

DRILL STEM TEST REPORT

Prepared For: **Bryce F Hays Oil & Gas**

PO Box 106
Attica KS 67006-0108

ATTN: Tim Pierce

19 32 9 Harper KS

Ricke #1-19

Start Date: 2006.12.11 @ 08:07:29

End Date: 2006.12.11 @ 15:41:59

Job Ticket #: 25886 DST #: 1

W2 NW NW
510 FNL 330 FNL

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

15-077-21569

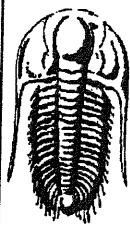
Bryce F Hays Oil & Gas

Ricke #1-19

19 32 9 Harper KS

USI # 1

WISS.



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Bryce F Hays Oil & Gas

PO Box 106
Attica KS 67006-0108

ATTN: Tim Pierce

Ricke #1-19

19 32 9 Harper KS

Job Ticket: 25886

DST#: 1

Test Start: 2006.12.11 @ 08:07:29

GENERAL INFORMATION:

Formation: **Miss.**

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

Time Tool Opened: 10:01:44

Time Test Ended: 15:41:59

Interval: **4305.00 ft (KB) To 4354.00 ft (KB) (TVD)**

Total Depth: **4354.00 ft (KB) (TVD)**

Hole Diameter: **7.80 inches** Hole Condition: **Good**

Test Type: **Conventional Bottom Hole**

Tester: **Travy Cushenbery**

Unit No: **30**

Reference Elevations: **1441.00 ft (KB)**

1436.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: **6668**

Inside

Press@RunDepth: **74.07 psig @ 4305.00 ft (KB)**

Start Date: **2006.12.11**

End Date:

2006.12.11

Start Time: **08:07:34**

End Time:

15:41:58

Capacity: **7000.00 psig**

Last Calib.: **2006.12.11**

Time On Btm: **2006.12.11 @ 10:00:14**

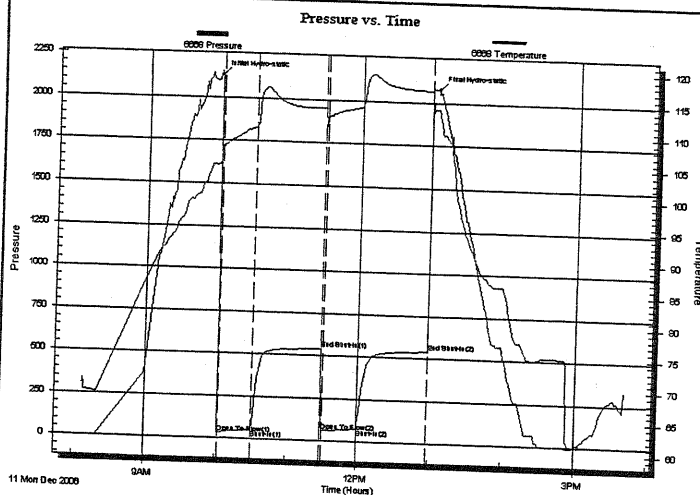
Time Off Btm: **2006.12.11 @ 13:03:58**

TEST COMMENT: IF Strong blow BOB in 1 min. GTS in 22 mins. TSTM

ISI Bled off No blow back

FF Strong blow BOB immediately

FSI Bled off No blow back



PRESSURE SUMMARY

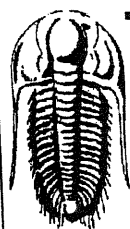
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2132.73	105.25	Initial Hydro-static
2	33.03	106.74	Open To Flow (1)
30	54.39	110.59	Shut-In(1)
89	540.32	113.90	End Shut-In(1)
91	59.49	112.31	Open To Flow (2)
120	74.07	114.05	Shut-In(2)
178	538.91	116.89	End Shut-In(2)
184	2078.87	114.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	GWM 10%G 30%W 60%M	0.87
62.00	GWM With scum of Oil 10%G 40%W 50%M	0.87
62.00	SOCGWM 10%G 2%O 38%W 50%M	0.87

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	4.00	6.89
Last Gas Rate	0.13	1.00	5.76



