

15-151-22193

8-29s-15w



DRILL STEM TEST REPORT

Prepared For: **Lotus Operating,co.LLC**

914 E.Douglas
Wichita,Ks.
67202

ATTN: Tim Hellman

8-29S-15W Pratt KS

Hanwit #1

Start Date: 2002.12.29 @ 00:38:59

End Date: 2002.12.29 @ 09:24:27

Job Ticket #: 16603 DST #: 1

Lotus Operating,co.LLC

Hanwit #1

8-29S-15W Pratt KS

DST # 1

Drum

2002.12.29

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202

8-29S-15W Pratt KS

Job Ticket: 16603

DST#: 1

ATTN: Tim Hellman

Test Start: 2002.12.29 @ 00:38:59

Tool Information

Drill Pipe:	Length: 4193.00 ft	Diameter: 3.80 inches	Volume: 58.82 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 58.82 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	4210.00 ft			Final 42000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	43.00 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			4188.00	
S.I. Tool	5.00			4193.00	
HMV	5.00			4198.00	
Safety Joint	2.00			4200.00	
Packer	5.00			4205.00	23.00 Bottom Of Top Packer
Packer	5.00			4210.00	
Stubb	1.00			4211.00	
Recorder	0.00	2346	Inside	4211.00	
Anchor	16.00			4227.00	
Recorder	0.00	10991	Outside	4227.00	
Bullnose	3.00			4230.00	20.00 Bottom Packers & Anchor

Total Tool Length: 43.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202

8-29S-15W Pratt KS

Job Ticket: 16603 DST#: 1

ATTN: Tim Hellman

Test Start: 2002.12.29 @ 00:38:59

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil Apt

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.77 in³

Gas Cushion Type:

Resistivity: 1.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 0.32 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	103 - Gas and Oil cut Mud	0.421
1100.00	01 - Gas	15.430

Total Length: 1130.00 ft

Total Volume: 15.851 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

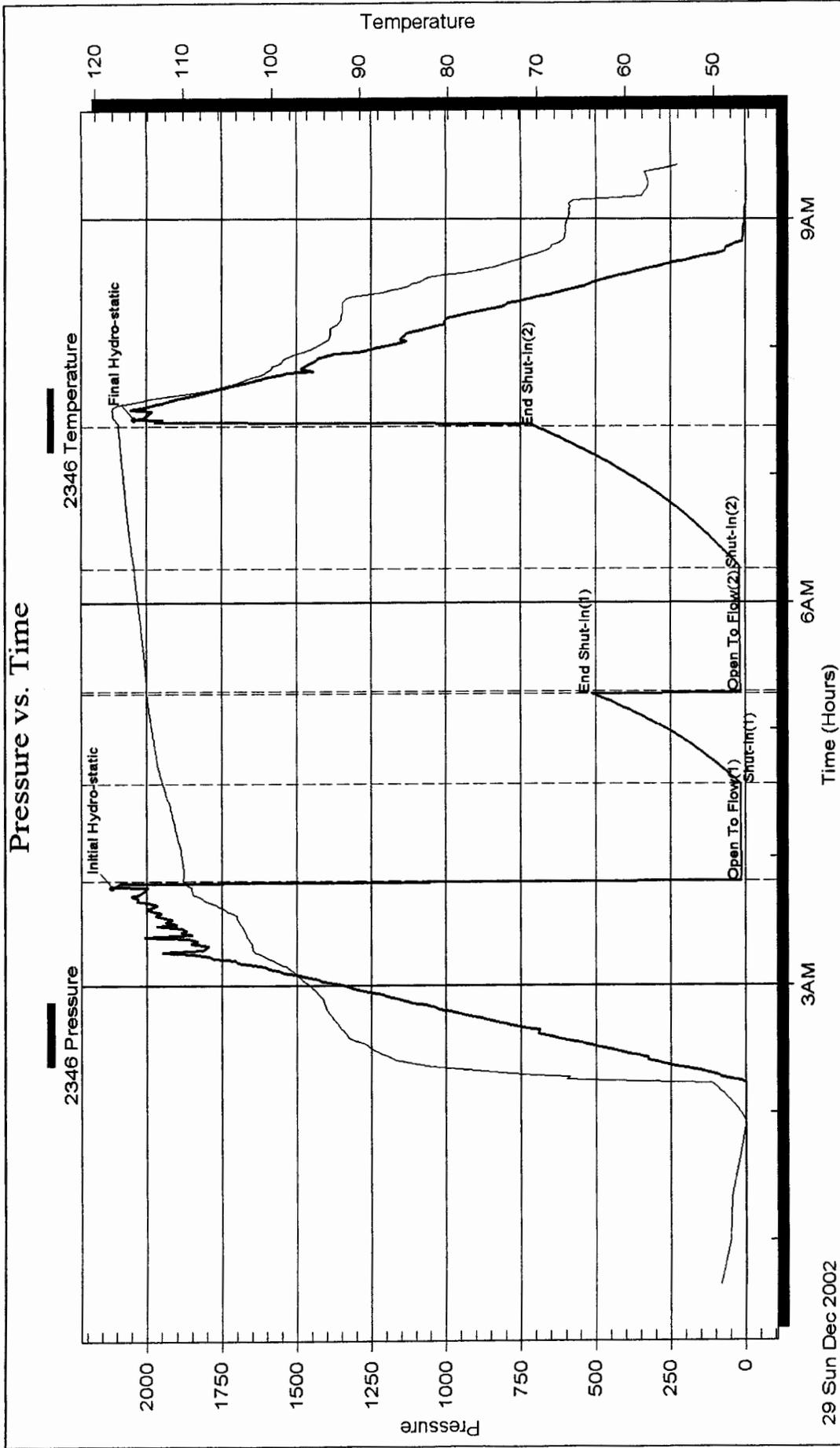
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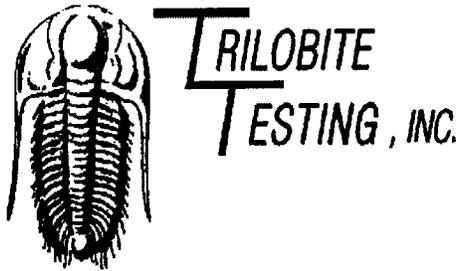
Inside

Lotus Operating,co.LLC

8-29S-15W Pratt KS

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Lotus Operating,co.LLC**

914 E.Douglas
Wichita,Ks.
67202

ATTN: Tim Hellman

8-29S-15W Pratt KS

Hanwit #1

Start Date: 2002.12.30 @ 09:31:25

End Date: 2002.12.30 @ 08:24:25

Job Ticket #: 16604 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

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202
ATTN: Tim Hellman

8-29S-15W Pratt KS

Job Ticket: 16604 DST#: 2
Test Start: 2002.12.30 @ 09:31:25

GENERAL INFORMATION:

Formation: **Lansing"J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:42:25

Time Test Ended: 08:24:25

Test Type: Conventional Bottom Hole

Tester: Darren L.Amerine

Unit No: 19

Interval: **4297.00 ft (KB) To 4325.00 ft (KB) (TVD)**

Total Depth: 4325.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1998.00 ft (KB)

1990.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 2346

Inside

Press@RunDepth: 724.57 psig @ 4298.00 ft (KB)

Start Date: 2002.12.30

End Date: 2002.12.30

Start Time: 07:32:27

End Time: 19:22:25

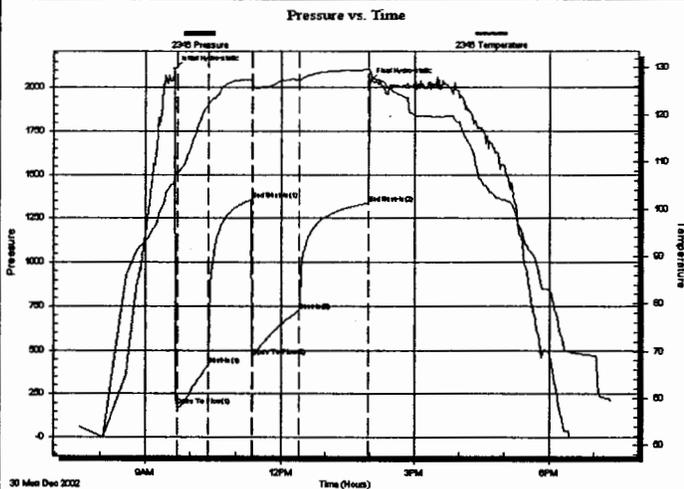
Capacity: 7000.00 psig

Last Calib.: 2002.12.30

Time On Btrm: 2002.12.30 @ 09:38:25

Time Off Btrm: 2002.12.30 @ 13:58:55

TEST COMMENT: F:Strong blow b.o.b in 15 sec.GTS in 3-1/2 mins.gauge gas.
ISt:Bled down n for 5 mins.b.o.b in 2 mins.
FF:Fair blow built to b.o.b 1 min.Gauge gas.
FSI:Bled down n for 10 mins.Oil to surface.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2106.78	106.32	Initial Hydro-static
4	183.65	107.84	Open To Flow (1)
46	413.66	122.14	Shut-In(1)
103	1358.63	127.43	End Shut-In(1)
105	465.87	126.72	Open To Flow (2)
166	724.57	127.39	Shut-In(2)
259	1337.02	129.61	End Shut-In(2)
261	2033.22	129.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
4162.00	50 - Oil	58.38
120.00	52 - Mud and Gas cut Oil	1.68

