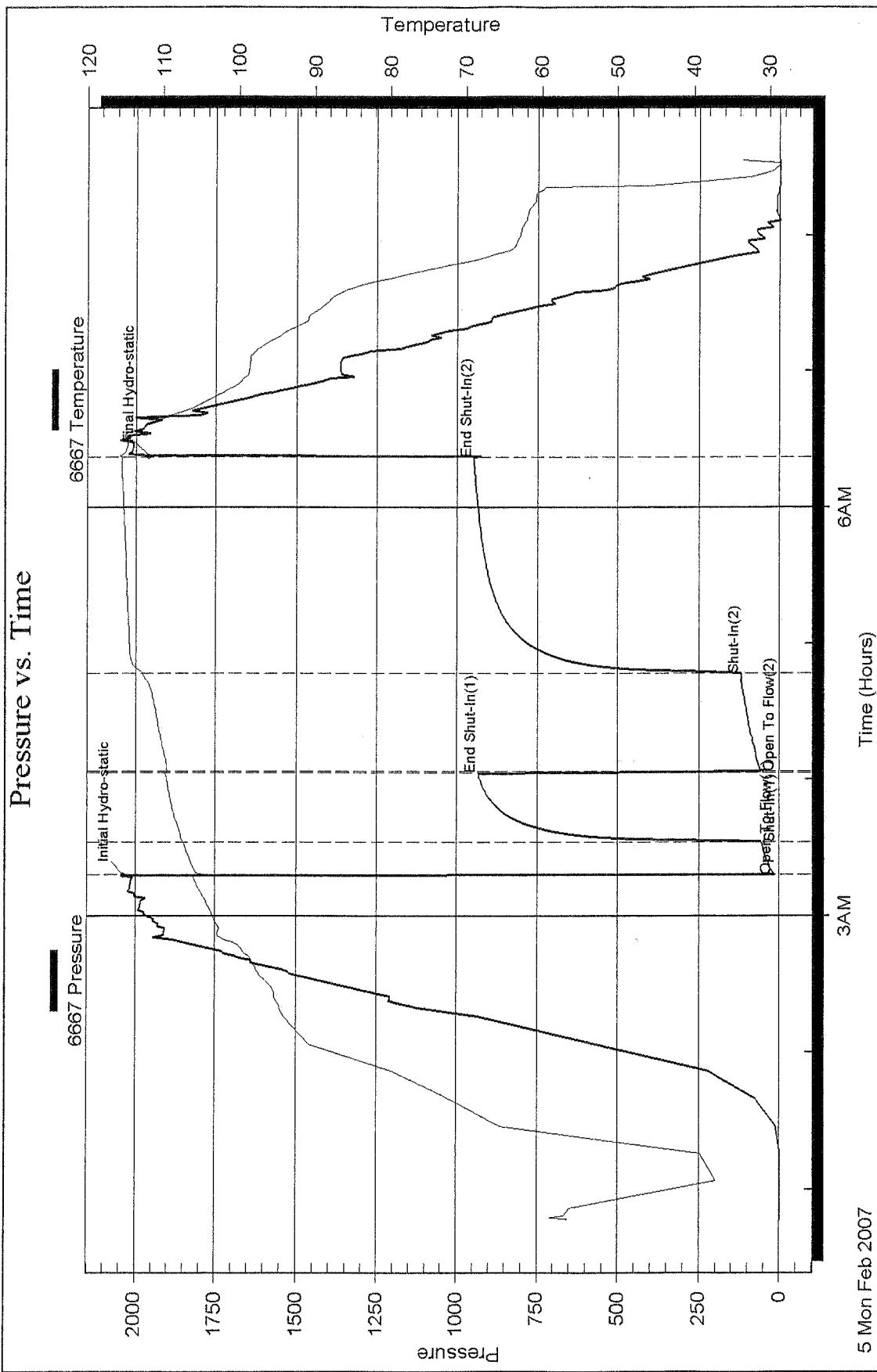
Serial #:

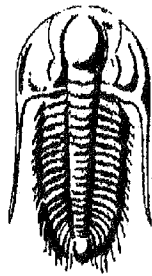
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Operating CO**

562 West Hwy 4
Olmits KS 67564

ATTN: Bob Lewellyn

34 18 29 Lane KS

Lucille #2-34

Start Date: 2007.02.05 @ 19:50:49

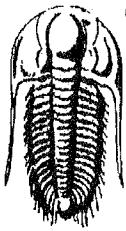
End Date: 2007.02.06 @ 01:40:43

Job Ticket #: 26435 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Larson Operating CO

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

Lucille #2-34

34 18 29 Lane KS

Job Ticket: 26435

DST#: 2

Test Start: 2007.02.05 @ 19:50:49

GENERAL INFORMATION:

Formation: **KC**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 21:57:59
Time Test Ended: 01:40:43

Interval: **4247.00 ft (KB) To 4260.00 ft (KB) (TVD)**
Total Depth: **4260.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**

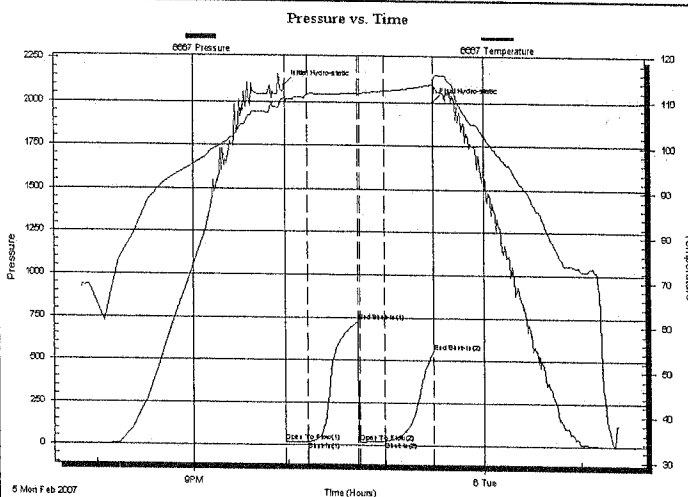
Test Type: **Conventional Bottom Hole**
Tester: **Shane McBride**
Unit No: **40**

