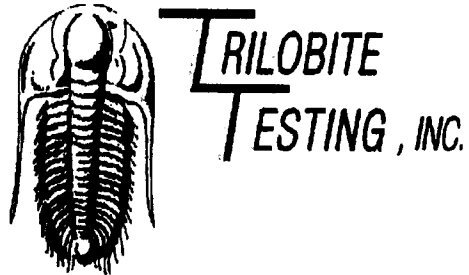


CONFIDENTIAL

DEC 02 2008

KCC



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N #700

Box 783188

Wichita, Ks 67282

CONFIDENTIAL

ATTN: Tom Funk

KCC
16 10-26 Sheridan KS

Martin 16 D #1

Start Date: 2008.08.12 @ 14:00:00

End Date: 2008.08.12 @ 21:38:30

Job Ticket #: 32140

DST #: 1

15-179-21204

385 FSL

1373 FEL

EDGE SWSE

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Ritchie Exploration, Inc.

Martin 16 D #1

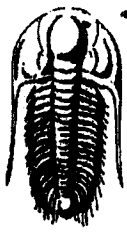
16 10 26 Sheridan KS

DST # 1

Lans. "C-D"

2008.08.12

16-10s-26w



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

Martin 16 D #1

8100 E 22nd St. N #700
Box 783188
Wichita, Ks 67282
ATTN: Tom Funk

16 10 26 Sheridan KS

Job Ticket: 32140 DST#: 1
Test Start: 2008.08.12 @ 14:00:00

GENERAL INFORMATION:

Formation: **Lans. "C-D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:14:30
Time Test Ended: 21:38:30

Test Type: Conventional Bottom Hole
Tester: James Winder
Unit No: 36

Interval: **3834.00 ft (KB) To 3880.00 ft (KB) (TVD)**
Total Depth: 3880.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2553.00 ft (KB)
2548.00 ft (CF)
KB to GR/CF: 5.00 ft

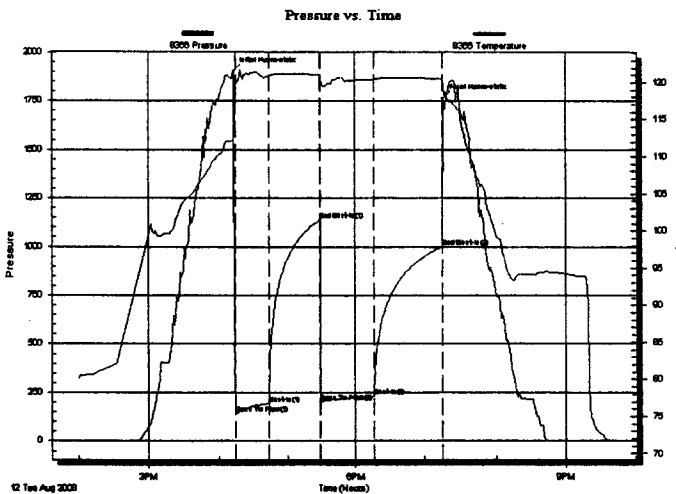
Serial #: 8366

Inside

Press@RunDepth: 231.88 psig @ 3835.00 ft (KB)
Start Date: 2008.08.12 End Date: 2008.08.12
Start Time: 14:00:05 End Time: 21:38:29

Capacity: 7000.00 psig
Last Calib.: 2008.08.12
Time On Btm: 2008.08.12 @ 16:13:00
Time Off Btm: 2008.08.12 @ 19:15:29

TEST COMMENT: IF Blow built to BOB in 45 sec.
ISI Bled off No blow back
FF Blow built to 7 1/2"
FSI Bled off No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1903.55	112.29	Initial Hydro-static
2	139.06	119.16	Open To Flow (1)
31	192.98	120.85	Shut-in(1)
75	1138.67	120.98	End Shut-in(1)
76	200.19	120.38	Open To Flow (2)
123	231.88	120.39	Shut-in(2)
182	1000.47	120.53	End Shut-in(2)
183	1763.88	119.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
122.00	GOWCM 53%M, 29%W, 10%G, 8%O	0.60
63.00	GOWCM 60%M, 15%W, 15%G, 10%O	0.88
52.00	GOCM 83%M, 15%G, 4%O	0.73
215.00	Mud 100%	3.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

