

DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

P.O. Box 47
Great Bend, KS. 67539

15097 214950000

ATTN: Rich O'Donnell

4-28S-20W

Zimmerman #1

Start Date: 2002.12.30 @ 18:12:14

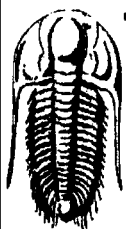
End Date: 2002.12.31 @ 02:51:14

Job Ticket #: 14442 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Carmen Schmitt, Inc.

P.O. Box 47
Great Bend, KS. 67539

ATTN: Rich O'Donnell

Zimmerman #1

4-28S-20W

Job Ticket: 14442

DST#: 1

Test Start: 2002.12.30 @ 18:12:14

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:24:14

Time Test Ended: 02:51:14

Test Type: Conventional Bottom Hole

Tester: Shad Vieux

Unit No: 17

Interval: **4897.00 ft (KB) To 4943.00 ft (KB) (TVD)**

Total Depth: 4943.00 ft (KB) (TVD)

Hole Diameter: 77.80 inches Hole Condition: Fair

Reference Elevations: 2318.00 ft (KB)

2309.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 3307

Inside

Press@RunDepth: 118.83 psig @ 4898.00 ft (KB)

Start Date: 2002.12.30

End Date:

2002.12.31

Start Time: 18:12:15

End Time:

02:51:14

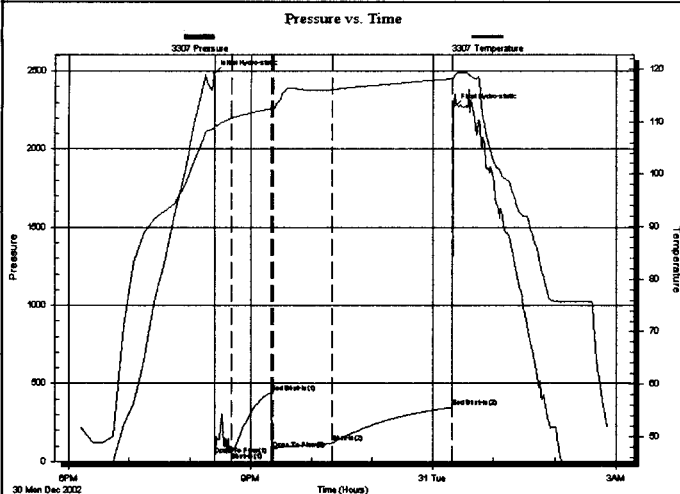
Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2002.12.30 @ 20:23:14

Time Off Btm: 2002.12.31 @ 00:20:44

TEST COMMENT: F- Weak Blow Built to 4.5 in.
IS- No Blow Back
FF- Strong Blow Built to B.O.B. in 14 min.
FS- No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2482.77	108.94	Initial Hydro-static
1	43.93	109.03	Open To Flow (1)
18	61.43	110.68	Shut-In(1)
57	444.11	112.49	End Shut-In(1)
58	78.54	112.57	Open To Flow (2)
118	118.83	116.10	Shut-In(2)
237	346.82	118.19	End Shut-In(2)
238	2268.66	118.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	2%-O 98%-M	0.30
60.00	25%-G 5%-O 70%-M	0.30
60.00	20%-G 10%-O 70%-M	0.30
60.00	20%-G 55%-O 5%-W 20%-M	0.30

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.
P.O. Box 47
Great Bend, KS. 67539
ATTN: Rich O'Donnell

Zimmerman #1
4-28S-20W
Job Ticket: 14442 **DST#: 1**
Test Start: 2002.12.30 @ 18:12:14

Tool Information

Drill Pipe:	Length: 4401.00 ft	Diameter: 3.80 inches	Volume: 61.73 bbl	Tool Weight: 1800.00 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: 497.00 ft	Diameter: 2.25 inches	Volume: 2.44 bbl	Weight to Pull Loose: 92000.00 lb
		Total Volume:	64.17 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4897.00 ft			Final 77000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	74.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4870.00	
S.I. Tool	5.00			4875.00	
HMV	5.00			4880.00	
Jars	5.00			4885.00	
Safety Joint	2.00			4887.00	
C.O. Sub	1.00			4888.00	
Packer	5.00			4893.00	28.00 Bottom Of Top Packer
Packer	4.00			4897.00	
Stubb	1.00			4898.00	
Recorder	0.00	3307	Inside	4898.00	
Perforations	10.00			4908.00	
C.O. Sub	1.00			4909.00	
Blank Spacing	30.00			4939.00	
C.O. Sub	1.00			4940.00	
Recorder	0.00	5495	Inside	4940.00	
Bullnose	3.00			4943.00	46.00 Bottom Packers & Anchor
Total Tool Length:		74.00			



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

Zimmerman #1

P.O. Box 47
Great Bend, KS. 67539

4-28S-20W

Job Ticket: 14442

DST#: 1

ATTN: Rich O'Donnell

Test Start: 2002.12.30 @ 18:12:14

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

20000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.56 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	2%-O 98%-M	0.295
60.00	25%-G 5%-O 70%-M	0.295
60.00	20%-G 10%-O 70%-M	0.295
60.00	20%-G 55%-O 5%-W 20%-M	0.295

