



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Raney Oil Co**

3425 Tam O'Shanter Dr
Lawrence KS 66047

ATTN: Duane Stecklein

5 10 20 Rooks KS

Kuehnl #1

Start Date: 2006.04.22 @ 01:40:43

End Date: 2006.04.22 @ 09:26:28

Job Ticket #: 22753 DST #: 1

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

**RECEIVED
JUN 26 2006
KCC WICHITA**

Raney Oil Co

Kuehnl #1

5 10 20 Rooks KS

DST # 1

LKC

2006.04.22



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Raney Oil Co
 3425 Tam O'Shanter Dr
 Lawrence KS 66047
 ATTN: Duane Stecklein

Kuehnl #1
5 10 20 Rooks KS
 Job Ticket: 22753 **DST#: 1**
 Test Start: 2006.04.22 @ 01:40:43

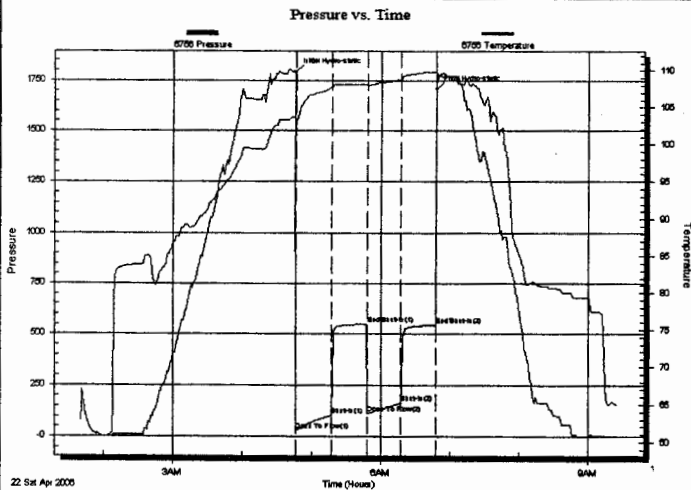
GENERAL INFORMATION:

Formation: **LKC**
 Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole**
 Time Tool Opened: **04:46:13** Tester: **Michael Armbrister**
 Time Test Ended: **09:26:28** Unit No: **1**
 Interval: **3570.00 ft (KB) To 3615.00 ft (KB) (TVD)** Reference Elevations: **2253.00 ft (KB)**
 Total Depth: **3615.00 ft (KB) (TVD)** **2248.00 ft (CF)**
 Hole Diameter: **7.88 inches** Hole Condition: **Fair** KB to GR/CF: **5.00 ft**

Serial #: 6756

Press@RunDepth: **164.28 psig @ ft (KB)** Capacity: **7000.00 psig**
 Start Date: **2006.04.22** End Date: **2006.04.22** Last Calib.: **2006.04.23**
 Start Time: **01:40:45** End Time: **09:26:28** Time On Btm: **2006.04.22 @ 04:45:43**
 Time Off Btm: **2006.04.22 @ 06:47:43**

TEST COMMENT: IF B of B 15"
 ISI Weak surf blow back
 FF B of B 25"
 FSI Weak surf blow back



PRESSURE SUMMARY

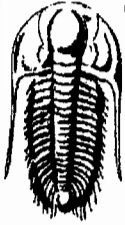
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1788.88	103.61	Initial Hydro-static
1	26.46	103.25	Open To Flow (1)
32	104.40	107.76	Shut-In(1)
63	548.09	108.09	End Shut-In(1)
63	113.54	107.94	Open To Flow (2)
92	164.28	108.84	Shut-In(2)
122	543.80	109.73	End Shut-In(2)
122	1706.11	110.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	SW	1.41
60.00	MCO 40%M 60%O	0.84
150.00	CO 36G 100%O	2.10