Martin 16 D #1

8100 E22nd St. N #700
Box 783188
Wichita, Ks 67282
ATTN: Tom Funk

16 10 26 Sheridan KS

Job Ticket: 32140

DST#:1

Test Start: 2008.08.12 @ 14:00:00

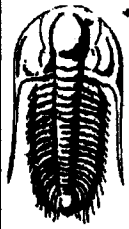
Tool Information

Drill Pipe:	Length: 3717.00 ft	Diameter: 3.80 inches	Volume: 52.14 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: 25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 90000.00 lb
		Total Volume:	52.74 bbl	Tool Chased 1.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3834.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	46.00 ft			
Tool Length:	66.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3819.00	
Hydraulic tool	5.00			3824.00	
Packer	5.00			3829.00	20.00 Bottom Of Top Packer
Packer	5.00			3834.00	
Stubb	1.00			3835.00	
Recorder	0.00	8366	Inside	3835.00	
Recorder	0.00	8320	Inside	3835.00	
Perforations	9.00			3844.00	
Blank Spacing	33.00			3877.00	
Bullnose	3.00			3880.00	46.00 Bottom Packers & Anchor
Total Tool Length:	66.00				



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.
8100 E 22nd St. N #700
Box 783188
Wichita, Ks 67282
ATTN: Tom Funk

Martin 16 D #1
16 10 26 Sheridan KS
Job Ticket: 32140 DST#: 1
Test Start: 2008.08.12 @ 14:00:00

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: 7.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1100.00 ppm			
Filter Cake: inches			