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bryce F Hays Oil & Gas

Ricke #1-19

PO Box 106
Attica KS 67006-0108

19 32 9 Harper KS

Job Ticket: 25886

DST#: 1

ATTN: Tim Pierce

Test Start: 2006.12.11 @ 08:07:29

Tool Information

Drill Pipe:	Length: 4311.00 ft	Diameter: 3.80 inches	Volume: 60.47 bbl
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl
			Total Volume: 60.47 bbl

Tool Weight: 2100.00 lb

Weight set on Packer: 20000.00 lb

Weight to Pull Loose: lb

Tool Chased 0.00 ft

String Weight: Initial 74000.00 lb

Final lb

Drill Pipe Above KB: 26.00 ft

Depth to Top Packer: 4305.00 ft

Depth to Bottom Packer: ft

Interval between Packers: 48.00 ft

Tool Length: 68.00 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			4290.00	
Hydraulic tool	5.00			4295.00	
Packer	5.00			4300.00	20.00 Bottom Of Top Packer
Packer	5.00			4305.00	
Recorder	0.00	6668	Inside	4305.00	
Perforations	5.00			4310.00	
Change Over Sub	0.50			4310.50	
Drill Pipe	31.00			4341.50	
Change Over Sub	0.50			4342.00	
Perforations	8.00			4350.00	
Recorder	0.00	13266	Outside	4350.00	
Bullnose	3.00			4353.00	48.00 Bottom Packers & Anchor

Total Tool Length: 68.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Bryce F Hays Oil & Gas

Ricke #1-19

PO Box 106
Attica KS 67006-0108

19 32 9 Harper KS

Job Ticket: 25886

DST#: 1

ATTN: Tim Pierce

Test Start: 2006.12.11 @ 08:07:29

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 40.00 sec/qt

Water Loss: 13.57 in³

Resistivity: ohm.m

Salinity: 8000.00 ppm

Filter Cake: 0.20 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	GWM 10%G 30%W 60%M	0.870
62.00	GWM With scum of Oil 10%G 40%W 50%M	0.870
62.00	SOCGWM 10%G 2%O 38%W 50%M	0.870

Total Length: 186.00 ft

Total Volume: 2.610 bbl

Num Fluid Samples: 0

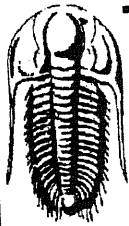
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Bryce F Hays Oil & Gas

Ricke #1-19

PO Box 106
Attica KS 67006-0108

19 32 9 Harper KS

Job Ticket: 25886

DST#: 1

ATTN: Tim Pierce

Test Start: 2006.12.11 @ 08:07:29

Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
2	10	0.13	4.00	6.89
2	20	0.13	1.00	5.76