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Raney Oil Co

Kuehnl #1

3425 Tam O'Shanter Dr
Lawrence KS 66047

5 10 20 Rooks KS

Job Ticket: 22753

DST#: 1

ATTN: Duane Stecklein

Test Start: 2006.04.22 @ 01:40:43

Tool Information

Drill Pipe:	Length: 3550.00 ft	Diameter: 3.80 inches	Volume: 49.80 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	38000.00 lb
			<u>Total Volume: 49.95 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3570.00 ft			Final	38000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	45.00 ft				
Tool Length:	65.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

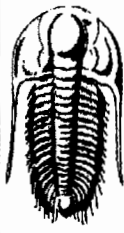
Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3555.00	
Hydraulic tool	5.00			3560.00	
Packer	5.00			3565.00	20.00 Bottom Of Top Packer
Packer	5.00			3570.00	
Stubb	1.00			3571.00	
Perforations	5.00			3576.00	
Change Over Sub	1.00			3577.00	
Drill Pipe	31.00			3608.00	
Change Over Sub	1.00			3609.00	
Recorder	0.00	6752	Inside	3609.00	
Perforations	3.00			3612.00	
Recorder	0.00	11020	Inside	3612.00	
Bullnose	3.00			3615.00	45.00 Bottom Packers & Anchor

Total Tool Length: 65.00

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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Raney Oil Co

Kuehnl #1

3425 Tam O'Shanter Dr
Lawrence KS 66047

5 10 20 Rooks KS

Job Ticket: 22753

DST#: 1

ATTN: Duane Stecklein

Test Start: 2006.04.22 @ 01:40:43

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: bbl		
Water Loss: 7.17 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	SW	1.410
60.00	MCO 40%M 60%O	0.842
150.00	CO 36G 100%O	2.104

Total Length: 330.00 ft Total Volume: 4.356 bbl

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

Laboratory Name: Laboratory Location:

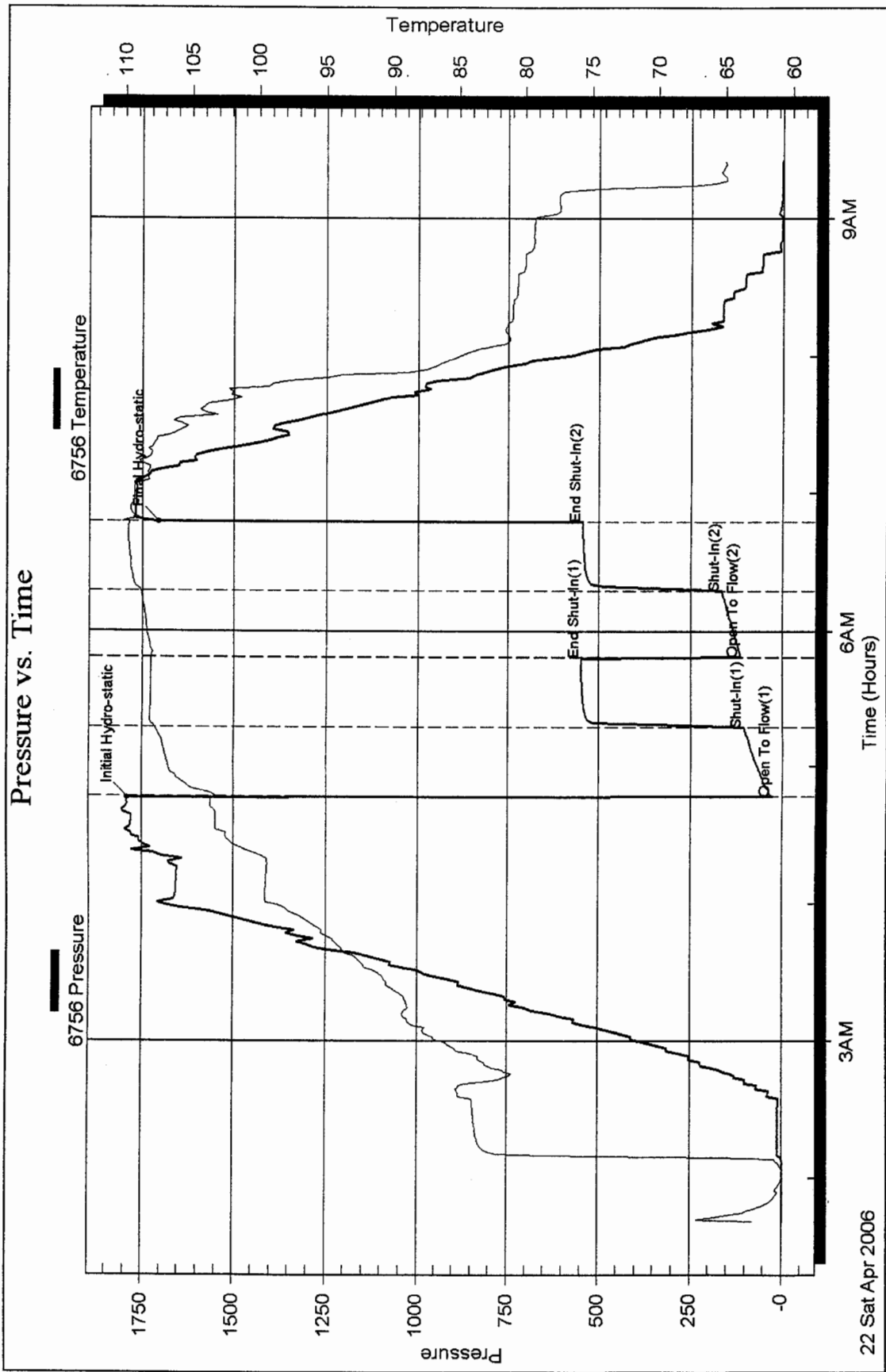
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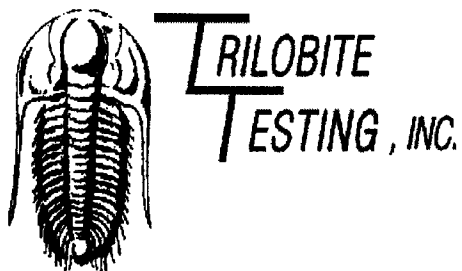
Serial #: 6756

Raney Oil Co

5 10 20 Rooks KS

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Raney Oil Co**

3425 Tam O'Shanter Dr
Lawrence KS 66047

ATTN: Duane Stecklein

5 10 20 Rooks KS

Kuehnl #1

Start Date: 2006.04.23 @ 22:25:48

End Date: 2006.04.24 @ 04:42:03

Job Ticket #: 22754 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

TOOL DIAGRAM

Raney Oil Co
3425 Tam O'Shanter Dr
Lawrence KS 66047
ATTN: Duane Stecklein

Kuehnl #1
5 10 20 Rooks KS
Job Ticket: 22754 **DST#: 2**
Test Start: 2006.04.23 @ 22:25:48

Tool Information

Drill Pipe:	Length: 3640.00 ft	Diameter: 3.80 inches	Volume: 51.06 bbl	Tool Weight: 2000.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 51.21 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3680.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	35.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3665.00	
Hydraulic tool	5.00			3670.00	
Packer	5.00			3675.00	20.00 Bottom Of Top Packer
Packer	5.00			3680.00	
Stubb	1.00			3681.00	
Recorder	0.00	6756	Inside	3681.00	
Perforations	31.00			3712.00	
Recorder	0.00	11020	Inside	3712.00	
Bullnose	3.00			3715.00	35.00 Bottom Packers & Anchor
Total Tool Length:	55.00				



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Raney Oil Co

Kuehnl #1

3425 Tam O'Shanter Dr
Lawrence KS 66047

5 10 20 Rooks KS

Job Ticket: 22754

DST#: 2

ATTN: Duane Stecklein

Test Start: 2006.04.23 @ 22:25:48

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 54.00 sec/qt
Water Loss: 7.17 in³
Resistivity: ohm.m
Salinity: ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	DM	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