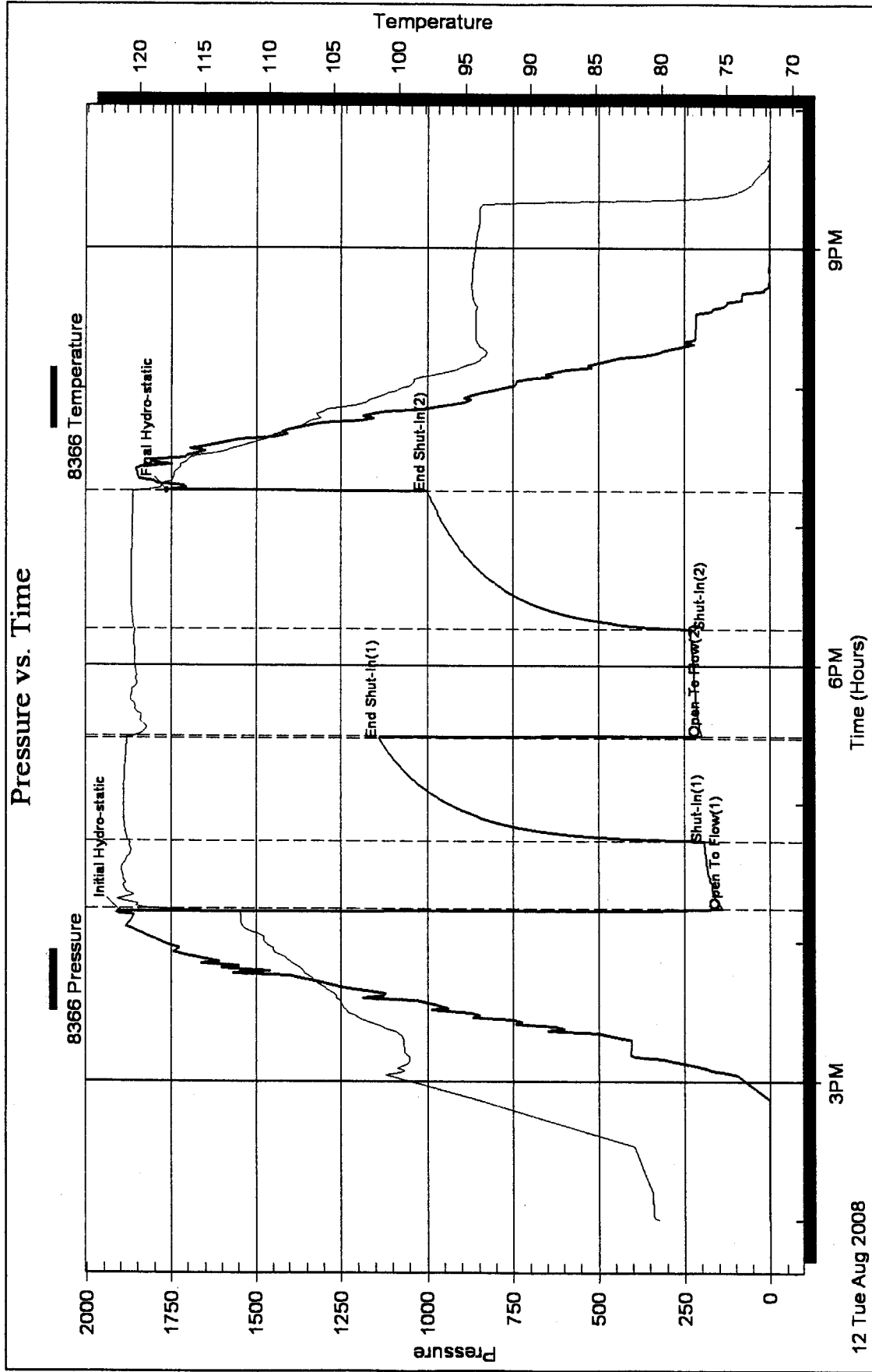
Recovery Information

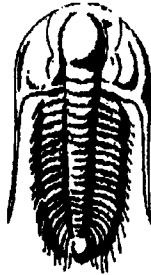
Recovery Table

Length ft	Description	Volume bbl
122.00	GOWCM 53%M, 29%W, 10%G, 8%O	0.600
63.00	GOWCM 60%M, 15%W, 15%G, 10%O	0.884
52.00	GOCM 83%M, 15%G, 4%O	0.729
215.00	Mud 100%	3.016

Total Length: 452.00 ft Total Volume: 5.229 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N #700
Box 783188
Wichita, Ks 67282

ATTN: Tom Funk

16 10 26 Sheridan KS

Martin 16 D #1

Start Date: 2008.08.13 @ 04:53:05

End Date: 2008.08.13 @ 08:37:30

Job Ticket #: 32141 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Ritchie Exploration, Inc.

Martin 16 D #1

16 10 26 Sheridan KS

DST # 2

Lans. "E-F"

2008.08.13



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

Martin 16 D #1

8100 E 22nd St. N #700
Box 783188
Wichita, Ks 67282
ATTN: Tom Funk

16 10 26 Sheridan KS

Job Ticket: 32141

DST#: 2

Test Start: 2008.08.13 @ 04:53:05

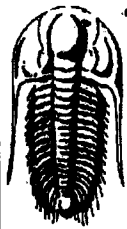
Tool Information

Drill Pipe:	Length: 3749.00 ft	Diameter: 3.80 inches	Volume: 52.59 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: 25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 60000.00 lb
		Total Volume: 53.19 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3883.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	24.00 ft			
Tool Length:	44.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3868.00	
Hydraulic tool	5.00			3873.00	
Packer	5.00			3878.00	20.00 Bottom Of Top Packer
Packer	5.00			3883.00	
Stubb	1.00			3884.00	
Recorder	0.00	8366	Inside	3884.00	
Recorder	0.00	8320	Inside	3884.00	
Perforations	20.00			3904.00	
Bullnose	3.00			3907.00	24.00 Bottom Packers & Anchor
Total Tool Length:	44.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.
8100 E 22nd St. N#700
Box 783188
Wichita, Ks 67282
ATTN: Tom Funk

Martin 16 D #1
16 10 26 Sheridan KS
Job Ticket: 32141 DST#: 2
Test Start: 2008.08.13 @ 04:53:05

