

**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Hart Energies, LLC.**

6903 So. 78th East Ave.
Tulsa, OK 74133

ATTN: Bill Hart

15-007-23441-0000

27 34s 10w Barber KS

Knorp Farms # 1

Start Date: 2009.07.24 @ 06:54:04

End Date: 2009.07.24 @ 15:07:34

Job Ticket #: 33787 DST #: 1

RECEIVED
KANSAS CORPORATION COMMISSION
MAR 01 2010
CONSERVATION DIVISION
WICHITA, KS

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

Hart Energies, LLC.

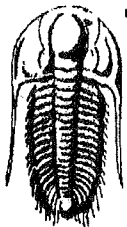
Knorp Farms # 1

27 34s 10w Barber KS

DST # 1

Mississippi

2009.07.24



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hart Energies, LLC.
6903 So. 78th East Ave.
Tulsa, OK 74133
ATTN: Bill Hart

Knorp Farms # 1
27 34s 10w Barber KS
Job Ticket: 33787 DST#: 1
Test Start: 2009.07.24 @ 06:54:04

GENERAL INFORMATION:

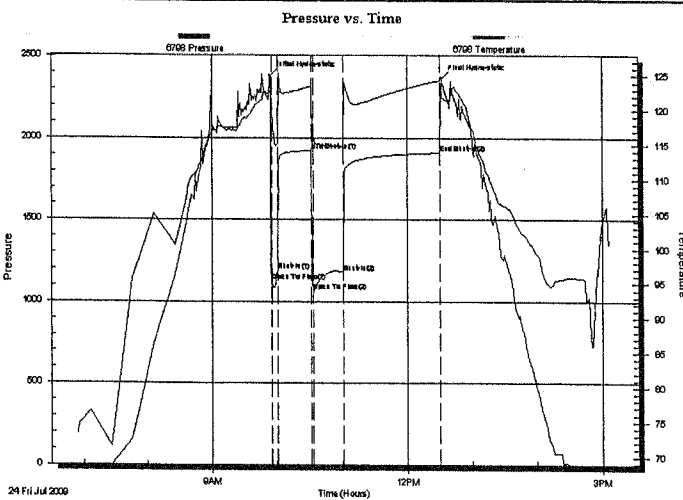
Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:55:34
Time Test Ended: 15:07:34
Test Type: Conventional Bottom Hole
Tester: Jerry Adams
Unit No: 45
Interval: **4669.00 ft (KB) To 4700.00 ft (KB) (TVD)**
Reference Elevations: 1350.00 ft (KB)
Total Depth: 4700.00 ft (KB) (TVD) 1338.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 12.00 ft

Serial #: 6798

Inside

Press@RunDepth: 1175.78 psig @ 4670.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2009.07.24 End Date: 2009.07.24 Last Calib.: 2009.07.24
Start Time: 06:54:05 End Time: 15:07:34 Time On Btm: 2009.07.24 @ 09:54:04
Time Off Btm: 2009.07.24 @ 12:32:04

TEST COMMENT: IF:Very strong blow BOB in 5sec GTS in 1min (see gas flow rpt) Hose plugged 6 mins into first opening
IS:Wk blow Built to 4"
FF:Very strong blow BOB immediately
FS:Fair blow BOB in 8mins after



PRESSURE SUMMARY

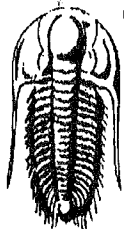
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2382.71	122.79	Initial Hydro-static
2	1123.08	120.54	Open To Flow (1)
6	1188.23	115.20	Shut-In(1)
37	1922.55	123.48	End Shut-In(1)
39	1063.95	116.12	Open To Flow (2)
67	1175.78	114.60	Shut-In(2)
157	1908.57	124.35	End Shut-In(2)
158	2366.90	122.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	GCM 5%g 95%rn	0.63
0.00	4549' GIP	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	1.00	110.00	3576.35
Last Gas Rate	1.00	200.00	6163.75
Max. Gas Rate	1.00	200.00	6163.75



TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Hart Energies, LLC.
6903 So. 78th East Ave.
Tulsa, OK 74133

ATTN: Bill Hart

Knorp Farms # 1
27 34s 10w Barber KS
Job Ticket: 33787 **DST#: 1**
Test Start: 2009.07.24 @ 06:54:04

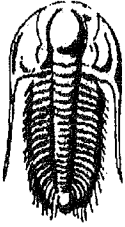
Tool Information

Drill Pipe:	Length: 4551.00 ft	Diameter: 3.80 inches	Volume: 63.84 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: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 64.44 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	4669.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	51.00 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			4654.00	
Hydraulic tool	5.00			4659.00	
Packer	5.00			4664.00	20.00 Bottom Of Top Packer
Packer	5.00			4669.00	
Stubb	1.00			4670.00	
Recorder	0.00	6798	Inside	4670.00	
Recorder	0.00	8367	Inside	4670.00	
Perforations	27.00			4697.00	
Bullhose	3.00			4700.00	31.00 Bottom Packers & Anchor
Total Tool Length:	51.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

Hart Energies, LLC.

Knorp Farms # 1

6903 So. 78th East Ave.
Tulsa, OK 74133

27 34s 10w Barber KS

Job Ticket: 33787

DST#: 1

ATTN: Bill Hart

Test Start: 2009.07.24 @ 06:54:04

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.94 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
125.00	GCM 5%g 95%m	0.633
0.00	4549' GIP	0.000

Total Length: 125.00 ft

Total Volume: 0.633 bbl

Num Fluid Samples: 0

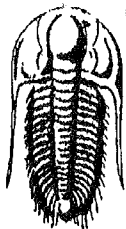
Num Gas Bombs: 2

Serial #: JA-2 / JA-3

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GAS RATES

Hart Energies, LLC.

