



DRILL STEM TEST REPORT

Prepared For: **IA Operating Inc.**

9915 W 21st Street
N Wichita Ks 67205

ATTN: Randy Killan

15 11 16 Ellis Ks

Charles #15-1

Start Date: 2008.10.06 @ 02:40:39

End Date: 2008.10.06 @ 09:43:39

Job Ticket #: 33695 DST #: 1

RECEIVED
KANSAS CORPORATION COMMISSION

NOV 24 2008

CONSERVATION DIVISION
WICHITA, KS

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

IA Operating Inc.
9915 W 21st Street
N Wichita Ks 67205
ATTN: Randy Killan

Charles #15-1
15 11 16 Ellis Ks
Job Ticket: 33695 DST#: 1
Test Start: 2008.10.06 @ 02:40:39

GENERAL INFORMATION:

Formation: **LKC "c-d"**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: **04:35:09**
Time Test Ended: **09:43:39**

Test Type: **Conventional Bottom Hole**
Tester: **Brett Dickinson**
Unit No: **#31**

Interval: **3047.00 ft (KB) To 3125.00 ft (KB) (TVD)**
Total Depth: **3125.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition:

Reference Elevations: **1852.00 ft (KB)**
1847.00 ft (CF)
KB to GR/CF: **5.00 ft**

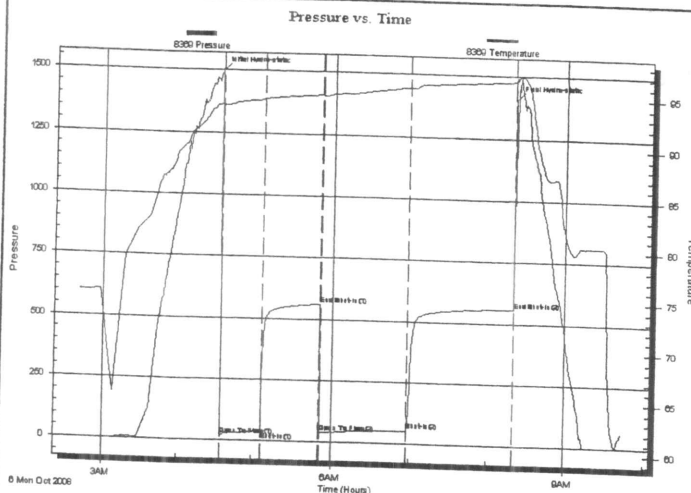
Serial #: 8369

Inside

Press@RunDepth: **56.66 psig @ 3050.00 ft (KB)**
Start Date: **2008.10.06** End Date: **2008.10.06**
Start Time: **02:40:44** End Time: **09:43:38**

Capacity: **7000.00 psig**
Last Calib.: **2008.10.06**
Time On Btm: **2008.10.06 @ 04:34:39**
Time Off Btm: **2008.10.06 @ 08:20:38**

TEST COMMENT: IF- 2.5in blow
ISI-No blow
FF-Weak surface blow, blew throughout
FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1497.35	94.01	Initial Hydro-static
1	19.47	93.59	Open To Flow (1)
32	37.80	94.33	Shut-In(1)
76	559.70	94.89	End Shut-In(1)
77	38.70	94.78	Open To Flow (2)
144	56.66	95.73	Shut-In(2)
226	558.51	96.56	End Shut-In(2)
226	1405.67	97.00	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
85.00	Mud	0.92

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

IA Operating Inc.

