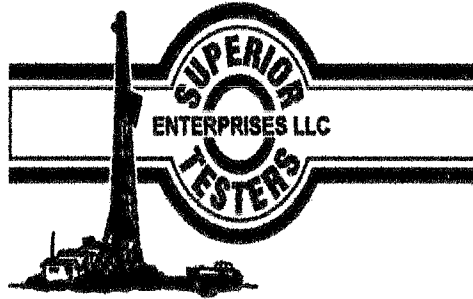


15-063-21791

29-13s-3lw

10/10/09



DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

29-13-31

HESS 29C #1

Start Date: 2009.07.19 @ 19:13:22

End Date: 2009.07.20 @ 02:14:22

Job Ticket #: 16417 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2009.07.19 @ 19:24:23

RITCHIE EXPLORATION INC

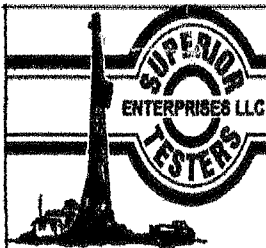
HESS 29C #1

29-13-31

DST # 1

LKC-C-

2009.07.19



DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

8100 E 22ND ST NW700
WICHITA KS 67278

ATTN: STEVE CARL

HESS 29C #1

29-13-31

Job Ticket: 16417

DST#: 1

Test Start: 2009.07.19 @ 19:13:22

GENERAL INFORMATION:

Formation: LKC -C-

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:04:52

Time Test Ended: 02:14:22

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: 3937.00 ft (KB) To 3969.00 ft (KB) (TVD)

Total Depth: 3969.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8405

Inside

Press@RunDepth: 300.26 psia @ 3964.00 ft (KB)

Start Date: 2009.07.19

End Date: 2009.07.20

Start Time: 19:13:22

End Time: 02:14:22

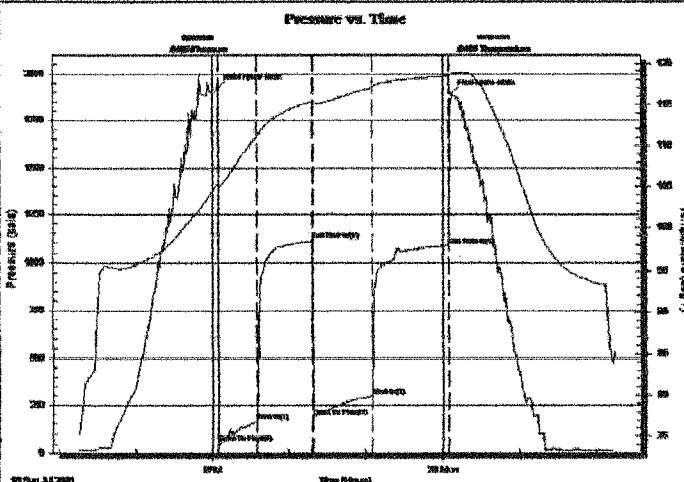
Capacity: 5000.00 psia

Last Calib.: 2009.07.19

Time On Btm: 2009.07.19 @ 21:04:22

Time Off Btm: 2009.07.20 @ 00:06:22

TEST COMMENT: 30-INITIAL OPENING WEAK BLOW BOTTOM OF THE BUCKET IN 28 MINS
45-INITIAL SHUT IN WEAK BLOW BACK
45-FINAL OPENING WEAK BLOW BOTTOM OF THE BUCKET IN 25 MINS
60-FINAL SHUT IN WEAK BLOW BACK



PRESSURE SUMMARY

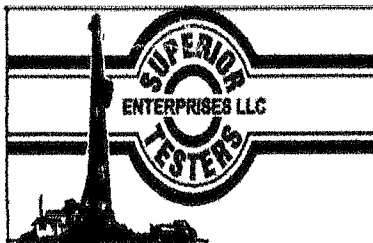
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1925.10	105.40	Initial Hydro-static
1	52.72	104.89	Open To Flow (1)
31	169.48	111.05	Shut-In (1)
75	1118.98	115.34	End Shut-In (1)
75	191.49	115.01	Open To Flow (2)
121	300.26	117.02	Shut-In (2)
180	1087.36	118.44	End Shut-In (2)
182	1893.72	118.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	CLEAN OIL 100%O	0.00
120.00	OIL CUT MUD TRACE OF WATER 25%O70.005%W	
180.00	OIL AND WATER CUT MUD 15%O60%W20.00V	
270.00	WATER WITH A TRACE OF OIL 5%O95%0.30	