Knorp Farms # 1

6903 So. 78th East Ave.
Tulsa, OK 74133

27 34s 10w Barber KS

Job Ticket: 33787

DST#: 1

ATTN: Bill Hart

Test Start: 2009.07.24 @ 06:54:04

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	5	1.00	110.00	3576.35
1	5	1.00	110.00	3576.35
2	10	1.00	190.00	5876.26
2	20	1.00	195.00	6020.00
2	30	1.00	200.00	6163.75

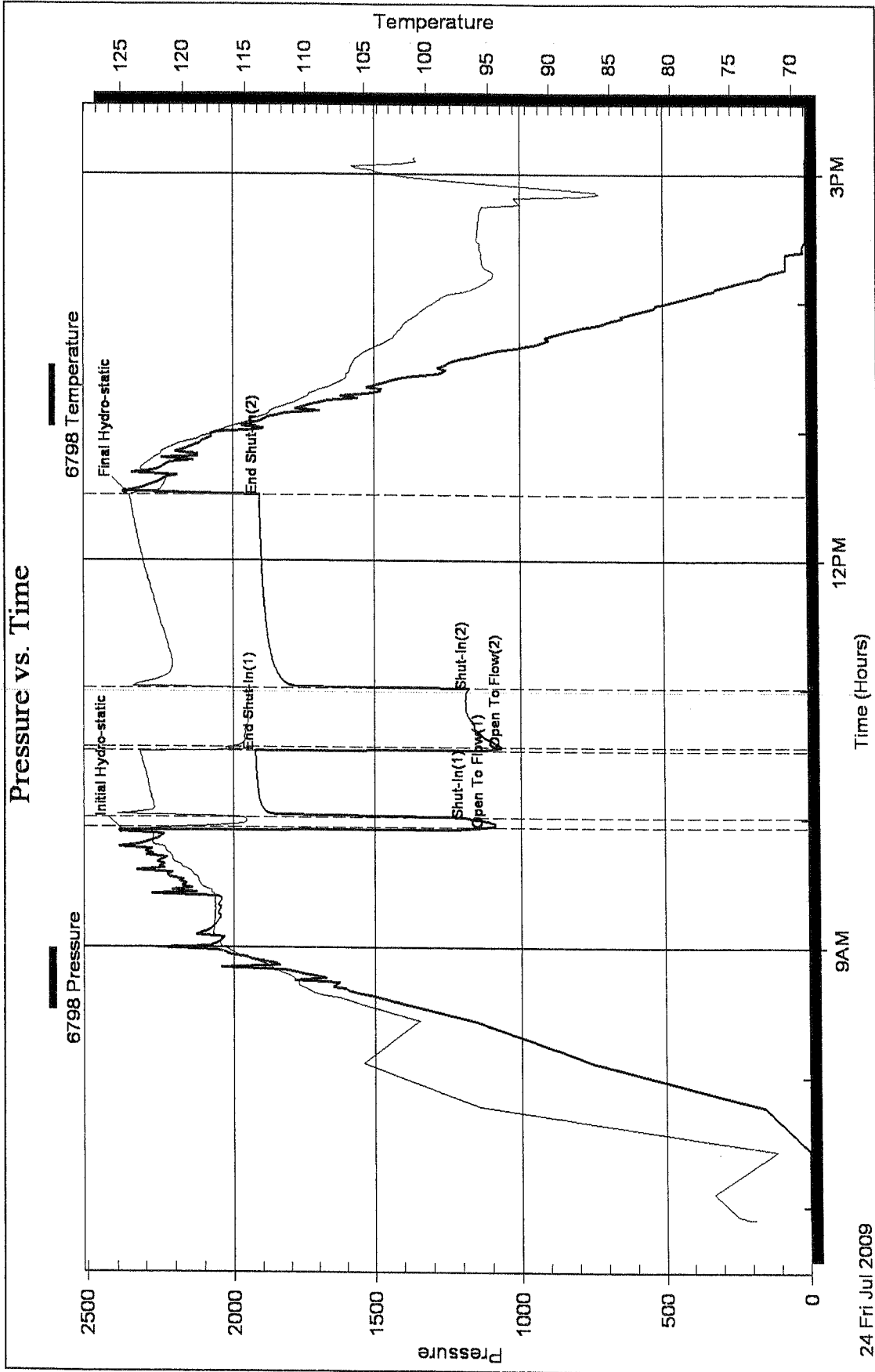
Serial #: 6798

Inside

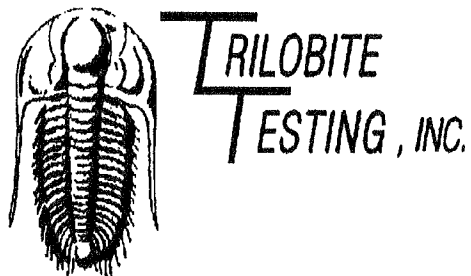
Hart Energies, LLC.

27 34s 10w Barber KS

DST Test Number: 1



24 Fri Jul 2009



DRILL STEM TEST REPORT

Prepared For: **Hart Energies, LLC.**

6903 So. 78th East Ave.
Tulsa, OK 74133

ATTN: Bill Hart

27 34s 10w Barber KS

Knorp Farms # 1

Start Date: 2009.07.25 @ 01:33:33

End Date: 2009.07.25 @ 09:56:33

Job Ticket #: 33788 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Hart Energies, LLC.