Serial #: 6756

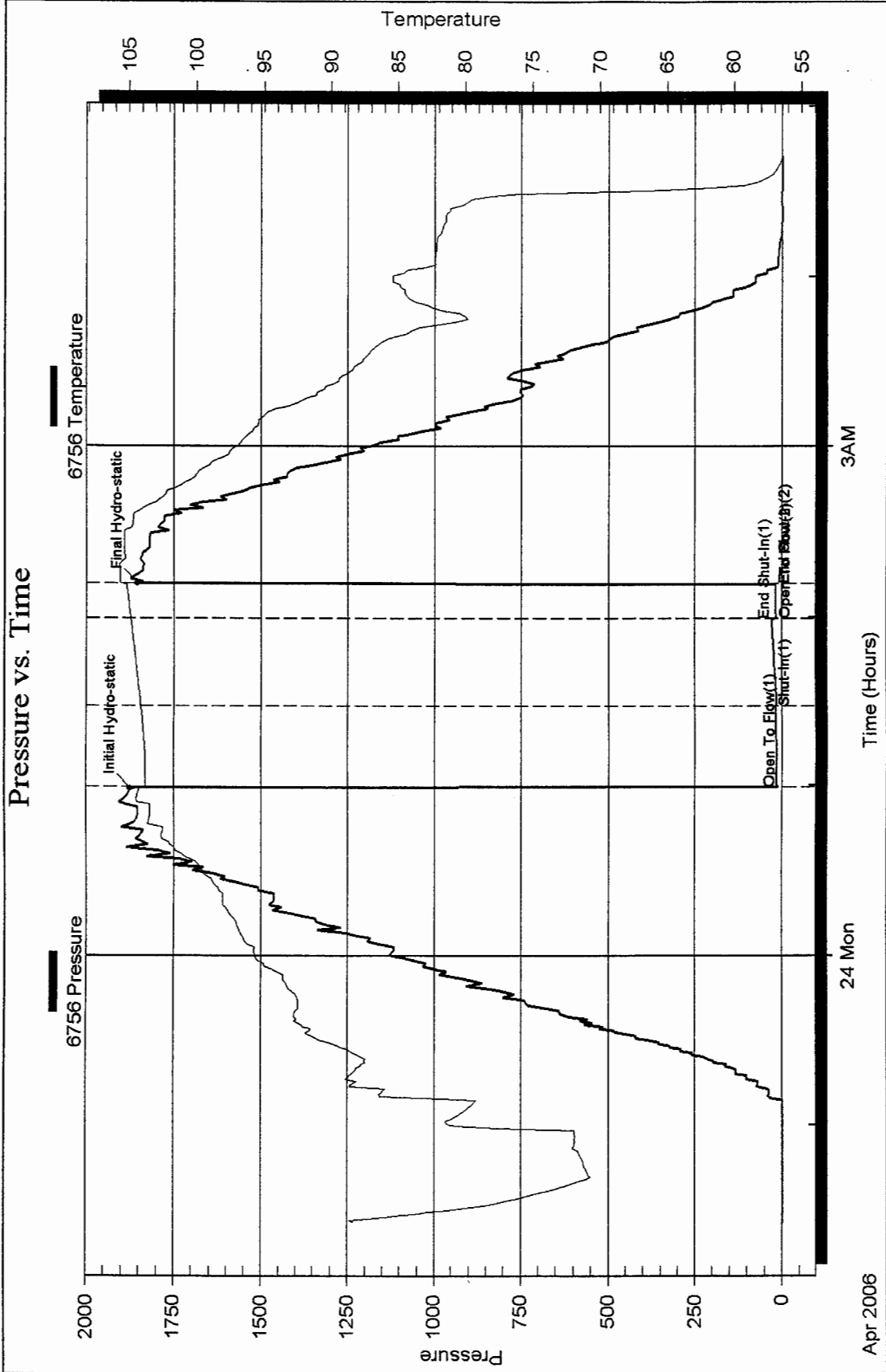
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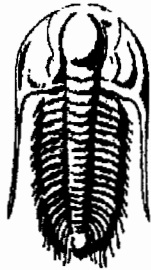
Raney Oil Co