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16417

DST#: 1

ATTN: STEVE CARL

Test Start: 2009.07.19 @ 19:13:22

GENERAL INFORMATION:

Formation: LKC -C-

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:04:52

Time Test Ended: 02:14:22

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: 3937.00 ft (KB) To 3969.00 ft (KB) (TVD)

Total Depth: 3969.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6450

Outside

Press@RunDepth: 1087.91 psia @ 3964.00 ft (KB)

Start Date: 2009.07.19

End Date:

2009.07.20

Start Time: 19:13:02

End Time:

02:17:12

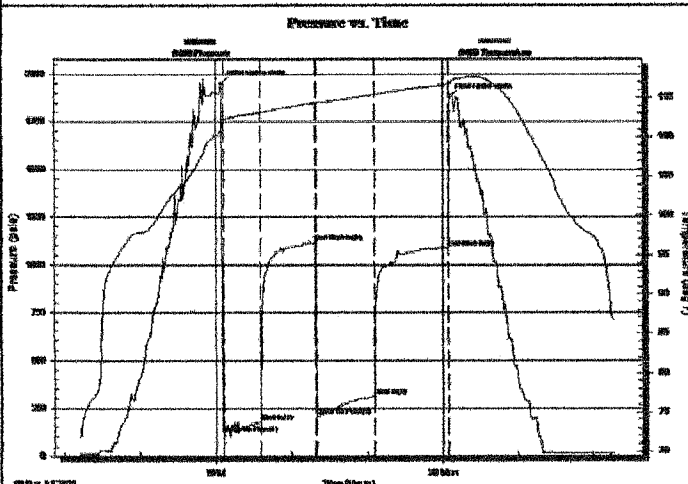
Capacity: 5000.00 psia

Last Calib.: 2009.07.19

Time On Btm: 2009.07.19 @ 21:04:13

Time Off Btm: 2009.07.20 @ 00:05:13

TEST COMMENT: 30-INITIAL OPENING WEAK BLOW BOTTOM OF THE BUCKET IN 28 MINS
45-INITIAL SHUT IN WEAK BLOW BACK
45-FINAL OPENING WEAK BLOW BOTTOM OF THE BUCKET IN 25 MINS
60-FINAL SHUT IN WEAK BLOW BACK



PRESSURE SUMMARY

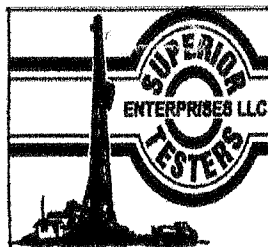
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1948.44	110.84	Initial Hydro-static
2	114.65	111.67	Open To Flow (1)
31	182.36	113.07	Shut-In (1)
75	1118.64	114.38	End Shut-In (1)
75	208.67	114.33	Open To Flow (2)
121	312.58	115.40	Shut-In (2)
180	1087.91	116.66	End Shut-In (2)
181	1876.12	116.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	CLEAN OIL 100%O	0.00
120.00	OIL CUT MUD TRACE OF WATER 25%O 70.00%W	0.00
180.00	OIL AND WATER CUT MUD 15%O 60%W	0.00
270.00	WATER WITH A TRACE OF OIL 5%O 95%W	0.30

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST NW700
WICHITA KS 67278

29-13-31

Job Ticket: 16417

DST#: 1

ATTN: STEVE CARL

Test Start: 2009.07.19 @ 19:13:22

Tool Information

Drill Pipe:	Length: 3378.00 ft	Diameter: 3.88 inches	Volume: 49.40 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 540.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose: 75000.00 lb
		Total Volume:	52.06 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	542.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3937.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	53.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3917.00	
Shut-In Tool	5.00			3922.00	
Hydraulic Tool	5.00			3927.00	
Packer	5.00			3932.00	21.00 Bottom Of Top Packer
Packer	5.00			3937.00	
Perforations	27.00			3964.00	
Recorder	0.00	8405	Inside	3964.00	
Recorder	0.00	71986	Outside	3964.00	
Bullnose	5.00			3969.00	32.00 Bottom Packers & Anchor
Total Tool Length:	53.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RTICHE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST NW700
WICHITA KS 67278