Reference Elevations: **2828.00 ft (KB)**
2817.00 ft (CF)
KB to GR/CF: **11.00 ft**

Serial #: 6667 Inside
Press@RunDepth: **24.92 psig @ 4248.00 ft (KB)**
Start Date: **2007.02.05** End Date: **2007.02.06**
Start Time: **19:50:49** End Time: **01:24:43**

Capacity: **7000.00 psig**
Last Calib.: **2007.02.06**
Time On Btm: **2007.02.05 @ 21:57:44**
Time Off Btm: **2007.02.05 @ 23:29:29**

TEST COMMENT: Weak blow died in 5 min.
No return
No blow
No return



PRESSURE SUMMARY

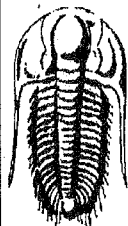
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2098.80	110.63	Initial Hydro-static
1	16.37	109.33	Open To Flow (1)
14	19.69	111.52	Shut-In(1)
45	723.48	111.81	End Shut-In(1)
46	20.84	111.66	Open To Flow (2)
62	24.92	112.29	Shut-In(2)
92	549.18	113.83	End Shut-In(2)
92	2004.29	114.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 6" free Oil on top	0.01

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Operating CO

Lucille #2-34

562 West Hwy 4
Olmitz KS 67564

34 18 29 Lane KS

Job Ticket: 26435

DST#: 2

ATTN: Bob Lewellyn

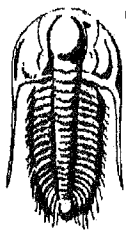
Test Start: 2007.02.05 @ 19:50:49

Tool Information

Drill Pipe:	Length: 4036.00 ft	Diameter: 3.80 inches	Volume: 56.61 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:	25000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose:	95000.00 lb
			<u>Total Volume: 57.68 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	80000.00 lb
Depth to Top Packer:	4247.00 ft			Final	80000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	13.00 ft				
Tool Length:	39.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4226.00	
Hydraulic tool	5.00			4231.00	
Jars	5.00			4236.00	
Safety Joint	2.00			4238.00	
Packer	5.00			4243.00	26.00 Bottom Of Top Packer
Packer	4.00		Inside	4247.00	
Stubb	1.00			4248.00	
Recorder	0.00	6667	Inside	4248.00	
Perforations	7.00			4255.00	
Recorder	0.00	11058		4255.00	
Bullnose	5.00			4260.00	13.00 Bottom Packers & Anchor

Total Tool Length: 39.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Operating CO

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

Lucille #2-34

34 18 29 Lane KS

Job Ticket: 26435

DST#: 2

Test Start: 2007.02.05 @ 19:50:49

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 46.00 sec/qt

Water Loss: 7.91 in³

Resistivity: 0.00 ohm.m

Salinity: 2700.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

0 deg API

Water Salinity:

0 ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud 6" free Oil on top	0.015

Total Length: 3.00 ft

Total Volume: 0.015 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

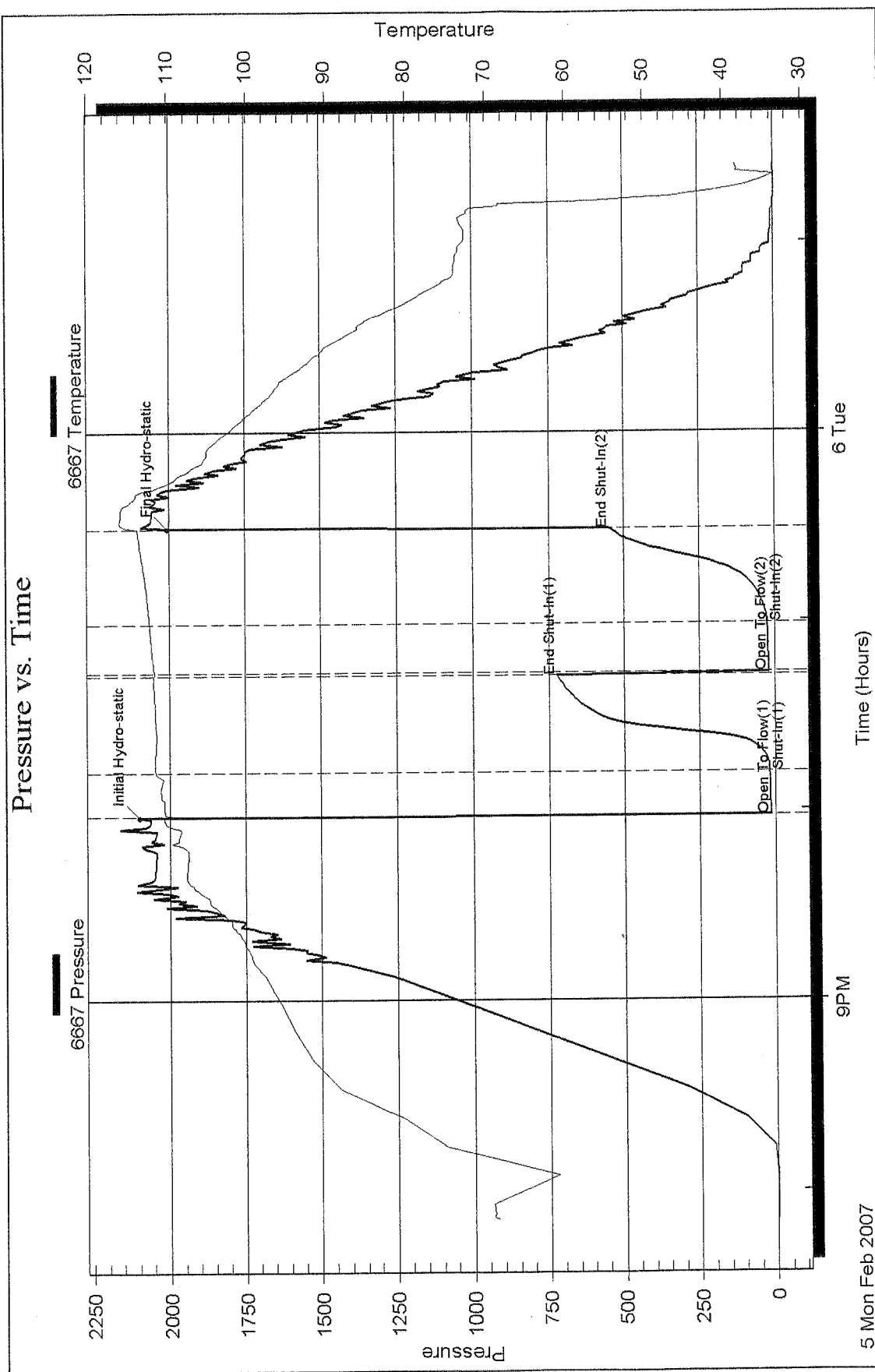
Serial #:

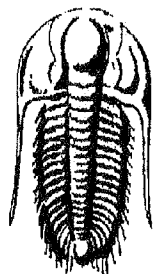
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Larson Operating CO**

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

34 18 29 Lane KS

Lucille #2-34

Start Date: 2007.02.06 @ 11:05:28

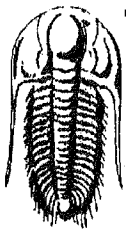
End Date: 2007.02.06 @ 16:30:37

Job Ticket #: 26436 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Larson Operating CO

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

Lucille #2-34

34 18 29 Lane KS

Job Ticket: 26436

DST#: 3

Test Start: 2007.02.06 @ 11:05:28

GENERAL INFORMATION:

Formation: **KC**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: 12:49:23
Time Test Ended: 16:30:37

Interval: **4276.00 ft (KB) To 4298.00 ft (KB) (TVD)**
Total Depth: **4298.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Test Type: **Conventional Bottom Hole**
Tester: **Shane McBride**
Unit No: **40**

Reference Elevations: **2828.00 ft (KB)**
2817.00 ft (CF)
KB to GR/CF: **11.00 ft**

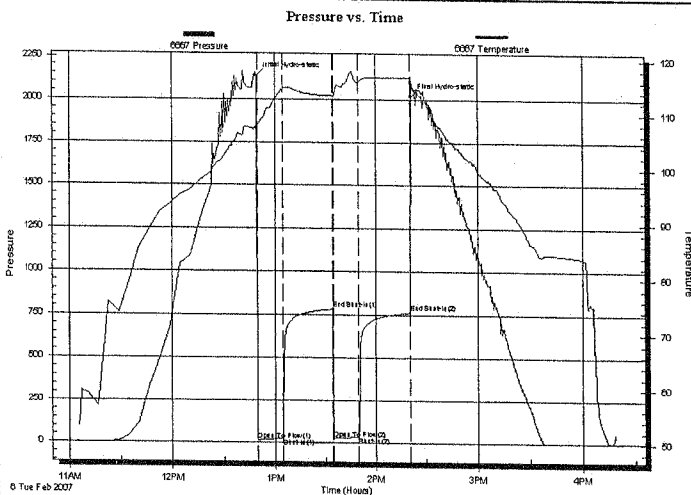
Serial #: 6667

Inside

Press@RunDepth: **35.87 psig @ 4277.00 ft (KB)**
Start Date: **2007.02.06** End Date: **2007.02.06**
Start Time: **11:05:28** End Time: **16:19:37**

Capacity: **7000.00 psig**
Last Calib.: **2007.02.06**
Time On Btm: **2007.02.06 @ 12:49:08**
Time Off Btm: **2007.02.06 @ 14:20:53**

TEST COMMENT: **Weak blow died in 7 min.**
No return
Bubble to open tool
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2133.13	108.29	Initial Hydro-static
1	15.29	107.90	Open To Flow (1)
16	24.89	114.43	Shut-In (1)
45	780.68	113.44	End Shut-In (1)
46	27.16	113.29	Open To Flow (2)
61	35.87	116.02	Shut-In (2)
92	763.26	116.78	End Shut-In (2)
92	2018.11	116.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	WCM 30%W 70%M	0.02

Gas Rates

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Operating CO

Lucille #2-34

562 West Hwy 4
Olmitz KS 67564

34 18 29 Lane KS

Job Ticket: 26436

DST#: 3

ATTN: Bob Lew ellyn

Test Start: 2007.02.06 @ 11:05:28

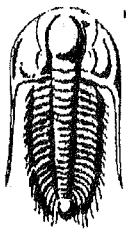
Tool Information

Drill Pipe:	Length: 4038.00 ft	Diameter: 3.80 inches	Volume: 56.64 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:	25000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose:	95000.00 lb
			Total Volume: 57.71 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	81000.00 lb
Depth to Top Packer:	4276.00 ft			Final	81000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	48.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4255.00	
Hydraulic tool	5.00			4260.00	
Jars	5.00			4265.00	
Safety Joint	2.00			4267.00	
Packer	5.00			4272.00	26.00 Bottom Of Top Packer
Packer	4.00		Inside	4276.00	
Stubb	1.00			4277.00	
Recorder	0.00	6667	Inside	4277.00	
Perforations	16.00			4293.00	
Recorder	0.00	11058		4293.00	
Bullnose	5.00			4298.00	22.00 Bottom Packers & Anchor