Charles #15-1

9915 W 21st Street
N Wichita Ks 67205

15 11 16 Ellis Ks

Job Ticket: 33695

DST#: 1

ATTN: Randy Killan

Test Start: 2008.10.06 @ 02:40:39

Tool Information

Drill Pipe:	Length: 3020.00 ft	Diameter: 3.80 inches	Volume: 42.36 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - 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:	50000.00 lb
			<u>Total Volume:</u> - bbl	Tool Chased	ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3047.00 ft			Final	38000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	78.00 ft				
Tool Length:	98.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3028.00	
Shut In Tool	5.00			3033.00	
Hydraulic tool	5.00			3038.00	
Packer	4.00			3042.00	20.00 Bottom Of Top Packer
Packer	5.00			3047.00	
Stubb	1.00			3048.00	
Perforations	2.00			3050.00	
Recorder	0.00	8319	Inside	3050.00	
Recorder	0.00	8369	Inside	3050.00	
Change Over Sub	1.00			3051.00	
Blank Spacing	62.00			3113.00	
Change Over Sub	1.00			3114.00	
Perforations	8.00			3122.00	
Bullnose	3.00			3125.00	78.00 Bottom Packers & Anchor

Total Tool Length: 98.00



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FLUID SUMMARY

IA Operating Inc.

Charles #15-1

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Job Ticket: 33695

DST#: 1

ATTN: Randy Killan

Test Start: 2008.10.06 @ 02:40:39

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length:	Water Salinity:	ppm
Viscosity: 49.00 sec/qt			
Water Loss: 9.57 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure:		
Salinity: 4000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
85.00	Mud	0.919

Total Length: 85.00 ft Total Volume: 0.919 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

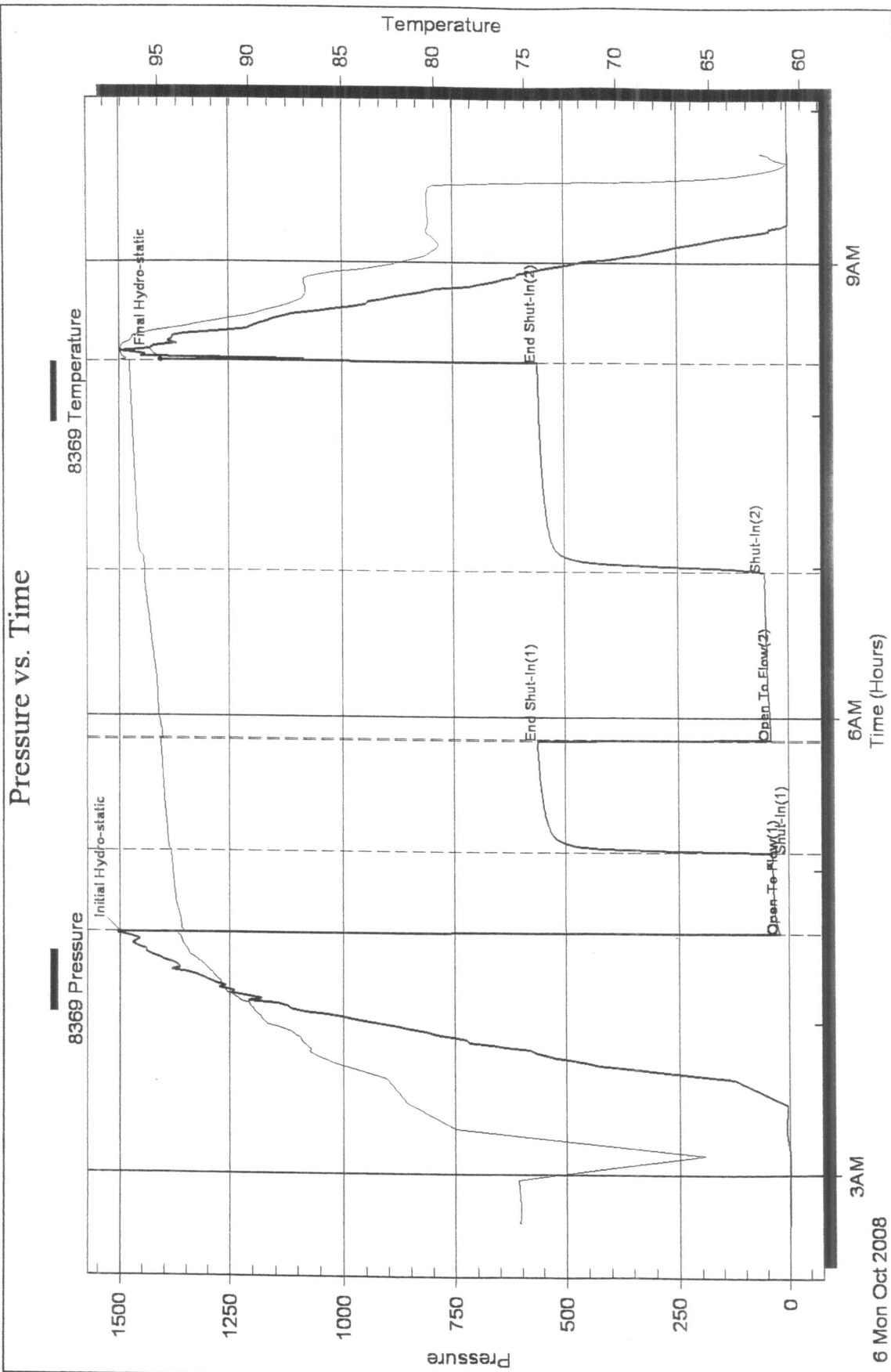
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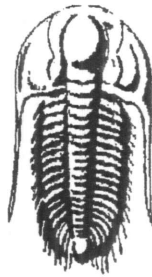
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