29-13-31

Job Ticket: 16417

DST#: 1

ATTN: STEVE CARL

Test Start: 2009.07.19 @ 19:13:22

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 3100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	CLEAN OIL 100%O	0.000
120.00	OIL CUT MUD TRACE OF WATER 25%O70%A	0.000
180.00	OIL AND WATER CUT MUD 15%O60%M25%v	0.000
270.00	WATER WITH A TRACE OF OIL 5%O95%W	0.295

Total Length: 600.00 ft

Total Volume: 0.295 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 1

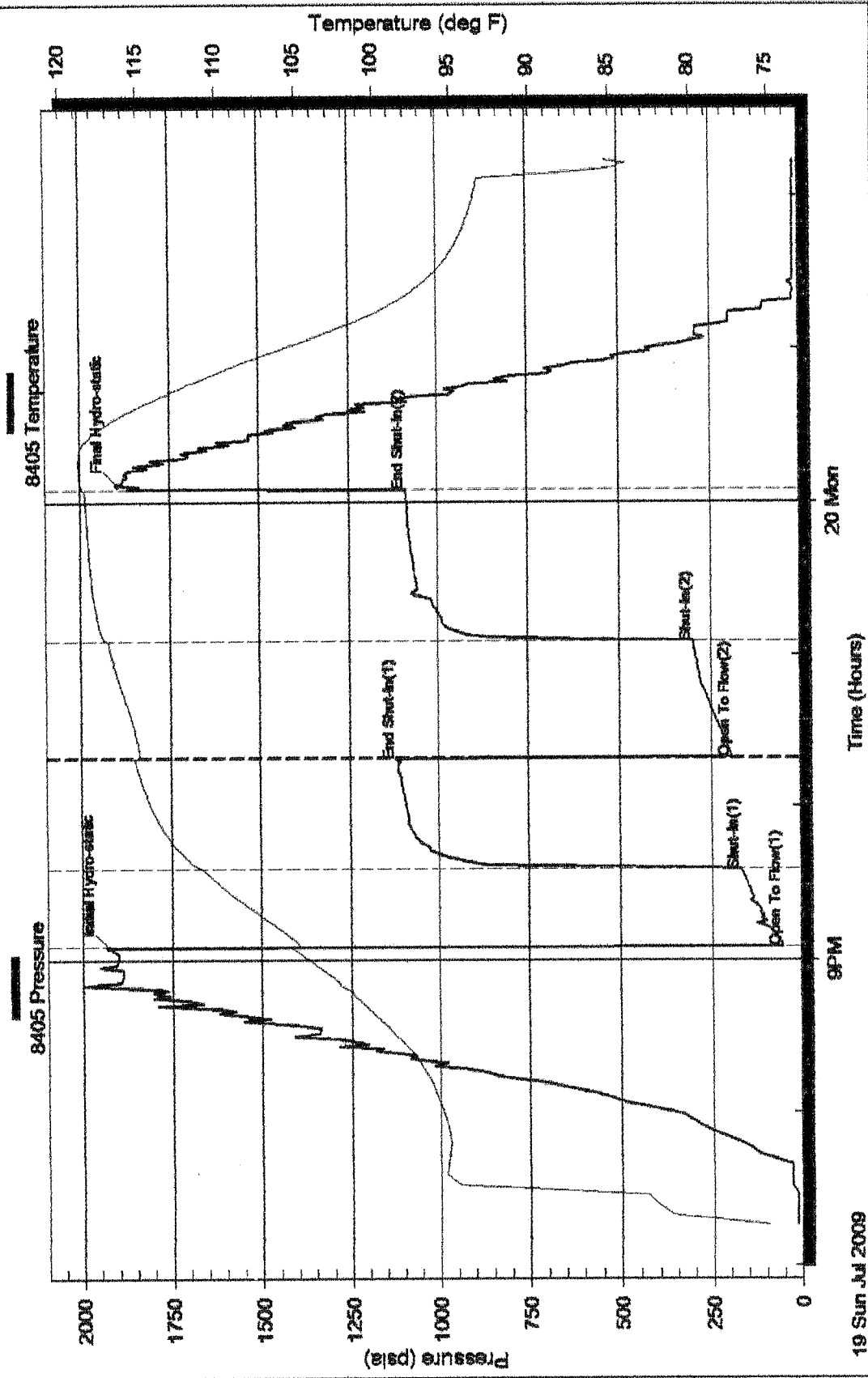
29-13-31

RTICHE EXPLORATION INC

Inside

Serial #: 8405

Pressure vs. Time



Printed: 2009.07.19 @ 19:24:24

Ref. No: 16417

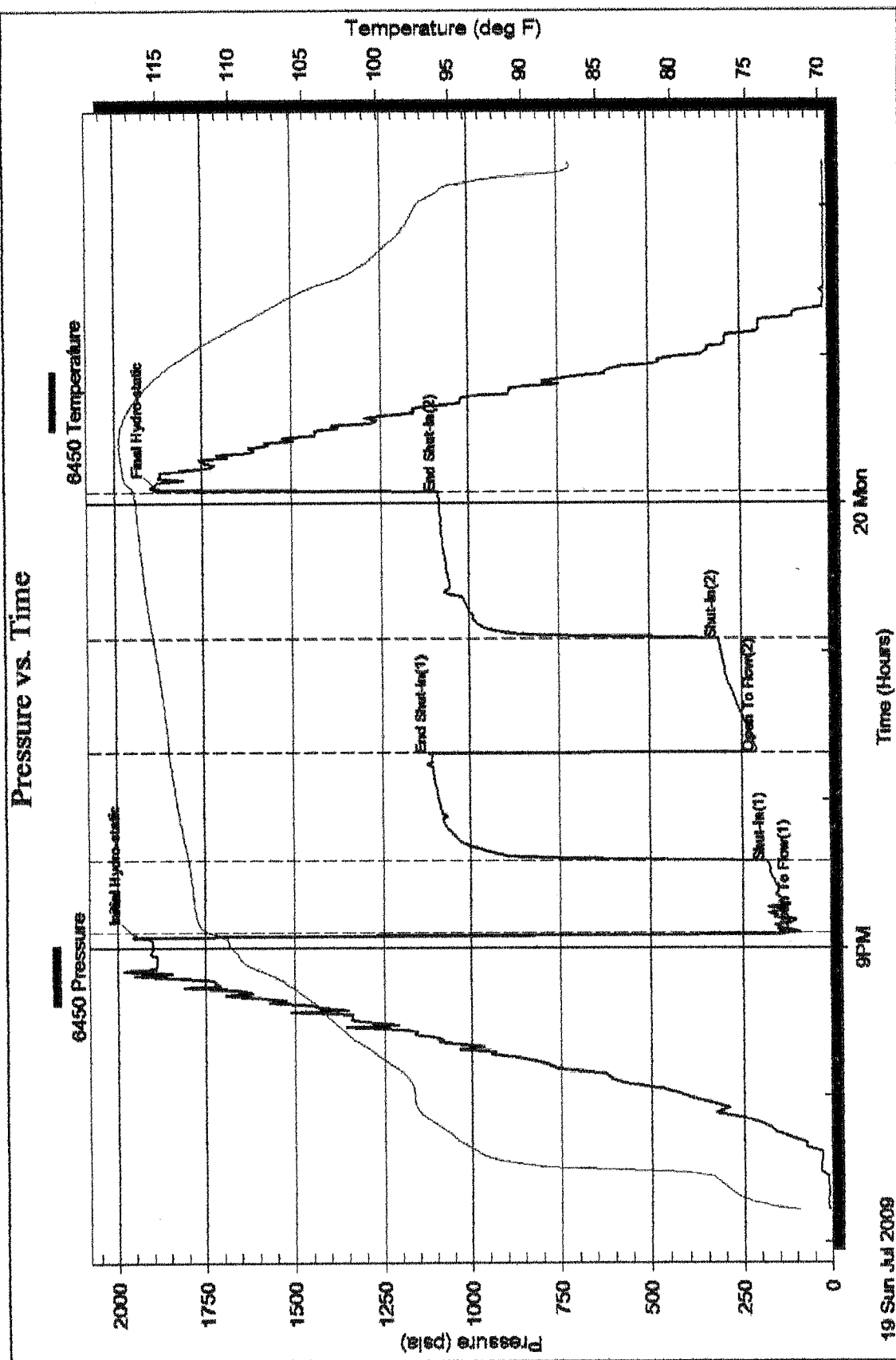
Superior Testers Enterprises LLC

DST Test Number: 1

29-13-31

Serial #: 6450 Outside RITCHIE EXPLORATION INC

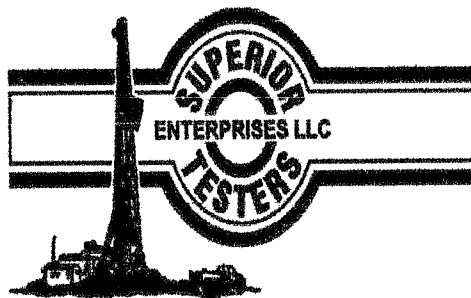
Pressure vs. Time



Printed: 2009.07.19 @ 19:24:25

Ref. No: 16417

