

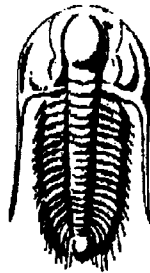
CONFIDENTIAL

11-27s-35w

KCC

JUN 02 2003

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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Oxy USA Inc**

Box 2528
Liberal Ks 67905

ATTN: Tom Heflin

11-27s-35w

Kaufman A #2

Start Date: 2003.03.02 @ 16:41:33

End Date: 2003.03.03 @ 03:11:33

Job Ticket #: 15857 DST #: 1

RECEIVED

JUN 03 2003

KCC WICHITA

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Oxy USA Inc

Kaufman A #2

11-27s-35w

DST # 1

Lansing

2003.03.02



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Oxy USA Inc

Kaufman A #2

Box 2528
Liberal Ks 67905

11-27s-35w

Job Ticket: 15857

DST#: 1

ATTN: Tom Heflin

Test Start: 2003.03.02 @ 16:41:33

GENERAL INFORMATION:

Formation: **Lansing**

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

Time Tool Opened: 19:15:33

Time Test Ended: 03:11:33

Test Type: **Conventional Bottom Hole**

Tester: **Blake Wallace**

Unit No: **20**

Interval: **4233.00 ft (KB) To 4248.00 ft (KB) (TVD)**

Reference Elevations: **3012.00 ft (KB)**

Total Depth: **4248.00 ft (KB) (TVD)**

3000.00 ft (CF)

Hole Diameter: **7.78 inches** Hole Condition: **Good**

KB to GR/CF: **12.00 ft**

Serial #: 3030

Inside

Press@RunDepth: **45.82 psig @ 4235.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2003.03.02**

End Date: **2003.03.03**

Last Calib.: **1899.12.30**

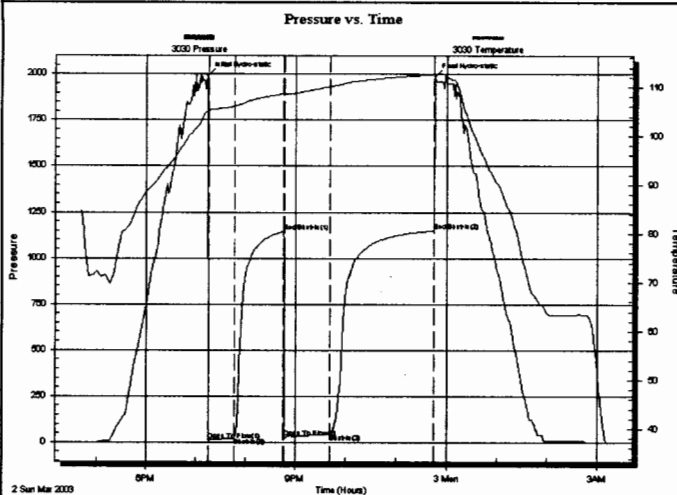
Start Time: **16:41:37**

End Time: **03:11:33**

Time On Btm: **2003.03.02 @ 19:14:18**

Time Off Btm: **2003.03.02 @ 23:46:18**

TEST COMMENT: IF- weak blow built to 1.25 inch
IS- no blow back
FF- weak blow built to 1 inch (flushed tool 2 min into FF)
FSI- no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1993.39	104.98	Initial Hydro-static
2	10.29	105.19	Open To Flow (1)
33	22.47	106.09	Shut-In(1)
33	23.95	106.09	Shut-In(2)
92	1145.76	108.65	End Shut-In(1)
93	24.69	108.68	Open To Flow (2)
148	45.82	110.17	Shut-In(3)
271	1150.78	112.66	End Shut-In(2)
272	1987.20	112.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	Oil cut mud 15% oil 85% mud	0.32

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Oxy USA Inc

Kaufman A #2

Box 2528
Liberal Ks 67905

11-27s-35w

Job Ticket: 15857

DST#: 1

ATTN: Tom Heflin

Test Start: 2003.03.02 @ 16:41:33

Tool Information

Drill Pipe: Length: 3934.00 ft Diameter: 3.80 inches Volume: 55.18 bbl
Heavy Wt. Pipe: Length: 0.00 ft Diameter: 0.00 inches Volume: 0.00 bbl
Drill Collar: Length: 273.00 ft Diameter: 2.25 inches Volume: 1.34 bbl
Total Volume: 56.52 bbl