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.38	7.50	80.23
Last Gas Rate	0.13	1.00	5.76
Max. Gas Rate	0.38	7.50	80.23



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202

8-29S-15W Pratt KS

Job Ticket: 16604

DST#: 2

ATTN: Tim Hellman

Test Start: 2002.12.30 @ 09:31:25

Tool Information

Drill Pipe:	Length: 4282.00 ft	Diameter: 3.80 inches	Volume: 60.07 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 60.07 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	4297.00 ft			Final	49000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	28.00 ft				
Tool Length:	51.00 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			4275.00	
S.I. Tool	5.00			4280.00	
HMV	5.00			4285.00	
Safety Joint	2.00			4287.00	
Packer	5.00			4292.00	23.00 Bottom Of Top Packer
Packer	5.00			4297.00	
Stubb	1.00			4298.00	
Recorder	0.00	2346	Inside	4298.00	
Anchor	24.00			4322.00	
Recorder	0.00	10991	Outside	4322.00	
Bullnose	3.00			4325.00	28.00 Bottom Packers & Anchor
Total Tool Length:		51.00			



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202

8-29S-15W Pratt KS

Job Ticket: 16604

DST#: 2

ATTN: Tim Hellman

Test Start: 2002.12.30 @ 09:31:25

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.18 in³

Gas Cushion Type:

Resistivity: 2.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4780.00 ppm

Filter Cake: 0.32 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
4162.00	50 - Oil	58.382
120.00	52 - Mud and Gas cut Oil	1.683

Total Length: 4282.00 ft Total Volume: 60.065 bbl

Num Fluid Samples: 1

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Reversed fluid out.



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202

8-29S-15W Pratt KS

Job Ticket: 16604

DST#: 2

ATTN: Tim Hellman

Test Start: 2002.12.30 @ 09:31:25

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)
1	8	0.38	7.50	80.23
1	13	0.25	5.00	30.78
1	18	0.25	3.50	28.40
1	23	0.13	2.00	6.14
1	28	0.13	2.00	6.14
1	33	0.13	1.50	5.95
1	38	0.13	1.00	5.76
1	43	0.13	1.00	5.76

Serial #: 2346

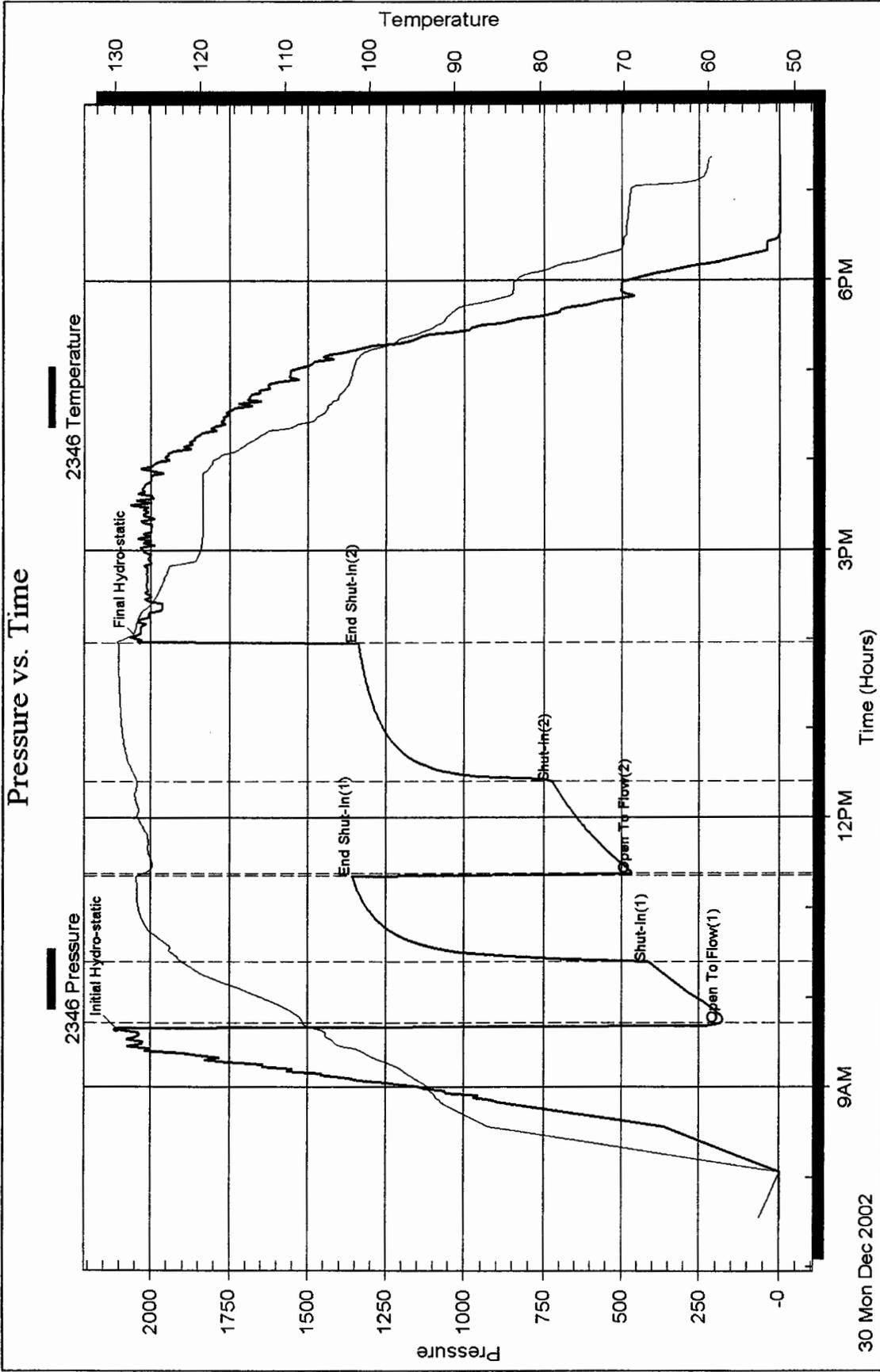
Inside

Lotus Operating,co.LLC

8-29S-15W Pratt KS

DST Test Number: 2

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Lotus Operating,co.LLC**

914 E.Douglas
Wichita,Ks.
67202

ATTN: Tim Hellman

8-29S-15W Pratt KS

Hanwit #1

Start Date: 2002.12.31 @ 11:56:15

End Date: 2002.12.31 @ 21:57:15

Job Ticket #: 16605 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Lotus Operating,co.LLC

Hanwit #1

8-29S-15W Pratt KS

DST # 3

Miss.Chert/Kind.Chert

2002.12.31



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas

8-29S-15W Pratt KS

Wichita,Ks.