Superior Testers Enterprises LLC



DRILL STEM TEST REPORT

Prepared For: **RITICHIE EXPLORATION INC**

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

29-13-31

HESS 29C #1

Start Date: 2009.07.20 @ 09:15:05

End Date: 2009.07.20 @ 17:18:35

Job Ticket #: 16418 DST #: 2

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2009.07.20 @ 09:29:56

RITICHIE EXPLORATION INC

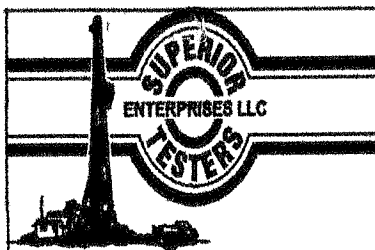
HESS 29C #1

29-13-31

DST # 2

LKC

2009.07.20



DRILL STEM TEST REPORT

RITICHE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16418

DST#: 2

ATTN: STEVE CARL

Test Start: 2009.07.20 @ 09:15:05

GENERAL INFORMATION:

Formation: LKC

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:39:35

Time Test Ended: 17:18:35

Interval: 3969.00 ft (KB) To 4009.00 ft (KB) (TVD)

Total Depth: 4009.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8405

Press@RunDepth: 129.21 psia @ ft (KB)

Start Date: 2009.07.20

End Date:

2009.07.20

Start Time: 09:15:05

End Time:

17:18:35

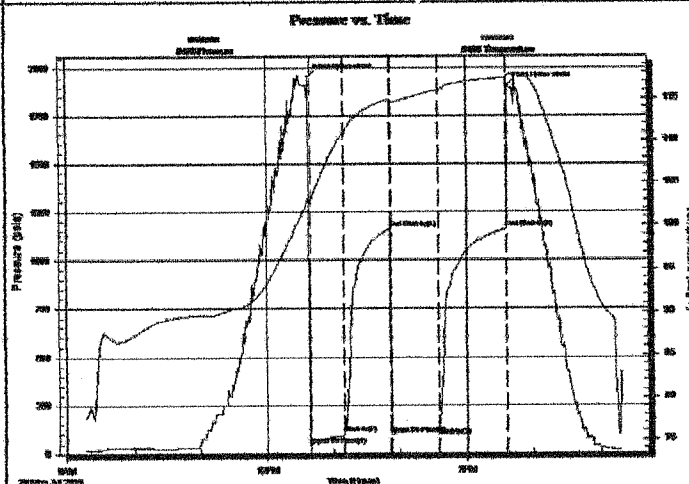
Capacity: 5000.00 psia

Last Calib.: 2009.07.20

Time On Btm: 2009.07.20 @ 12:38:35

Time Off Btm: 2009.07.20 @ 15:37:05

TEST COMMENT: 30-INITIAL OPENING WEAK BLOW BUILT TO 5 INCHES INTO WATER
45-INITIAL SHUT IN NO BLOW BACK
45-FINAL OPENING WEAK BLOW BUILT TO 6 INCHES INTO WATER
60-FINAL SHUT IN NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1954.08	103.46	Initial Hydro-static
1	44.85	102.69	Open To Flow (1)
31	98.70	110.85	Shut-in(1)
73	1159.16	114.91	End Shut-in(1)
74	95.60	114.51	Open To Flow (2)
116	129.21	115.92	Shut-in(2)
177	1158.38	117.43	End Shut-in(2)
179	1903.48	117.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mc/d)
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DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16418