Total Length: 240.00 ft

Total Volume:

1.180 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

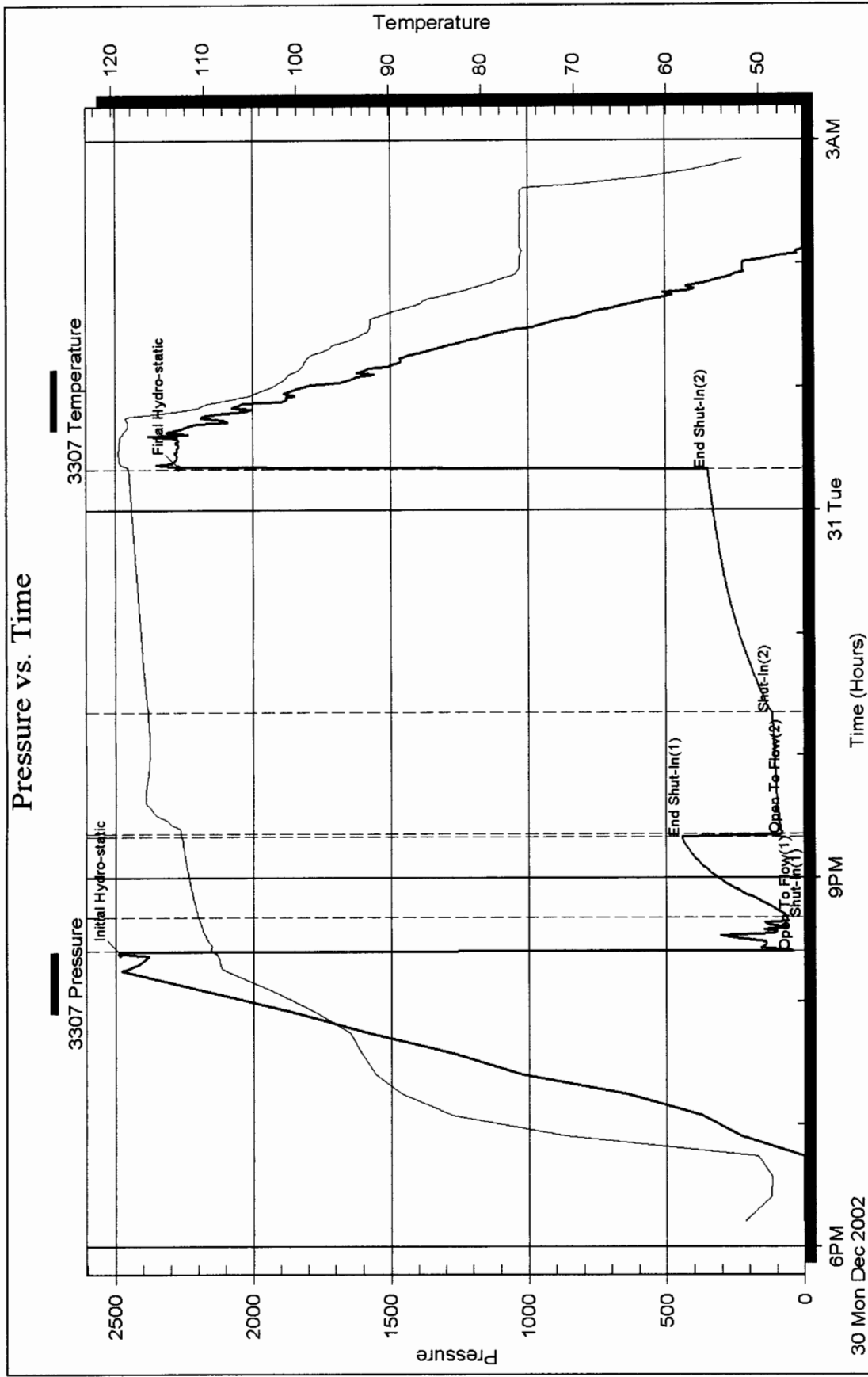
Laboratory Name:

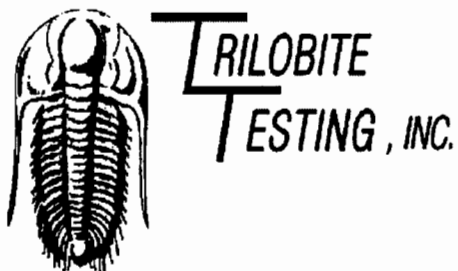
Laboratory Location:

Recovery Comments: RW=.713@32.6 F = 20000 ppm

Oil too mud cut to get accurate API

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Carmen Schmitt, Inc.**

P.O. Box 47
Great Bend, KS. 67539

15097214950000

ATTN: Rich O'Donnell

4-28S-20W

Zimmerman #1

Start Date: 2002.12.31 @ 11:05:07

End Date: 2002.12.31 @ 19:16:37

Job Ticket #: 14443 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

Carmen Schmitt, Inc.
P.O. Box 47
Great Bend, KS. 67539
ATTN: Rich O'Donnell

Zimmerman #1
4-28S-20W
Job Ticket: 14443 **DST#: 2**
Test Start: 2002.12.31 @ 11:05:07

