

DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources**

410 17th ST STE 900
Denver CO 80202

ATTN: Josh Austin

33-18-31 Scott KS

Schwalter 6D-33-1831

Start Date: 2010.12.29 @ 15:41:00

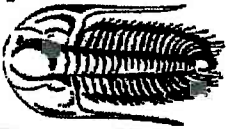
End Date: 2010.12.29 @ 23:46:45

Job Ticket #: 040613 DST #: 1

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

FIML Natural Resources

Schwalter 6D-33-1831

410 17th ST STE 900
Denver CO 80202

33-18-31 Scott KS

Job Ticket: 040613

DST#: 1

ATTN: Josh Austin

Test Start: 2010.12.29 @ 15:41:00

GENERAL INFORMATION:

Formation: Lansing J & K
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 18:06:30
 Time Test Ended: 23:46:45
 Interval: 4216.00 ft (KB) To 4300.00 ft (KB) (TVD)
 Total Depth: 4300.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole
 Tester: Mike Roberts
 Unit No: 48
 Reference Elevations: 2956.00 ft (KB)
 2946.00 ft (CF)
 10.00 ft

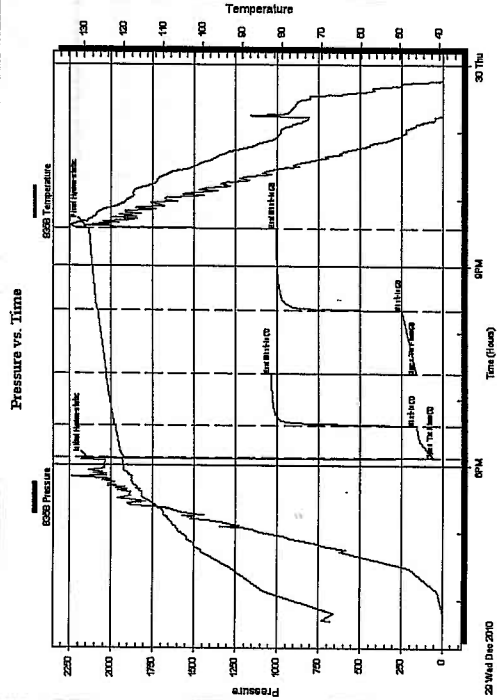
KB to GR/CF:

Serial #: 8358 Outside

Press@RunDepth: 247.09 psig @ 4287.00 ft (KB)
 Start Date: 2010.12.29 End Date:
 Start Time: 15:41:15 End Time:

Capacity: 8000.00 psig
 Last Calib.: 2010.12.29
 Time On Btm: 2010.12.29 @ 18:06:00
 Time Off Btm: 2010.12.29 @ 21:36:30

TEST COMMENT: IF: Built to 8" blow
 IS: No return blow
 FF: Built to 6" blow
 FS: No return blow



PRESSURE SUMMARY

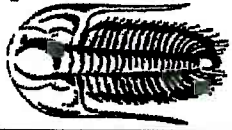
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2142.62	120.53	Initial Hydro-static
1	53.95	120.05	Open To Flow (1)
31	160.22	122.25	Shut-In(1)
77	1035.97	124.56	End Shut-In(1)
78	161.71	124.37	Open To Flow (2)
135	247.09	126.60	Shut-In(2)
209	1008.12	128.90	End Shut-In(2)
211	2154.58	133.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
340.00	m 100%	3.59
130.00	mcw 10% m 90% w	1.82

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcfd)



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources

Schowalter 6D-33-1831

410 17th ST STE 900
Denver CO 80202

33-18-31 Scott KS

Job Ticket: 040613

DST#: 1

ATTN: Josh Austin

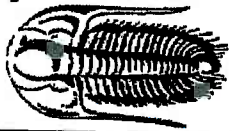
Test Start: 2010.12.29 @ 15:41:00

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: 130.00 ft Diameter: 2.25 inches Volume: 0.64 bbl Weight to Pull Loose: 90000.00 lb
 Drill Pipe Above KB: 34.00 ft Tool Chased 0.00 ft
 Depth to Top Packer: 4216.00 ft String Weight: Initial 64000.00 lb
 Depth to Bottom Packer: ft Final 70000.00 lb
 Interval between Packers: 84.00 ft
 Tool Length: 104.00 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			4197.00	
Shut in Tool	5.00			4202.00	
Hydraulic tool	5.00			4207.00	
Packer	5.00			4212.00	Bottom Of Top Packer
Packer	4.00			4216.00	
Stubb	1.00			4217.00	
Perforations	5.00			4222.00	
Change Over Sub	1.00			4223.00	
Drill Pipe	63.00			4286.00	
Change Over Sub	1.00			4287.00	
Recorder	0.00	8358	Outside	4287.00	
Recorder	0.00	8322	Outside	4287.00	
Perforations	8.00			4295.00	
Bullnose	5.00			4300.00	84.00 Bottom Packers & Anchor
Total Tool Length:				104.00	