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DRILL STEM TEST REPORT

Prepared For: **IA Operating Inc.**

9915 W 21st Street
N Wichita Ks 67205

ATTN: Randy Killan

15 11 16 Ellis Ks

Charles #15-1

Start Date: 2008.10.06 @ 23:11:39

End Date: 2008.10.07 @ 03:54:09

Job Ticket #: 33696 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

IA Operating Inc.

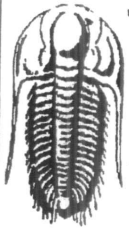
Charles #15-1

15 11 16 Ellis Ks

DST # 2

LKC "G-L"

2008.10.06



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DRILL STEM TEST REPORT

IA Operating Inc.
9915 W 21st Street
N Wichita Ks 67205
ATTN: Randy Killan

Charles #15-1
15 11 16 Ellis Ks
Job Ticket: 33696 DST#: 2
Test Start: 2008.10.06 @ 23:11:39

GENERAL INFORMATION:

Formation: **LKC "G-L"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:44:39
Time Test Ended: 03:54:09
Interval: 3180.00 ft (KB) To 3300.00 ft (KB) (TVD)
Total Depth: 3300.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:

Test Type: Conventional Bottom Hole
Tester: Brett Dickinson
Unit No: #31
Reference Elevations: 1852.00 ft (KB)
1847.00 ft (CF)
KB to GR/CF: 5.00 ft

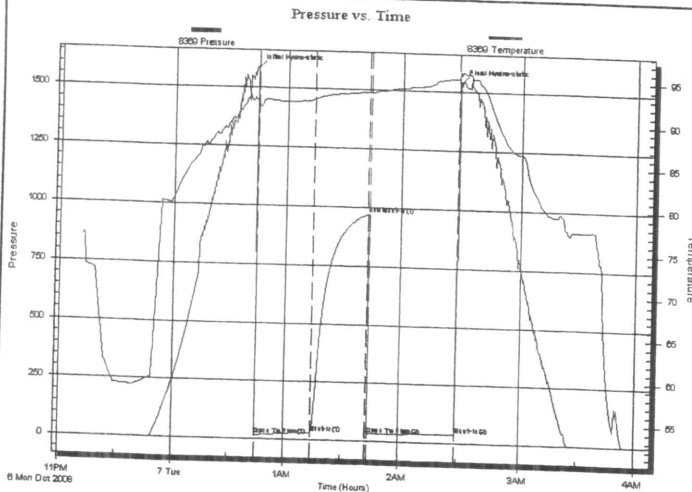
Serial #: 8369

Inside

Press@RunDepth: 30.27 psig @ 3183.00 ft (KB)
Start Date: 2008.10.06 End Date: 2008.10.07
Start Time: 23:11:44 End Time: 03:54:08