Job Ticket: 16605

DST#: 3

67202

ATTN: Tim Hellman

Test Start: 2002.12.31 @ 11:56:15

GENERAL INFORMATION:

Formation: **Miss.Chert/Kind.Cher**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:54:45

Time Test Ended: 21:57:15

Test Type: Conventional Bottom Hole

Tester: Darren L.Amerine

Unit No: 19

Interval: **4520.00 ft (KB) To 4623.00 ft (KB) (TVD)**

Reference Elevations: 1998.00 ft (KB)

Total Depth: 4620.00 ft (KB) (TVD)

1990.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 2346

Inside

Press@RunDepth: 31.36 psig @ 4521.00 ft (KB)

Capacity: 7000.00 psig

Start Date: 2002.12.31

End Date: 2002.12.31

Last Calib.: 2003.01.01

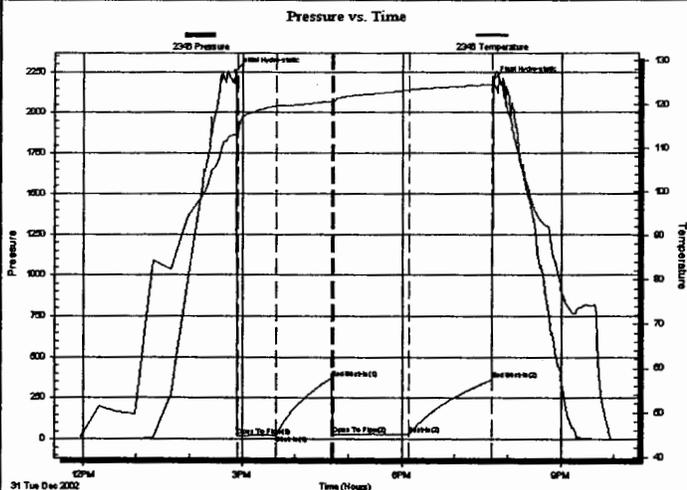
Start Time: 11:57:17

End Time: 21:57:15

Time On Btm: 2002.12.31 @ 14:51:45

Time Off Btm: 2002.12.31 @ 19:43:15

TEST COMMENT: F:Fair blow b.o.b in 5 mins.
 ISt:Bled down n for 10 mins.no blow back.
 FF:Strong blow b.o.b in 15 sec.GTS in 15 mins.gauge gas.
 FSt:Bled down n for 15 mins.no blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2254.13	113.04	Initial Hydro-static
3	19.57	113.47	Open To Flow(1)
47	24.49	119.73	Shut-In(1)
109	371.36	120.78	End Shut-In(1)
111	27.64	120.85	Open To Flow(2)
196	31.36	123.35	Shut-In(2)
291	360.95	124.63	End Shut-In(2)
292	2201.41	125.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
4488.00	01 - Gas	62.95
40.00	Gas cut mud	0.56

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202

8-29S-15W Pratt KS

Job Ticket: 16605

DST#: 3

ATTN: Tim Hellman

Test Start: 2002.12.31 @ 11:56:15

Tool Information

Drill Pipe:	Length: 4528.00 ft	Diameter: 3.80 inches	Volume: 63.52 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 63.52 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4520.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	103.00 ft			
Tool Length:	126.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4498.00	
S.I. Tool	5.00			4503.00	
HMV	5.00			4508.00	
Safety Joint	2.00			4510.00	
Packer	5.00			4515.00	23.00 Bottom Of Top Packer
Packer	5.00			4520.00	
Stubb	1.00			4521.00	
Recorder	0.00	2346	Inside	4521.00	
Anchor	38.00			4559.00	
Blank Spacing	61.00			4620.00	
Recorder	0.00	10991	Outside	4620.00	
Bullnose	3.00			4623.00	103.00 Bottom Packers & Anchor

Total Tool Length: 126.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas

8-29S-15W Pratt KS

Wichita,Ks.

Job Ticket: 16605

DST#: 3

67202

ATTN: Tim Hellman

Test Start: 2002.12.31 @ 11:56:15

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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: 0.90 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 0.32 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
4488.00	01 - Gas	62.955
40.00	Gas cut mud	0.561

Total Length: 4528.00 ft

Total Volume: 63.516 bbl

Num Fluid Samples: 1

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 2346

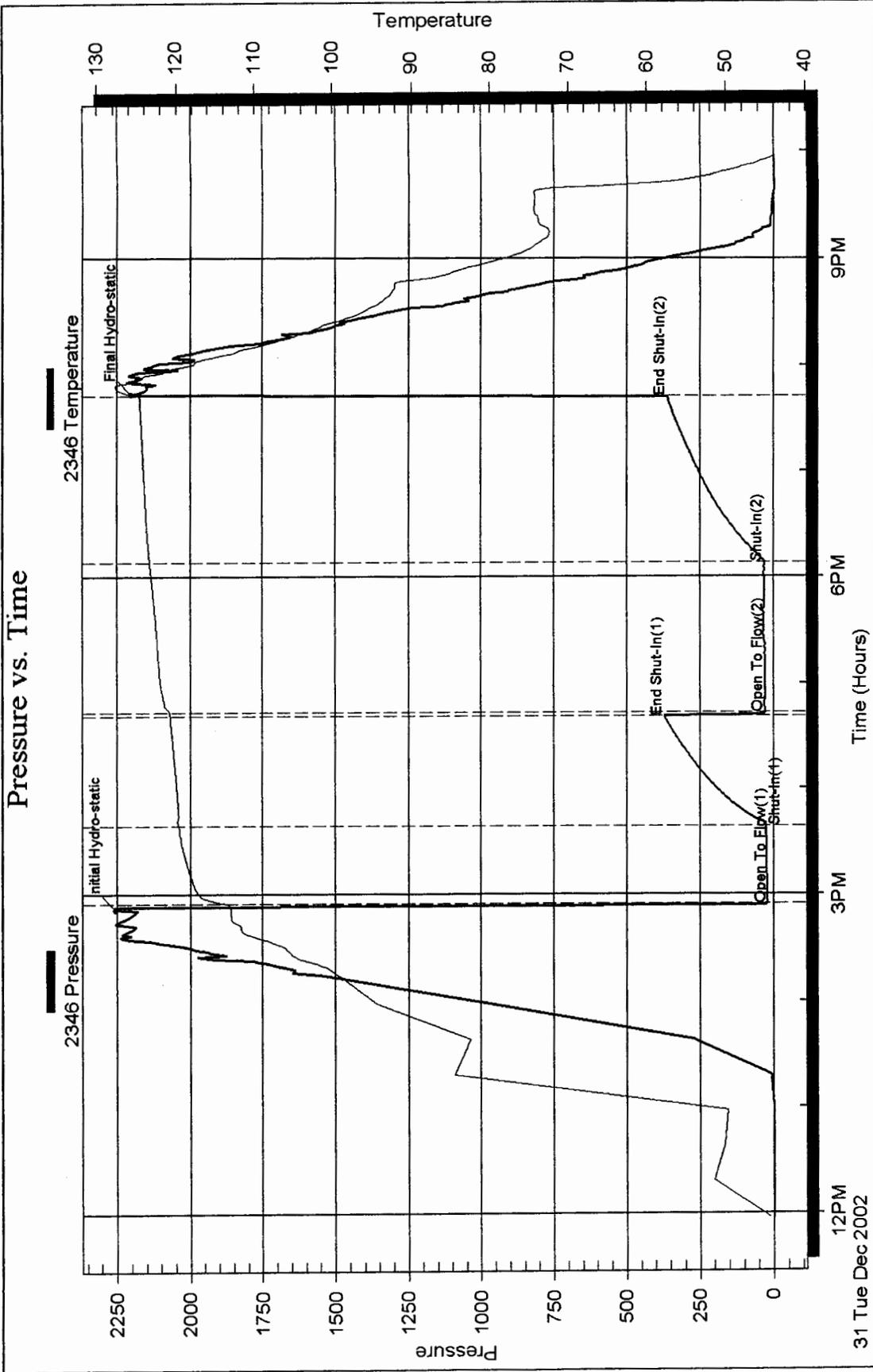
Inside

Lotus Operating,co.LLC

8-29S-15W Pratt KS

DST Test Number: 3

Pressure vs. Time



31 Tue Dec 2002
12PM
3PM
6PM
9PM

Trilobite Testing, Inc

Ref. No: 16605

Printed: 2003.01.10 @ 10:35:44 Page 5



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Lotus Operating,co.LLC**

914 E.Douglas
Wichita,Ks.
67202

ATTN: Tim Hellman

8-29S-15W Pratt KS

Hanwit #1

Start Date: 2003.01.01 @ 08:16:56

End Date: 2003.01.01 @ 17:38:26

Job Ticket #: 16606 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Lotus Operating,co.LLC

Hanwit #1

8-29S-15W Pratt KS

DST # 4

Viola

2003.01.01



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202

8-29S-15W Pratt KS

Job Ticket: 16606

DST#: 4

ATTN: Tim Hellman

Test Start: 2003.01.01 @ 08:16:56

GENERAL INFORMATION:

Formation: **Viola**

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

Time Tool Opened: 10:41:26

Time Test Ended: 17:38:26

Test Type: **Conventional Bottom Hole**

Tester: **Darren L.Amerine**

Unit No: **19**

Interval: **4630.00 ft (KB) To 4676.00 ft (KB) (TVD)**

Reference Elevations: **1998.00 ft (KB)**

Total Depth: **4676.00 ft (KB) (TVD)**

1990.00 ft (CF)

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

KB to GR/CF: **8.00 ft**

Serial #: 2346

Inside

Press@RunDepth: **29.06 psig @ 4638.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2003.01.01**

End Date: **2003.01.01**

Last Calib.: **2003.01.02**

Start Time: **08:17:58**

End Time: **17:38:26**

Time On Btmr: **2003.01.01 @ 10:37:26**

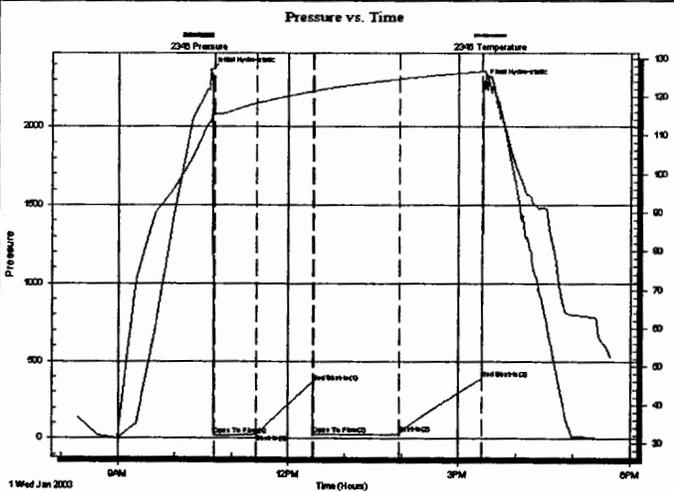
Time Off Btmr: **2003.01.01 @ 15:25:56**

TEST COMMENT: F:Fair blow built to bottom of diesel bucket in 19 mins.

IS:Bled down for 10 mins.no blow back.

FF:Strong blow bottom of diesel bucket in 15 sec.

FS:Bled down for 10 mins.no blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2358.09	113.39	Initial Hydro-static
4	19.71	115.60	Open To Flow (1)
49	23.11	118.29	Shut-In(1)
109	365.80	121.42	End Shut-In(1)
110	23.49	121.54	Open To Flow (2)
200	29.06	124.59	Shut-In(2)
287	386.67	126.63	End Shut-In(2)
289	2283.26	126.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1500.00	01 - Gas	21.04
35.00	103 - Gas and Oil cut Mud	0.49

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202

8-29S-15W Pratt KS

ATTN: Tim Hellman

Job Ticket: 16606

DST#: 4

Test Start: 2003.01.01 @ 08:16:56

Tool Information

Drill Pipe:	Length: 4618.00 ft	Diameter: 3.80 inches	Volume: 64.78 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			Total Volume: 64.78 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	4630.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	69.00 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			4608.00	
S.L. Tool	5.00			4613.00	
HMV	5.00			4618.00	
Safety Joint	2.00			4620.00	
Packer	5.00			4625.00	23.00 Bottom Of Top Packer
Packer	5.00			4630.00	
Stubb	1.00			4631.00	
Anchor	7.00			4638.00	
Recorder	0.00	2346	Inside	4638.00	
Anchor	35.00			4673.00	
Recorder	0.00	10991	Outside	4673.00	
Bullnose	3.00			4676.00	46.00 Bottom Packers & Anchor

Total Tool Length: 69.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Lotus Operating.co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202

8-29S-15W Pratt KS

Job Ticket: 16606

DST#: 4

ATTN: Tim Hellman

Test Start: 2003.01.01 @ 08:16:56

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: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.38 in³

Gas Cushion Type:

Resistivity: 0.90 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.32 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1500.00	01 - Gas	21.041
35.00	103 - Gas and Oil cut Mud	0.491

Total Length: 1535.00 ft Total Volume: 21.532 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

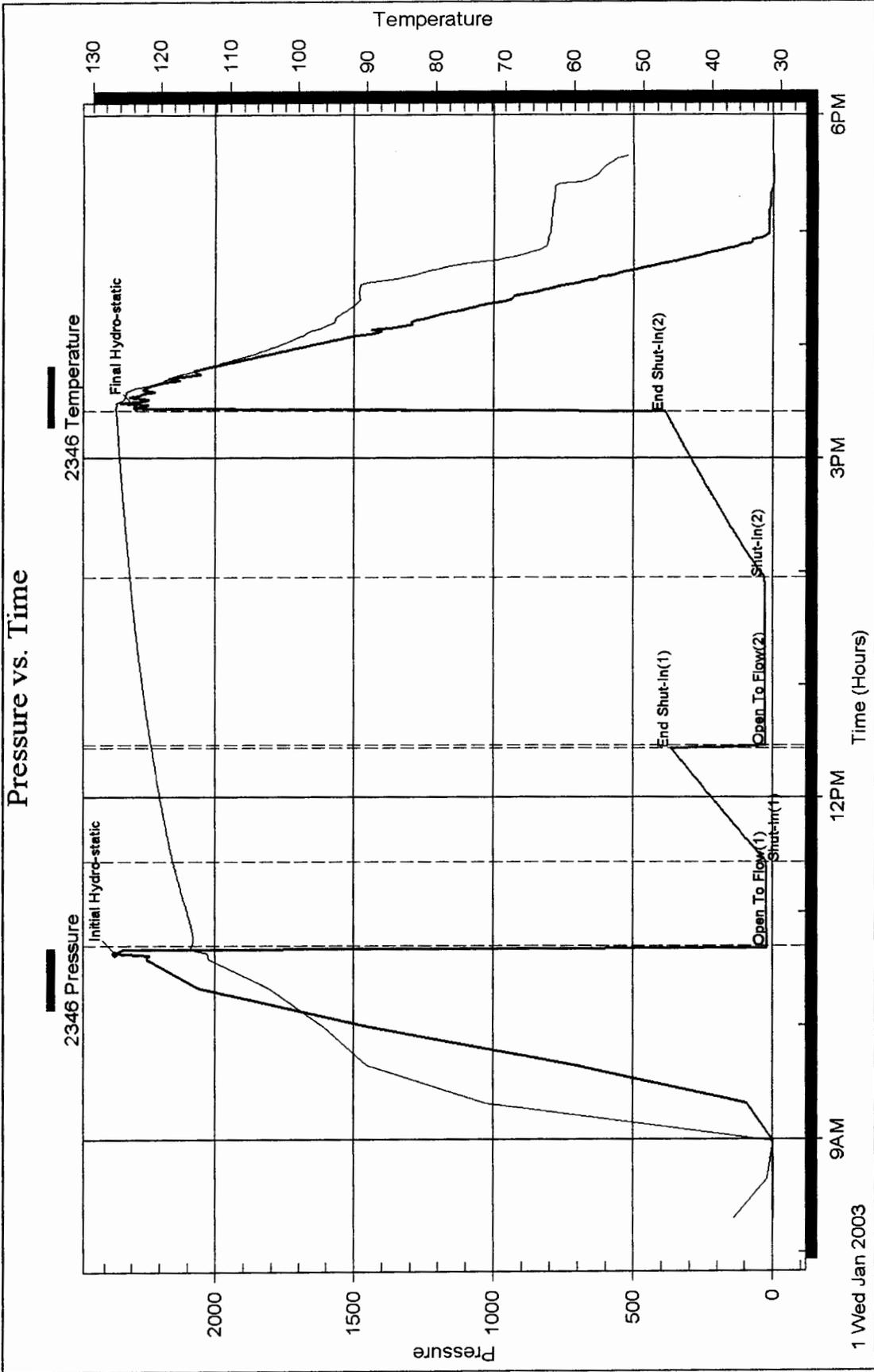
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Show of free oil @ tool.