5 10 20 Rooks KS

DST Test Number: 2

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Raney Oil Co**

3425 Tam O'Shanter Dr
Lawrence KS 66047

ATTN: Duane Stecklein

5 10 20 Rooks KS

Kuehnl #1

Start Date: 2006.04.24 @ 18:54:22

End Date: 2006.04.25 @ 04:30:07

Job Ticket #: 24155 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Raney Oil Co

Kuehnl #1

5 10 20 Rooks KS

DST # 3

ARB

2006.04.24



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Raney Oil Co
 3425 Tam O'Shanter Dr
 Lawrence KS 66047
 ATTN: Duane Stecklein

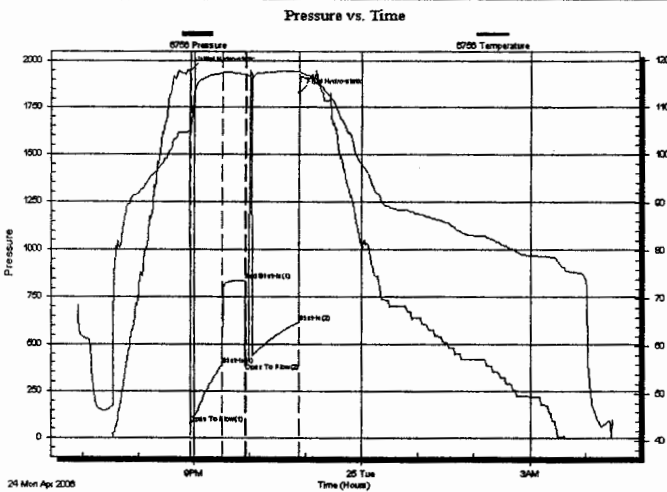
Kuehnl #1
5 10 20 Rooks KS
 Job Ticket: 24155 **DST#: 3**
 Test Start: 2006.04.24 @ 18:54:22

GENERAL INFORMATION:

Formation: **ARB**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:56:37
 Time Test Ended: 04:30:07
 Interval: **3815.00 ft (KB) To 3835.00 ft (KB) (TVD)**
 Total Depth: 3835.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole
 Tester: Joe
 Unit No: 22
 Reference Elevations: 2253.00 ft (KB)
 2248.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6756 Inside
 Press@RunDepth: 387.28 psig @ 3816.00 ft (KB) Capacity: 7000.00 psig
 Start Date: 2006.04.24 End Date: 2006.04.25 Last Calib.: 2006.04.25
 Start Time: 18:54:24 End Time: 04:30:07 Time On Btm: 2006.04.24 @ 20:55:37
 Time Off Btm: 2006.04.24 @ 22:52:37

TEST COMMENT: IF Strong Blow off BOB in 2"
 ISI Dead
 FF Very Weak Surf Blow
 FSI Pulled tool



PRESSURE SUMMARY

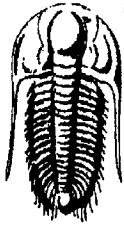
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1949.69	104.91	Initial Hydro-static
1	75.22	105.39	Open To Flow (1)
35	387.28	117.21	Shut-In (1)
60	838.19	116.98	End Shut-In (1)
60	397.70	116.82	Open To Flow (2)
117	617.16	117.57	Shut-In (2)
117	1833.33	118.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
52.00	OCM 20%O 80%M	0.46
134.00	MW 20%M 80%W	1.88
620.00	GOCMW 5%G 5%O 20%M 70%W	8.70
620.00	GWCO 5%G 20%W 75%O	8.70