Tool Weight: 1800.00 lb

Weight set on Packer: 20000.00 lb

Weight to Pull Loose: 65000.00 lb

Tool Chased 0.00 ft

String Weight: Initial 62000.00 lb

Final 64000.00 lb

Drill Pipe Above KB: 4.00 ft

Depth to Top Packer: 4233.00 ft

Depth to Bottom Packer: ft

Interval between Packers: 15.00 ft

Tool Length: 45.00 ft

Number of Packers: 2 Diameter: 6.75 inches

Tool Comments:

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4204.00	
S.I. Tool	5.00			4209.00	
Sampler	3.00			4212.00	
HMV	5.00			4217.00	
Jars	5.00			4222.00	
Safety Joint	2.00			4224.00	
Packer	5.00			4229.00	30.00 Bottom Of Top Packer
Packer	4.00			4233.00	
Stubb	1.00			4234.00	
Perforations	1.00			4235.00	
Recorder	0.00	3030	Inside	4235.00	
Perforations	10.00			4245.00	
Recorder	0.00	11019	Outside	4245.00	
Bullnose	3.00			4248.00	15.00 Bottom Packers & Anchor

Total Tool Length: 45.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Oxy USA Inc

Kaufman A #2

Box 2528
Liberal Ks 67905

11-27s-35w

Job Ticket: 15857

DST#: 1

ATTN: Tom Heflin

Test Start: 2003.03.02 @ 16:41:33

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: 35.00 sec/qt

Cushion Volume:

bbl

Water Loss: 12.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	Oil cut mud 15% oil 85% mud	0.320

Total Length: 65.00 ft

Total Volume: 0.320 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 2000 ml mud 2000 ml oil @ 100 psi

