

DRILL STEM TEST REPORT

Prepared For: **Osborn Heirs Co.**

P.O. Box 17968
San Antonio, TX 78217-0968

ATTN: Osborn Heirs Co.

26-21s-38w KearneyKs

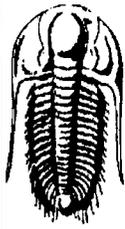
Martin #1

Start Date: 2001.12.01 @ 11:04:05

End Date: 2001.12.01 @ 19:42:04

Job Ticket #: 15008 DST #: 1

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Osborn Heirs Co.
P.O. Box 17968
San Antonio, TX 78217-0968
ATTN: Osborn Heirs Co.

Martin #1
26-21s-38w KearneyKs
Job Ticket: 15008 **DST#: 1**
Test Start: 2001.12.01 @ 11:04:05

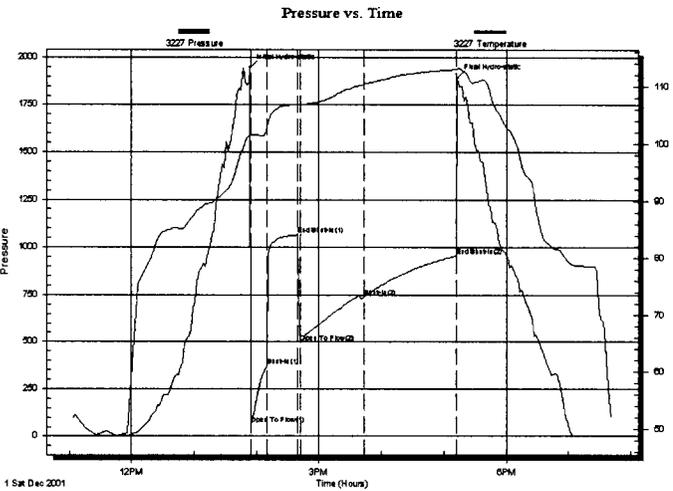
GENERAL INFORMATION:

Formation: **KC "D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:55:04
Time Test Ended: 19:42:04
Test Type: Conventional Bottom Hole
Tester: Shane McBride
Unit No: 15
Interval: **4002.00 ft (KB) To 4062.00 ft (KB) (TVD)**
Reference Elevations: 3369.00 ft (KB)
Total Depth: 4062.00 ft (KB) (TVD) 3357.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 12.00 ft

Serial #: 3227

Press@RunDepth: 738.68 psig @ 4003.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2001.12.01 End Date: 2001.12.01 Last Calib.: 1899.12.30
Start Time: 11:04:05 End Time: 19:42:04 Time On Btm: 2001.12.01 @ 13:54:04
Time Off Btm: 2001.12.01 @ 17:13:04

TEST COMMENT: B.O.B in 3 min.
No Return
B.O.B in 5 min



PRESSURE SUMMARY

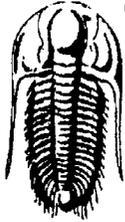
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1944.78	101.42	Initial Hydro-static
1	64.98	101.41	Open To Flow (1)
16	370.14	102.90	Shut-In(1)
45	1064.44	106.90	End Shut-In(1)
48	497.77	106.88	Open To Flow (2)
109	738.68	110.35	Shut-In(2)
198	956.55	112.97	End Shut-In(2)
199	1892.71	113.10	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
240.00	M C W 35%M 65% W	1.18
806.00	water 100%w	7.54

Gas Rates

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



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TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Osborn Heirs Co.
P.O. Box 17968
San Antonio, TX 78217-0968
ATTN: Osborn Heirs Co.