Pressure vs. Time



1 Wed Jan 2003



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Lotus Operating,co.LLC**

914 E.Douglas
Wichita,Ks.
67202

ATTN: Tim Hellman

8-29S-15W Pratt KS

Hanwit #1

Start Date: 2003.01.02 @ 01:19:02

End Date: 2003.01.02 @ 13:41:32

Job Ticket #: 16607 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Lotus Operating,co.LLC

Hanwit #1

8-29S-15W Pratt KS

DST # 5

Smpson Dolomite

2003.01.02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202

8-29S-15W Pratt KS

Job Ticket: 16607

DST#: 5

ATTN: Tim Hellman

Test Start: 2003.01.02 @ 01:19:02

GENERAL INFORMATION:

Formation: **Smpson Dolomite**

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

Time Tool Opened: 05:06:02

Time Test Ended: 13:41:32

Test Type: **Conventional Bottom Hole**

Tester: **Darren L.Amerine**

Unit No: **19**

Interval: **4676.00 ft (KB) To 4710.00 ft (KB) (TVD)**

Total Depth: **4710.00 ft (KB) (TVD)**

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

Reference Elevations: **1998.00 ft (KB)**

1990.00 ft (CF)

KB to GR/CF: **8.00 ft**

Serial #: 2346 **Inside**

Press@RunDepth: **844.39 psig @ 4681.00 ft (KB)**

Start Date: **2003.01.02**

End Date: **2003.01.02**

Start Time: **01:20:04**

End Time: **13:41:32**

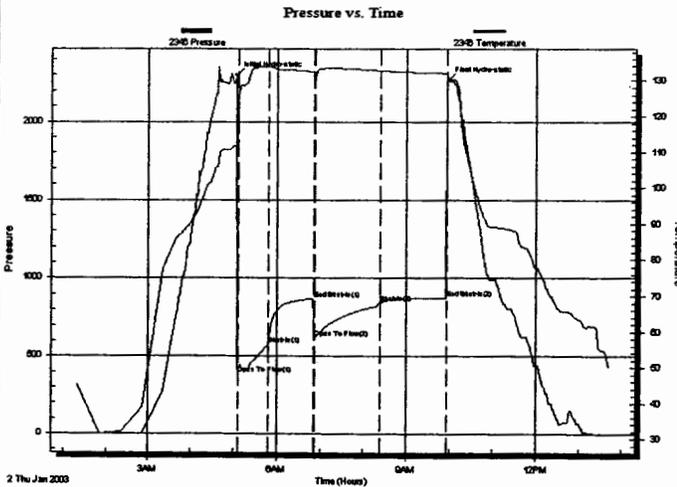
Capacity: **7000.00 psig**

Last Calib.: **2003.01.03**

Time On Btm: **2003.01.02 @ 05:03:32**

Time Off Btm: **2003.01.02 @ 09:57:32**

TEST COMMENT: F:Strong blow b.o.b of diesel in 30 sec.
IS:Bled down for 5 mins.built back to 1-1/2" in diesel bucket.
FF:Strong blow b.o.b of diesel in 80 sec.
FS:Bled down for 5 mins.GTS 10 mins.into shut in,



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2298.79	111.93	Initial Hydro-static
3	385.46	120.22	Open To Flow (1)
45	576.60	133.88	Shut-in(1)
108	869.92	132.51	End Shut-in(1)
110	619.06	131.01	Open To Flow (2)
199	844.39	132.85	Shut-in(2)
292	876.93	132.11	End Shut-in(2)
294	2263.32	130.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3989.00	01 - Gas	55.96
150.00	153 - Salt Water	2.10
360.00	SG&WCO	5.05
183.00	SG&W&OCM	2.57

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas
Wichita,Ks.
67202

8-29S-15W Pratt KS

Job Ticket: 16607

DST#: 5

ATTN: Tim Hellman

Test Start: 2003.01.02 @ 01:19:02

Tool Information

Drill Pipe:	Length: 4683.00 ft	Diameter: 3.80 inches	Volume: 65.69 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: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume:	65.69 bbl	Tool Chased 8.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	4676.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	57.00 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			4654.00	
S.I. Tool	5.00			4659.00	
HMV	5.00			4664.00	
Safety Joint	2.00			4666.00	
Packer	5.00			4671.00	23.00 Bottom Of Top Packer
Packer	5.00			4676.00	
Stubb	1.00			4677.00	
Anchor	4.00			4681.00	
Recorder	0.00	2346	Inside	4681.00	
Anchor	26.00			4707.00	
Recorder	0.00	10991	Outside	4707.00	
Bullnose	3.00			4710.00	34.00 Bottom Packers & Anchor

Total Tool Length: 57.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Lotus Operating,co.LLC

Hanwit #1

914 E.Douglas

8-29S-15W Pratt KS

Wichita,Ks.

Job Ticket: 16607

DST#: 5

67202

ATTN: Tim Hellman

Test Start: 2003.01.02 @ 01:19:02

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

25000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.38 in³

Gas Cushion Type:

Resistivity: 0.90 ohm.m

Gas Cushion Pressure:

psig

Salinity: 6000.00 ppm

Filter Cake: 0.32 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3989.00	01 - Gas	55.955
150.00	153 - Salt Water	2.104
360.00	SG&WCO	5.050
183.00	SG&W&OCM	2.567

Total Length: 4682.00 ft

Total Volume: 65.676 bbl

Num Fluid Samples: 0

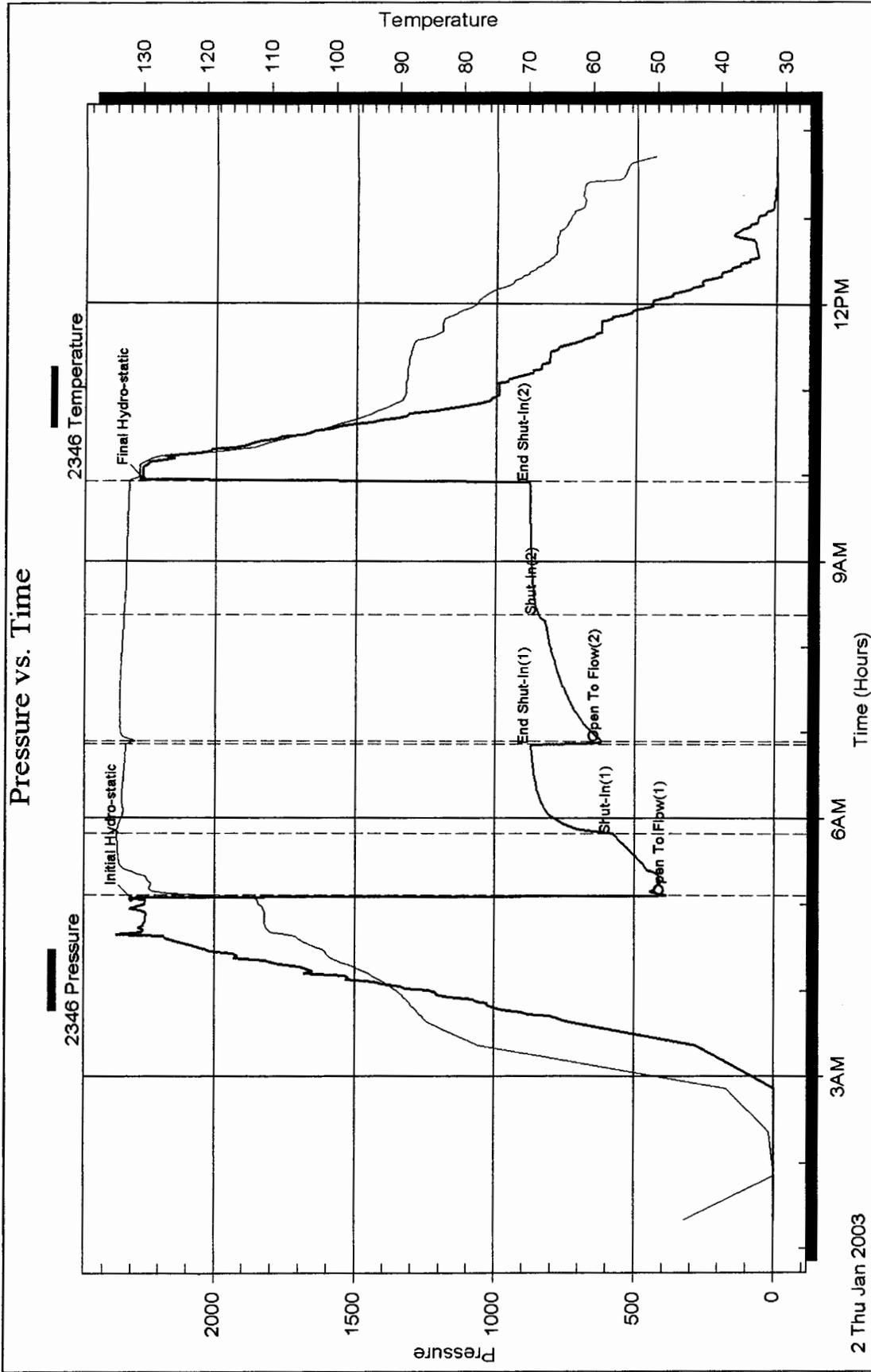
Num Gas Bombs: 0

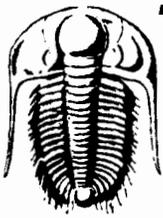
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 0.5@50 degrees=25000/





