

31-32s-19w

15-033-21373



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

CONFIDENTIAL

Prepared For: Corsair Energy L.C.

974 E. Douglas Ave.
Wichita, KS 67207

ORIGINAL KCC

JAN 13 2004

ATTN: Tim Hellman

31-32-19 Comanche

CONFIDENTIAL

Bird "A" 1-31

Start Date: 2003.10.10 @ 15:49:27

End Date: 2003.10.10 @ 22:51:42

Job Ticket #: 17813 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Corsair Energy L.C.

Bird "A" 1-31

31-32-19 Comanche

DST # 1

Altamont

2003.10.10



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Corsair Energy L.C.
914 E. Douglas Ave.
Wichita, KS 67202
ATTN: Tim Hellman

Bird "A" 1-31
31-32-19 Comanche
Job Ticket: 17813 **DST#: 1**
Test Start: 2003.10.10 @ 15:49:27

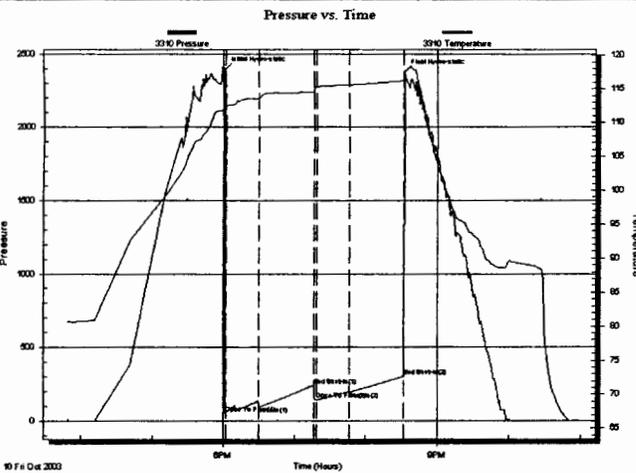
GENERAL INFORMATION:

Formation: **Altamont**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:01:42
Time Test Ended: 22:51:42
Interval: **4878.00 ft (KB) To 4929.00 ft (KB) (TVD)**
Total Depth: **4929.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: Fair

KCC
JAN 13 2004
CONFIDENTIAL
Test Type: Conventional Bottom Hole
Tester: Nathan
Unit No: 16
Reference Elevations: 1893.00 ft (KB)
1880.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 3310 **Inside**
Press@RunDepth: 201.64 psig @ 4913.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2003.10.10 End Date: 2003.10.10 Last Calib.: 1899.12.30
Start Time: 15:49:28 End Time: 22:51:42 Time On Btrn: 2003.10.10 @ 18:00:57
Time Off Btrn: 2003.10.10 @ 20:32:42

TEST COMMENT: IF- Fair blow ; building to 4.5 inches
IS-No blow
FF-Weak blow ; building to 2.5inches then decreasing to 1.25 inches
FS-No blow



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2395.30	111.95	Initial Hydro-static
1	53.88	112.04	Open To Flow (1)
29	99.42	113.56	Shut-In(1)
76	241.79	114.53	End Shut-In(1)
78	142.02	115.32	Open To Flow (2)
106	201.64	115.65	Shut-In(2)
151	302.50	116.22	End Shut-In(2)
152	2375.92	117.29	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
248.00	Mud	1.50

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

Job Ticket: 17813

DST#: 1

ATTN: Tim Hellman

Test Start: 2003.10.10 @ 15:49:27

Tool Information

Drill Pipe:	Length: 4667.00 ft	Diameter: 3.80 inches	Volume: 65.47 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 88000.00 lb
			Total Volume: 66.54 bbl	Tool Chased: 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4878.00 ft			Final 79000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	51.00 ft			
Tool Length:	73.00 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			4857.00	
Shut In Tool	5.00			4862.00	
Hydraulic tool	5.00			4867.00	
Safety Joint	2.00			4869.00	
Packer	4.00			4873.00	22.00 Bottom Of Top Packer
Packer	5.00			4878.00	
Stubb	1.00			4879.00	
Change Over Sub	1.00			4880.00	
Blank Spacing	32.00			4912.00	
Change Over Sub	1.00			4913.00	
Recorder	0.00	3310	Inside	4913.00	
Perforations	14.00			4927.00	
Recorder	0.00	13630	Outside	4927.00	
Bullnose	2.00			4929.00	51.00 Bottom Packers & Anchor

Total Tool Length: 73.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

Job Ticket: 17813

DST#: 1

ATTN: Tim Hellman

Test Start: 2003.10.10 @ 15:49:27

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:

3200 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.10 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	Mud	1.502