Martin #1
26-21s-38w KearneyKs
Job Ticket: 15008 **DST#: 1**
Test Start: 2001.12.01 @ 11:04:05

Tool Information

Drill Pipe:	Length: 3337.00 ft	Diameter: 3.80 inches	Volume: 46.81 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: 30000.00 lb
Drill Collar:	Length: 653.00 ft	Diameter: 2.25 inches	Volume: 3.21 bbl	Weight to Pull Loose: 110000.0 lb
			<u>Total Volume: 50.02 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 77000.00 lb
Depth to Top Packer:	4002.00 ft			Final 86000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	90.00 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			3973.00	
S.I. Tool	5.00			3978.00	
Sampler	3.00			3981.00	
HMV	5.00			3986.00	
Jars	5.00			3991.00	
Safety Joint	2.00			3993.00	
Packer	5.00			3998.00	30.00 Bottom Of Top Packer
Packer	4.00			4002.00	
Stubb	1.00			4003.00	
Recorder	0.00	3227		4003.00	
Perforations	21.00			4024.00	
C.O. Sub	1.00			4025.00	
drillpipe	31.00			4056.00	
C.O. Sub	1.00			4057.00	
Recorder	0.00	11057		4057.00	
Bullnose	5.00			4062.00	60.00 Bottom Packers & Anchor
Total Tool Length:	90.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Osborn Heirs Co.
P.O. Box 17968
San Antonio, TX 78217-0968
ATTN: Osborn Heirs Co.

Martin #1
26-21s-38w KearneyKs
Job Ticket: 15008 **DST#: 1**
Test Start: 2001.12.01 @ 11:04:05

Mud and Cushion Information

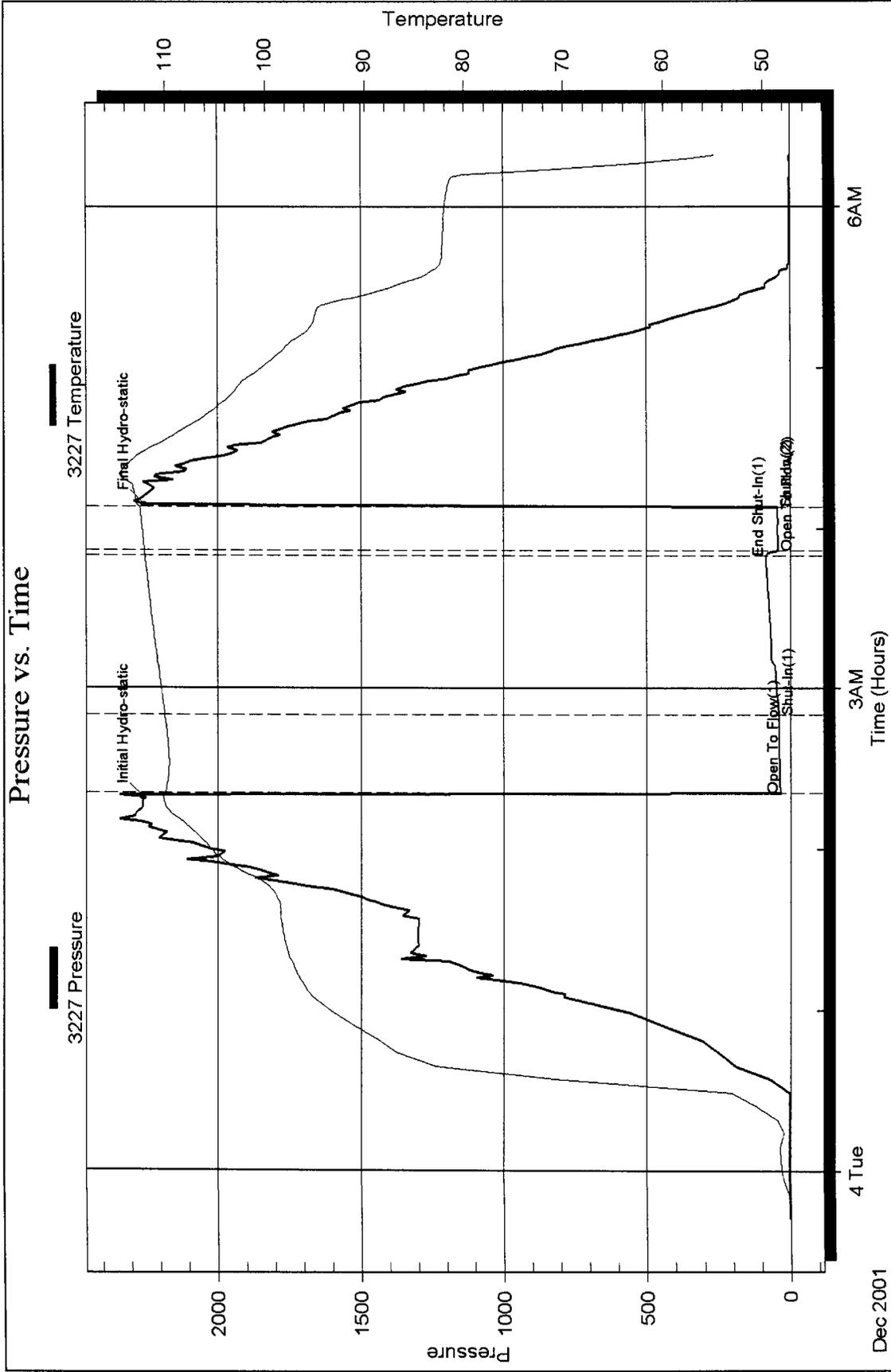
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	34000 ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.75 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3100.00 ppm			
Filter Cake: 1.00 inches			