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:	ppm
Viscosity: 62.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.18 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1100.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
350.00	Mud 100%	3.798

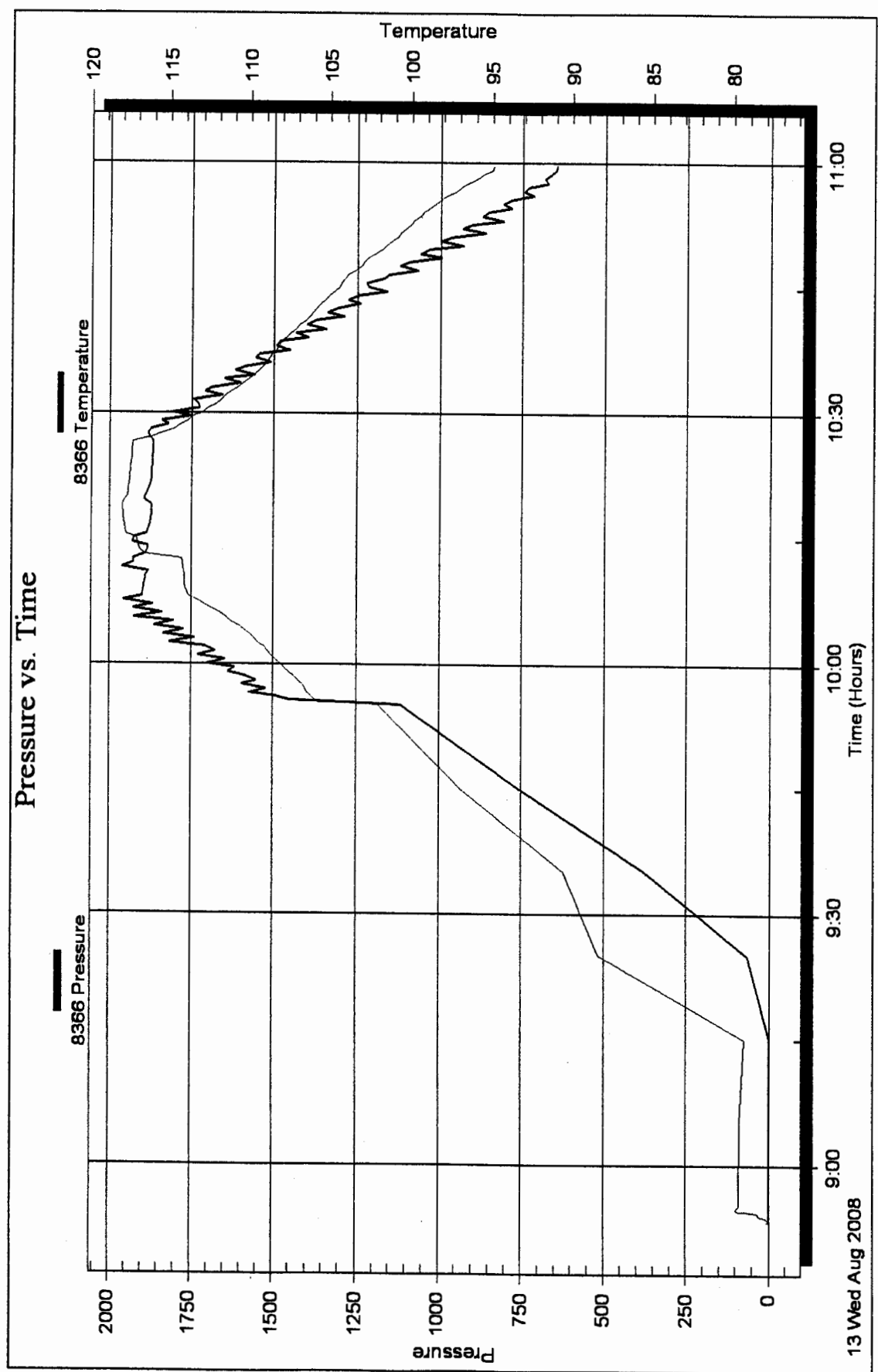
Total Length: 350.00 ft Total Volume: 3.798 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

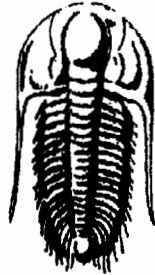
Serial #: 8366

Inside Ritchie Exploration, Inc.