Total Tool Length: 48.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Operating CO

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

Lucille #2-34

34 18 29 Lane KS

Job Ticket: 26436

DST#: 3

Test Start: 2007.02.06 @ 11:05:28

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 49.00 sec/qt

Water Loss: 7.14 in³

Resistivity: 0.00 ohm.m

Salinity: 3700.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

0 deg API

ft

Water Salinity:

62000 ppm

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	WCM 30%W 70%M	0.025

Total Length: 5.00 ft

Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

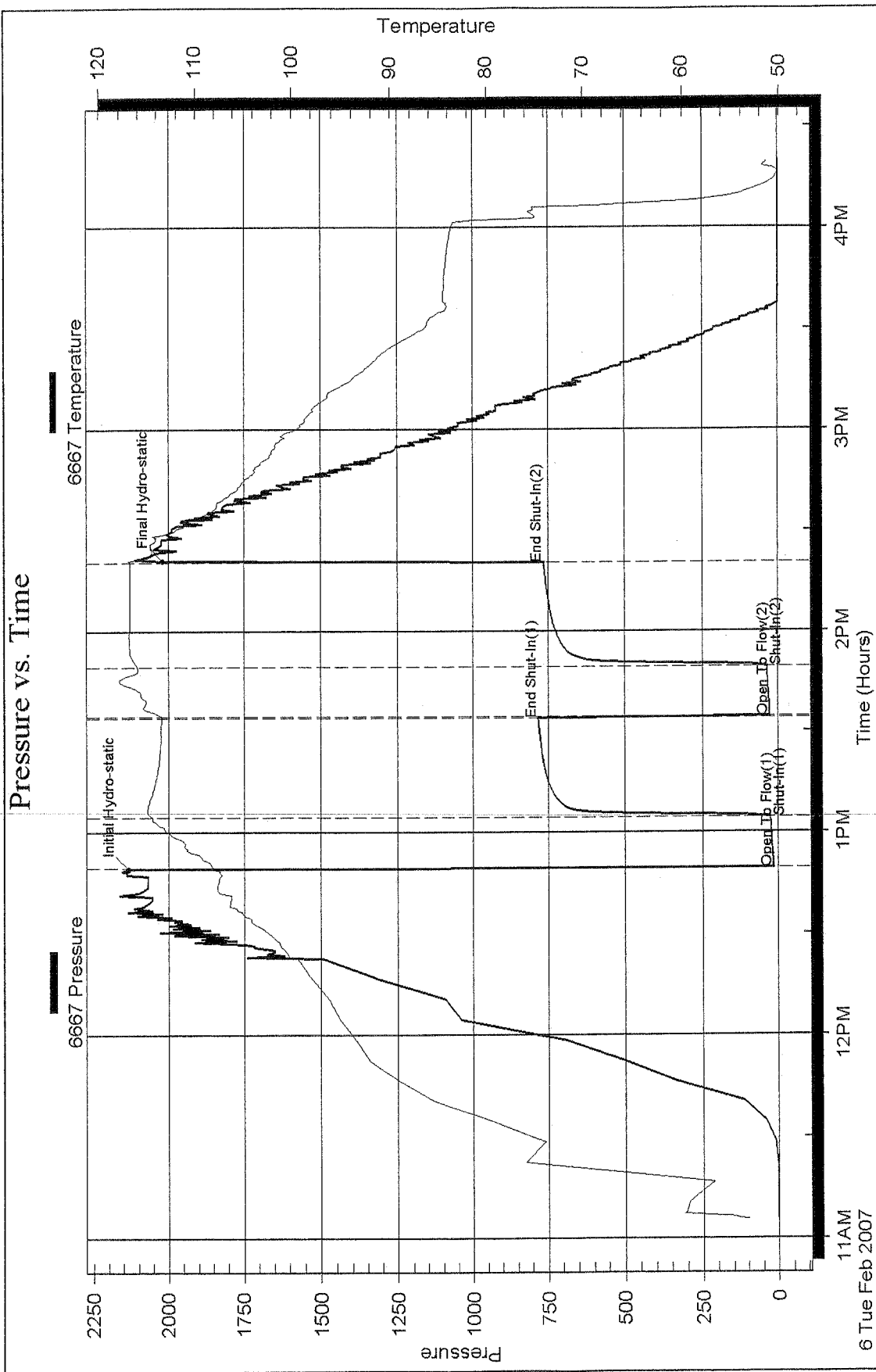
Serial #:

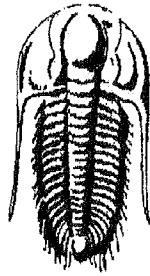
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Larson Operating CO**

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

34 18 29 Lane KS

Lucille #2-34

Start Date: 2007.02.07 @ 06:55:57

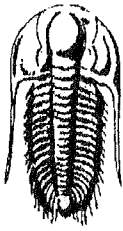
End Date: 2007.02.07 @ 14:50:06

Job Ticket #: 26437 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Larson Operating CO

562 West Hwy 4
Olnitz KS 67564

ATTN: Bob Lewellyn

Lucille #2-34

34 18 29 Lane KS

Job Ticket: 26437

DST#: 4

Test Start: 2007.02.07 @ 06:55:57

GENERAL INFORMATION:

Formation: **pleas**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:07:22

Time Test Ended: 14:50:06

Interval: **4327.00 ft (KB) To 4390.00 ft (KB) (TVD)**

Total Depth: 4390.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Shane McBride

Unit No: 40

Reference Elevations: 2828.00 ft (KB)

2817.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6667

Inside

Press@RunDepth: 132.70 psig @ 4328.00 ft (KB)

Start Date: 2007.02.07

End Date: 2007.02.07

Start Time: 06:55:57

End Time: 14:40:06

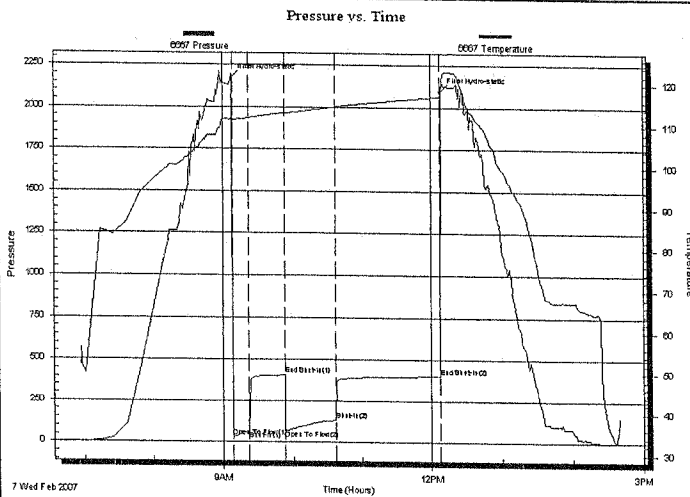
Capacity: 7000.00 psig

Last Calib.: 2007.02.07

Time On Btm: 2007.02.07 @ 09:07:07

Time Off Btm: 2007.02.07 @ 12:07:52

TEST COMMENT: 1 3/4 " blow
No return
1 1/4 " blow
No return



PRESSURE SUMMARY

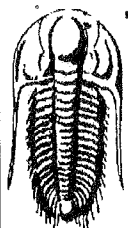
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2172.29	112.12	Initial Hydro-static
1	28.25	111.28	Open To Flow (1)
15	67.16	111.89	Shut-In (1)
46	406.56	113.13	End Shut-In (1)
46	68.10	113.02	Open To Flow (2)
90	132.70	114.56	Shut-In (2)
181	401.24	117.16	End Shut-In (2)
181	2094.62	117.55	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MCW 40%M 60%W	0.30
120.00	SMCW 10%M 90%W	0.59

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Operating CO

Lucille #2-34

562 West Hwy 4
Olmitz KS 67564

34 18 29 Lane KS

Job Ticket: 26437

DST#: 4

ATTN: Bob Lewellyn

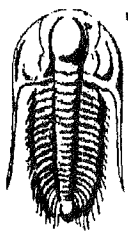
Test Start: 2007.02.07 @ 06:55:57

Tool Information

Drill Pipe:	Length: 4100.00 ft	Diameter: 3.80 inches	Volume: 57.51 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:	25000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose:	105000.0 lb
		Total Volume:	58.58 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	81000.00 lb
Depth to Top Packer:	4327.00 ft			Final	82000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	63.00 ft				
Tool Length:	89.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4306.00	
Hydraulic tool	5.00			4311.00	
Jars	5.00			4316.00	
Safety Joint	2.00			4318.00	
Packer	5.00			4323.00	26.00 Bottom Of Top Packer
Packer	4.00		Inside	4327.00	
Stubb	1.00			4328.00	
Recorder	0.00	6667	Inside	4328.00	
Perforations	24.00			4352.00	
Change Over Sub	1.00			4353.00	
Drill Pipe	31.00			4384.00	
Change Over Sub	1.00			4385.00	
Recorder	0.00	11058		4385.00	
Bullnose	5.00			4390.00	63.00 Bottom Packers & Anchor

Total Tool Length: 89.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Operating CO

Lucille #2-34

562 West Hwy 4
Olmitz KS 67564

34 18 29 Lane KS

Job Ticket: 26437

DST#: 4

ATTN: Bob Lewellyn

Test Start: 2007.02.07 @ 06:55:57

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:

54000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.94 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MCW 40%M 60%W	0.295
120.00	SMCW 10%M 90%W	0.590