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Raney Oil Co
3425 Tam O'Shanter Dr
Lawrence KS 66047
ATTN: Duane Stecklein

Kuehnl #1
5 10 20 Rooks KS
Job Ticket: 24155 **DST#: 3**
Test Start: 2006.04.24 @ 18:54:22

Tool Information

Drill Pipe:	Length: 3796.00 ft	Diameter: 3.80 inches	Volume: 53.25 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 53.40 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3815.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3800.00	
Hydraulic tool	5.00			3805.00	
Packer	5.00			3810.00	20.00 Bottom Of Top Packer
Packer	5.00			3815.00	
Stubb	1.00			3816.00	
Recorder	0.00	6756	Inside	3816.00	
Perforations	16.00			3832.00	
Recorder	0.00	11020	Inside	3832.00	
Bullnose	3.00			3835.00	20.00 Bottom Packers & Anchor
Total Tool Length:	40.00				



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Raney Oil Co

Kuehnl #1

3425 Tam O'Shanter Dr
Lawrence KS 66047

5 10 20 Rooks KS

Job Ticket: 24155

DST#: 3

ATTN: Duane Stecklein

Test Start: 2006.04.24 @ 18:54:22

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:

31000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.16 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
52.00	OCM 20%O 80%M	0.456
134.00	MW 20%M 80%W	1.880
620.00	GOCMW 5%G 5%O 20%M 70%W	8.697
620.00	GWCO 5%G 20%W 75%O	8.697

Total Length: 1426.00 ft

Total Volume: 19.730 bbl

Num Fluid Samples: 0

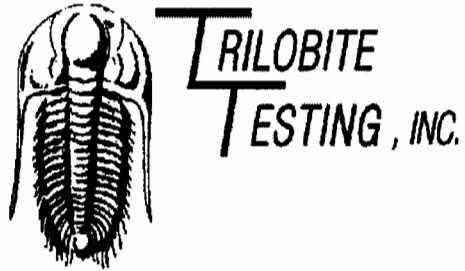
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



DRILL STEM TEST REPORT

Prepared For: **Raney Oil Co**

3425 Tam O'Shanter Dr
Lawrence KS 66047

ATTN: Duane Stecklein

5 10 20 Rooks KS


Kuehnl #1

Start Date: 2006.04.25 @ 12:17:53

End Date: 2006.04.25 @ 19:44:08

Job Ticket #: 24156 DST #: 4

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

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT	
	Raney Oil Co 3425 Tam O'Shanter Dr Lawrence KS 66047 ATTN: Duane Stecklein	Kuehnl #1 5 10 20 Rooks KS Job Ticket: 24156 DST#: 4 Test Start: 2006.04.25 @ 12:17:53

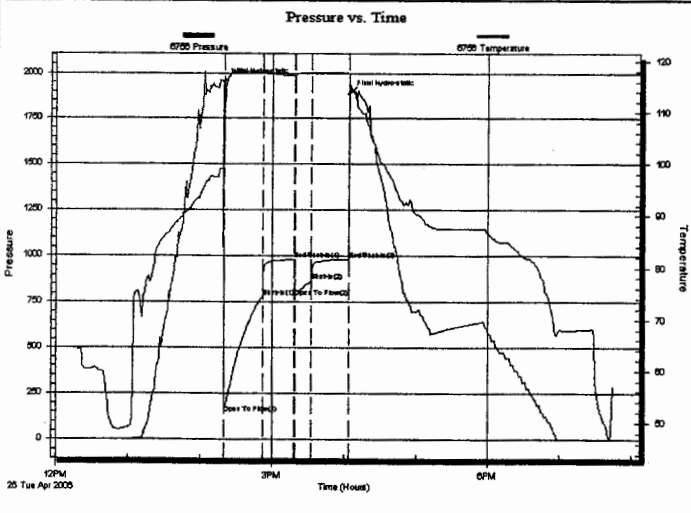
GENERAL INFORMATION:

Formation: ARB	Test Type: Conventional Bottom Hole
Deviated: No Whipstock: ft (KB)	Tester: Michael Armbrister
Time Tool Opened: 14:19:38	Unit No: 1
Time Test Ended: 19:44:08	Reference Elevations: 2253.00 ft (KB)
Interval: 3832.00 ft (KB) To 3847.00 ft (KB) (TVD)	2248.00 ft (CF)
Total Depth: 3847.00 ft (KB) (TVD)	KB to GR/CF: 5.00 ft
Hole Diameter: 7.88 inches Hole Condition: Fair	

Serial #: 6756 Inside

Press@RunDepth: 864.46 psig @ 3833.00 ft (KB)	Capacity: 7000.00 psig
Start Date: 2006.04.25	End Date: 2006.04.25
Start Time: 12:17:55	End Time: 19:44:08
	Last Calib.: 2006.04.25
	Time On Btm: 2006.04.25 @ 14:19:23
	Time Off Btm: 2006.04.25 @ 16:03:53

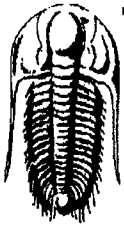
TEST COMMENT: IF Strong Blow Off BOB in less than a minute
 FSI Weak Surf Blow back throughout
 FF Strong Blow off BOB in 3"
 FSI Weak Surf Blow back



PRESSURE SUMMARY			
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1952.18	99.14	Initial Hydro-static
1	143.27	100.31	Open To Flow (1)
33	779.49	117.81	Shut-In(1)
60	982.37	117.28	End Shut-In(1)
60	779.36	117.23	Open To Flow (2)
74	864.46	117.82	Shut-In(2)
105	982.10	117.67	End Shut-In(2)
105	1885.86	117.20	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
15.00	DM	0.07
1657.00	MCWSIISO 5%O 10%M 85%W	23.11
233.00	OCWM 10%O 30%W 60%M	3.27

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Raney Oil Co

Kuehnl #1

3425 Tam O'Shanter Dr
Lawrence KS 66047

5 10 20 Rooks KS

Job Ticket: 24156

DST#: 4

ATTN: Duane Stecklein

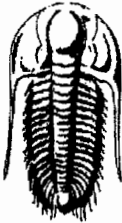
Test Start: 2006.04.25 @ 12:17:53

Tool Information

Drill Pipe:	Length: 3793.00 ft	Diameter: 3.80 inches	Volume: 53.21 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: 53.36 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 36000.00 lb
Depth to Top Packer:	3832.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	15.00 ft			
Tool Length:	35.00 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			3817.00	
Hydraulic tool	5.00			3822.00	
Packer	5.00			3827.00	20.00 Bottom Of Top Packer
Packer	5.00			3832.00	
Stubb	1.00			3833.00	
Recorder	0.00	6756	Inside	3833.00	
Perforations	11.00			3844.00	
Recorder	0.00	11020	Inside	3844.00	
Bullnose	3.00			3847.00	15.00 Bottom Packers & Anchor
Total Tool Length:	35.00				

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT		FLUID SUMMARY
	Raney Oil Co 3425 Tam O'Shanter Dr Lawrence KS 66047 ATTN: Duane Stecklein	Kuehnl #1 5 10 20 Rooks KS Job Ticket: 24156 DST#: 4 Test Start: 2006.04.25 @ 12:17:53	

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	40000 ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.36 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	DM	0.074
1657.00	MCWSiISO 5%O 10%M 85%W	23.107
233.00	OCWM 10%O 30%W 60%M	3.268

Total Length: 1905.00 ft Total Volume: 26.449 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6756

Inside

Raney Oil Co

5 10 20 Rooks KS

DST Test Number: 4