DST#: 2

ATTN: STEVE CARL

Test Start: 2009.07.20 @ 09:15:05

GENERAL INFORMATION:

Formation: LKC

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:39:35

Time Test Ended: 17:18:35

Interval: 3969.00 ft (KB) To 4009.00 ft (KB) (TVD)

Total Depth: 4009.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 71986

Press@RunDepth: 1154.61 psia @ ft (KB)

Start Date: 2009.07.20 End Date: 2009.07.20

Start Time: 09:15:24 End Time: 17:23:36

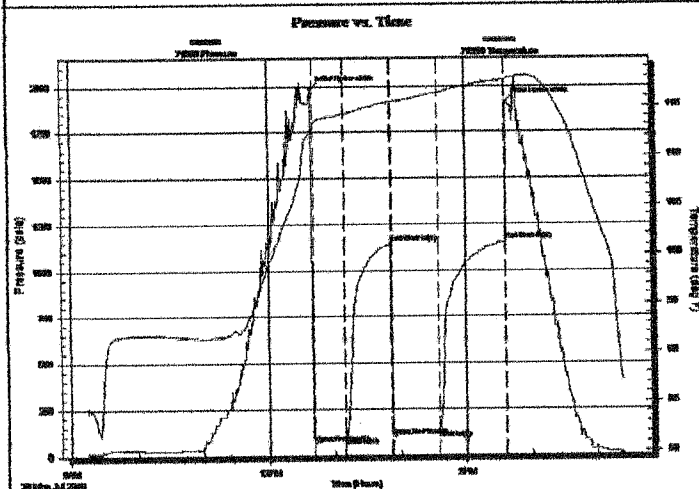
Capacity: 5000.00 psia

Last Calib.: 2009.07.20

Time On Btm: 2009.07.20 @ 12:39:06

Time Off Btm: 2009.07.20 @ 15:37:06

TEST COMMENT: 30-INITIAL OPENING WEAK BLOW BUILT TO 5 INCHES INTO WATER
45-INITIAL SHUT IN NO BLOW BACK
45-FINAL OPENING WEAK BLOW BUILT TO 6 INCHES INTO WATER
60-FINAL SHUT IN NO BLOW BACK



PRESSURE SUMMARY

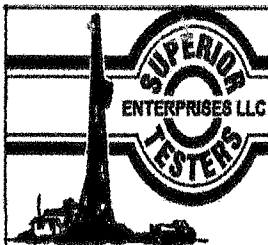
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1984.77	112.28	Initial Hydro-static
2	67.43	113.00	Open To Flow (1)
31	92.82	114.21	Shut-In(1)
73	1146.62	115.53	End Shut-In(1)
74	102.11	115.51	Open To Flow (2)
116	131.64	116.37	Shut-In(2)
177	1154.61	117.70	End Shut-In(2)
178	1913.56	117.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16418

DST#: 2

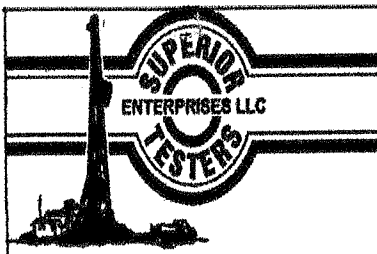
ATTN: STEVE CARL

Test Start: 2009.07.20 @ 09:15:05

Tool Information

Drill Pipe:	Length: 3410.00 ft	Diameter: 3.88 inches	Volume: 48.87 bbl	Tool Weight: 2000.00 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: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume: 52.53 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3969.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	61.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3949.00	
Shut-In Tool	5.00			3954.00	
Hydrolic Tool	5.00			3959.00	
Packer	5.00			3964.00	21.00 Bottom Of Top Packer
Packer	5.00			3969.00	
Perforations	35.00			4004.00	
Recorder	0.00		Inside	4004.00	
Recorder	0.00		Outside	4004.00	
Bullnose	5.00			4009.00	40.00 Bottom Packers & Anchor
Total Tool Length:	61.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RTICHE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16418