Total Length: 180.00 ft

Total Volume: 0.885 bbl

Num Fluid Samples: 0

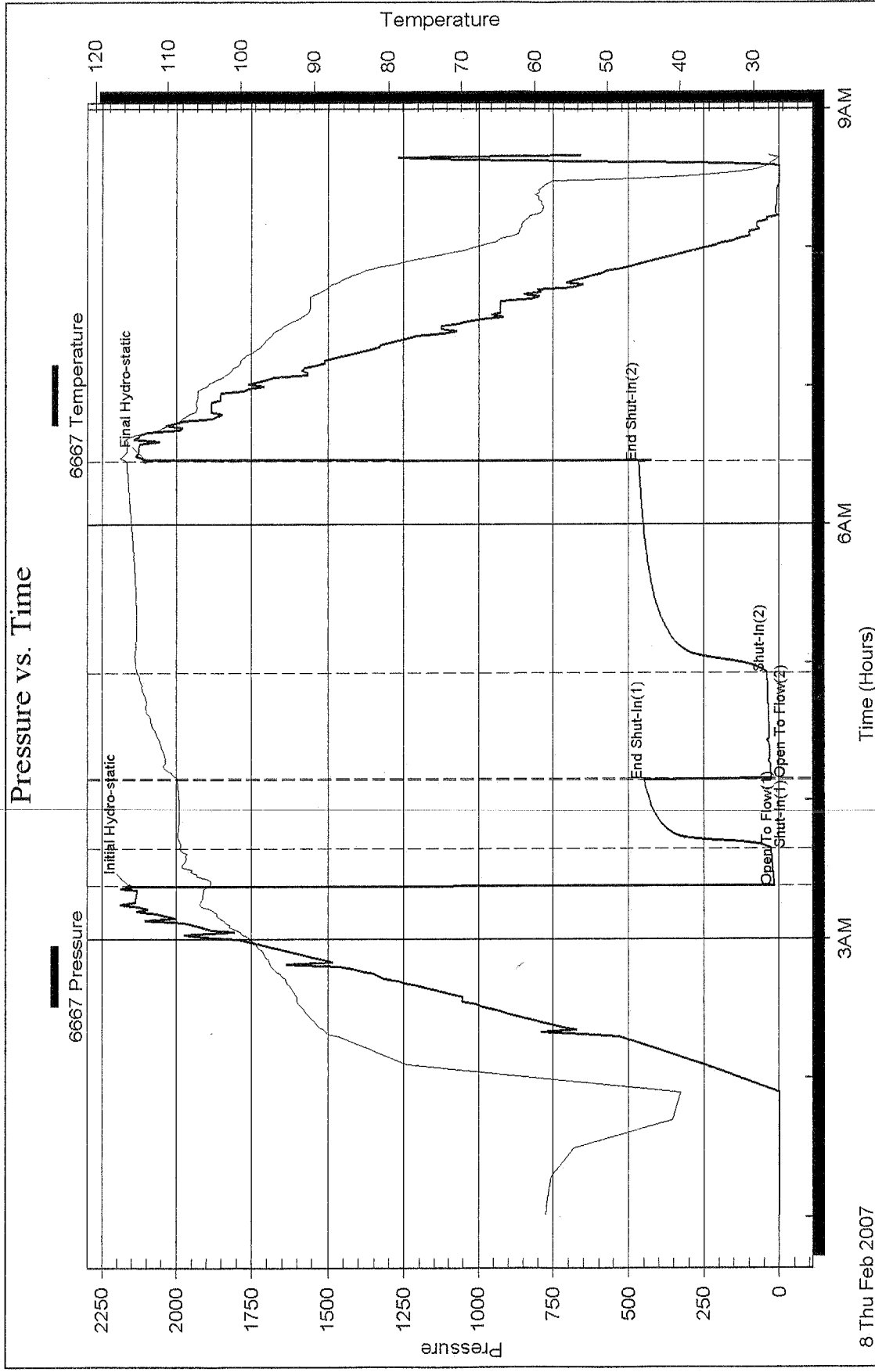
Num Gas Bombs: 0

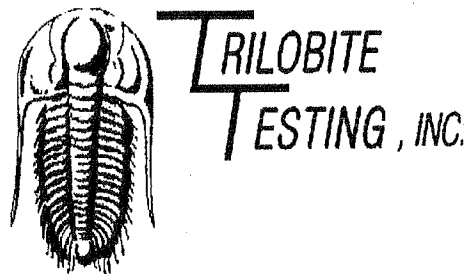
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Larson Operating CO**

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

34 18 29 Lane KS

Lucille #2-34

Start Date: 2007.02.08 @ 01:00:44

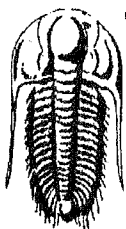
End Date: 2007.02.08 @ 08:50:23

Job Ticket #: 26438 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

Larson Operating CO

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

Lucille #2-34

34 18 29 Lane KS

Job Ticket: 26438

DST#: 5

Test Start: 2007.02.08 @ 01:00:44

GENERAL INFORMATION:

Formation: **altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:22:54

Time Test Ended: 08:50:23

Test Type: Conventional Bottom Hole

Tester: Shane McBride

Unit No: 40

Interval: **4396.00 ft (KB) To 4424.00 ft (KB) (TVD)**

Total Depth: 4424.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2828.00 ft (KB)

2817.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6667

Inside

Press@RunDepth: 40.51 psig @ 4397.00 ft (KB)

Start Date: 2007.02.08

End Date:

2007.02.08

Start Time: 01:00:44

End Time:

08:40:23

Capacity: 7000.00 psig

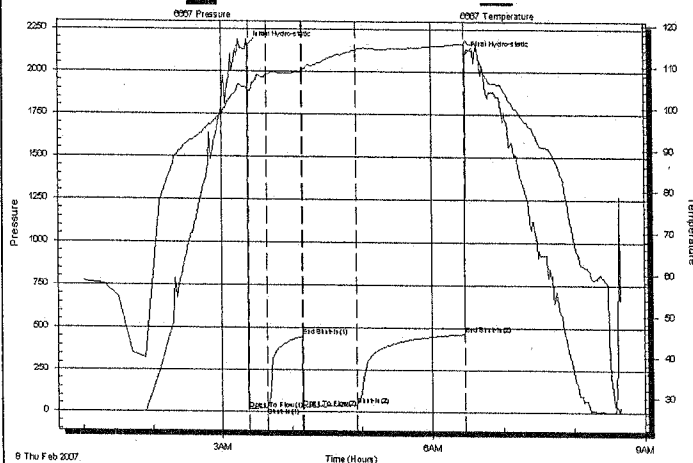
Last Calib.: 2007.02.08

Time On Btm: 2007.02.08 @ 03:22:24

Time Off Btm: 2007.02.08 @ 06:27:54

TEST COMMENT: 1" blow
No return
1/2" blow
No return

Pressure vs. Time



PRESSURE SUMMARY

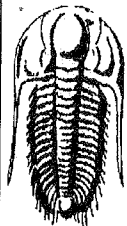
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2156.15	104.28	Initial Hydro-static
1	16.04	104.19	Open To Flow (1)
17	25.35	108.27	Shut-In (1)
47	448.15	108.69	End Shut-In (1)
47	26.68	108.60	Open To Flow (2)
93	40.51	114.14	Shut-In (2)
185	465.58	115.64	End Shut-In (2)
186	2104.43	115.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud w/Oil spots	0.07