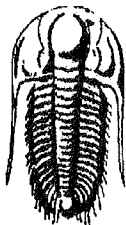
Knorp Farms # 1

27 34s 10w Barber KS

DST # 2

Mississippi

2009.07.25



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Hart Energies, LLC.
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Tulsa, OK 74133

ATTN: Bill Hart

Knorp Farms # 1
27 34s 10w Barber KS
Job Ticket: 33788 DST#: 2
Test Start: 2009.07.25 @ 01:33:33

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:04:33
Time Test Ended: 09:56:33

Interval: **4707.00 ft (KB) To 4725.00 ft (KB) (TVD)**
Total Depth: 4725.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole
Tester: Jerry Adams
Unit No: 45

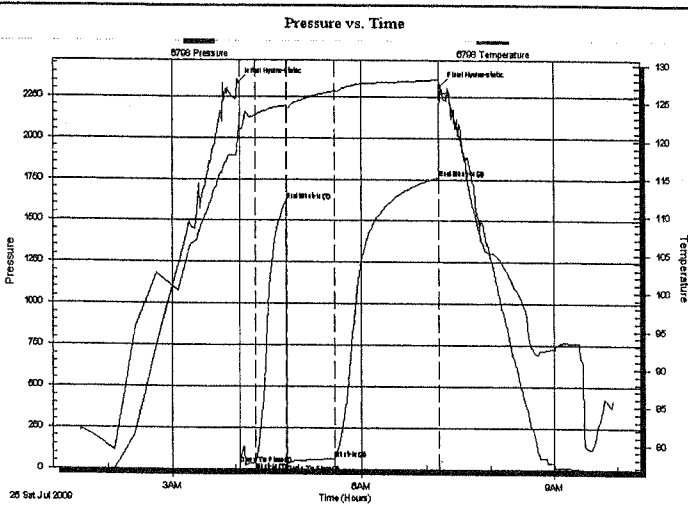
Reference Elevations: 1350.00 ft (KB)
1338.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 6798

Inside

Press@RunDepth: 62.32 psig @ 4708.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2009.07.25 End Date: 2009.07.25 Last Calib.: 2009.07.25
Start Time: 01:33:34 End Time: 09:56:33 Time On Btm: 2009.07.25 @ 04:03:03
Time Off Btm: 2009.07.25 @ 07:13:03

TEST COMMENT: IF: Fair surging blow BOB in 12 mins
IS: No blow
FF: Strong surging blow BOB in 2 1/2 mins
FS: Very weak surface blow Dead in 36 mins



PRESSURE SUMMARY

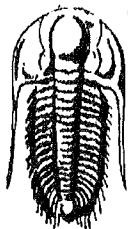
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2335.66	122.02	Initial Hydro-static
2	26.48	121.32	Open To Flow (1)
17	37.45	123.33	Shut-In (1)
46	1619.53	124.61	End Shut-In (1)
47	29.79	124.50	Open To Flow (2)
92	62.32	126.57	Shut-In (2)
189	1760.98	128.09	End Shut-In (2)
190	2318.86	126.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	G&OCM 5%g 15%o 80%m	0.34
60.00	GO&WCM 20%g 10%o 20%w 50%m	0.36
0.00	675' GIP	0.00

Gas Rates

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



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TOOL DIAGRAM

Hart Energies, LLC.
6903 So. 78th East Ave.
Tulsa, OK 74133
ATTN: Bill Hart

Knorp Farms # 1
27 34s 10w Barber KS
Job Ticket: 33788 **DST#: 2**
Test Start: 2009.07.25 @ 01:33:33

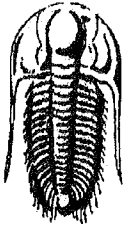
Tool Information

Drill Pipe:	Length: 4582.00 ft	Diameter: 3.80 inches	Volume: 64.27 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: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 64.87 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4707.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	38.00 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			4692.00	
Hydraulic tool	5.00			4697.00	
Packer	5.00			4702.00	20.00 Bottom Of Top Packer
Packer	5.00			4707.00	
Stubb	1.00			4708.00	
Recorder	0.00	6798	Inside	4708.00	
Recorder	0.00	8367	Inside	4708.00	
Perforations	14.00			4722.00	
Bullnose	3.00			4725.00	18.00 Bottom Packers & Anchor
Total Tool Length:	38.00				



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Tulsa, OK 74133
ATTN: Bill Hart

Knorp Farms # 1
27 34s 10w Barber KS
Job Ticket: 33788 **DST#: 2**
Test Start: 2009.07.25 @ 01:33:33

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: 46.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.74 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 6400.00 ppm			
Filter Cake: 0.20 inches			