16 10 26 Sheridan KS

DST Test Number: 2





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N #700
Box 783188
Wichita, Ks 67282

ATTN: Tom Funk

16 10 26 Sheridan KS

Martin 16 D #1

Start Date: 2008.08.13 @ 08:53:05

End Date: 2008.08.13 @ 11:44:30

Job Ticket #: 32142 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Ritchie Exploration, Inc.

Martin 16 D #1

16 10 26 Sheridan KS

DST # 3

Lans. "E - F"

2008.08.13



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Richie Exploration, Inc.

Martin 16 D #1

8100 E 22nd St. N#700
Box 783188
Wichita, Ks 67282
ATTN: Tom Funk

16 10 26 Sheridan KS

Job Ticket: 32142 **DST#: 3**

Test Start: 2008.08.13 @ 08:53:05

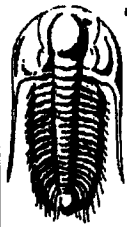
Tool Information

Drill Pipe:	Length: 3749.00 ft	Diameter: 3.80 inches	Volume: 52.59 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: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Full Loose: 60000.00 lb
			<u>Total Volume: 53.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3873.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	34.00 ft			
Tool Length:	54.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3858.00	
Hydraulic tool	5.00			3863.00	
Packer	5.00			3868.00	20.00 Bottom Of Top Packer
Packer	5.00			3873.00	
Stubb	1.00			3874.00	
Recorder	0.00	8366	inside	3874.00	
Recorder	0.00	8320	inside	3874.00	
Perforations	30.00			3904.00	
Bullnose	3.00			3907.00	34.00 Bottom Packers & Anchor
Total Tool Length:	54.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.
8100 E 22nd St. N #700
Box 783188
Wichita, Ks 67282
ATTN: Tom Funk

Martin 16 D #1
16 10 26 Sheridan KS
Job Ticket: 32142 DST#: 3
Test Start: 2008.08.13 @ 08:53:05

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:	ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2300.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
175.00	Mud 100%	1.343

Total Length: 175.00 ft Total Volume: 1.343 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