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16603

Test Ticket

Well Name & No. #1 Hanwit Test No. #1 Date 12-28-02
 Company Lotus Operating Co, LLC Zone Tested Drum
 Address 914 E Douglas Wichita, Ks. 67202 Elevation 1998 KB 1990 GL
 Co. Rep / Geo. Tim Hellman Cont. Duke #8 Est. Ft. of Pay Por. %
 Location: Sec. 8 Twp. 29S Rge. 15W Co. Platt State KS
 No. of Copies 5 Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 4210' - 4230' Initial Str Wt./Lbs. 42000 Unseated Str Wt./Lbs. 42000
 Anchor Length 20' Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 45000
 Top Packer Depth 4205' Tool Weight 2100
 Bottom Packer Depth 4210' Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 4230' Wt. Pipe Run N/A Drill Collar Run N/A
 Mud Wt. 9.3 LCM Vis. 54 WL 8.8 Drill Pipe Size 4 1/2 x H Ft. Run 4193.0

Blow Description IF: Fair blow built to b.o.b in 33 mins.
ISI: Bled down for 5 mins no blow back.
FF: Strong blow p.o. b in 30 sec.
FST: Bled down for 10 mins. No blow back.

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>30'</u>	<u>1100'</u>	<u>N/A</u>	<u>30'</u>
Rec. <u>30'</u> Feet Of <u>650CM</u>		<u>20% gas</u> <u>10% oil</u>	<u>% water</u> <u>70% mud</u>
Rec. <u>1100'</u> Feet Of <u>GIP</u>		<u>% gas</u> <u>% oil</u>	<u>% water</u> <u>% mud</u>
Rec. <u> </u> Feet Of <u> </u>		<u>% gas</u> <u>% oil</u>	<u>% water</u> <u>% mud</u>
Rec. <u> </u> Feet Of <u> </u>		<u>% gas</u> <u>% oil</u>	<u>% water</u> <u>% mud</u>
Rec. <u> </u> Feet Of <u> </u>		<u>% gas</u> <u>% oil</u>	<u>% water</u> <u>% mud</u>

BHT 117 °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 5800 ppm System

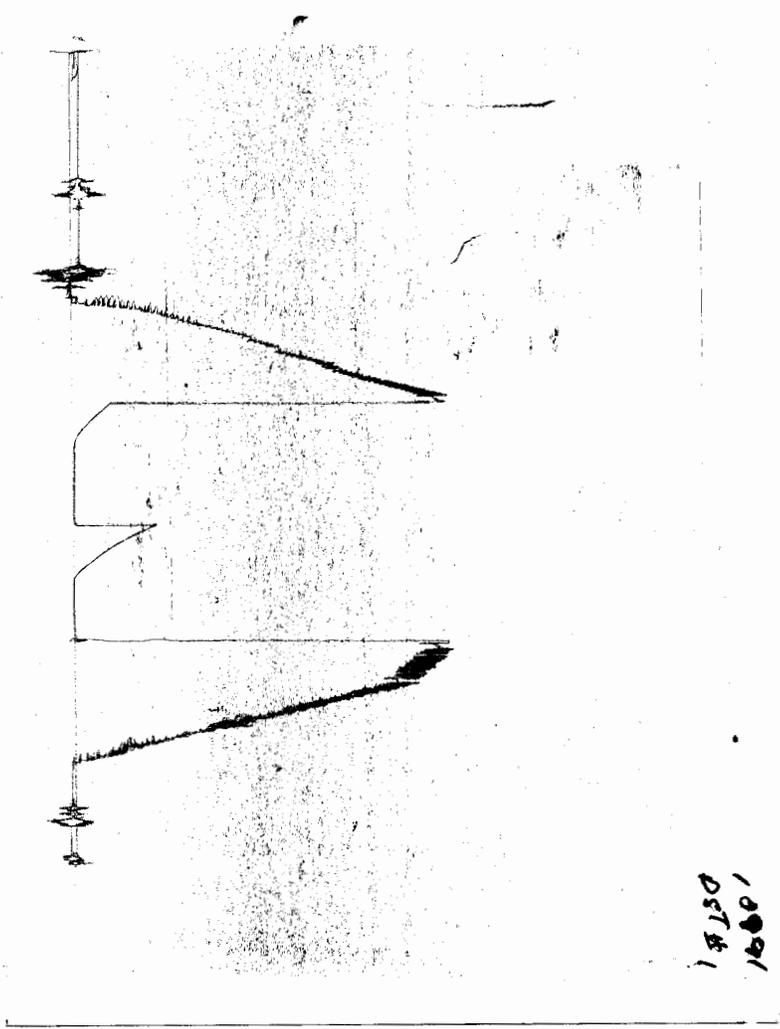
	AK-1	Alpine	PSI Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>2114</u>	<u>2346</u>	<u>2330</u>
(B) First Initial Flow Pressure		<u>15</u>	(depth)	T-Started <u>0038</u>
(C) First Final Flow Pressure		<u>15</u>	PSI Recorder No. <u>10991</u>	T-Open <u>0350</u>
(D) Initial Shut-in Pressure		<u>512</u>	(depth)	T-Pulled <u>0720</u>
(E) Second Initial Flow Pressure		<u>14</u>	PSI Recorder No. <u> </u>	T-Out <u>0924</u>
(F) Second Final Flow Pressure		<u>20</u>	(depth)	T-Off Location <u>1015</u>
(G) Final Shut-in Pressure		<u>703</u>	PSI Initial Opening <u>45</u>	Test <u> </u>
(Q) Final Hydrostatic Mud		<u>2045</u>	PSI Initial Shut-in <u>45</u>	Jars <u> </u>
			Final Flow <u>60</u>	Safety Joint <input checked="" type="checkbox"/>
			Final Shut-in <u>60</u>	Straddle <u> </u>
				Circ. Sub <u> </u>
				Sampler <u> </u>
				Extra Packer <u> </u>
				Elec. Rec. <input checked="" type="checkbox"/>
				Mileage <u>18</u>
				Other <u> </u>
				TOTAL PRICE \$ <u> </u>

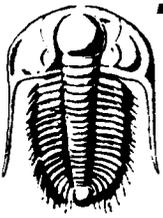
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Approved By [Signature]
 Our Representative Darren L. Amerson

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16604

Test Ticket

Well Name & No. #1 Hanwit Test No. #2 Date 12-29-02
 Company Lotus Operating Co. LLC Zone Tested Lansing J
 Address 914 E. Douglas Wichita, Ks. 67202 Elevation 1998 KB 1990 GL
 Co. Rep / Geo. Tim Hellman Cont. Duke #8 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 8 Twp. 29S Rge. 15W Co. Pratt State Ks
 No. of Copies 5 Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 4297' - 4325' Initial Str Wt./Lbs. 4300 Unseated Str Wt./Lbs. 49000
 Anchor Length 28' Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 60000
 Top Packer Depth 4292' Tool Weight 2100
 Bottom Packer Depth 4297' Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 4325 Wt. Pipe Run N/A Drill Collar Run N/A
 Mud Wt. 9.4 LCM 0 Vis. 54 WL 9.2 Drill Pipe Size 4 1/2 x 4 Ft. Run _____

Blow Description FF! Strong blow b.o.b in 15 sec. BTS in 3 1/2 mins. Gauge Gas.
IST! Bled down for 5 mins back off bottom in 2 mins.
FF! Fair blow built to b.o.b in 1 min. Gauge Gas.
FST! Bled down for 10 mins Oil to surface

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>4282</u>	<u>GCO</u>	<u>N/A</u>	<u>4282</u>
Rec. <u>4162</u> Feet Of <u>fuel Oil</u>	%gas	%oil	%water %mud
Rec. <u>120</u> Feet Of <u>4168 OCM</u>	<u>30</u> %gas	<u>25</u> %oil	%water <u>45</u> %mud
Rec. _____ Feet Of _____	%gas	%oil	%water %mud
Rec. _____ Feet Of _____	%gas	%oil	%water %mud
Rec. _____ Feet Of _____	%gas	%oil	%water %mud
BHT <u>130°</u> °F Gravity <u>38</u> °API D@ _____ °F Corrected Gravity _____ °API			
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides <u>4780</u> ppm System			