DST Test Number: 1

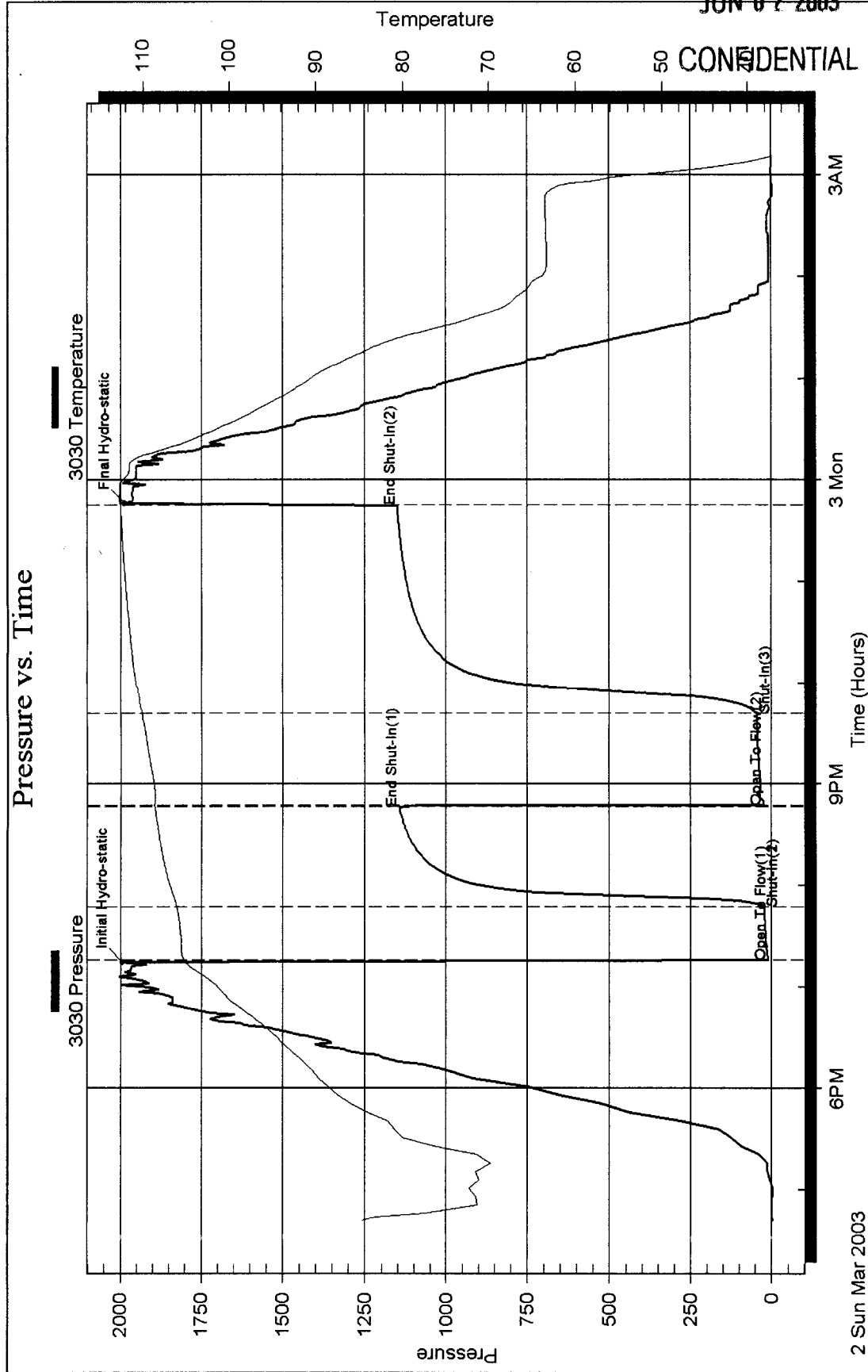
11-27s-35w

Oxy USA Inc

Inside

Serial #: 3030

Pressure vs. Time

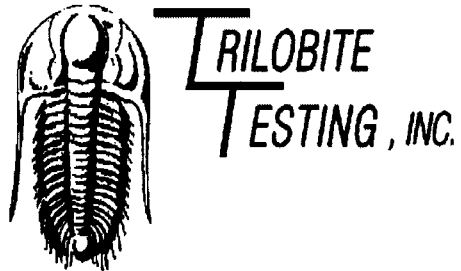


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DRILL STEM TEST REPORT

Prepared For: **Oxy USA Inc**

Box 2528
Liberal Ks 67905

ATTN: Tom Heflin

11-27s-35w

Kaufman A #2

Start Date: 2003.03.06 @ 20:49:33

End Date: 2003.03.07 @ 07:02:18

Job Ticket #: 15859 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

Oxy USA Inc

Box 2528
Liberal Ks 67905

ATTN: Tom Heflin

Kaufman A #2

11-27s-35w

Job Ticket: 15859

DST#: 2

Test Start: 2003.03.06 @ 20:49:33

GENERAL INFORMATION:

Formation: **Morrow LS**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:33:33

Time Test Ended: 07:02:18

Test Type: Conventional Straddle

Tester: Blake Wallace

Unit No: 20

Interval: **5014.00 ft (KB) To 5134.00 ft (KB) (TVD)**

Total Depth: 5578.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Good

Reference Elevations: 3012.00 ft (KB)

3000.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 3030

Inside

Press@RunDepth: 84.94 psig @ 4237.00 ft (KB)

Start Date: 2003.03.06

End Date:

2003.03.07

Start Time: 20:49:37

End Time:

07:02:18

Capacity: 7000.00 psig

Last Calib.: 1899.12.30

Time On Btm: 2003.03.06 @ 23:27:18

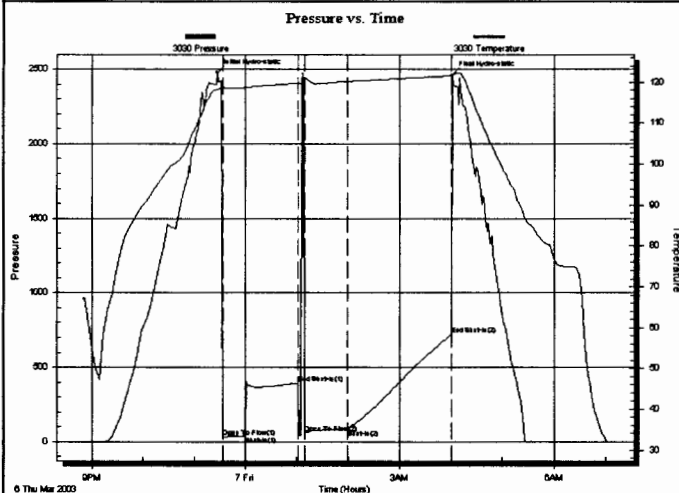
Time Off Btm: 2003.03.07 @ 04:01:03

TEST COMMENT: IF- weak blow built to 1 inch died back to 3/4 inch

IS- no blow back

FF- weak blow built to 3/4 inch died back to surface blow (flushed tool 5 min into FF)

FS- no blow back (bottom Packer he



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2476.19	118.27	Initial Hydro-static
7	30.66	118.80	Open To Flow (1)
33	36.43	118.72	Shut-In(1)
94	392.99	119.75	End Shut-In(1)
103	59.02	120.86	Open To Flow (2)
152	84.94	120.22	Shut-In(2)
273	718.62	121.56	End Shut-In(2)
274	2460.79	121.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	100% mud	0.61

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Oxy USA Inc

Kaufman A #2

Box 2528
Liberal Ks 67905

11-27s-35w

Job Ticket: 15859

DST#: 2

ATTN: Tom Heflin

Test Start: 2003.03.06 @ 20:49:33

Tool Information

Drill Pipe:	Length:	ft	Diameter:	3.80 inches	Volume:	- 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:	273.00 ft	Diameter:	2.25 inches	Volume:	1.34 bbl	Weight to Pull Loose:	105000.0 lb
					Total Volume:	- bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	-3930.00 ft						String Weight: Initial	78000.00 lb
Depth to Top Packer:	4233.00 ft						Final	78000.00 lb
Depth to Bottom Packer:	4349.00 ft							
Interval between Packers:	116.00 ft							
Tool Length:	597.00 ft							
Number of Packers:	3		Diameter:	6.75 inches				
Tool Comments:								

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Tool Description Length (ft) Serial No. Position Depth (ft) Accum. Lengths **CONFIDENTIAL**

C.O. Sub	1.00			4204.00		
S.I. Tool	5.00			4209.00		
Sampler	3.00			4212.00		
HMV	5.00			4217.00		
Jars	5.00			4222.00		
Safety Joint	2.00			4224.00		
Packer	5.00			4229.00	30.00	Bottom Of Top Packer
Packer	4.00			4233.00		
Stubb	1.00			4234.00		
Perforations	3.00			4237.00		
Recorder	0.00	3030	Inside	4237.00		
P.O. Sub	5.00			4242.00		
Perforations	5.00			4247.00		
Change Over Sub	1.00			4248.00		
Blank Spacing	94.00			4342.00		
Change Over Sub	1.00			4343.00		
Perforations	5.00			4348.00		
Recorder	0.00	11019	Outside	4348.00		
Blank Off Sub	1.00			4349.00	116.00	Tool Interval
Packer	4.00			4353.00		
Stubb	1.00			4354.00		
Change Over Sub	1.00			4355.00		
Blank Spacing	441.00			4796.00		
C.O. Sub	1.00			4797.00		
Recorder	0.00	13255	Outside	4797.00		
Bullnose	3.00			4800.00	451.00	Bottom Packers & Anchor

Total Tool Length: 597.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Oxy USA Inc

Kaufman A #2

Box 2528
Liberal Ks 67905

11-27s-35w

Job Ticket: 15859

DST#: 2

ATTN: Tom Heflin

Test Start: 2003.03.06 @ 20:49:33

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: 37.00 sec/qt

Cushion Volume:

bbl

Water Loss: 12.68 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	100% mud	0.615

Total Length: 125.00 ft

Total Volume: 0.615 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 4000 ML mud @ 150 PSI