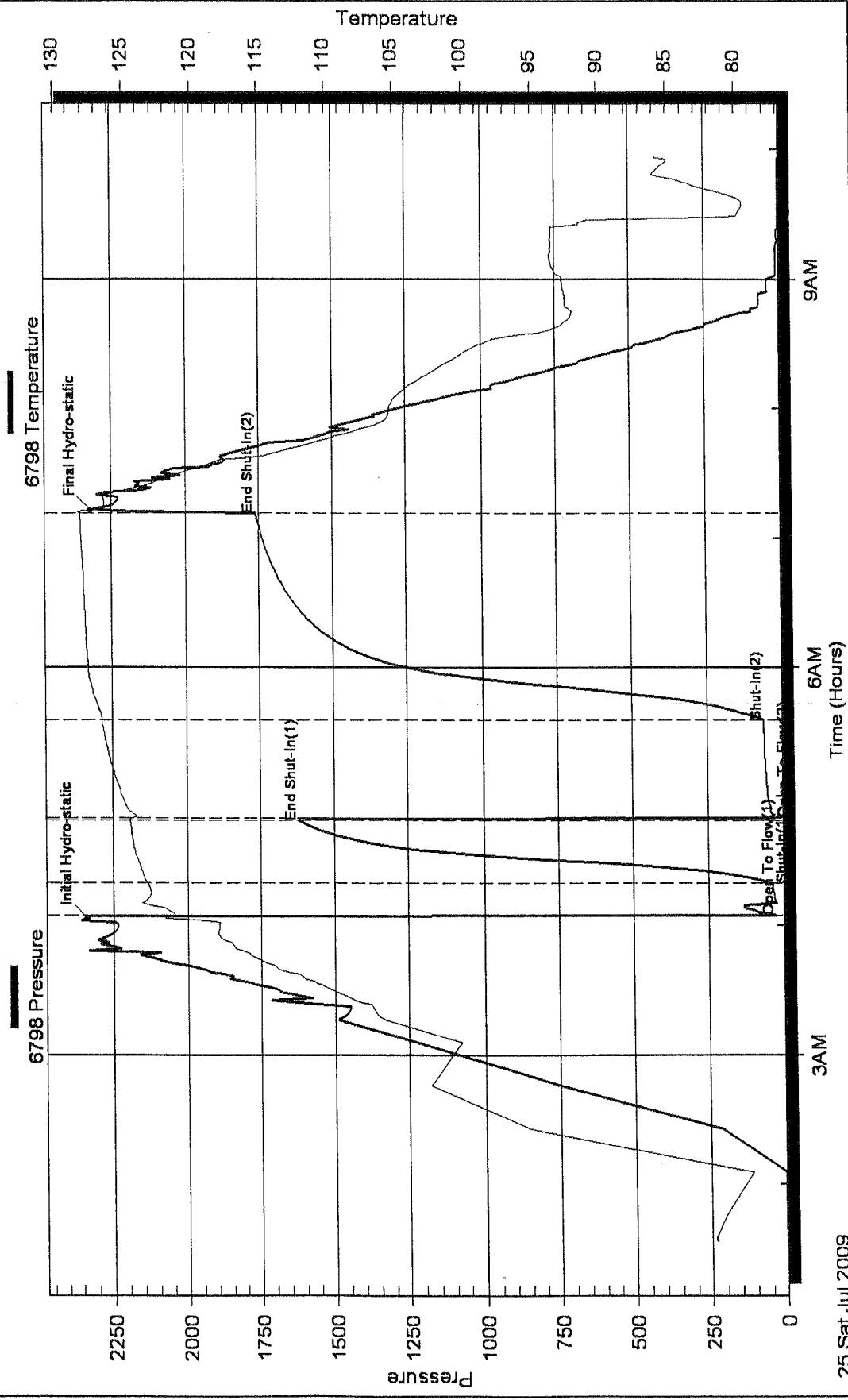
Recovery Information

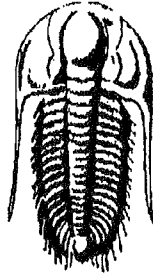
Recovery Table

Length ft	Description	Volume bbl
70.00	G&OCM 5%g 15%o 80%m	0.344
60.00	GO&WCM 20%g 10%o 20%w 50%m	0.359
0.00	675' GIP	0.000

Total Length: 130.00 ft Total Volume: 0.703 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
Laboratory Name: Laboratory Location:
Recovery Comments:

Pressure vs. Time





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DRILL STEM TEST REPORT

Prepared For: **Hart Energies, LLC.**

6903 So. 78th East Ave.
Tulsa, OK 74133

ATTN: Bill Hart

27 34s 10w Barber KS

Knorp Farms # 1

Start Date: 2009.07.25 @ 20:45:14

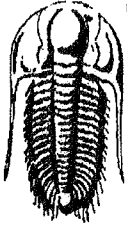
End Date: 2009.07.26 @ 06:13:14

Job Ticket #: 33789 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



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DRILL STEM TEST REPORT

Hart Energies, LLC.
6903 So. 78th East Ave.
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ATTN: Bill Hart

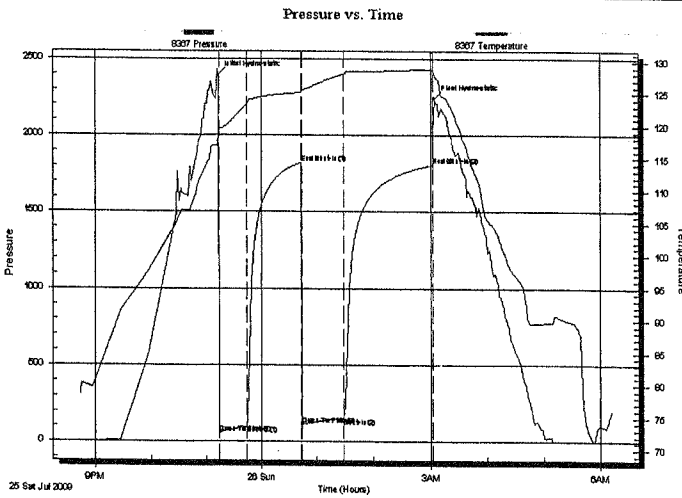
Knorp Farms # 1
27 34s 10w Barber KS
Job Ticket: 33789 **DST#: 3**
Test Start: 2009.07.25 @ 20:45:14

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:14:44
Time Test Ended: 06:13:14
Test Type: Conventional Bottom Hole
Tester: Jerry Adams
Unit No: 45
Interval: **4745.00 ft (KB) To 4777.00 ft (KB) (TVD)**
Reference Elevations: 1350.00 ft (KB)
Total Depth: 4777.00 ft (KB) (TVD) 1338.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 12.00 ft