Gas Rates

Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Operating CO

Lucille #2-34

562 West Hwy 4
Olmitz KS 67564

34 18 29 Lane KS

Job Ticket: 26438

DST#: 5

ATTN: Bob Lewellyn

Test Start: 2007.02.08 @ 01:00:44

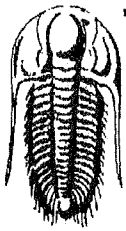
Tool Information

Drill Pipe:	Length: 4160.00 ft	Diameter: 3.80 inches	Volume: 58.35 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: 25000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 100000.0 lb
			Total Volume: 59.42 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4396.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4375.00	
Hydraulic tool	5.00			4380.00	
Jars	5.00			4385.00	
Safety Joint	2.00			4387.00	
Packer	5.00			4392.00	26.00 Bottom Of Top Packer
Packer	4.00		Inside	4396.00	
Stubb	1.00			4397.00	
Recorder	0.00	6667	Inside	4397.00	
Perforations	22.00			4419.00	
Recorder	0.00	11058		4419.00	
Bullnose	5.00			4424.00	28.00 Bottom Packers & Anchor

Total Tool Length: 54.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Operating CO

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

Lucille #2-34

34 18 29 Lane KS

Job Ticket: 26438

DST#: 5

Test Start: 2007.02.08 @ 01:00:44

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 44.00 sec/qt

Water Loss: 7.13 in³

Resistivity: 0.00 ohm.m

Salinity: 2100.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

0 deg API

Water Salinity:

0 ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud w/Oil spots	0.074

Total Length: 15.00 ft

Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

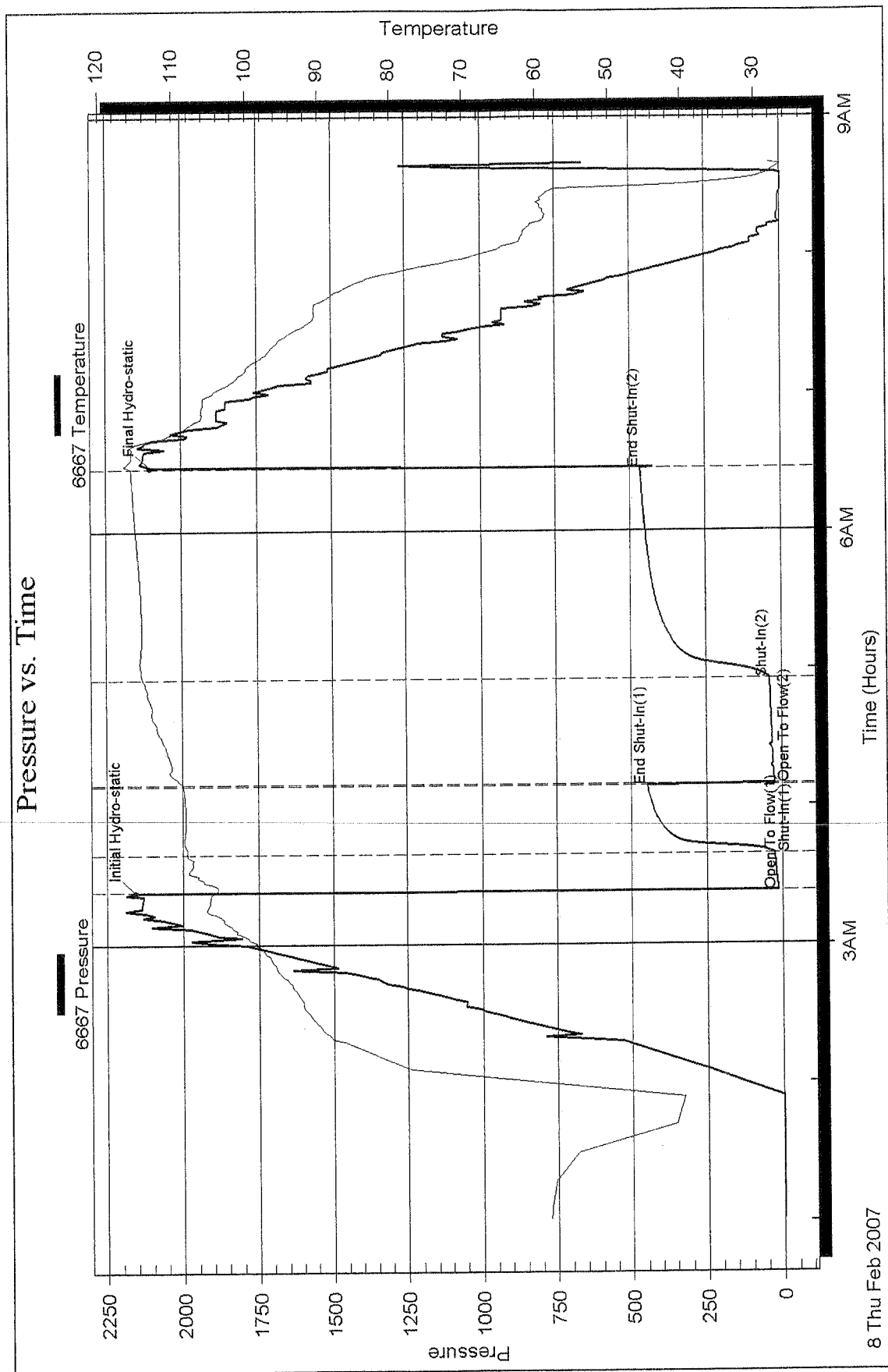
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Larson Operating CO**