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DRILL STEM TEST REPORT

FLUID SUMMARY

FIML Natural Resources

Schowalter 6D-33-1831

410 17th ST STE 900
Denver CO 80202

33-18-31 Scott KS

Job Ticket: 040613

DST#: 1

ATTN: Josh Austin

Test Start: 2010.12.29 @ 15:41:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 57.00 sec/qt
Water Loss: 8.70 in³
Resistivity: 0.00 ohm.m
Salinity: 2000.00 ppm
Filter Cake: 1.00 inches

Cushion Type: OIL API: 0 deg API
Cushion Length: ft Water Salinity: 28000 ppm
Cushion Volume: bbl
Gas Cushion Type: psig
Gas Cushion Pressure:

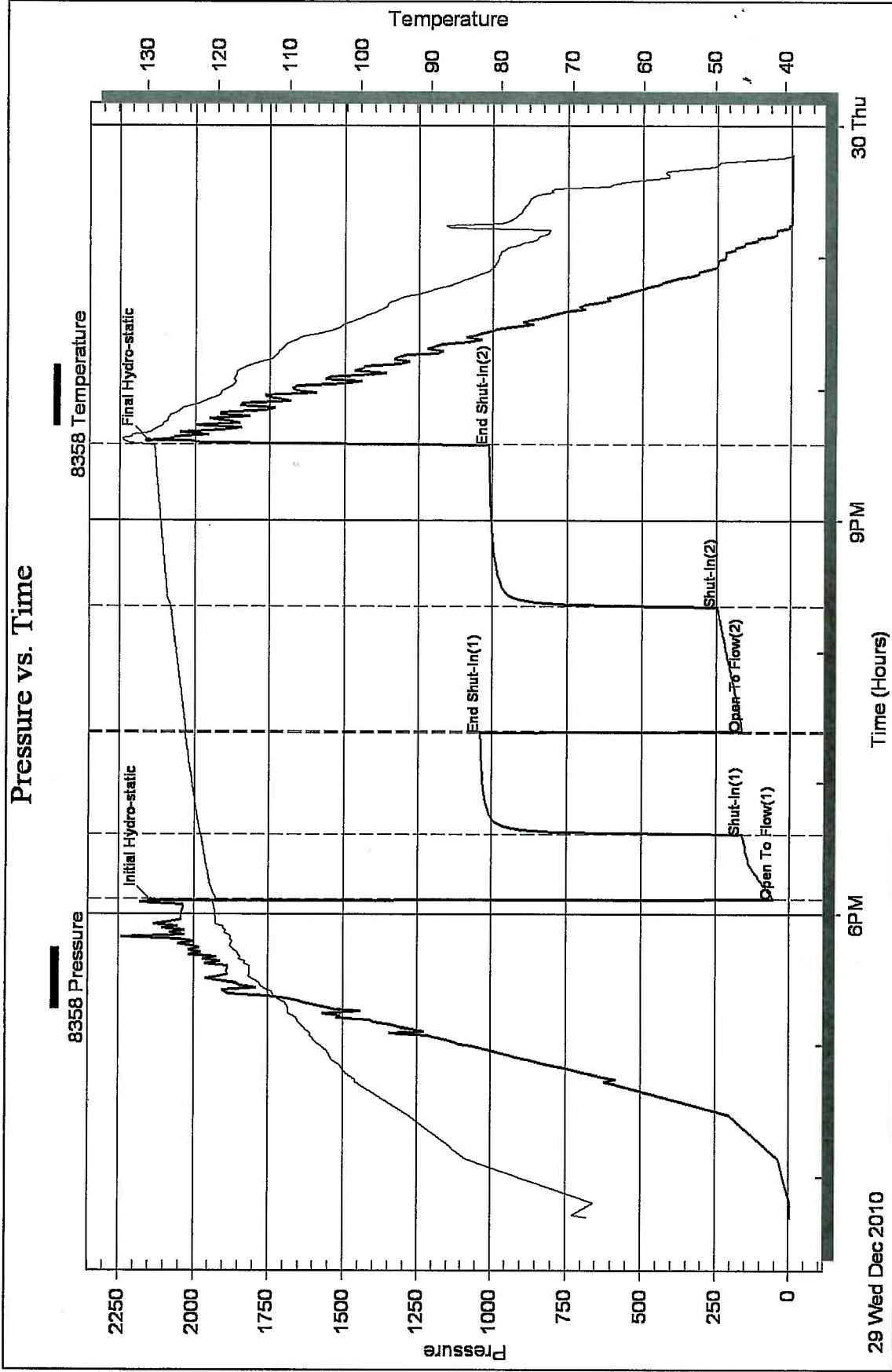
Recovery Information

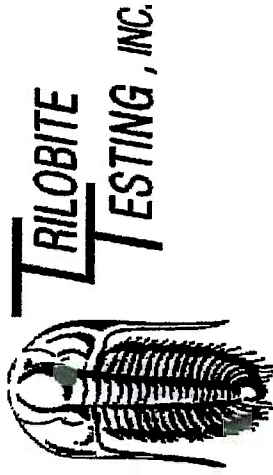
Recovery Table

Length ft	Description	Volume bbl
340.00	m 100%	3.585
130.00	mcw 10% m 90% w	1.824

Total Length: 470.00 ft Total Volume: 5.409 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: RW=369 @51.6=28000 ppm

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **FIML Natural Resources**

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Denver CO 80202

ATTN: Josh Austin

33-18-31 Scott KS

Schowalter 6D-33-1831