Total Length: 248.00 ft

Total Volume: 1.502 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 1

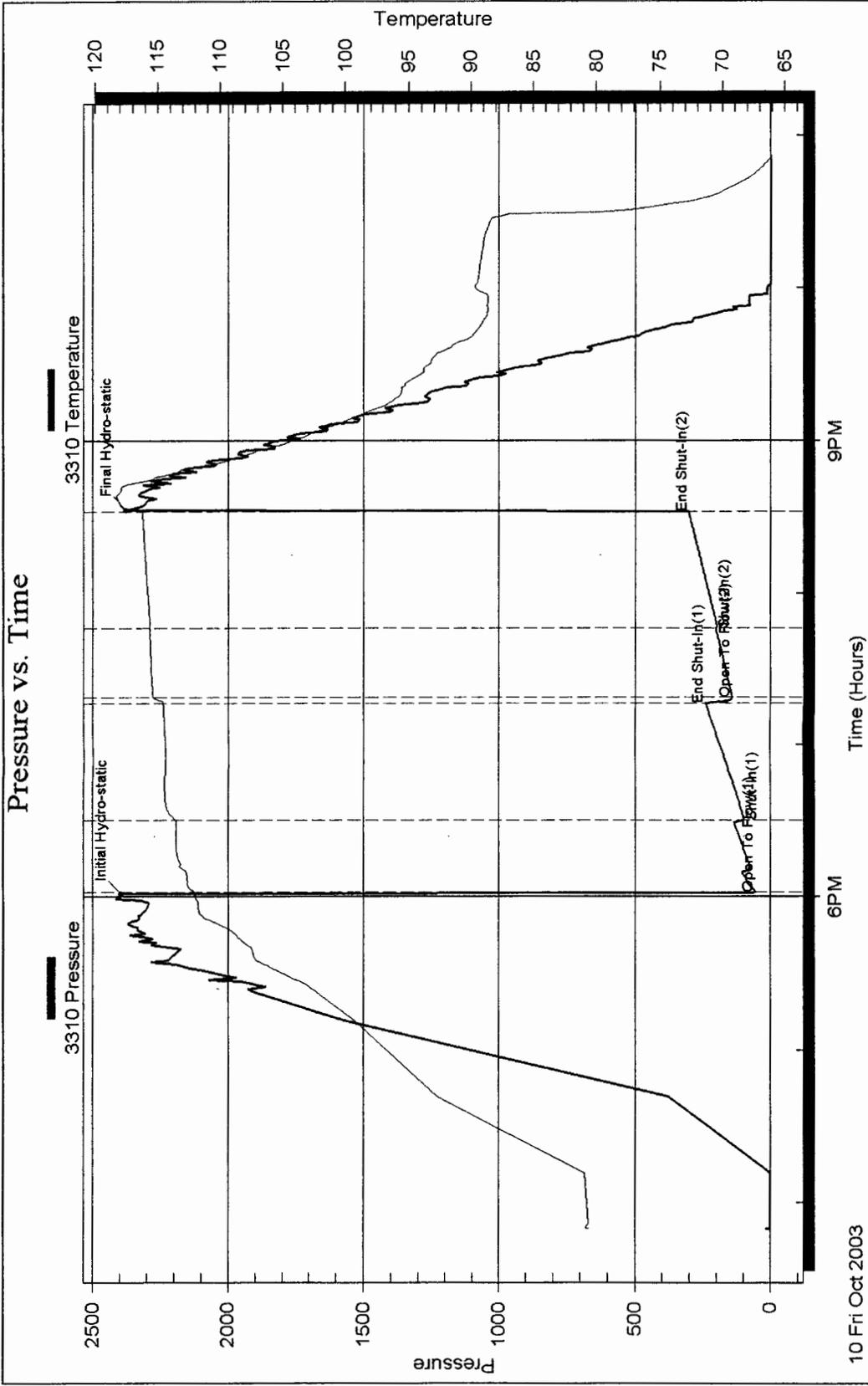
31-32-19 Comanche

Corseair Energy L.C.

Inside

Serial #: 3310

Pressure vs. Time



10 Fri Oct 2003

Trilobite Testing, Inc

Ref. No: 17813

Printed: 2003.10.17 @ 11:31:30 Page 5



DRILL STEM TEST REPORT

Prepared For: **Corsair Energy L.C.**

914 E. Douglas Ave.
Wichita, KS 67202

ATTN: Tim Hellman

31-32-19 Comanche

Bird "A" 1-31

Start Date: 2003.10.11 @ 07:13:53

End Date: 2003.10.11 @ 16:42:53

Job Ticket #: 17814 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

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

ATTN: Tim Hellman

Job Ticket: 17814

DST#: 2

Test Start: 2003.10.11 @ 07:13:53

GENERAL INFORMATION:

Formation: **Pawnee**

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

Time Tool Opened: 09:00:08

Time Test Ended: 16:42:53

Test Type: **Conventional Bottom Hole**

Tester: **Nathan**

Unit No: **16**

Interval: **4947.00 ft (KB) To 4970.00 ft (KB) (TVD)**

Total Depth: **4970.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **1893.00 ft (KB)**

1880.00 ft (CF)