Capacity: 7000.00 psig
Last Calib.: 2008.10.07
Time On Btm: 2008.10.07 @ 00:44:09
Time Off Btm: 2008.10.07 @ 02:29:39

TEST COMMENT: IF- 1.25in blow
IS- No blow
FF- Weak surface blow died in 22min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1584.17	92.17	Initial Hydro-static
1	16.71	91.71	Open To Flow (1)
30	30.27	92.42	Shut-In(1)
59	969.31	93.36	End Shut-In(1)
60	31.50	93.24	Open To Flow (2)
105	39.08	95.19	Shut-In(2)
106	1537.74	95.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	Mud	0.43

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

IA Operating Inc.

Charles #15-1

9915 W 21st Street
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Job Ticket: 33696

DST#: 2

ATTN: Randy Killan

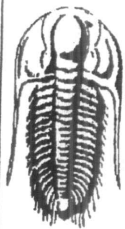
Test Start: 2008.10.06 @ 23:11:39

Tool Information

Drill Pipe:	Length: 3143.00 ft	Diameter: 3.80 inches	Volume: 44.09 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - 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: 50000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3180.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	120.00 ft			
Tool Length:	140.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3161.00	
Shut In Tool	5.00			3166.00	
Hydraulic tool	5.00			3171.00	
Packer	4.00			3175.00	20.00 Bottom Of Top Packer
Packer	5.00			3180.00	
Stubb	1.00			3181.00	
Perforations	2.00			3183.00	
Recorder	0.00	8319	Inside	3183.00	
Recorder	0.00	8369	Inside	3183.00	
Perforations	18.00			3201.00	
Change Over Sub	1.00			3202.00	
Blank Spacing	93.00			3295.00	
Change Over Sub	1.00			3296.00	
Perforations	1.00			3297.00	
Bullnose	3.00			3300.00	120.00 Bottom Packers & Anchor
Total Tool Length:	140.00				