GENERAL INFORMATION:

Formation: **Mississippian**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:02:07

Time Test Ended: 19:16:37

Test Type: Conventional Bottom Hole

Tester: Shad Vieux

Unit No: 17

Interval: **4896.00 ft (KB) To 4949.00 ft (KB) (TVD)**

Total Depth: 4949.00 ft (KB) (TVD)

Hole Diameter: 77.80 inches Hole Condition: Fair

Reference Elevations: 2318.00 ft (KB)

2309.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 3307

Inside

Press@RunDepth: 123.64 psig @ 4898.00 ft (KB)

Start Date: 2002.12.31

End Date:

2002.12.31

Start Time:

11:05:08

End Time:

19:16:37

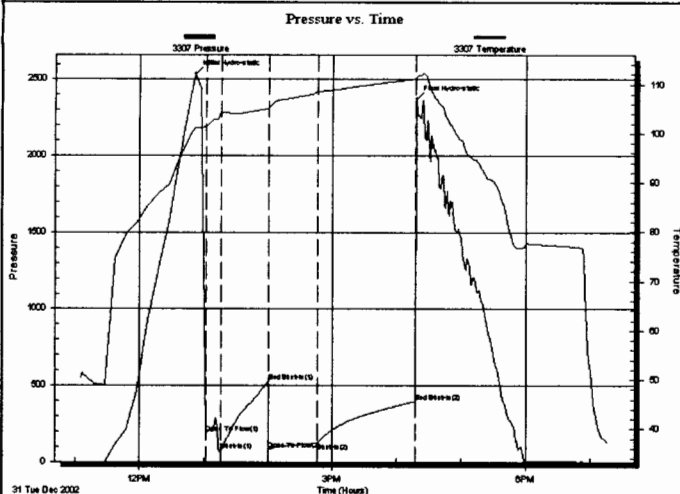
Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2002.12.31 @ 12:52:07

Time Off Btm: 2002.12.31 @ 16:18:37

TEST COMMENT: IF- Weak Blow Built to 3 in.
IS- No Blow Back
FF- Fair Blow Built to 6.5 in.
FS- No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2535.58	101.18	Initial Hydro-static
10	188.93	101.35	Open To Flow (1)
24	74.27	104.16	Shut-In (1)
68	528.51	105.13	End Shut-In (1)
69	83.14	105.26	Open To Flow (2)
115	123.64	108.54	Shut-In (2)
206	395.05	111.11	End Shut-In (2)
207	2372.32	111.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	5%-W 95%-M	0.15
60.00	10%-O 10%-W 80%-M	0.30
60.00	30%-G 20%-O 10%-W 40%-M	0.30
170.00	GIP	0.84

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Carmen Schmitt, Inc.

Zimmerman #1

P.O. Box 47
Great Bend, KS. 67539

4-28S-20W

Job Ticket: 14443

DST#: 2

ATTN: Rich O'Donnell

Test Start: 2002.12.31 @ 11:05:07

Tool Information

Drill Pipe:	Length: 4401.00 ft	Diameter: 3.80 inches	Volume: 61.73 bbl	Tool Weight: 1800.00 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: 497.00 ft	Diameter: 2.25 inches	Volume: 2.44 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 64.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4896.00 ft			Final 74000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4869.00	
S.I. Tool	5.00			4874.00	
HMV	5.00			4879.00	
Jars	5.00			4884.00	
Safety Joint	2.00			4886.00	
C.O. Sub	1.00			4887.00	
Packer	5.00			4892.00	28.00 Bottom Of Top Packer
Packer	4.00			4896.00	
Stubb	1.00			4897.00	
Perforations	1.00			4898.00	
Recorder	0.00	3307	Inside	4898.00	
Perforations	15.00			4913.00	
C.O. Sub	1.00			4914.00	
Blank Spacing	31.00			4945.00	
C.O. Sub	1.00			4946.00	
Recorder	0.00	5495	Inside	4946.00	
Bullnose	3.00			4949.00	53.00 Bottom Packers & Anchor
Total Tool Length:		81.00			



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DRILL STEM TEST REPORT

FLUID SUMMARY

Carmen Schmitt, Inc.

Zimmerman #1

P.O. Box 47
Great Bend, KS. 67539

4-28S-20W

Job Ticket: 14443

DST#:2

ATTN: Rich O'Donnell

Test Start: 2002.12.31 @ 11:05:07

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

30000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.16 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	5%-W 95%-M	0.148
60.00	10%-O 10%-W 80%-M	0.295
60.00	30%-G 20%-O 10%-W 40%-M	0.295
170.00	GIP	0.836

Total Length: 320.00 ft

Total Volume:

1.574 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW=.438@39.1 F = 30000 ppm

Serial #: 3307

Inside

Carmen Schmitt, Inc.

4-28S-20W

DST Test Number: 2