KB to GR/CF: **13.00 ft**

Serial #: 3310

Inside

Press@RunDepth: **82.06 psig @ 4948.00 ft (KB)**

Start Date: **2003.10.11**

End Date:

2003.10.11

Capacity: **7000.00 psig**

Last Calib.: **1899.12.30**

Start Time: **07:13:54**

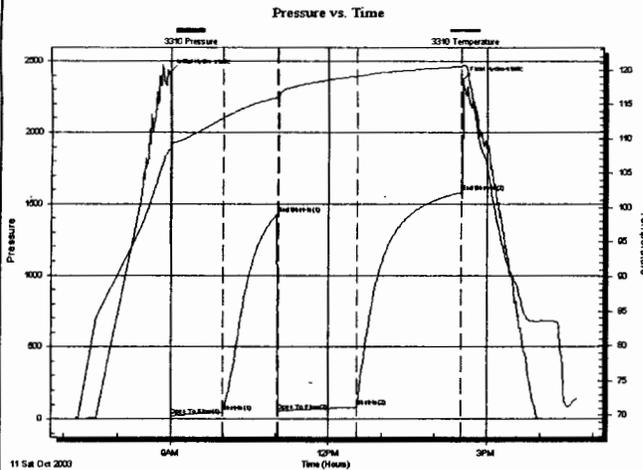
End Time:

16:42:53

Time On Btm: **2003.10.11 @ 08:59:08**

Time Off Btm: **2003.10.11 @ 14:32:08**

TEST COMMENT: IF- Good blow ; O.B.B. in 13min
IS- No blow
FF- Good blow ; O.B.B. in 20sec (no gas to surface)
FS- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2423.60	108.51	Initial Hydro-static
1	17.41	108.98	Open To Flow (1)
61	48.05	113.02	Shut-In(1)
123	1427.47	115.96	End Shut-In(1)
124	53.74	116.19	Open To Flow(2)
213	82.06	119.08	Shut-In(2)
332	1582.22	120.51	End Shut-In(2)
333	2372.25	120.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
72.00	Muddy water 84% mud 16% water	0.35
62.00	Muddy water 36% mud 60% water 4% gas	0.30

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

Job Ticket: 17814

DST#: 2

ATTN: Tim Hellman

Test Start: 2003.10.11 @ 07:13:53

Tool Information

Drill Pipe:	Length: 4731.00 ft	Diameter: 3.80 inches	Volume: 66.36 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 26000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 85000.00 lb
		Total Volume: 67.43 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4947.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	45.00 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			4926.00	
Shut In Tool	5.00			4931.00	
Hydraulic tool	5.00			4936.00	
Safety Joint	2.00			4938.00	
Packer	4.00			4942.00	22.00 Bottom Of Top Packer
Packer	5.00			4947.00	
Stubb	1.00			4948.00	
Recorder	0.00	3310	Inside	4948.00	
Perforations	20.00			4968.00	
Recorder	0.00	13630	Outside	4968.00	
Bullnose	2.00			4970.00	23.00 Bottom Packers & Anchor

Total Tool Length: 45.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

Job Ticket: 17814

DST#: 2

ATTN: Tim Hellman

Test Start: 2003.10.11 @ 07:13:53

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:

45000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbl

Water Loss: 11.93 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
72.00	Muddyw ater 84%mud 16%w ater	0.354
62.00	Muddyw ater 36%mud 60%w ater4%gas	0.305