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Job Ticket: 33696

DST#: 2

ATTN: Randy Killan

Test Start: 2008.10.06 @ 23:11:39

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 55.00 sec/qt

Water Loss: 10.77 in³

Resistivity: ohm.m

Salinity: 5000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	Mud	0.428

Total Length: 50.00 ft

Total Volume: 0.428 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

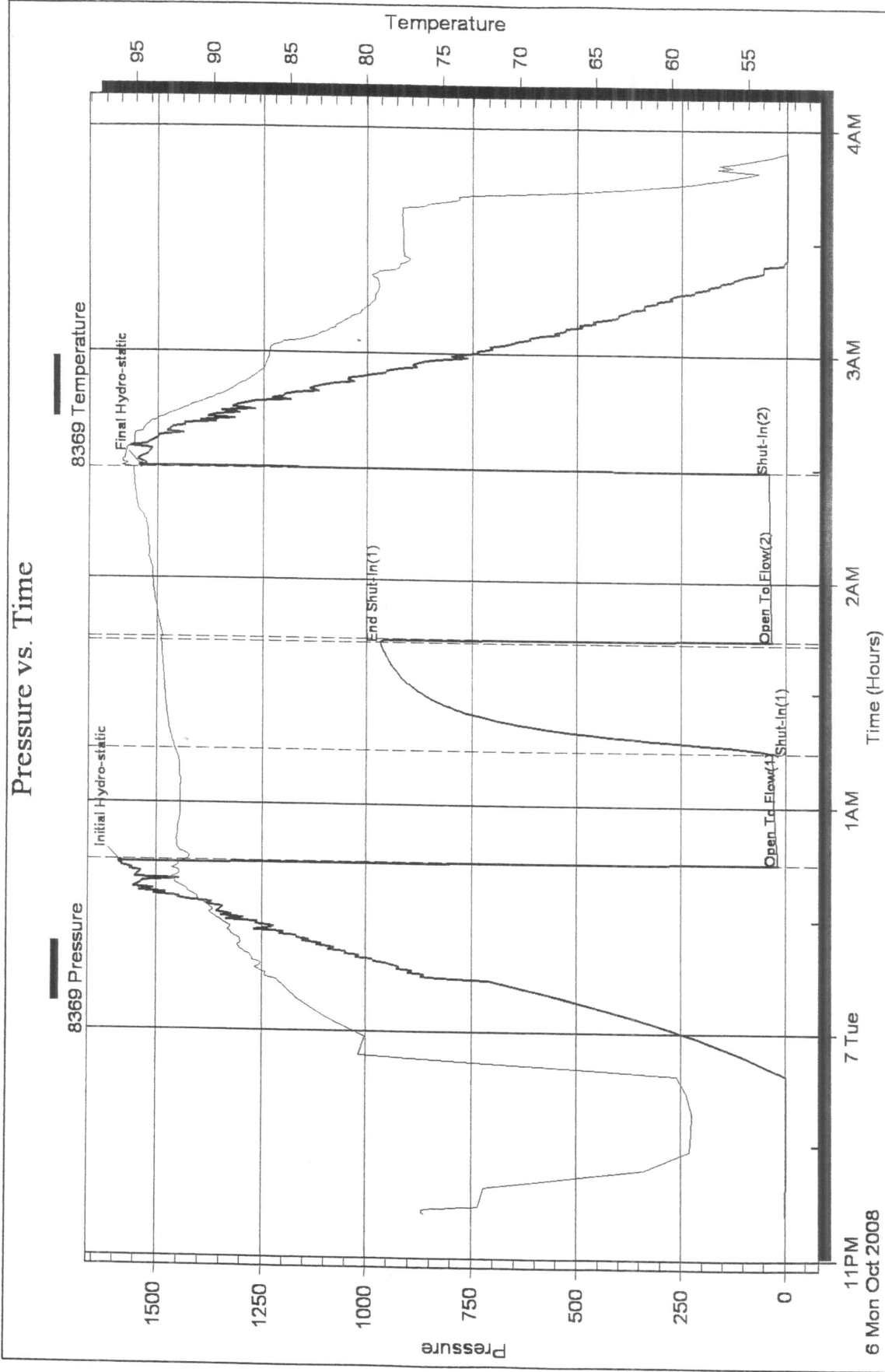
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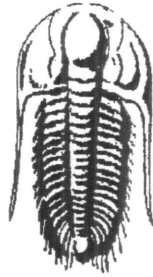
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





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Prepared For: **IA Operating Inc.**

9915 W 21st Street
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Charles #15-1

Start Date: 2008.10.07 @ 22:26:40

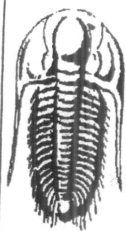
End Date: 2008.10.08 @ 06:08:40

Job Ticket #: 33697 DST #: 3

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DRILL STEM TEST REPORT

IA Operating Inc.
 9915 W 21st Street
 N Wichita Ks 67205
 ATTN: Randy Killan

Charles #15-1
15 11 16 Ellis Ks
 Job Ticket: 33697 DST#: 3
 Test Start: 2008.10.07 @ 22:26:40

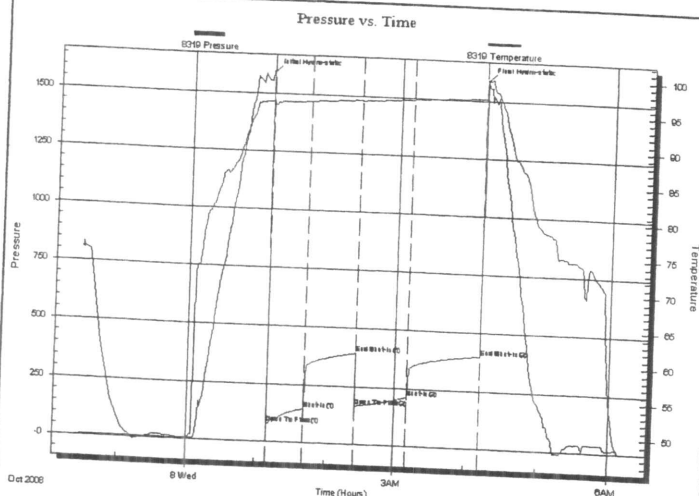
GENERAL INFORMATION:

Formation:
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:09:40
 Time Test Ended: 06:08:40
 Interval: **3119.00 ft (KB) To 3166.00 ft (KB) (TVD)**
 Total Depth: 3549.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition:

Test Type: Conventional Straddle
 Tester: Brett Dickinson
 Unit No: #31
 Reference Elevations: 1852.00 ft (KB)
 1847.00 ft (CF)
 KB to GRVCF: 5.00 ft

Serial #: 8319 **Inside**
 Press@RunDepth: 211.57 psig @ 3120.00 ft (KB)
 Start Date: 2008.10.07 End Date: 2008.10.08
 Start Time: 22:26:45 End Time: 06:08:39
 Capacity: 7000.00 psig
 Last Calib.: 2008.10.08
 Time On Btm: 2008.10.08 @ 01:09:10
 Time Off Btm: 2008.10.08 @ 04:13:09

TEST COMMENT: IF- BOB in 11min
 IS- No blow
 FF- 4.5in blow
 FS- No blow



PRESSURE SUMMARY

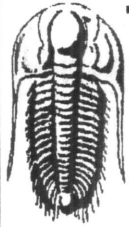
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1591.20	95.63	Initial Hydro-static
1	76.41	95.22	Open To Flow (1)
33	144.72	95.75	Shut-In(1)
76	392.00	96.18	End Shut-In(1)
77	166.10	96.10	Open To Flow (2)
122	211.57	96.51	Shut-In(2)
183	398.54	97.04	End Shut-In(2)
184	1584.63	99.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
165.00	Mud	2.31
240.00	M CW 55%W 45%M	3.37

Gas Rates

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



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DRILL STEM TEST REPORT

TOOL DIAGRAM

IA Operating Inc.

Charles #15-1

9915 W 21st Street
N Wichita Ks 67205

15 11 16 Ellis Ks

Job Ticket: 33697

DST#: 3

ATTN: Randy Killan

Test Start: 2008.10.07 @ 22:26:40

Tool Information

Drill Pipe:	Length: 3114.00 ft	Diameter: 3.80 inches	Volume: 43.68 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 43.68 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 42000.00 lb
Depth to Top Packer:	3119.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	3166.00 ft			
Interval between Packers:	47.00 ft			
Tool Length:	450.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3100.00	
Shut In Tool	5.00			3105.00	
Hydraulic tool	5.00			3110.00	
Packer	4.00			3114.00	20.00 Bottom Of Top Packer
Packer	5.00			3119.00	
Stubb	1.00			3120.00	
Recorder	0.00	8319	Inside	3120.00	
Perforations	5.00			3125.00	
Change Over Sub	1.00			3126.00	
Blank Spacing	31.00			3157.00	
Change Over Sub	1.00			3158.00	
Recorder	0.00	13308	Inside	3158.00	
Perforations	4.00			3162.00	
Blank Off Sub	1.00			3163.00	
Blank Spacing	3.00			3166.00	47.00 Tool Interval
Packer	0.00			3166.00	
Stubb	1.00			3167.00	
Recorder	0.00	8369	Below	3167.00	
Perforations	1.00			3168.00	
Change Over Sub	1.00			3169.00	
Blank Spacing	373.00			3542.00	
Change Over Sub	1.00			3543.00	
Perforations	3.00			3546.00	
Bullnose	3.00			3549.00	383.00 Bottom Packers & Anchor
Total Tool Length:	450.00				



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DRILL STEM TEST REPORT

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9915 W 21st Street
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Job Ticket: 33697

DST#: 3

ATTN: Randy Killan

Test Start: 2008.10.07 @ 22:26:40

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 49.00 sec/qt

Water Loss: 9.57 in³

Resistivity: ohm.m

Salinity: 4000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
165.00	Mud	2.315
240.00	MCW 55%W 45%M	3.367

Total Length: 405.00 ft

Total Volume: 5.682 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