DST Test Number: 2

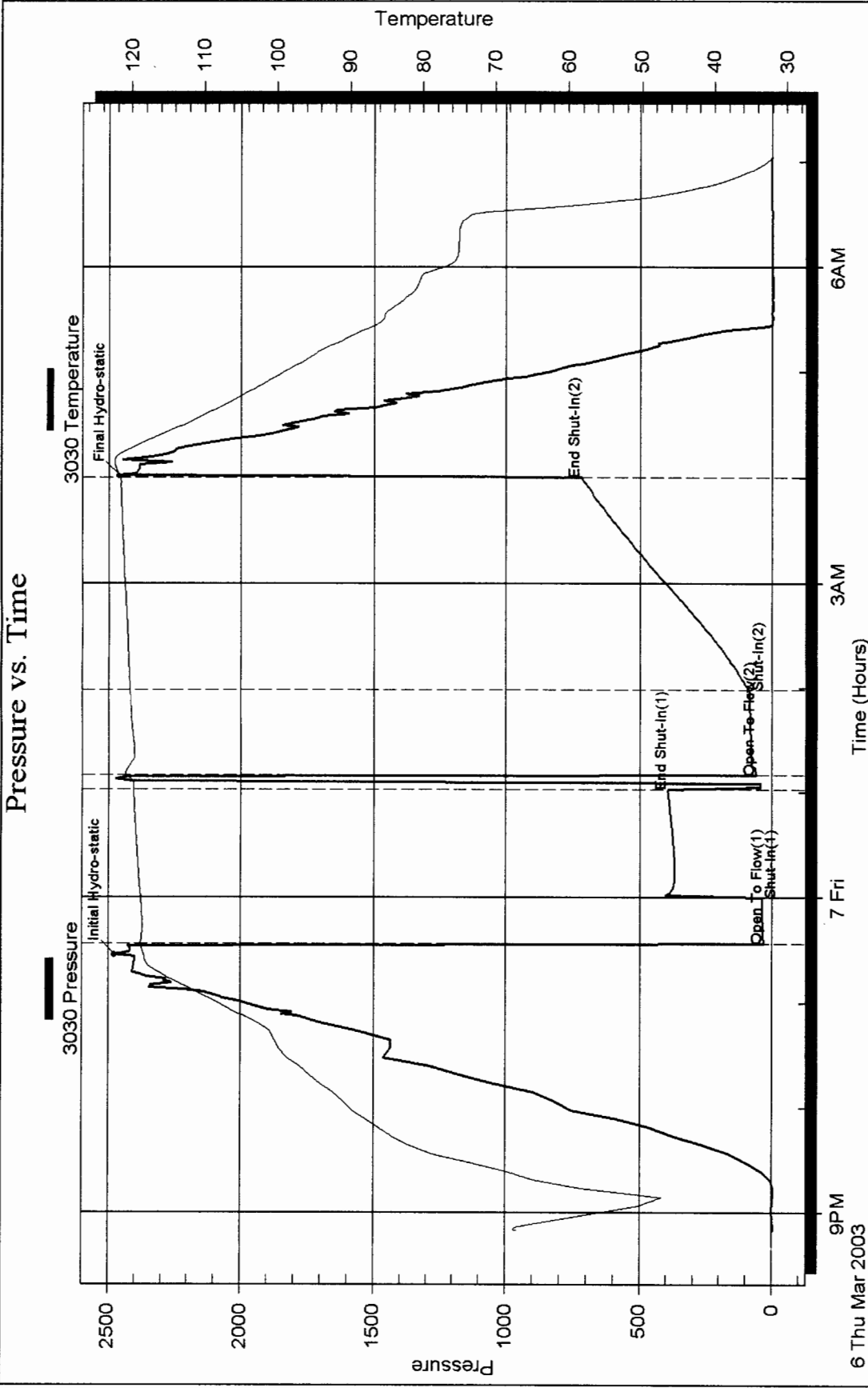
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Oxy USA Inc

Inside

Serial #: 3030

Pressure vs. Time



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Ref. No: 15859

Trilobite Testing, Inc

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