Total Length: 134.00 ft Total Volume: 0.659 bbl

Num Fluid Samples: 0

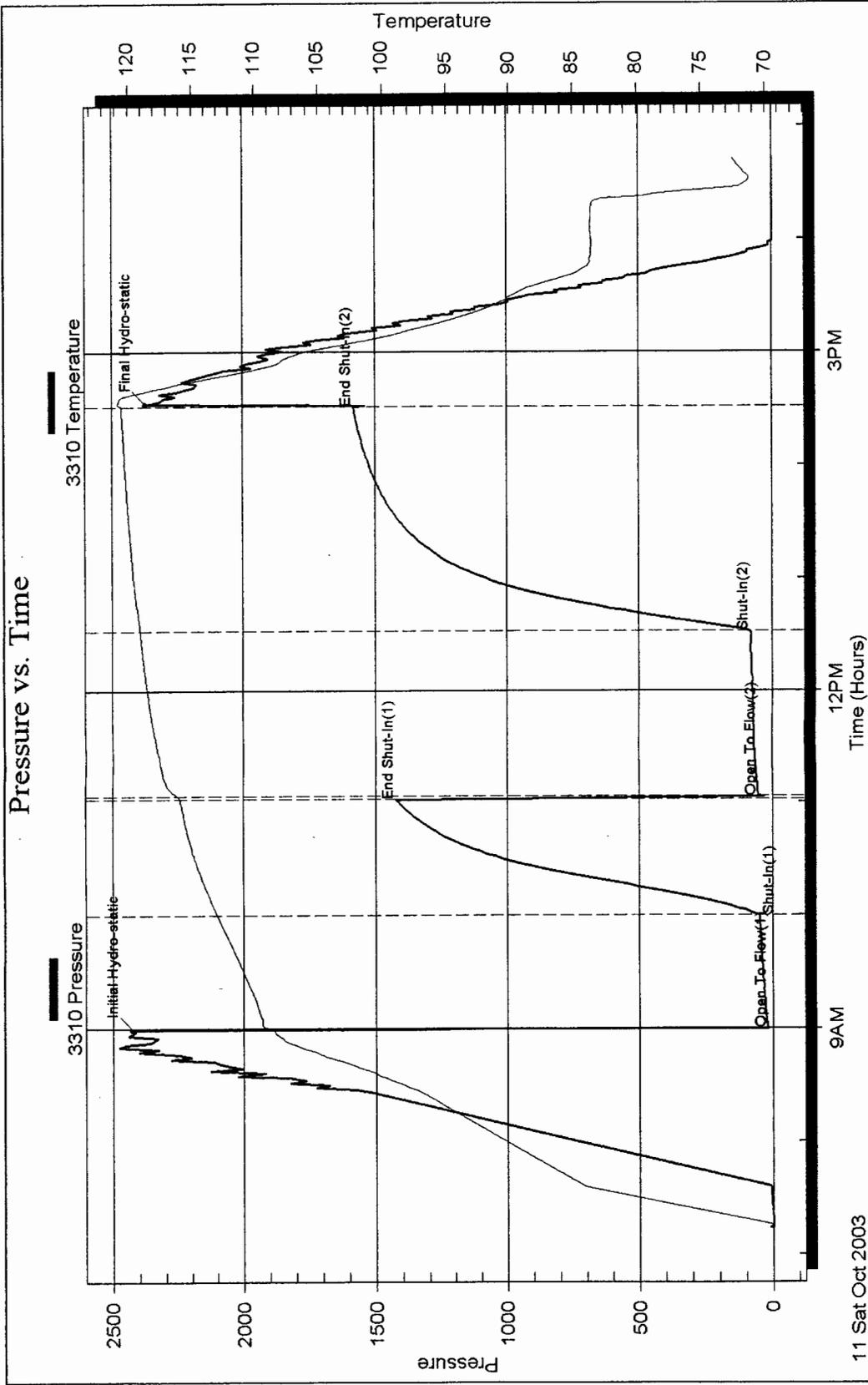
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Corsair Energy L.C.**

914 E. Douglas Ave.
Wichita, KS 67202

ATTN: Tim Hellman

31-32-19 Comanche

Bird "A" 1-31

Start Date: 2003.10.12 @ 11:31:17

End Date: 2003.10.12 @ 18:30:47

Job Ticket #: 17815 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

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

Job Ticket: 17815

DST#: 3

ATTN: Tim Hellman

Test Start: 2003.10.12 @ 11:31:17

GENERAL INFORMATION:

Formation: **Mississippi**

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

Time Tool Opened: 13:23:17

Time Test Ended: 18:30:47

Test Type: **Conventional Bottom Hole**

Tester: **Nathan**

Unit No: **16**

Interval: **5088.00 ft (KB) To 5149.00 ft (KB) (TVD)**

Total Depth: **5149.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **1893.00 ft (KB)**

1880.00 ft (CF)

KB to GR/CF: **13.00 ft**

Serial #: 3310

Inside

Press@RunDepth: **48.61 psig @ 5122.00 ft (KB)**

Start Date: **2003.10.12**

End Date:

2003.10.12

Capacity: **7000.00 psig**

Last Calib.: **1899.12.30**

Start Time: **11:31:18**

End Time:

18:30:47

Time On Btrm: **2003.10.12 @ 13:23:02**

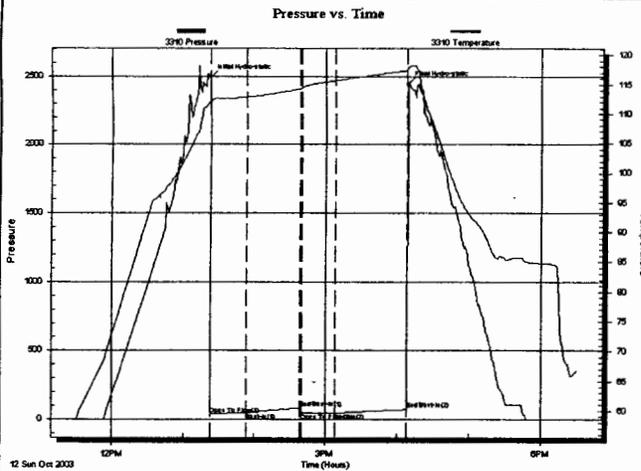
Time Off Btrm: **2003.10.12 @ 16:08:32**

TEST COMMENT: **I-Weak blow building to 1inch in bucket then decreasing to 1/2inch**