	AK-1	Alpine	PSI Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>2107</u>	<u>2107</u>	<u>2346</u>	<u>2030</u>
(B) First Initial Flow Pressure	<u>184</u>	<u>184</u>	(depth) <u>4298'</u>	T-Started <u>0931</u>
(C) First Final Flow Pressure	<u>414</u>	<u>414</u>	PSI Recorder No. <u>10991</u>	T-Open <u>2240</u>
(D) Initial Shut-In Pressure	<u>1359</u>	<u>1359</u>	(depth) <u>4322'</u>	T-Pulled <u>0257</u>
(E) Second Initial Flow Pressure	<u>466</u>	<u>466</u>	PSI Recorder No. _____	T-Out <u>0824</u>
(F) Second Final Flow Pressure	<u>725</u>	<u>725</u>	(depth) _____	T-Off Location <u>0930</u>
(G) Final Shut-in Pressure	<u>1337</u>	<u>1337</u>	PSI Initial Opening <u>45</u>	Test <input checked="" type="checkbox"/>
(Q) Final Hydrostatic Mud	<u>2033</u>	<u>2033</u>	PSI Initial Shut-in <u>60</u>	Jars _____
			Final Flow <u>60</u>	Safety Joint <input checked="" type="checkbox"/>
			Final Shut-in <u>90</u>	Straddle _____
				Circ. Sub <input checked="" type="checkbox"/>
				Sampler _____
				Extra Packer _____
				Elec. Rec. <input checked="" type="checkbox"/>
				Mileage _____
				Other _____
				TOTAL PRICE \$ _____

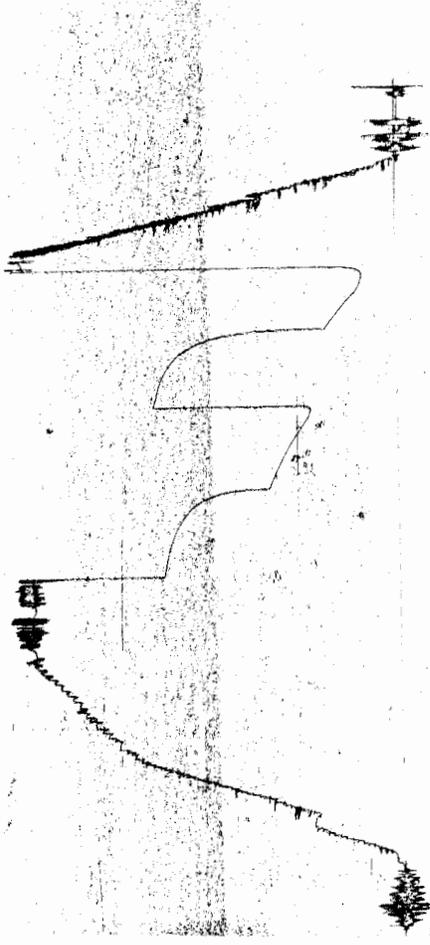
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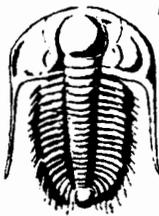
Approved By [Signature]
 Our Representative [Signature]

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart

10991
DST #2





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16605

Test Ticket

Well Name & No. #1 Hamwit Test No. #3 Date 12-31-02
 Company Lotus Operating Co. LLC Zone Tested Miss. Chert / Kind Chert #2/1
 Address 914 E. Douglas Wichita, KS 67202 Elevation 1998 KB 1990 GL
 Co. Rep / Geo. Tim Hellman Cont. Duke #8 Est. Ft. of Pay _____ Por. _____ %
 Location: Sec. 8 Twp. 29S Rge. 15W Co. Platt State KS
 No. of Copies 5 Distribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 4520' - 4623' Initial Str Wt./Lbs. 48000 Unseated Str Wt./Lbs. 48000
 Anchor Length 103' Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 55000
 Top Packer Depth 4515' Tool Weight 2100
 Bottom Packer Depth 4520' Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 4623' Wt. Pipe Run N/A Drill Collar Run N/A
 Mud Wt. 9.3 LCM 0 Vis. 52 WL 9.6 Drill Pipe Size 4 1/2 x 4 Ft. Run 4589'

Blow Description IF: Fair blow built to b.o. over 5 mins.
1ST: Bled down for 10 mins No blow back.
ET: Strong blow b.o. in 15 sec. BTS in 10 mins Gauge Gas
EST: Bled down for 15 mins. No blow back.

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>40'</u>	<u>4488'</u>	<u>N/A</u>	<u>40'</u>
Rec. <u>40'</u> Feet Of <u>SGCN</u>		<u>10% gas</u>	<u>%oil</u> <u>%water</u> <u>90% mud</u>
Rec. <u>4488'</u> Feet Of <u>GIP</u>		<u>%gas</u>	<u>%oil</u> <u>%water</u> <u>%mud</u>
Rec. _____ Feet Of _____		<u>%gas</u>	<u>%oil</u> <u>%water</u> <u>%mud</u>
Rec. _____ Feet Of _____		<u>%gas</u>	<u>%oil</u> <u>%water</u> <u>%mud</u>
Rec. _____ Feet Of _____		<u>%gas</u>	<u>%oil</u> <u>%water</u> <u>%mud</u>

BHT 125° °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 7000 ppm System

	AK-1	Alpine	PSI Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>2254</u>	<u>2346</u>	<u>1130</u>
(B) First Initial Flow Pressure		<u>20</u>	(depth) <u>4521'</u>	T-Started <u>1156</u>
(C) First Final Flow Pressure		<u>24</u>	PSI Recorder No. <u>10991</u>	T-Open <u>1457</u>
(D) Initial Shut-In Pressure		<u>371</u>	(depth) <u>4620'</u>	T-Pulled <u>1942</u>
(E) Second Initial Flow Pressure		<u>28</u>	PSI Recorder No. _____	T-Out <u>2157</u>
(F) Second Final Flow Pressure		<u>31</u>	(depth) _____	T-Off Location <u>2230</u>
(G) Final Shut-in Pressure		<u>361</u>	PSI Initial Opening <u>45</u>	Test <input checked="" type="checkbox"/> <u>800</u>
(Q) Final Hydrostatic Mud		<u>2201</u>	PSI Initial Shut-in <u>60</u>	Jars _____
			Final Flow <u>90</u>	Safety Joint <input checked="" type="checkbox"/> <u>50</u>
			Final Shut-in <u>90</u>	Straddle _____
				Circ. Sub _____
				Sampler _____
				Extra Packer _____
				Elec. Rec. <input checked="" type="checkbox"/> <u>150</u>
				Mileage <u>18</u>
				Other <u>1.5</u> <u>45</u>

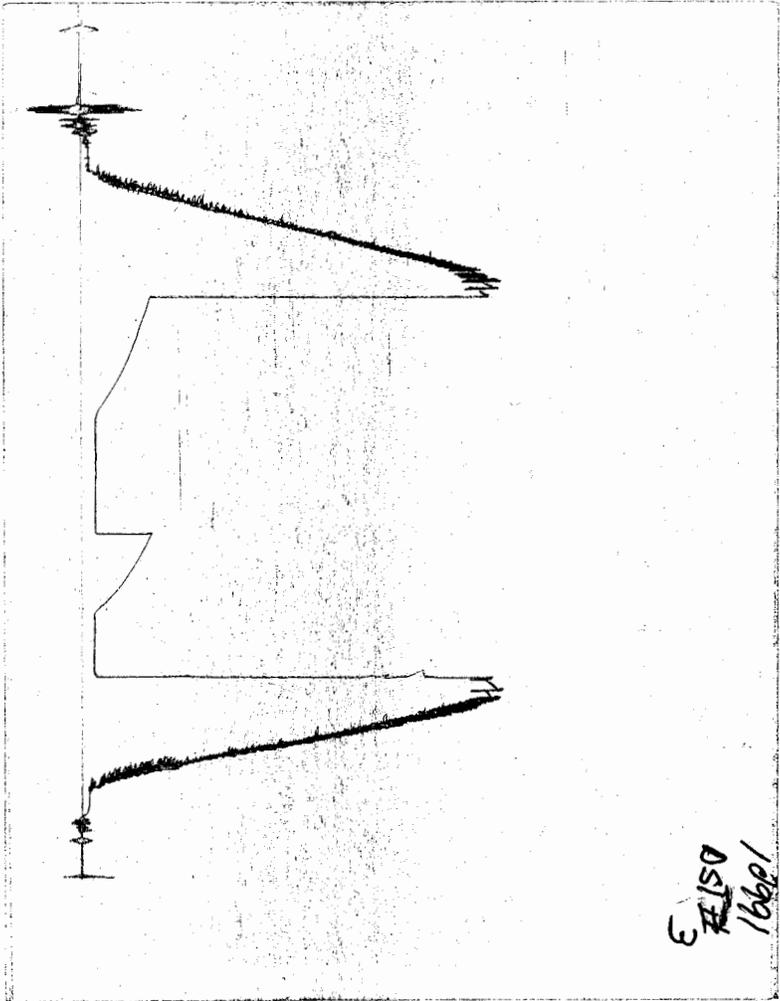
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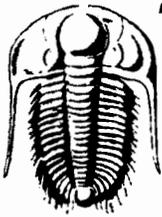
Approved By [Signature]
 Our Representative Darren [Signature]