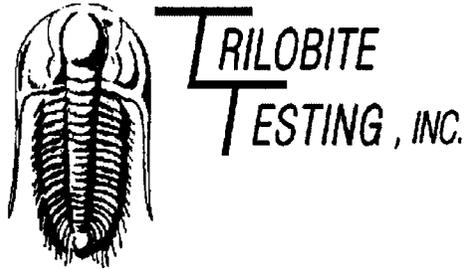
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
240.00	MCW 35%M 65% W	1.180
806.00	water 100%w	7.544

Total Length: 1046.00 ft Total Volume: 8.724 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: 4,000ml water in sampler
 760 psi.





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Prepared For: **Osborn Heirs Co.**

P.O. Box 17968
San Antonio, TX 78217-0968

ATTN: Osborn Heirs Co.

26-21s-38w KearneyKs

Martin #1

Start Date: 2001.12.03 @ 23:41:53

End Date: 2001.12.04 @ 06:18:52

Job Ticket #: 15009 DST #: 2

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



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DRILL STEM TEST REPORT

Osborn Heirs Co.
P.O. Box 17968
San Antonio, TX 78217-0968
ATTN: Osborn Heirs Co.

Martin #1
26-21s-38w KearneyKs
Job Ticket: 15009 **DST#: 2**
Test Start: 2001.12.03 @ 23:41:53

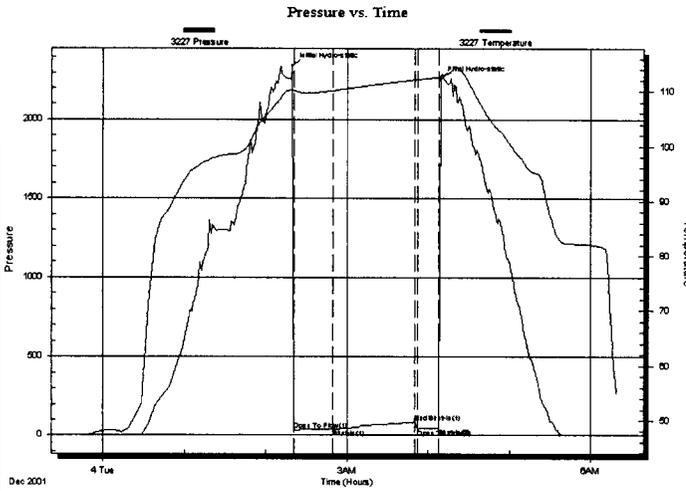
GENERAL INFORMATION:

Formation: **morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:20:52
Time Test Ended: 06:18:52
Interval: **4676.00 ft (KB) To 4750.00 ft (KB) (TVD)**
Total Depth: 4750.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Shane McBride
Unit No: 15
Reference Elevations: 3369.00 ft (KB)
3357.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 3227

Press@RunDepth: 38.84 psig @ 4677.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2001.12.03 End Date: 2001.12.04 Last Calib.: 1899.12.30
Start Time: 23:41:53 End Time: 06:18:52 Time On Btm: 2001.12.04 @ 02:19:52
Time Off Btm: 2001.12.04 @ 04:08:52