IS- No blow

FF- Weak surface blow throughout opening

FS- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2493.98	112.14	Initial Hydro-static
1	37.19	111.90	Open To Flow (1)
31	48.05	112.85	Shut-in(1)
76	84.38	114.21	End Shut-in(1)
77	50.15	114.40	Open To Flow (2)
105	48.61	115.65	Shut-in(2)
166	72.48	117.41	End Shut-in(2)
166	2446.39	117.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
48.00	Drig mud	0.24

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

Job Ticket: 17815

DST#: 3

ATTN: Tim Hellman

Test Start: 2003.10.12 @ 11:31:17

Tool Information

Drill Pipe:	Length: 4855.00 ft	Diameter: 3.80 inches	Volume: 68.10 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 90000.00 lb
			Total Volume: 69.17 bbl	Tool Chased: 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	5088.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	83.00 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			5067.00	
Shut In Tool	5.00			5072.00	
Hydraulic tool	5.00			5077.00	
Safety Joint	2.00			5079.00	
Packer	4.00			5083.00	22.00 Bottom Of Top Packer
Packer	5.00			5088.00	
Stubb	1.00			5089.00	
Change Over Sub	1.00			5090.00	
Blank Spacing	31.00			5121.00	
Change Over Sub	1.00			5122.00	
Recorder	0.00	3310	Inside	5122.00	
Perforations	25.00			5147.00	
Recorder	0.00	10242	Outside	5147.00	
Bullnose	2.00			5149.00	61.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

Job Ticket: 17815

DST#: 3

ATTN: Tim Hellman

Test Start: 2003.10.12 @ 11:31:17

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:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbf

Water Loss: 10.37 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
48.00	Drig mud	0.236

Total Length: 48.00 ft Total Volume: 0.236 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