TOTAL PRICE \$ _____
 1018
 1063

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16606

Test Ticket

Well Name & No. #1 Hanwit Test No. #4 Date 1-1-03
 Company Lotus Operating Co, LLC Zone Tested Viola
 Address 914 E. Douglas Wichita, Ks. 67202 Elevation 1998 KB 1990 GL
 Co. Rep / Geo. Tim Hellman Cont. Duke #8 Est. Ft. of Pay Por. %
 Location: Sec. 8 Twp. 29^s Rge. 15^w Co. Pratt State Ks
 No. of Copies 5 Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 4630 - 4676 Initial Str Wt./Lbs. 46000 Unseated Str Wt./Lbs. 46000
 Anchor Length 46 Wt. Set Lbs. 20000 Wt. Pulled Loose/Lbs. 55000
 Top Packer Depth 4625 Tool Weight 2100
 Bottom Packer Depth 4630 Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓
 Total Depth 4676 Wt. Pipe Run N/A Drill Collar Run N/A
 Mud Wt. 9.4 LCM 1 1/2 Vis. 53 WL 10.4 Drill Pipe Size 4 1/2 X 17 Ft. Run 4618'

Blow Description IF: Weak blow built to b.o.p in 19 mins. Diesel bucket!
ISI: Bled down for 10 mins. No blow back.
FF: Strong blow bottom of diesel bucket in 15 sec.
FST: Bled down for 10 mins. No blow back.

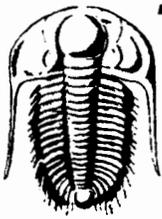
Recovery — Total Feet 35' GIP 1500' Ft. in DC Ft. in DP
 Rec. 35' Feet Of SOCGM %gas 4 %oil 2 %water 4 %mud 4
 Rec. 1500 Feet Of GIP %gas %oil %water %mud
 Rec. Feet Of Show of free oil @ total %gas %oil %water %mud
 Rec. Feet Of %gas %oil %water %mud
 Rec. Feet Of %gas %oil %water %mud
 BHT 127' °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 6000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>2358</u>		<u>2346</u>	<u>0800</u>
(B) First Initial Flow Pressure		<u>20</u>		(depth) <u>4638'</u>	T-Started <u>0816</u>
(C) First Final Flow Pressure		<u>23</u>		Recorder No. <u>10991</u>	T-Open <u>1043</u>
(D) Initial Shut-In Pressure		<u>366</u>		(depth) <u>4673'</u>	T-Pulled <u>1528</u>
(E) Second Initial Flow Pressure		<u>23</u>		Recorder No. <u> </u>	T-Out <u>1738</u>
(F) Second Final Flow Pressure		<u>29</u>		(depth) <u> </u>	T-Off Location <u>1830</u>
(G) Final Shut-in Pressure		<u>387</u>		Initial Opening <u>45</u>	Test <u> </u> <u>800</u>
(Q) Final Hydrostatic Mud		<u>2283</u>		Initial Shut-in <u>60</u>	Jars <u> </u>
				Final Flow <u>90</u>	Safety Joint <u> </u> <u>50</u>
				Final Shut-in <u>90</u>	Straddle <u> </u>
					Circ. Sub <u> </u>
					Sampler <u> </u>
					Extra Packer <u> </u>
					Elec. Rec. <u> </u> <u>150</u>
					Mileage <u> </u> <u>18</u>
					Other <u> </u> <u>15</u>

TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE. OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Approved By [Signature]
 Our Representative Darren J. Amrine

TOTAL PRICE \$
1018
1033



TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 16607

Test Ticket

Well Name & No. #1 Hanwit Test No. #5 Date 1-2-03
 Company Lotus Operating Company, LLC Zone Tested Simpson, Dolomite
 Address 914 E. Douglas Wichita, KS 67202 Elevation 1998 KB 1990 GL
 Co. Rep / Geo. Tim Hellman Cont. Duke #8 Est. Ft. of Pay Por. %
 Location: Sec. 8 Twp. 29S Rge. 15W Co. Pratt State KS
 No. of Copies 5 Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 4676' - 4710' Initial Str Wt./Lbs. 4600 Unseated Str Wt./Lbs. 54,000
 Anchor Length 34' Wt. Set Lbs. 2100 Wt. Pulled Loose/Lbs. 79000
 Top Packer Depth 4671' Tool Weight 2100
 Bottom Packer Depth 4676' Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 4710' Wt. Pipe Run N/A Drill Collar Run N/A
 Mud Wt. 9.2 LCM 2# Vis. 48 WL 10.4 Drill Pipe Size 4 1/2 XH Ft. Run 4683'

Blow Description IF: Strong blow b.o.b diesel in 30 sec.
IST: Bled down for 5 mins. built back to 1 1/2 in diesel bucket.
FF: Strong blow built to b.o.b of diesel in 80 sec.
FSI: Bled down for 5 mins. BTS 10 mins into shut in bobin 4 mins

Recovery — Total Feet	GIP	Ft. in DC	Ft. in DP
<u>693</u>	<u>3989</u>	<u>N/C</u>	<u>693'</u>
Rec. <u>183'</u> Feet Of <u>SGFWOCM</u>	<u>10</u> %gas <u>40</u> %oil <u>10</u> %water <u>40</u> %mud		
Rec. <u>360'</u> Feet Of <u>SGFWCO</u>	<u>10</u> %gas <u>80</u> %oil <u>10</u> %water <u> </u> %mud		
Rec. <u>150'</u> Feet Of <u>Salt water</u>	<u> </u> %gas <u> </u> %oil <u>100</u> %water <u> </u> %mud		
Rec. <u> </u> Feet Of <u> </u>	<u> </u> %gas <u> </u> %oil <u> </u> %water <u> </u> %mud		
Rec. <u> </u> Feet Of <u> </u>	<u> </u> %gas <u> </u> %oil <u> </u> %water <u> </u> %mud		

BHT 132° °F Gravity 36 °API D@ °F Corrected Gravity °API
 RW 0.5 @ 50 °F Chlorides 25,000 ppm Recovery Chlorides 6,000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>2299</u>	<u>2346</u>		<u>2346</u>	<u>0045</u>
(B) First Initial Flow Pressure	<u>385</u>	<u>4681'</u>		<u>4681'</u>	<u>0119</u>
(C) First Final Flow Pressure	<u>577</u>	<u>10991</u>		<u>10991</u>	<u>0510</u>
(D) Initial Shut-In Pressure	<u>870</u>	<u>4707'</u>		<u>4707'</u>	<u>0955</u>
(E) Second Initial Flow Pressure	<u>619</u>	<u> </u>		<u> </u>	<u>1341</u>
(F) Second Final Flow Pressure	<u>844</u>	<u> </u>		<u> </u>	<u>1415</u>
(G) Final Shut-in Pressure	<u>877</u>	<u>45</u>		<u>45</u>	<u>800</u>
(Q) Final Hydrostatic Mud	<u>2263</u>	<u>60</u>		<u>60</u>	<u> </u>
		Final Flow <u>90</u>		Safety Joint <u>50</u>	
		Final Shut-in <u>90</u>		Straddle <u> </u>	
				Circ. Sub <u> </u>	
				Sampler <u> </u>	
				Extra Packer <u> </u>	
				Elec. Rec. <u>150</u>	
				Mileage <u>18</u>	
				Other <u>4 hrs 120</u>	
				TOTAL PRICE \$ <u> </u>	

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Approved By [Signature]
 Our Representative Darren L. Smirne

Mileage 18
 Other 4 hrs 120
 TOTAL PRICE \$

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart