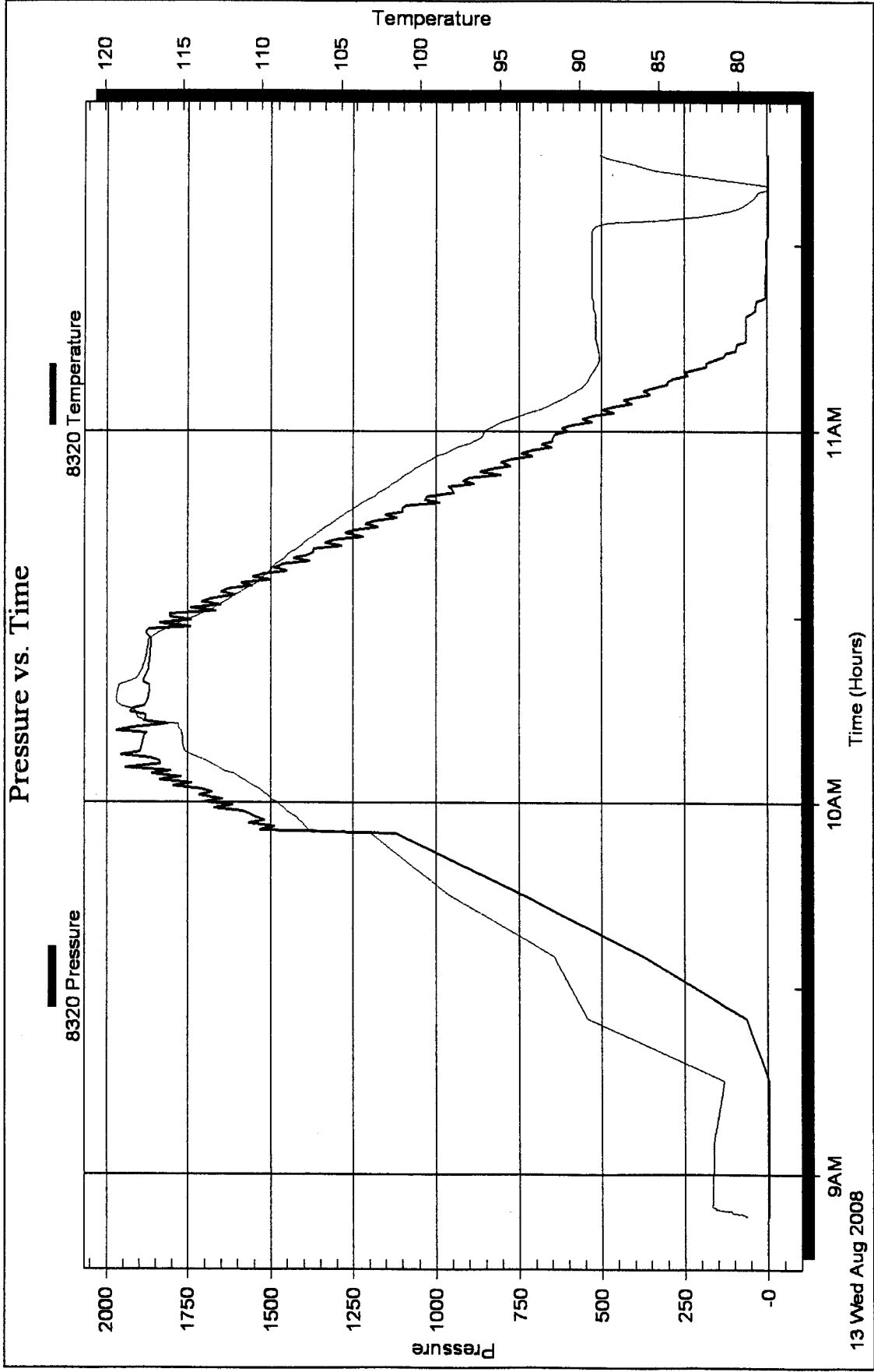
Serial #: 8320

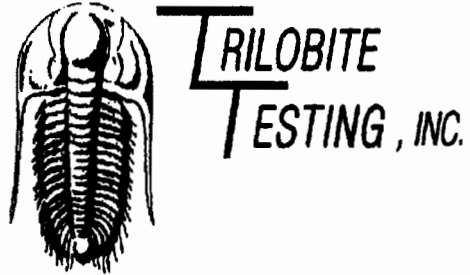
Inside Ritchie Exploration, Inc.

16 10 26 Sheridan KS

DST Test Number: 3

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration, Inc.**

8100 E 22nd St. N #700
Box 783188
Wichita, Ks 67282

ATTN: Tom Funk

16 10 26 Sheridan KS

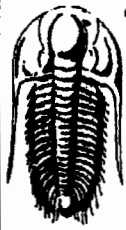
Martin 16 D #1

Start Date: 2008.08.13 @ 20:44:00

End Date: 2008.08.14 @ 03:05:30

Job Ticket #: 32143 DST #: 4

Trilobite Testing, Inc
PO Box 1733 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration, Inc.

8100 E 22nd St. N #700
Box 783188
Wichita, Ks 67282
ATTN: Tom Funk

Martin 16 D #1

16 10 26 Sheridan KS

Job Ticket: 32143 **DST#: 4**

Test Start: 2008.08.13 @ 20:44:00

GENERAL INFORMATION:

Formation: **LKC "H - I"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:08:00
Time Test Ended: 03:05:30

Test Type: Conventional Bottom Hole
Tester: James Winder
Unit No: 36

Interval: **3931.00 ft (KB) To 3990.00 ft (KB) (TVD)**
Total Depth: 3990.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2553.00 ft (KB)
2548.00 ft (CF)
KB to GR/CF: 5.00 ft