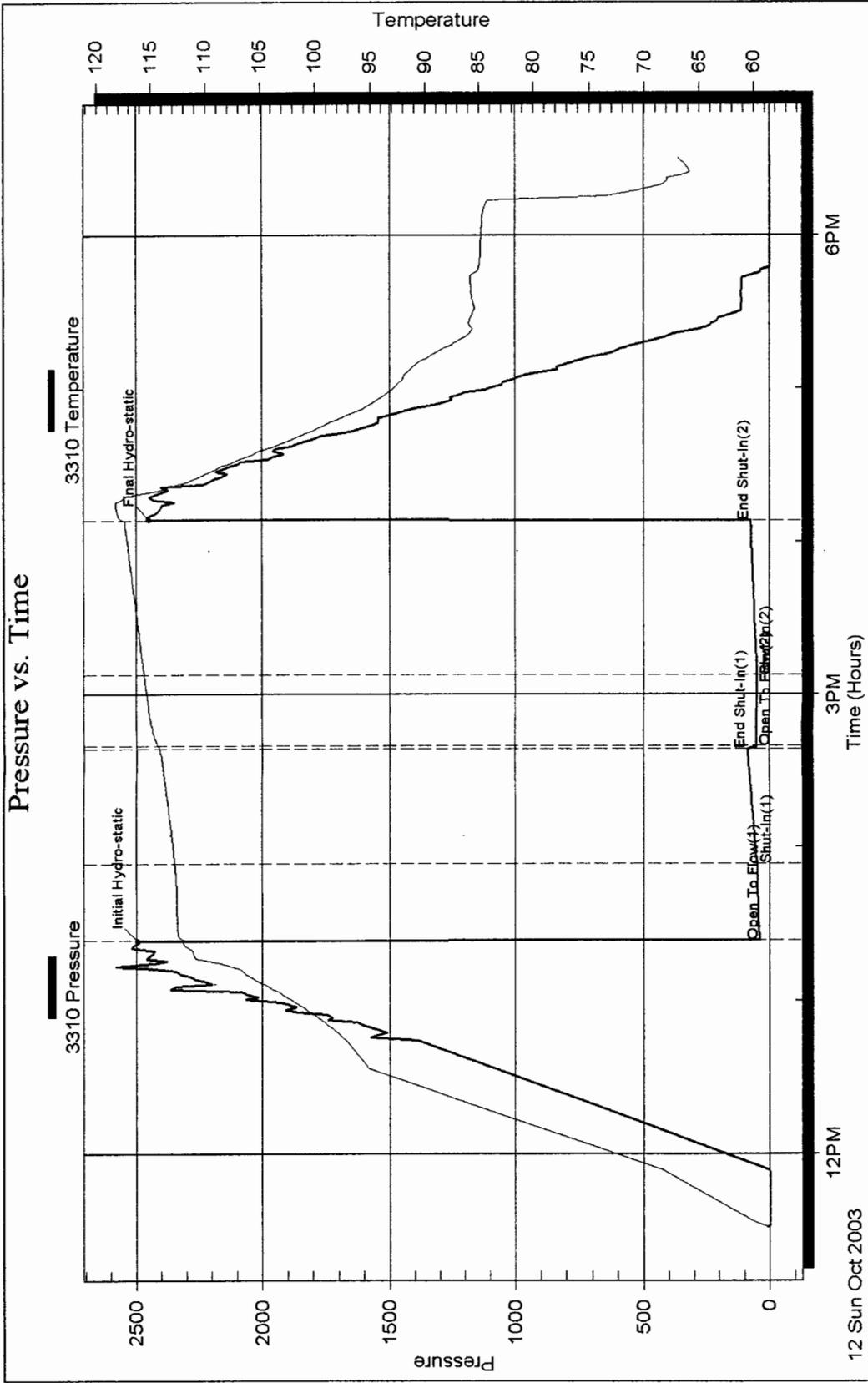
DST Test Number: 3

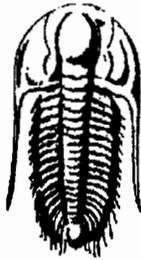
31-32-19 Comanche

Corsair Energy L.C.

Inside

Serial #: 3310





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Corsair Energy L.C.**

914 E. Douglas Ave.
Wichita, KS 67202

ATTN: Tim Hellman

31-32-19 Comanche

Bird "A" 1-31

Start Date: 2003.10.13 @ 02:37:55

End Date: 2003.10.13 @ 12:25:40

Job Ticket #: 17815 DST #: 4

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
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DRILL STEM TEST REPORT

Corsair Energy L.C.

914 E. Douglas Ave.
Wichita, KS 67202

ATTN: Tim Hellman

Bird "A" 1-31

31-32-19 Comanche

Job Ticket: 17815

DST#: 4

Test Start: 2003.10.13 @ 02:37:55

GENERAL INFORMATION:

Formation: **Mississippi**

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

Time Tool Opened: 04:32:40

Time Test Ended: 12:25:40

Test Type: **Conventional Bottom Hole**

Tester: **Nathan & Nick**

Unit No: **16**

Interval: **5152.00 ft (KB) To 5181.00 ft (KB) (TVD)**

Total Depth: **5181.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **1893.00 ft (KB)**

1880.00 ft (CF)

KB to GR/CF: **13.00 ft**

Serial #: **3310** Inside

Press@RunDepth: **260.44 psig @ 5153.00 ft (KB)**

Start Date: **2003.10.13**

End Date:

2003.10.13

Start Time: **02:37:56**

End Time:

12:25:40

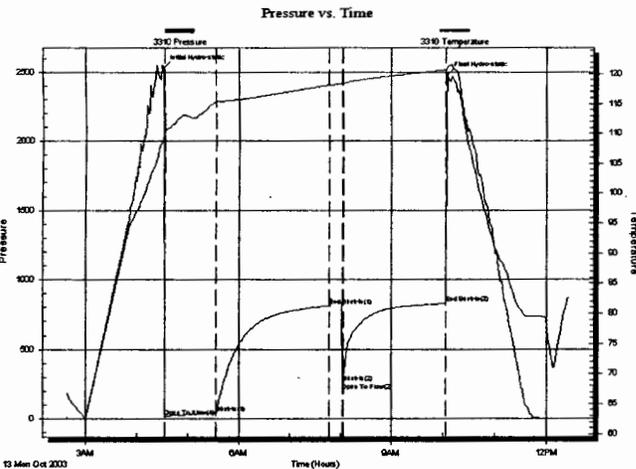
Capacity: **7000.00 psig**

Last Calib.: **1899.12.30**

Time On Btm: **2003.10.13 @ 04:31:25**

Time Off Btm: **2003.10.13 @ 10:04:40**

TEST COMMENT: F-Good blow ; O.B.B. in 2min 20sec
 IS-Weak surface blow
 FF-Fair blow ; building to 5inches in bucket
 FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2532.71	109.77	Initial Hydro-static
2	14.48	110.29	Open To Flow (1)
62	43.92	115.29	Shut-In(1)
195	810.95	118.11	End Shut-In(1)
212	198.11	118.51	Open To Flow (2)
212	260.44	118.48	Shut-In(2)
332	828.23	120.70	End Shut-In(2)
334	2480.14	121.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	GCOM 97% mud 2% oil 1% gas	0.30
62.00	GCOM 72% mud 8% oil 20% gas	0.30

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

Job Ticket: 17815

DST#: 4

ATTN: Tim Hellman

Test Start: 2003.10.13 @ 02:37:55

Tool Information

Drill Pipe:	Length: 4919.00 ft	Diameter: 3.80 inches	Volume: 69.00 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 217.00 ft	Diameter: 2.25 inches	Volume: 1.07 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 70.07 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	5152.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

tool plugged during final flow

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			5131.00	
Shut In Tool	5.00			5136.00	
Hydraulic tool	5.00			5141.00	
Safety Joint	2.00			5143.00	
Packer	4.00			5147.00	22.00 Bottom Of Top Packer
Packer	5.00			5152.00	
Stubb	1.00			5153.00	
Recorder	0.00	3310	Inside	5153.00	
Perforations	26.00			5179.00	
Recorder	0.00	10242	Outside	5179.00	
Bullnose	2.00			5181.00	29.00 Bottom Packers & Anchor

Total Tool Length: 51.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

Job Ticket: 17815

DST#: 4

ATTN: Tim Hellman

Test Start: 2003.10.13 @ 02:37:55

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:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.37 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	GCOM 97%mud 2%oil 1%gas	0.305
62.00	GCOM 72%mud 8%oil 20%gas	0.305

Total Length: 124.00 ft

Total Volume: 0.610 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

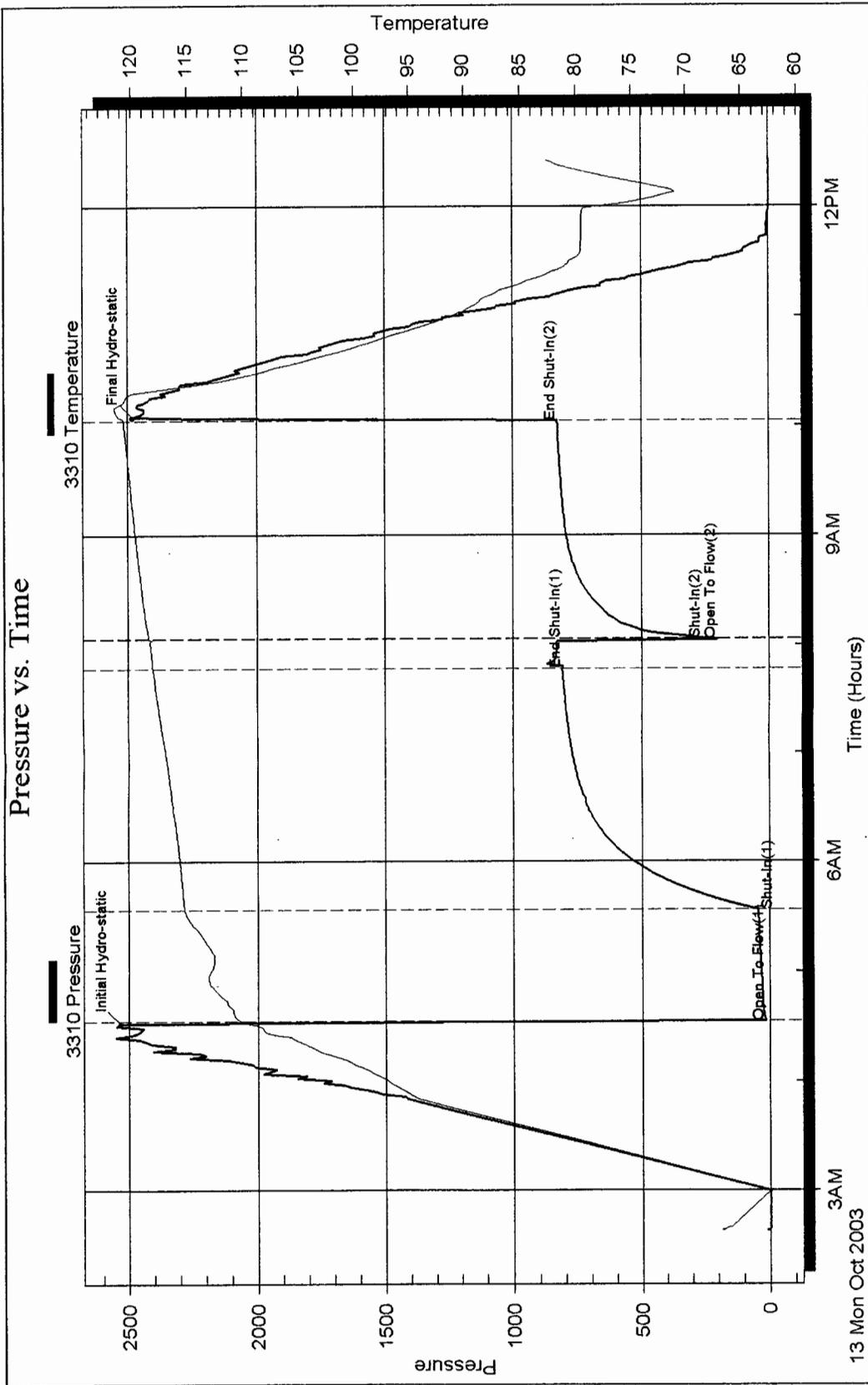
DST Test Number: 4

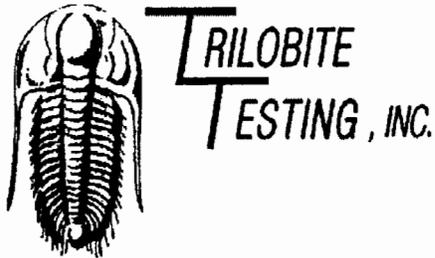
31-32-19 Comanche

Corsair Energy L.C.