Start Date: 2010.12.30 @ 13:12:15

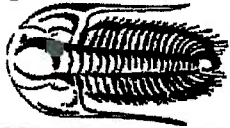
End Date: 2010.12.30 @ 19:55:15

Job Ticket #: 040614 DST #: 2

Trilobite Testing, Inc

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DRILL STEM TEST REPORT

FIML Natural Resources

Schwalter 6D-33-1831

410 17th ST STE 900
Denver CO 80202

33-18-31 Scott KS

Job Ticket: 040614

DST#: 2

ATTN: Josh Austin

Test Start: 2010.12.30 @ 13:12:15

GENERAL INFORMATION:

Formation: Marmaton
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 15:05:15
 Time Test Ended: 19:55:15
 Interval: 4302.00 ft (KB) To 4410.00 ft (KB) (TVD)
 Total Depth: 4410.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

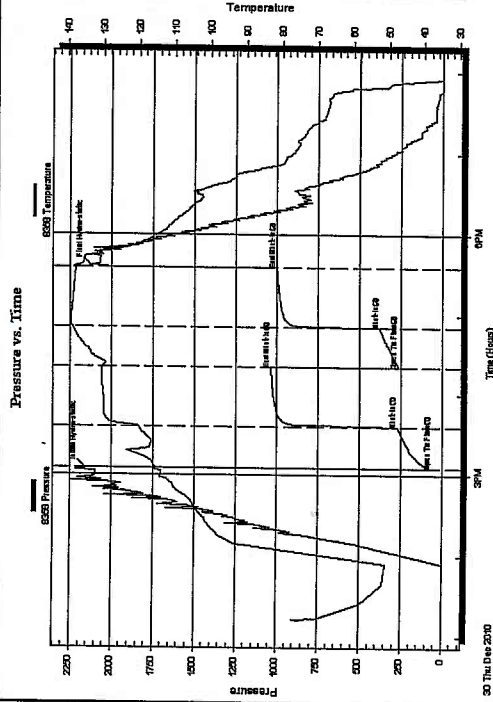
Test Type: Conventional Bottom Hole
 Tester: Mike Roberts
 Unit No: 48
 Reference Elevations: 2956.00 ft (KB)
 2946.00 ft (CF)
 10.00 ft
 KB to GR/CF:

Serial #: 8358

Outside
 Press@RunDepth: 380.97 psig @ 4373.00 ft (KB)
 Start Date: 2010.12.30 End Date:
 Start Time: 13:12:15 End Time:

Capacity: 8000.00 psig
 Last Calib.: 2010.12.30
 Time On Btm: 2010.12.30 @ 15:05:00
 Time Off Btm: 2010.12.30 @ 17:36:45