TEST COMMENT: 1/2" in. @ open blew throughout
No return
No blow -pull tool after 15 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2340.41	110.26	Initial Hydro-static
1	33.74	110.02	Open To Flow (1)
30	38.84	110.08	Shut-In(1)
90	84.77	112.08	End Shut-In(1)
92	41.79	112.13	Open To Flow (2)
108	43.07	112.55	Shut-In(2)
109	2255.16	112.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	drilling mud 100%m	0.02

Gas Rates

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



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TOOL DIAGRAM

Osborn Heirs Co.
P.O. Box 17968
San Antonio, TX 78217-0968
ATTN: Osborn Heirs Co.

Martin #1
26-21s-38w KearneyKs
Job Ticket: 15009 **DST#: 2**
Test Start: 2001.12.03 @ 23:41:53

Tool Information

Drill Pipe:	Length: 4026.00 ft	Diameter: 3.80 inches	Volume: 56.47 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: 30000.00 lb
Drill Collar:	Length: 653.00 ft	Diameter: 2.25 inches	Volume: 3.21 bbl	Weight to Pull Loose: 105000.0 lb
			<u>Total Volume: 59.68 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4676.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	74.00 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
C.O. Sub	1.00			4647.00	
S.I. Tool	5.00			4652.00	
Sampler	3.00			4655.00	
HMV	5.00			4660.00	
Jars	5.00			4665.00	
Safety Joint	2.00			4667.00	
Packer	5.00			4672.00	30.00 Bottom Of Top Packer
Packer	4.00			4676.00	
Stubb	1.00			4677.00	
Recorder	0.00	3227		4677.00	
Perforations	5.00			4682.00	
C.O. Sub	1.00			4683.00	
drillpipe	61.00			4744.00	
C.O. Sub	1.00			4745.00	
Recorder	0.00	11057		4745.00	
Bullnose	5.00			4750.00	74.00 Bottom Packers & Anchor
Total Tool Length:	104.00				



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Martin #1
26-21s-38w KearneyKs
Job Ticket: 15009 **DST#: 2**
Test Start: 2001.12.03 @ 23:41:53