Inside

Serial #: 3310





DRILL STEM TEST REPORT

Prepared For: **Corsair Energy L.C.**

914 E. Douglas Ave.
Wichita, KS 67202

ATTN: Tim Hellman

31-32-19 Comanche

Bird "A" 1-31

Start Date: 2003.10.16 @ 06:07:55

End Date: 2003.10.16 @ 14:02:10

Job Ticket #: 18186 DST #: 5

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Corsair Energy L.C. Bird "A" 1-31 31-32-19 Comanche DST # 5 Viola 2003.10.16



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

ATTN: Tim Hellman

Job Ticket: 18186

DST#: 5

Test Start: 2003.10.16 @ 06:07:55

GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:17:55

Time Test Ended: 14:02:10

Test Type: Conventional Bottom Hole

Tester: Jason McLemore

Unit No: 24

Interval: **5858.00 ft (KB) To 5911.00 ft (KB) (TVD)**

Total Depth: 5911.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1893.00 ft (KB)

1880.00 ft (CF)

KB to GR/CF: 13.00 ft

Serial #: **6752**

Inside

Press@RunDepth: 156.10 psig @ 5898.00 ft (KB)

Start Date: 2003.10.16

End Date:

2003.10.16

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Start Time: 06:07:56

End Time:

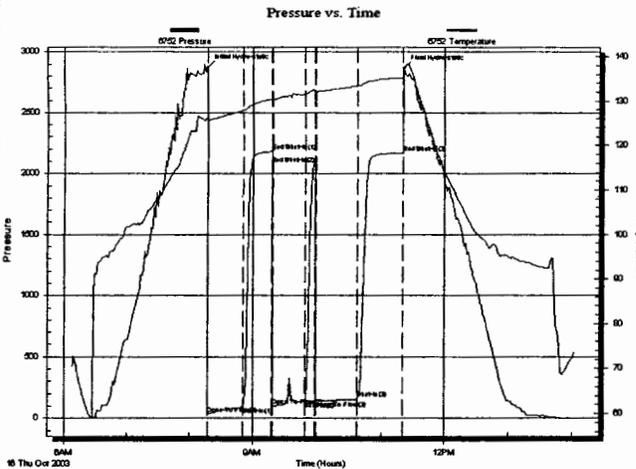
14:02:10

Time On Btm: 2003.10.16 @ 08:17:40

Time Off Btm: 2003.10.16 @ 11:21:10

TEST COMMENT: **FP-No Blow**

FFP-Open 10min, Flush Tool, Open to 30 min Shut Tool, Reopen Tool 30 min, 1/2' Blow, Weak Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2871.31	126.23	Initial Hydro-static
1	31.24	125.47	Open To Flow (1)
34	90.61	127.83	Shut-In(1)
61	2180.21	130.37	End Shut-In(1)
61	98.21	129.98	Open To Flow(2)
92	140.02	131.50	Shut-In(2)
101	2142.72	132.46	End Shut-In(2)
102	144.02	131.87	Open To Flow(3)
141	156.10	133.35	Shut-In(3)
183	2169.96	135.19	End Shut-In(3)
184	2864.88	136.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	Muddy Water	0.30
170.00	Mud	0.95

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

Job Ticket: 18186

DST#: 5

ATTN: Tim Hellman

Test Start: 2003.10.16 @ 06:07:55

Tool Information

Drill Pipe:	Length: 5651.00 ft	Diameter: 3.80 inches	Volume: 79.27 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 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: 92000.00 lb
			Total Volume: 80.34 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 90000.00 lb
Depth to Top Packer:	5858.00 ft			Final 90000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	74.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			5838.00	
Shut In Tool	5.00			5843.00	
Hydraulic tool	5.00			5848.00	
Packer	5.00			5853.00	21.00 Bottom Of Top Packer
Packer	5.00			5858.00	
Stubb	1.00			5859.00	
Perforations	6.00			5865.00	
Change Over Sub	1.00			5866.00	
Blank Spacing	31.00			5897.00	
Change Over Sub	1.00			5898.00	
Recorder	0.00	6752	Inside	5898.00	
Perforations	10.00			5908.00	
Recorder	0.00	13252	Outside	5908.00	
Bullnose	3.00			5911.00	53.00 Bottom Packers & Anchor

Total Tool Length: 74.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Corsair Energy L.C.

Bird "A" 1-31

914 E. Douglas Ave.
Wichita, KS 67202

31-32-19 Comanche

Job Ticket: 18186

DST#: 5

ATTN: Tim Hellman

Test Start: 2003.10.16 @ 06:07:55

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:

ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	Muddy Water	0.295
170.00	Mud	0.954

Total Length: 230.00 ft

Total Volume: 1.249 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6752

Inside Corsair Energy L.C.

31-32-19 Comanche

DST Test Number: 5