Serial #: 8367 **Inside**
Press@RunDepth: 155.28 psig @ 4746.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2009.07.25 End Date: 2009.07.26 Last Calib.: 2009.07.26
Start Time: 20:45:15 End Time: 06:13:14 Time On Btm: 2009.07.25 @ 23:13:14
Time Off Btm: 2009.07.26 @ 03:03:14

TEST COMMENT: IF: Fair blow BOB in 15 mins
IS: No blow
FF: Weak blow BOB in 38 mins
FS: No blow



PRESSURE SUMMARY

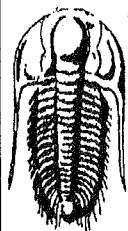
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2390.65	118.76	Initial Hydro-static
2	55.32	119.68	Open To Flow (1)
31	99.29	123.36	Shut-In(1)
91	1820.15	125.22	End Shut-In(1)
92	111.21	125.65	Open To Flow(2)
136	155.28	128.07	Shut-In(2)
228	1805.12	128.82	End Shut-In(2)
230	2241.54	127.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	SG&OCM 5%g 5%o 90%m	0.30
62.00	SGO&WCM 5%g 5%o 30%w 60%m	0.31
185.00	SMCW 90%w 10%m	2.60
0.00	50' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hart Energies, LLC.

Knorp Farms # 1

6903 So. 78th East Ave.
Tulsa, OK 74133

27 34s 10w Barber KS

Job Ticket: 33789

DST#: 3

ATTN: Bill Hart

Test Start: 2009.07.25 @ 20:45:14

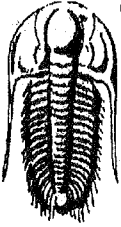
Tool Information

Drill Pipe:	Length: 4613.00 ft	Diameter: 3.80 inches	Volume: 64.71 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: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 65.31 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4745.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	52.00 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			4730.00	
Hydraulic tool	5.00			4735.00	
Packer	5.00			4740.00	20.00 Bottom Of Top Packer
Packer	5.00			4745.00	
Stubb	1.00			4746.00	
Recorder	0.00	6798	Inside	4746.00	
Recorder	0.00	8367	Inside	4746.00	
Perforations	28.00			4774.00	
Bullnose	3.00			4777.00	32.00 Bottom Packers & Anchor
Total Tool Length:	52.00				



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Hart Energies, LLC.

Knorp Farms # 1

6903 So. 78th East Ave.
Tulsa, OK 74133

27 34s 10w Barber KS

Job Ticket: 33789

DST#: 3

ATTN: Bill Hart

Test Start: 2009.07.25 @ 20:45:14

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:	60000 ppm
Viscosity: 44.00 sec/qt	Cushion Volume: bbl		
Water Loss: 11.75 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 8700.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	SG&OCM 5%g 5%o 90%m	0.305
62.00	SGO&WCM 5%g 5%o 30%w 60%m	0.314
185.00	SMCW 90%w 10%m	2.595
0.00	50' GIP	0.000

Total Length: 309.00 ft Total Volume: 3.214 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

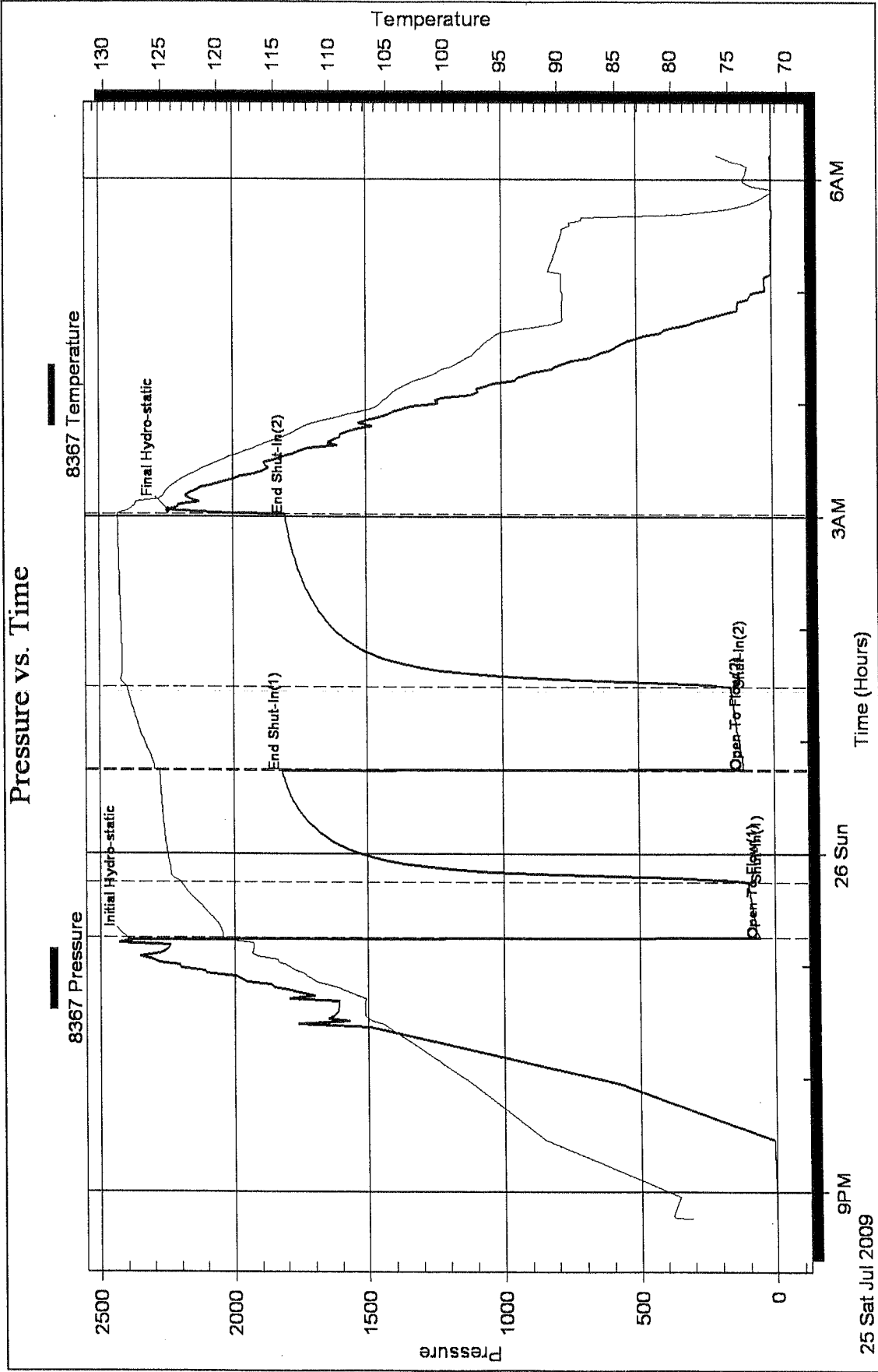
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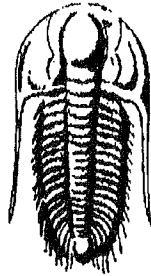
Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .064 @ 141 deg.

Pressure vs. Time





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6903 So. 78th East Ave.
Tulsa, OK 74133

ATTN: Bill Hart

27 34s 10w Barber KS

Knorp Farms # 1

Start Date: 2009.07.28 @ 02:28:39

End Date: 2009.07.28 @ 12:29:09

Job Ticket #: 33790 DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Hart Energies, LLC.

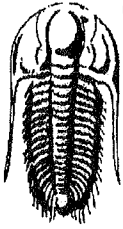
Knorp Farms # 1

27 34s 10w Barber KS

DST # 4

Kinderhook Sand

2009.07.28



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Hart Energies, LLC.
6903 So. 78th East Ave.
Tulsa, OK 74133
ATTN: Bill Hart

Knorp Farms # 1
27 34s 10w Barber KS
Job Ticket: 33790 **DST#: 4**
Test Start: 2009.07.28 @ 02:28:39

GENERAL INFORMATION:

Formation: **Kinderhook Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 04:54:39
Time Test Ended: 12:29:09
Test Type: Conventional Straddle
Tester: Jerry Adams
Unit No: 45
Interval: **4910.00 ft (KB) To 4964.00 ft (KB) (TVD)**
Total Depth: 5180.00 ft (KB) (TVD)
Reference Elevations: 1350.00 ft (KB)
1338.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair
KB to GR/CF: 12.00 ft

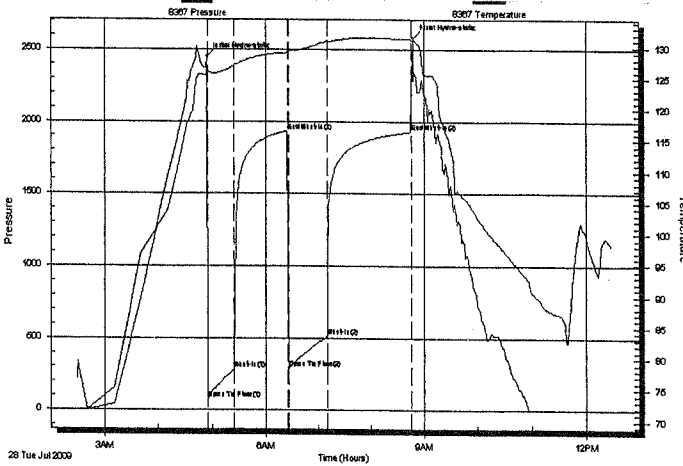
Serial #: 8367

Inside

Press@RunDepth: 511.51 psig @ 4920.00 ft (KB) Capacity: 7000.00 psig
Start Date: 2009.07.28 End Date: 2009.07.28 Last Calib.: 2009.07.28
Start Time: 02:28:40 End Time: 12:29:09 Time On Btm: 2009.07.28 @ 04:53:39
Time Off Btm: 2009.07.28 @ 08:47:09

TEST COMMENT: IF: Strong blow . BOB in 6 mins
IS: Weak blow . Built to 6", decreased to 3 1/2"
FF: Fair blow . BOB in 10 mins
FS: Weak blow . Built to 4", decreased to 2"

Pressure vs. Time



PRESSURE SUMMARY

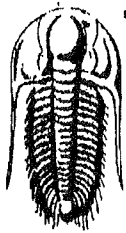
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2446.47	125.43	Initial Hydro-static
1	74.09	126.10	Open To Flow (1)
31	281.79	127.01	Shut-In(1)
91	1932.72	129.11	End Shut-In(1)
92	292.61	129.67	Open To Flow (2)
136	511.51	130.99	Shut-In(2)
232	1927.16	131.30	End Shut-In(2)
234	2580.56	131.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
295.00	SWCM 15%w 85%m	3.02
741.00	SMCV 90%w 10%m	10.39
0.00	Slight oil scum in tool.	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hart Energies, LLC.
6903 So. 78th East Ave.
Tulsa, OK 74133
ATTN: Bill Hart

Knorp Farms # 1
27 34s 10w Barber KS
Job Ticket: 33790 DST#: 4
Test Start: 2009.07.28 @ 02:28:39

Tool Information

Drill Pipe:	Length: 4796.00 ft	Diameter: 3.80 inches	Volume: 67.28 bbl	Tool Weight: 2500.00 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: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 67.88 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 63000.00 lb
Depth to Top Packer:	4910.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	4964.00 ft			
Interval between Packers:	54.00 ft			
Tool Length:	293.00 ft			
Number of Packers:	3	Diameter:	6.75 inches	

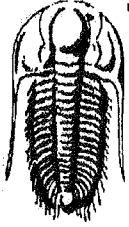
Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Shut In Tool	5.00			4895.00		
Hydraulic tool	5.00			4900.00		
Packer	5.00			4905.00	20.00	Bottom Of Top Packer
Packer	5.00			4910.00		
Stubb	1.00			4911.00		
Perforations	8.00			4919.00		
Change Over Sub	1.00			4920.00		
Recorder	0.00	8367	Inside	4920.00		
Blank Spacing	31.00			4951.00		
Change Over Sub	1.00			4952.00		
Perforations	11.00			4963.00		
Recorder	0.00	13249	Outside	4963.00		
Blank Off Sub	1.00			4964.00	54.00	Tool Interval
Packer	0.00			4964.00		
Stubb	1.00			4965.00		
Recorder	0.00	6798	Inside	4965.00		
Change Over Sub	1.00			4966.00		
Blank Spacing	186.00			5152.00		
Change Over Sub	1.00			5153.00		
Perforations	27.00			5180.00		
Bullnose	3.00			5183.00	219.00	Bottom Packers & Anchor

Total Tool Length: 293.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hart Energies, LLC.

Knorp Farms # 1

6903 So. 78th East Ave.
Tulsa, OK 74133

27 34s 10w Barber KS

Job Ticket: 33790

DST#: 4

ATTN: Bill Hart

Test Start: 2009.07.28 @ 02:28:39

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:

60000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbf

Water Loss: 10.16 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9300.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
295.00	SWCM 15%w 85%m	3.018
741.00	SMCW 90%w 10%m	10.394
0.00	Slight oil scum in tool.	0.000

Total Length: 1036.00 ft Total Volume: 13.412 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

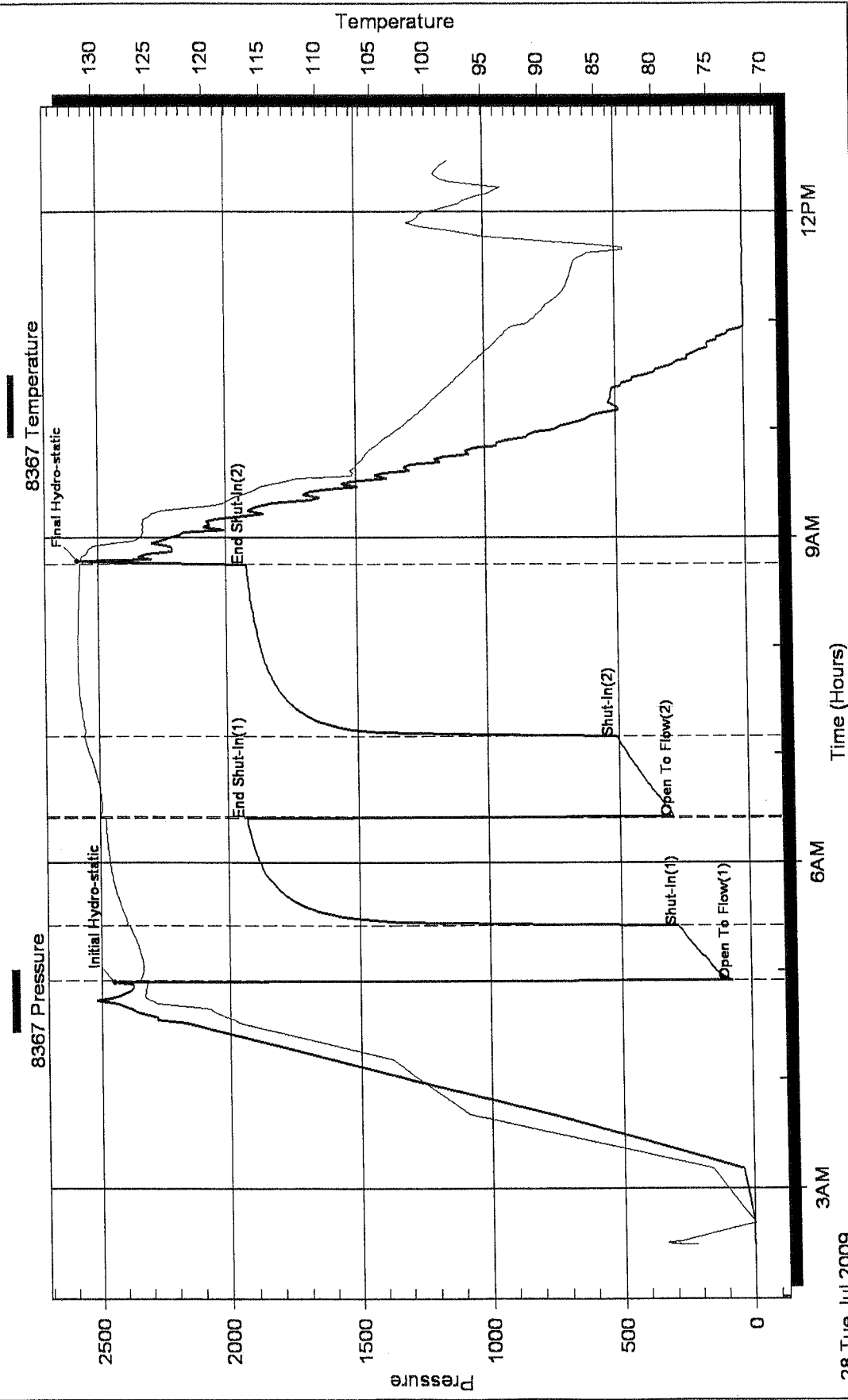
Serial #: none

Laboratory Name:

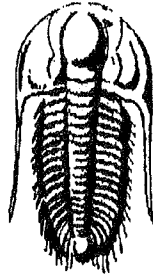
Laboratory Location:

Recovery Comments: RW = .063 @ 140 deg.

Pressure vs. Time



28 Tue Jul 2009



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Hart Energies, LLC.**

6903 So. 78th East Ave.
Tulsa, OK 74133

ATTN: Bill Hart

27 34s 10w Barber KS

Knorp Farms # 1

Start Date: 2009.07.28 @ 21:51:50

End Date: 2009.07.29 @ 07:05:50

Job Ticket #: 33791 DST #: 5

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Hart Energies, LLC.

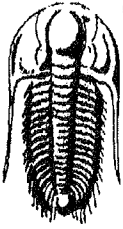
Knorp Farms # 1

27 34s 10w Barber KS

DST # 5

Simpson Sand

2009.07.28



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Hart Energies, LLC.

Knorp Farms # 1

6903 So. 78th East Ave.
Tulsa, OK 74133

27 34s 10w Barber KS

Job Ticket: 33791

DST#: 5

ATTN: Bill Hart

Test Start: 2009.07.28 @ 21:51:50

GENERAL INFORMATION:

Formation: **Simpson Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:43:50

Time Test Ended: 07:05:50

Test Type: Conventional Bottom Hole

Tester: Jerry Adams

Unit No: 45

Interval: **5181.00 ft (KB) To 5198.00 ft (KB) (TVD)**

Total Depth: 5198.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1350.00 ft (KB)

1338.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 6798

Inside

Press@RunDepth: 26.09 psig @ 5182.00 ft (KB)

Start Date: 2009.07.28

End Date:

2009.07.29

Capacity: 7000.00 psig

Last Calib.: 2009.07.29

Start Time: 21:51:51

End Time:

07:05:50

Time On Btm: 2009.07.29 @ 00:42:20

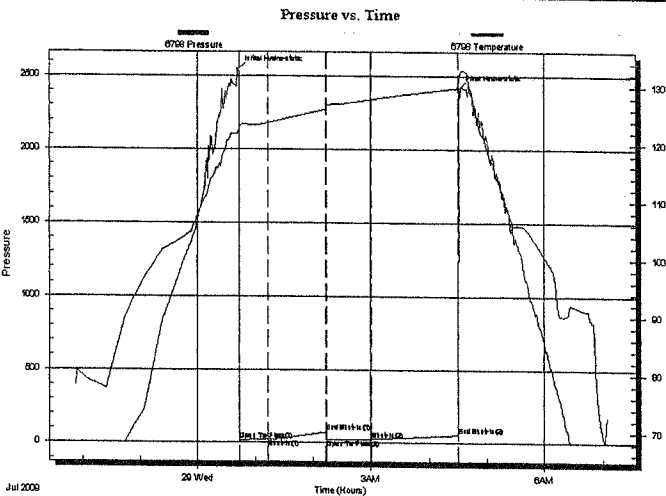
Time Off Btm: 2009.07.29 @ 04:30:20

TEST COMMENT: IF:Weak blow . Steady at 1/2".

ISI:No blow .

FF:No blow .

FSI:No blow .



PRESSURE SUMMARY

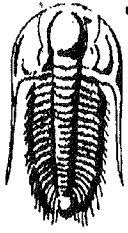
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	2542.01	121.75	Initial Hydro-static
2	18.18	122.91	Open To Flow (1)
31	20.29	123.63	Shut-In(1)
91	73.09	125.98	End Shut-In(1)
92	22.81	126.63	Open To Flow (2)
139	26.09	127.78	Shut-In(2)
227	54.37	129.75	End Shut-In(2)
228	2416.97	131.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Drilling Mud 100% _m	0.05

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hart Energies, LLC.
6903 So. 78th East Ave.
Tulsa, OK 74133
ATTN: Bill Hart

Knorp Farms # 1
27 34s 10w Barber KS
Job Ticket: 33791 **DST#: 5**
Test Start: 2009.07.28 @ 21:51:50

Tool Information

Drill Pipe:	Length: 5046.00 ft	Diameter: 3.80 inches	Volume: 70.78 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: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 105000.0 lb
			<u>Total Volume: 71.38 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 64000.00 lb
Depth to Top Packer:	5181.00 ft			Final 64000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	17.00 ft			
Tool Length:	37.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			5166.00	
Hydraulic tool	5.00			5171.00	
Packer	5.00			5176.00	20.00 Bottom Of Top Packer
Packer	5.00			5181.00	
Stubb	1.00			5182.00	
Recorder	0.00	6798	Inside	5182.00	
Recorder	0.00	8367	Inside	5182.00	
Perforations	13.00			5195.00	
Bullnose	3.00			5198.00	17.00 Bottom Packers & Anchor
Total Tool Length:	37.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hart Energies, LLC.

Knorp Farms # 1

6903 So. 78th East Ave.
Tulsa, OK 74133

27 34s 10w Barber KS

Job Ticket: 33791

DST#: 5

ATTN: Bill Hart

Test Start: 2009.07.28 @ 21:51:50

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: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.37 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 9200.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Drilling Mud 100% _m	0.049

Total Length: 10.00 ft

Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