Mud and Cushion Information

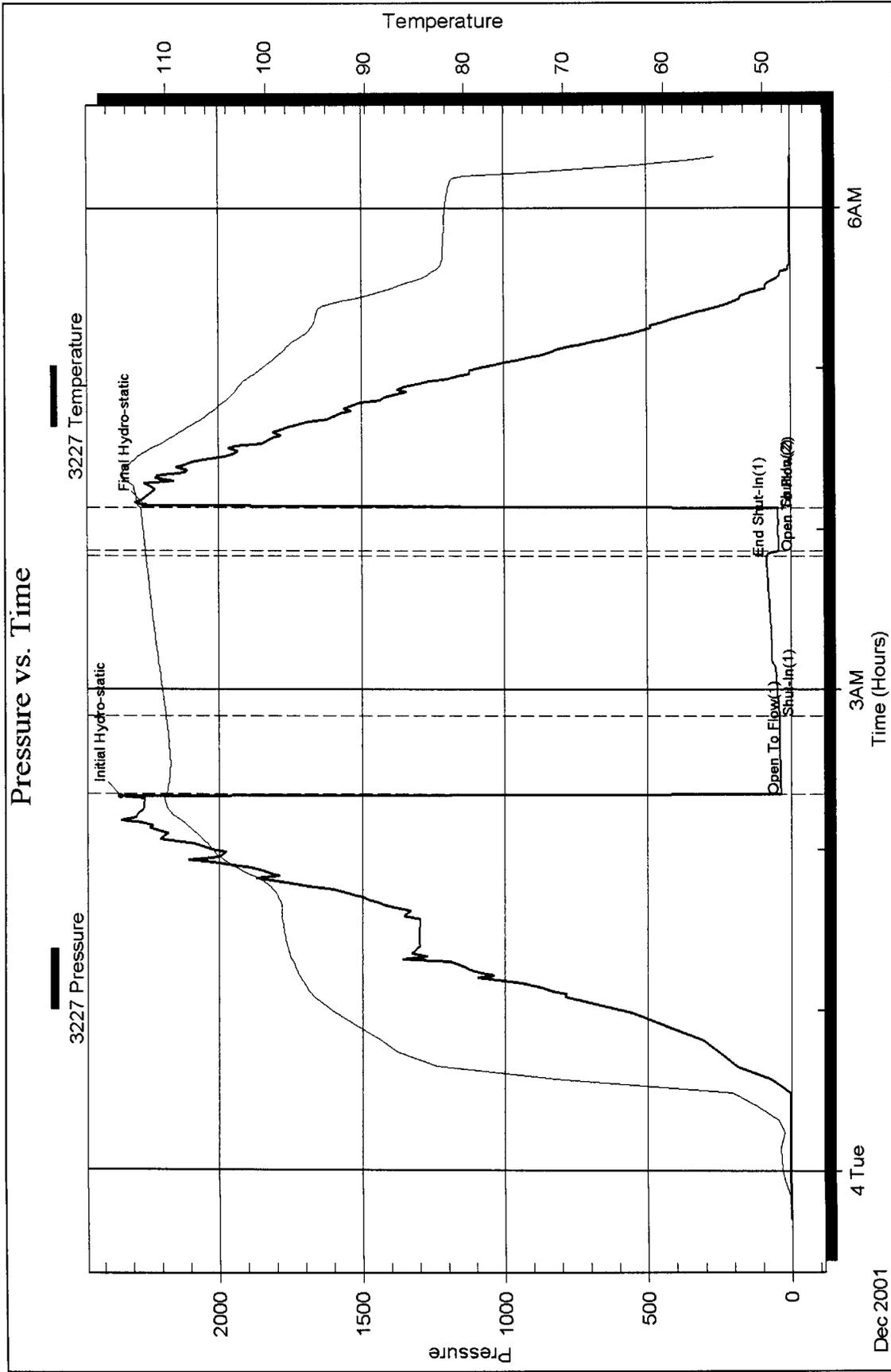
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.18 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2900.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	drilling mud 100%m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: 4,000 ml drilling mud in sampler
 20 psi.



TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 15008 Date 12-1-01
Company Name Osborn Heins Comp.
Lease Martin #1 Test No. #1
County Kearney, Ks Sec. 26 Twp. 21 Rng. 38

SAMPLER RECOVERY

Gas — ML
Oil — ML
Mud — ML
Water 4,000 ML
Other — ML
Pressure 760 PSI
Total 4,000 ML

SAMPLER ANALYSIS

Resistivity .235 ohms @ 60° F
Chlorides 34,000 ppm.
Gravity — corrected @ 60 F

PIT MUD ANALYSIS

Chlorides 3100 ppm.
Resistivity — ohms @ — F
Viscosity 57
Mud Weight 88
Filtrate 8.8
Other LCM #2

PIPE RECOVERY

TOP
Resistivity .211 ohms @ 68° F
Chlorides 34,000 ppm.

MIDDLE
Resistivity .211 ohms @ 68° F
Chlorides 34,000 ppm.

BOTTOM
Resistivity .211 ohms @ 68° F
Chlorides 34,000 ppm.

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 15009 Date 12-3-01
Company Name Osborn Heirs Co.
Lease Martin #1 Test No. #2 MORROW
County Kearney, KS Sec. 26 Twp. 21 Rng. 38

SAMPLER RECOVERY

Gas — ML
Oil — ML
Mud 4000 ML
Water — ML
Other — ML
Pressure 20 PSI
Total 4000 ML

PIT MUD ANALYSIS

Chlorides 2900 ppm.
Resistivity — ohms @ — F
Viscosity 60
Mud Weight 9.2
Filtrate 7.2
Other LCM #2

SAMPLER ANALYSIS

Resistivity 2.41 ohms @ 56° F
Chlorides 3000 ppm.
Gravity — corrected @ 60 F

PIPE RECOVERY

TOP
Resistivity 2.56 ohms @ 54° F
Chlorides 3000 ppm.

MIDDLE

Resistivity — ohms @ — F
Chlorides — ppm.

BOTTOM

Resistivity — ohms @ — F
Chlorides — ppm.