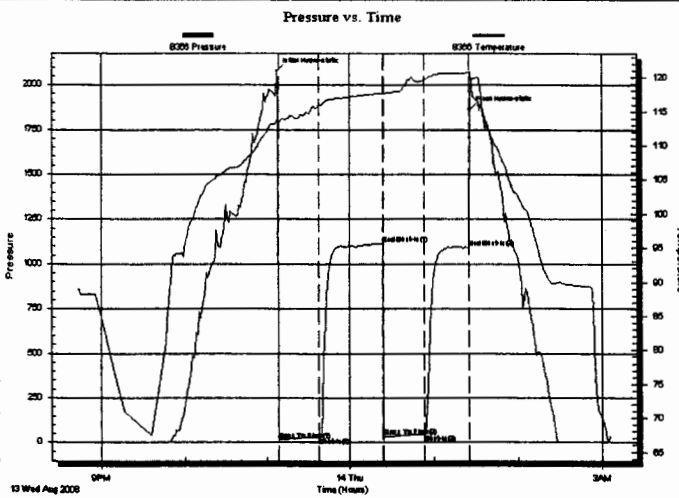
Serial #: 8366

Inside

Press@RunDepth: 47.65 psig @ 3932.00 ft (KB)
Start Date: 2008.08.13 End Date: 2008.08.14
Start Time: 20:44:05 End Time: 03:05:29

Capacity: 7000.00 psig
Last Calib.: 2008.08.14
Time On Btm: 2008.08.13 @ 23:07:00
Time Off Btm: 2008.08.14 @ 01:25:29

TEST COMMENT: IF Blow built slowly to 1 3/4"
ISI Bled off No blow back
FF No blow
FSI No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2076.99	113.46	Initial Hydro-static
1	14.40	112.97	Open To Flow (1)
31	30.18	115.88	Shut-In(1)
77	1110.11	117.67	End Shut-In(1)
78	34.35	117.62	Open To Flow(2)
106	47.65	119.65	Shut-In(2)
138	1091.79	120.68	End Shut-In(2)
139	1861.63	120.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	Watery Mud 53%M 47%W	0.30
0.00	RW = .458 ohms @ 68.8 deg F	0.00
0.00	Chlorides = 15,000 ppm	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration, Inc.

Martin 16 D #1

8100 E 22nd St. N #700
Box 783188
Wichita, Ks 67282
ATTN: Tom Funk

16 10 26 Sheridan KS

Job Ticket: 32143 **DST#: 4**

Test Start: 2008.08.13 @ 20:44:00

Tool Information

Drill Pipe:	Length: 3813.00 ft	Diameter: 3.80 inches	Volume: 53.49 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: 25000.00 lb
Drill Collar:	Length: 122.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 54.09 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3931.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	59.00 ft			
Tool Length:	79.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3916.00	
Hydraulic tool	5.00			3921.00	
Packer	5.00			3926.00	20.00 Bottom Of Top Packer
Packer	5.00			3931.00	
Stubb	1.00			3932.00	
Recorder	0.00	8366	Inside	3932.00	
Recorder	0.00	8320	Inside	3932.00	
Perforations	20.00			3952.00	
Blank Spacing	31.00			3983.00	
Perforations	4.00			3987.00	
Bullnose	3.00			3990.00	59.00 Bottom Packers & Anchor

Total Tool Length: 79.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration, Inc.

Martin 16 D #1

8100 E 22nd St. N #700
Box 783188
Wichita, Ks 67282
ATTN: Tom Funk

16 10 26 Sheridan KS
Job Ticket: 32143 **DST#: 4**
Test Start: 2008.08.13 @ 20:44:00

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: 62.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2300.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	Watery Mud 53%M 47%W	0.305
0.00	RW = .458 ohms @ 68.8 deg F	0.000
0.00	Chlorides = 15,000 ppm	0.000

Total Length: 62.00 ft Total Volume: 0.305 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 8366

Inside

Ritchie Exploration, Inc.

16 10 26 Sheridan KS

DST Test Number: 4