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

34 18 29 Lane KS

Lucille #2-34

Start Date: 2007.02.09 @ 03:35:56

End Date: 2007.02.09 @ 12:15:51

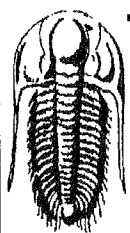
Job Ticket #: 26439

DST #: 6

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Larson Operating CO

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

Lucille #2-34

34 18 29 Lane KS

Job Ticket: 26439

DST#: 6

Test Start: 2007.02.09 @ 03:35:56

GENERAL INFORMATION:

Formation: **Ft Scott-Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:01:51

Time Test Ended: 12:15:51

Interval: **4464.00 ft (KB) To 4582.00 ft (KB) (TVD)**

Total Depth: 4582.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole

Tester: Shane McBride

Unit No: 40

Reference Elevations: 2828.00 ft (KB)

2817.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6667

Inside

Press@RunDepth: 182.57 psig @ 4465.00 ft (KB)

Start Date: 2007.02.09

End Date: 2007.02.09

Start Time: 03:35:56

End Time: 12:08:51

Capacity: 7000.00 psig

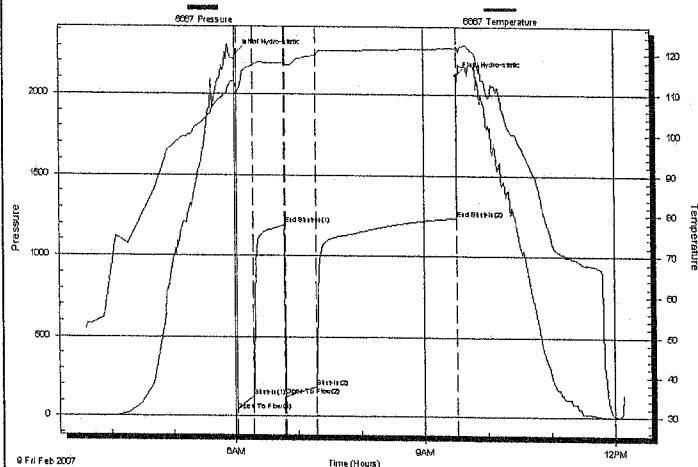
Last Calib.: 2007.02.09

Time On Btm: 2007.02.09 @ 06:01:36

Time Off Btm: 2007.02.09 @ 09:30:51

TEST COMMENT: 10 1/2 " blow
No return
BOB in 20 min.
No return

Pressure vs. Time



PRESSURE SUMMARY

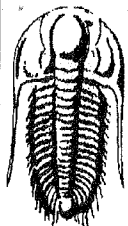
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2248.70	111.36	Initial Hydro-static
1	31.33	110.72	Open To Flow (1)
16	123.74	117.07	Shut-In(1)
46	1192.69	117.77	End Shut-In(1)
47	124.91	117.40	Open To Flow (2)
76	182.57	119.71	Shut-In(2)
209	1236.07	121.51	End Shut-In(2)
210	2116.97	122.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	GMCO 25%G 30%M 45%O	2.23
60.00	SGOCM 5%G 30%O 65%M	0.84
0.00	240 weak GIP	0.00

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Larson Operating CO

Lucille #2-34

562 West Hwy 4
Olmitz KS 67564

34 18 29 Lane KS

Job Ticket: 26439

DST#: 6

ATTN: Bob Lewellyn

Test Start: 2007.02.09 @ 03:35:56

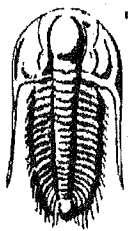
Tool Information

Drill Pipe:	Length:	4225.00 ft	Diameter:	3.80 inches	Volume:	59.27 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:	25000.00 lb
Drill Collar:	Length:	217.00 ft	Diameter:	2.25 inches	Volume:	1.07 bbl	Weight to Pull Loose:	105000.0 lb
					Total Volume:	60.34 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		4.00 ft					String Weight: Initial	84000.00 lb
Depth to Top Packer:		4464.00 ft					Final	89000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		118.00 ft						
Tool Length:		144.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				
Tool Comments:								

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4443.00	
Hydraulic tool	5.00			4448.00	
Jars	5.00			4453.00	
Safety Joint	2.00			4455.00	
Packer	5.00			4460.00	26.00 Bottom Of Top Packer
Packer	4.00		Inside	4464.00	
Stubb	1.00			4465.00	
Recorder	0.00	6667	Inside	4465.00	
Perforations	17.00			4482.00	
Change Over Sub	1.00			4483.00	
Drill Pipe	93.00			4576.00	
Change Over Sub	1.00			4577.00	
Recorder	0.00	11058		4577.00	
Bullnose	5.00			4582.00	118.00 Bottom Packers & Anchor

Total Tool Length: 144.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Larson Operating CO

562 West Hwy 4
Olmitz KS 67564

ATTN: Bob Lewellyn

Lucille #2-34

34 18 29 Lane KS

Job Ticket: 26439

DST#: 6

Test Start: 2007.02.09 @ 03:35:56

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 7.97 in³

Resistivity: 0.00 ohm.m

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

0 deg API

ft

Water Salinity:

0 ppm

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
300.00	GMCO 25%G 30%M 45%O	2.231
60.00	SGOCM 5%G 30%O 65%M	0.842
0.00	240 weak GIP	0.000

Total Length: 360.00 ft

Total Volume: 3.073 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6667

Inside

Larson Operating CO

34 18 29 Lane KS

DST Test Number: 6

Pressure vs. Time