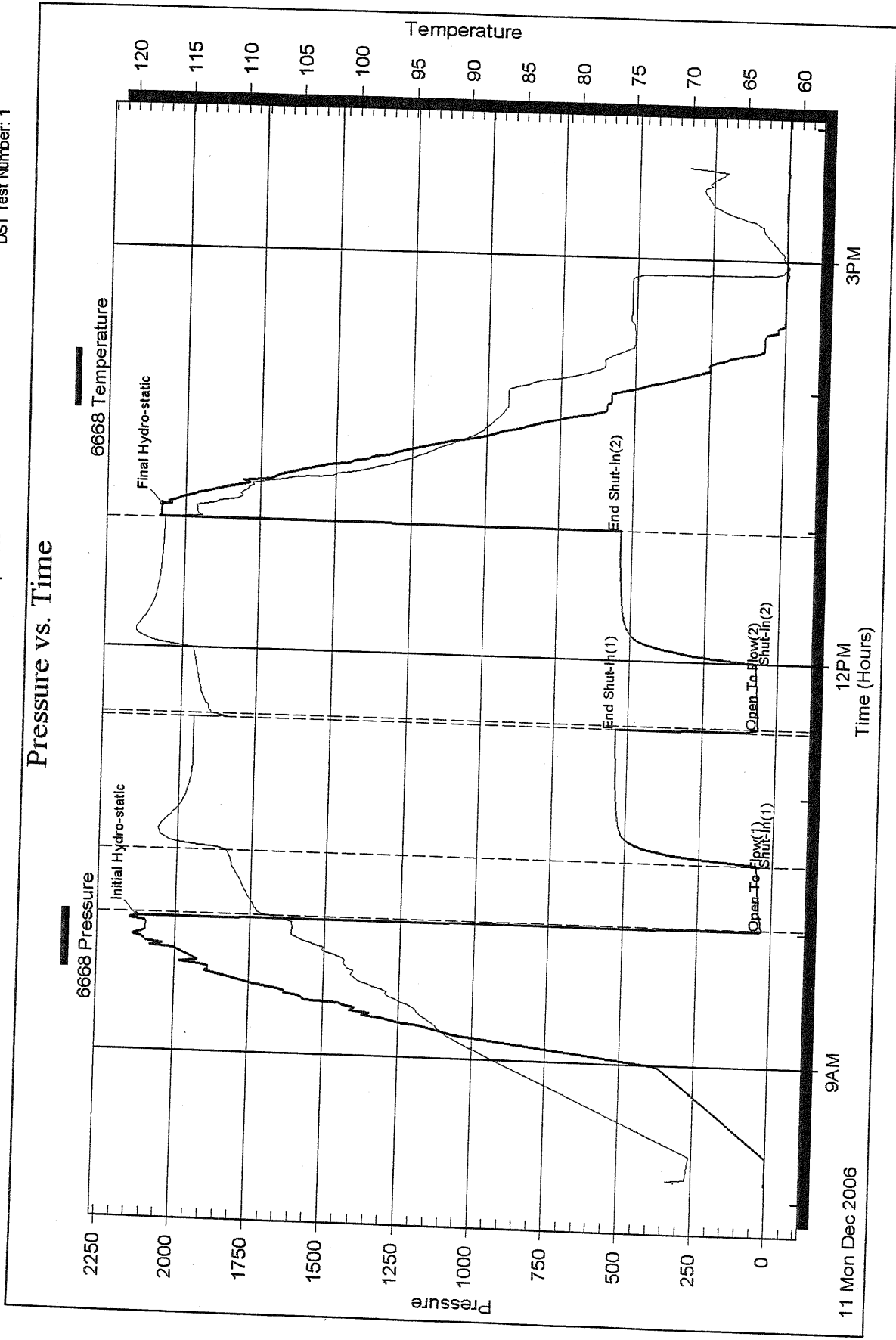
Serial #: 6668

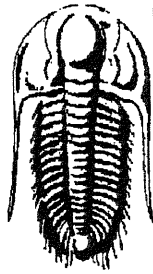
Inside

Bryce F Hays Oil & Gas

19 32 9 Harper KS

DST Test Number: 1





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Bryce F Hays Oil & Gas**

PO Box 106
Attica KS 67006-0108

ATTN: Tim Pierce

19 32 9 Harper KS

Ricke #1-19

Start Date: 2006.12.11 @ 21:35:49

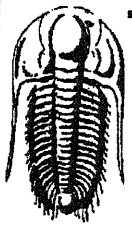
End Date: 2006.12.12 @ 04:58:34

Job Ticket #: 25887 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

Bryce F Hays Oil & Gas

PO Box 106
Attica KS 67006-0108

ATTN: Tim Pierce

Ricke #1-19

19 32 9 Harper KS

Job Ticket: 25887

DST#: 2

Test Start: 2006.12.11 @ 21:35:49

GENERAL INFORMATION:

Formation: **Miss.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:29:34

Time Test Ended: 04:58:34

Test Type: Conventional Bottom Hole

Tester: Travy Cushenbery

Unit No: 30

Interval: **4354.00 ft (KB) To 4366.00 ft (KB) (TVD)**

Total Depth: 4366.00 ft (KB) (TVD)

Hole Diameter: 7.80 inches Hole Condition: Good

Reference Elevations: 1441.00 ft (KB)

1436.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6668

Inside

Press@RunDepth: 58.08 psig @ 4354.00 ft (KB)

Start Date: 2006.12.11

End Date:

2006.12.12

Capacity: 7000.00 psig

Last Calib.: 2006.12.12

Start Time: 21:35:54

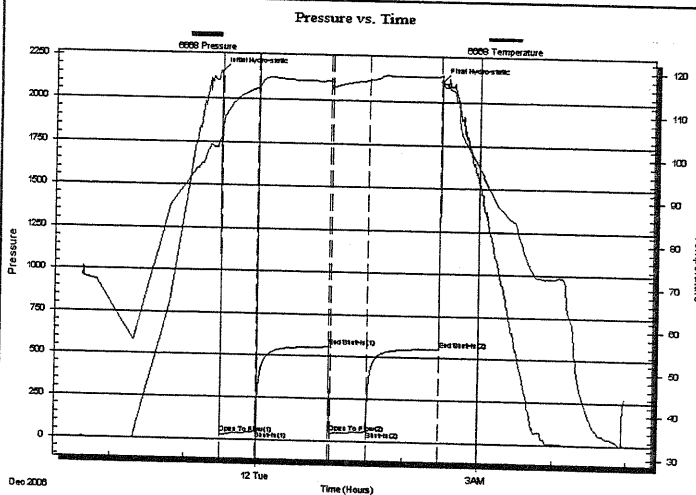
End Time:

04:58:33

Time On Btm: 2006.12.11 @ 23:29:04

Time Off Btm: 2006.12.12 @ 02:29:18

TEST COMMENT: IF Strong blow BOB in 30 secs.
ISI Bled off No blow back
FF Strong blow GTS immediately (See gas report)
ISI Bled off No blow back



PRESSURE SUMMARY

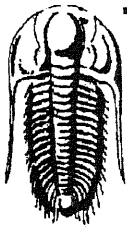
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2157.95	103.95	Initial Hydro-static
1	31.62	105.80	Open To Flow (1)
31	46.04	115.35	Shut-In(1)
91	556.78	117.26	End Shut-In(1)
92	47.04	116.08	Open To Flow(2)
122	58.08	117.56	Shut-In(2)
180	554.49	118.82	End Shut-In(2)
181	2117.77	119.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	GMWw/scum of Oil 1%G 89%W 10%M	0.87
62.00	GMCO 10%G 70%O 20%M	0.87

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	2.00	6.51
Last Gas Rate	0.13	2.00	6.14
Max. Gas Rate	0.13	2.00	6.51



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Bryce F Hays Oil & Gas

Ricke #1-19

PO Box 106
Attica KS 67006-0108

19 32 9 Harper KS

Job Ticket: 25887

DST#: 2

ATTN: Tim Pierce

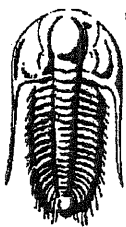
Test Start: 2006.12.11 @ 21:35:49

Tool Information

Drill Pipe:	Length: 4344.00 ft	Diameter: 3.80 inches	Volume: 60.93 bbl	Tool Weight:	2100.00 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: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 60.93 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial	72000.00 lb
Depth to Top Packer:	4354.00 ft			Final	72000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	12.00 ft				
Tool Length:	32.00 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			4339.00	
Hydraulic tool	5.00			4344.00	
Packer	5.00			4349.00	20.00 Bottom Of Top Packer
Packer	5.00			4354.00	
Recorder	0.00	6668	Inside	4354.00	
Perforations	9.00			4363.00	
Recorder	0.00	13266	Outside	4363.00	
Bullnose	3.00			4366.00	12.00 Bottom Packers & Anchor

Total Tool Length: 32.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Bryce F Hays Oil & Gas

Ricke #1-19

PO Box 106
Attica KS 67006-0108

19 32 9 Harper KS

Job Ticket: 25887

DST#: 2

ATTN: Tim Pierce

Test Start: 2006.12.11 @ 21:35:49

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 42.00 sec/qt

Water Loss: 10.78 in³

Resistivity: ohm.m

Salinity: 6000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	GMWw/scum of Oil 1%G 89%W 10%M	0.870
62.00	GMCO 10%G 70%O 20%M	0.870

Total Length: 124.00 ft

Total Volume: 1.740 bbl

Num Fluid Samples: 0

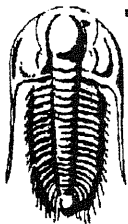
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Bryce F Hays Oil & Gas

Ricke #1-19

PO Box 106
Attica KS 67006-0108

19 32 9 Harper KS

Job Ticket: 25887

DST#: 2

ATTN: Tim Pierce

Test Start: 2006.12.11 @ 21:35:49

Gas Rates Information

Temperature: 59 deg C

Relative Density: 0.65

Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m ³ /d)
2	10	0.13	2.00	6.51
2	10	0.13	2.00	6.14
2	10	0.13	2.00	6.14

Serial #: 6668

Inside

Bryce F Hays Oil & Gas

19 32 9 Harper KS

DST Test Number: 2