TEST COMMENT: IF:BOB in 11 min.
 IS:No return blow
 FF:BOB in 15 min
 FS:No return blow



PRESSURE SUMMARY

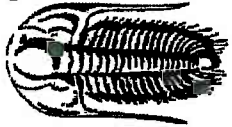
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2164.59	115.94	Initial Hydro-static
1	62.21	115.46	Open To Flow (1)
31	274.77	120.23	Shut-In(1)
76	1037.13	130.43	End Shut-In(1)
76	265.13	130.09	Open To Flow (2)
106	380.97	138.66	Shut-In(2)
151	1000.45	137.78	End Shut-In(2)
152	2126.49	137.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
688.00	mud w lith oil spots	8.47

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources

Schowalter 6D-33-1831

410 17th ST STE 900
Denver CO 80202

33-18-31 Scott KS

Job Ticket: 040614 DST#: 2

ATTN: Josh Austin

Test Start: 2010.12.30 @ 13:12:15

Tool Information

Drill Pipe: Length: 4162.00 ft Diameter: 3.80 inches Volume: 58.38 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: 130.00 ft Diameter: 2.25 inches Volume: 0.64 bbl Weight to Pull Loose: 90000.00 lb

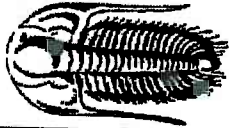
Drill Pipe Above KB: 10.00 ft Total Volume: 59.02 bbl Tool Chased 0.00 ft
 Depth to Top Packer: 4302.00 ft String Weight: Initial 64000.00 lb Final 68000.00 lb
 Depth to Bottom Packer: ft
 Interval between Packers: 108.00 ft
 Tool Length: 128.00 ft

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			4283.00	
Shut In Tool	5.00			4288.00	
Hydraulic tool	5.00			4293.00	
Packer	5.00			4298.00	20.00 Bottom Of Top Packer
Packer	4.00			4302.00	
Stubb	1.00			4303.00	
Perforations	5.00			4308.00	
Change Over Sub	1.00			4309.00	
Drill Pipe	63.00			4372.00	
Change Over Sub	1.00			4373.00	
Recorder	0.00	8358	Outside	4373.00	
Recorder	0.00	8322	Outside	4373.00	
Perforations	32.00			4405.00	
Bullnose	5.00			4410.00	108.00 Bottom Packers & Anchor

Total Tool Length: 128.00



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Job Ticket: 040614

DST#: 2

ATTN: Josh Austin

Test Start: 2010.12.30 @ 13:12:15

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 57.00 sec/qt
Water Loss: 8.74 in³
Resistivity: 0.00 ohm.m
Salinity: 2000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length:
Cushion Volume:
Gas Cushion Type:
Gas Cushion Pressure:

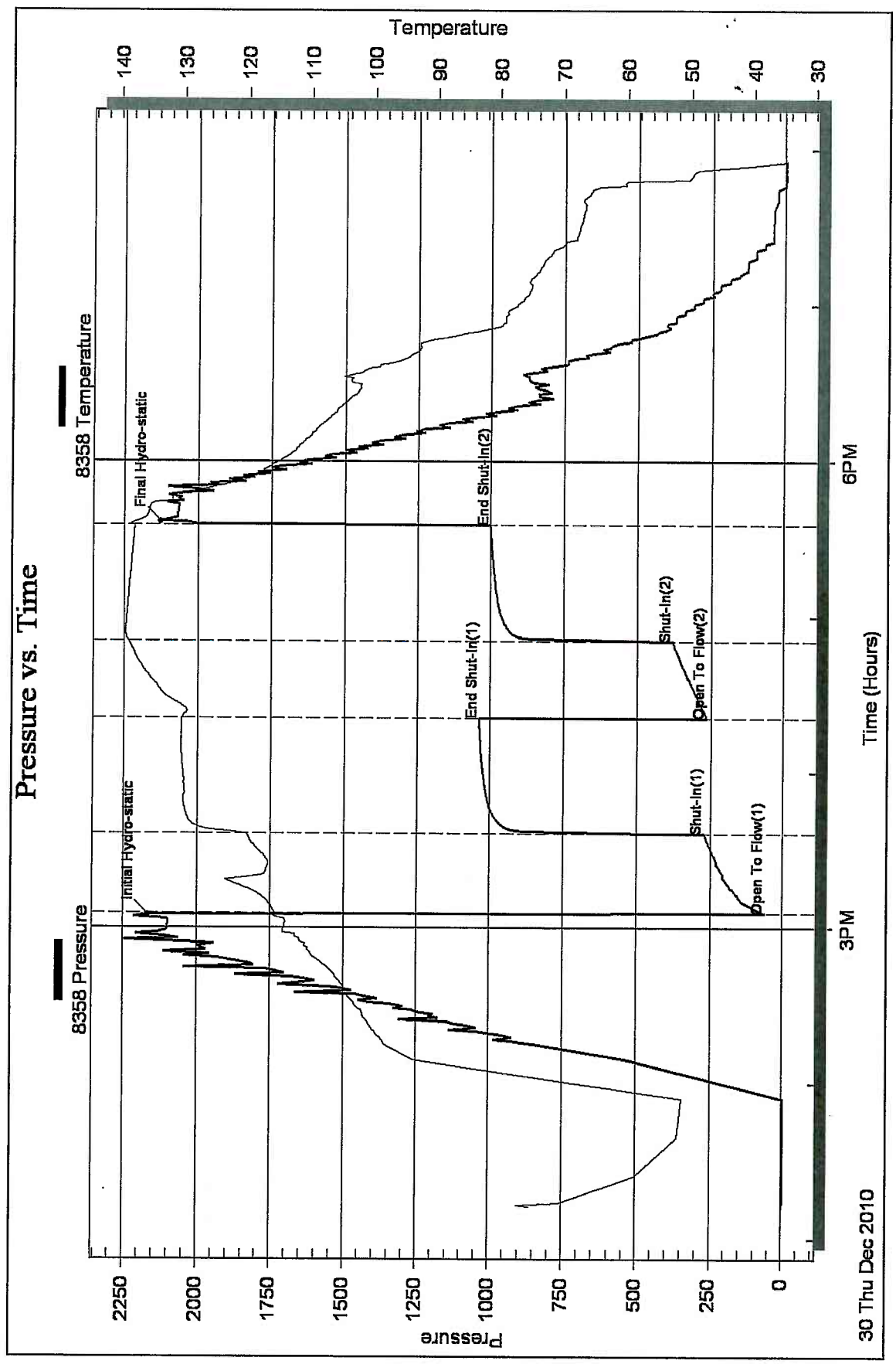
ft
bbl
psig
Oil API:
Water Salinity:
0 deg API
0 ppm

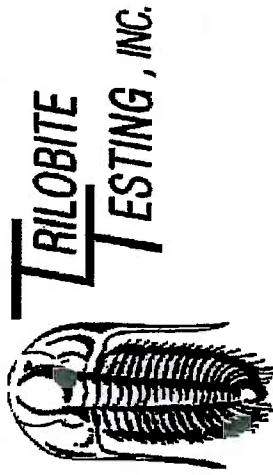
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
688.00	mud with oil spots	8.467

Total Length: 688.00 ft Total Volume: 8.467 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:





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Prepared For: **FIML Natural Resources**

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ATTN: Josh Austin

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Schowalter 6D-33-1831

Start Date: 2011.01.01 @ 14:20:49

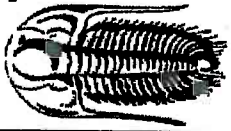
End Date: 2011.01.01 @ 00:15:04

Job Ticket #: 041130 DST #: 3

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



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DRILL STEM TEST REPORT

FIML Natural Resources

Schwalter 6D-33-1831

410 17th ST STE 900
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33-18-31 Scott KS

Job Ticket: 041130

DST#: 3

ATTN: Josh Austin

Test Start: 2011.01.01 @ 14:20:49

GENERAL INFORMATION:

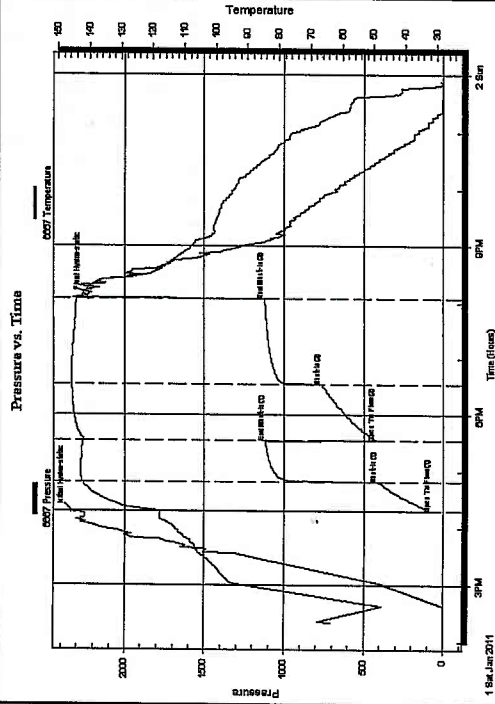
Formation: Miss, Spergen
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:17:19
Time Test Ended: 00:15:04
Interval: 4568.00 ft (KB) To 4590.00 ft (KB) (TVD)
Total Depth: 4590.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole
Tester: Shane McBride
Unit No: 40
Reference Elevations: 2956.00 ft (KB)
2946.00 ft (CF)
10.00 ft
KB to GR/CF:

Serial #: 6667 Inside
Press@RunDepth: 761.93 psig @ 4570.00 ft (KB)
Start Date: 2011.01.01 End Date:
Start Time: 14:20:49 End Time:

Capacity: 8000.00 psig
Last Callb.: 2011.01.02
Time On Btm: 2011.01.01 @ 16:17:04
Time Off Btm: 2011.01.01 @ 20:05:19

TEST COMMENT: B.O.B. in 2 1/2 min.
9" return
9" @ open B.O.B. in 1 min.
1" return, cied back to 1/4"



PRESSURE SUMMARY

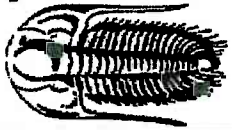
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2334.30	118.31	Initial Hydro-static
1	76.32	117.84	Open To Flow (1)
32	410.46	142.51	Shut-In(1)
76	1117.43	142.44	End Shut-In(1)
76	423.78	142.08	Open To Flow (2)
136	761.93	145.75	Shut-In(2)
228	1121.10	144.36	End Shut-In(2)
229	2228.88	144.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	s m c o 10% m 30% g 60% o	0.30
1953.00	c g o 30% g 70% o	26.30
0.00	899' gas in pipe	0.00

Gas Rates

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



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TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

FIML Natural Resources

Schowalter 6D-33-1831

410 17th ST STE 900
Denver CO 80202

33-18-31 Scott KS

Job Ticket: 041130 DST#: 3

ATTN: Josh Austin

Test Start: 2011.01.01 @ 14:20:49

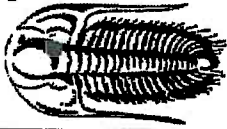
Tool Information

Drill Pipe: Length: 4395.00 ft Diameter: 3.80 inches Volume: 61.65 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: 182.00 ft Diameter: 2.25 inches Volume: 0.90 bbl Weight to Pull Loose: 100000.0 lb
 Drill Pipe Above KB: 29.00 ft Total Volume: 62.55 bbl Tool Chased 0.00 ft
 Depth to Top Packer: 4568.00 ft String Weight: Initial 72000.00 lb
 Depth to Bottom Packer: ft Final 75000.00 lb
 Interval between Packers: 22.00 ft
 Tool Length: 42.00 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			4549.00	
Shut In Tool	5.00			4554.00	
Hydraulic tool	5.00			4559.00	
Packer	5.00			4564.00	20.00 Bottom Of Top Packer
Packer	4.00			4568.00	
Stubb	1.00			4569.00	
Perforations	1.00			4570.00	
Recorder	0.00	6667	Inside	4570.00	
Recorder	0.00	6771	Outside	4570.00	
Perforations	15.00			4585.00	
Bullnose	5.00			4590.00	22.00 Bottom Packers & Anchor

Total Tool Length: 42.00



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Denver CO 80202

33-18-31 Scott KS

Job Ticket: 041130

DST#: 3

ATTN: Josh Austin

Test Start: 2011.01.01 @ 14:20:49

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 54.00 sec/qt
Water Loss: 7.19 in⁵
Resistivity: 0.00 ohm.m
Salinity: 3500.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length:
Cushion Volume:
Gas Cushion Type:
Gas Cushion Pressure:

Oil API: 30 deg API
Water Salinity: 0 ppm
ft
bbl
psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	s m c o 10% m 30% g 60% o	0.305
1953.00	c g o 30% g 70% o	26.302
0.00	899' gas in pipe	0.000

Total Length: 2015.00 ft

Total Volume: 26.607 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