DST#: 2

ATTN: STEVE CARL

Test Start: 2009.07.20 @ 09:15:05

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 46.00 sec/qt

Water Loss: 6.80 in²

Resistivity: ohm.m

Salinity: 3100.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl

Total Length: ft

Total Volume: bbl

Num Fluid Samples: 0

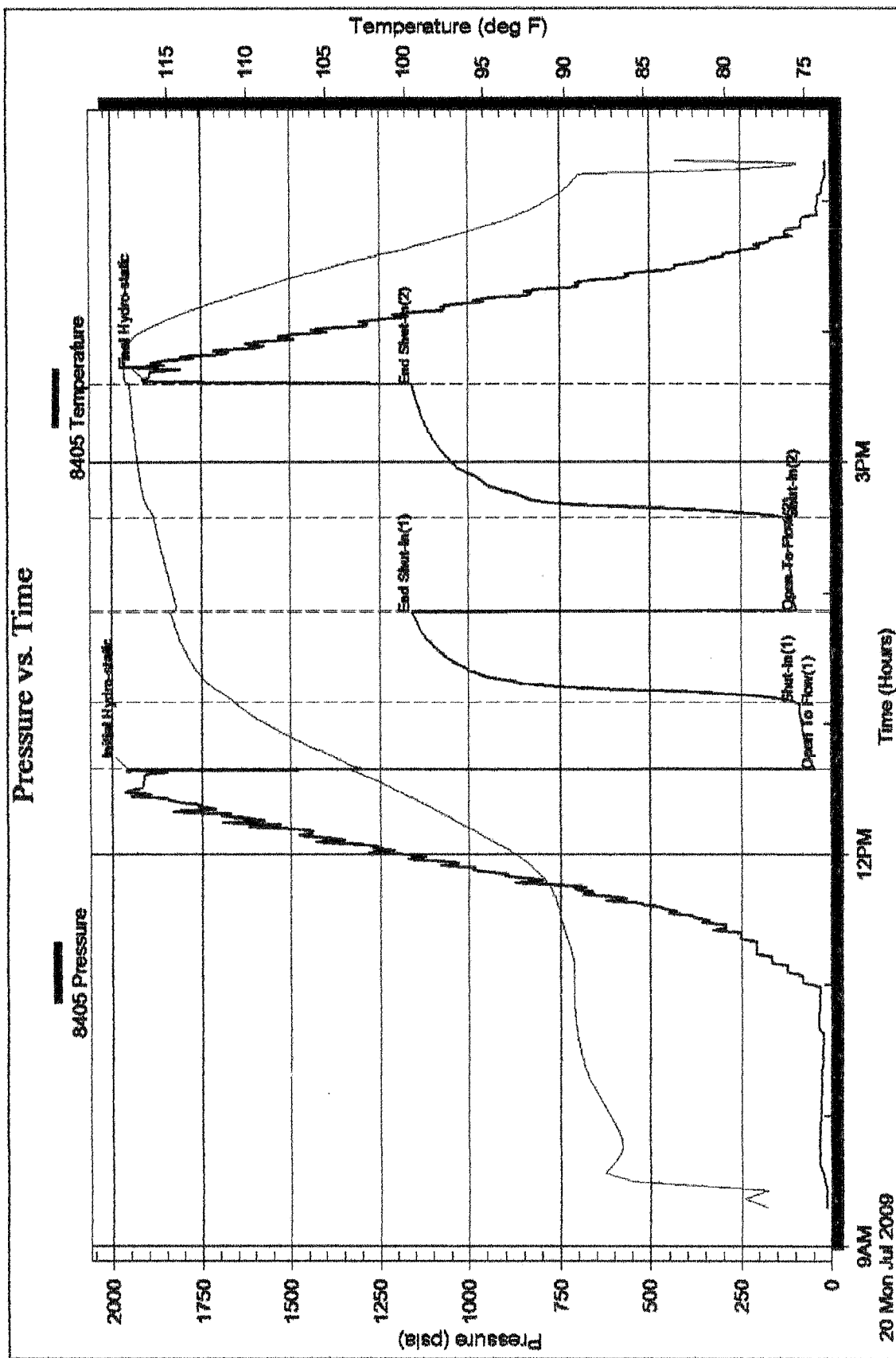
Num Gas Bombs: 0

Serial #:

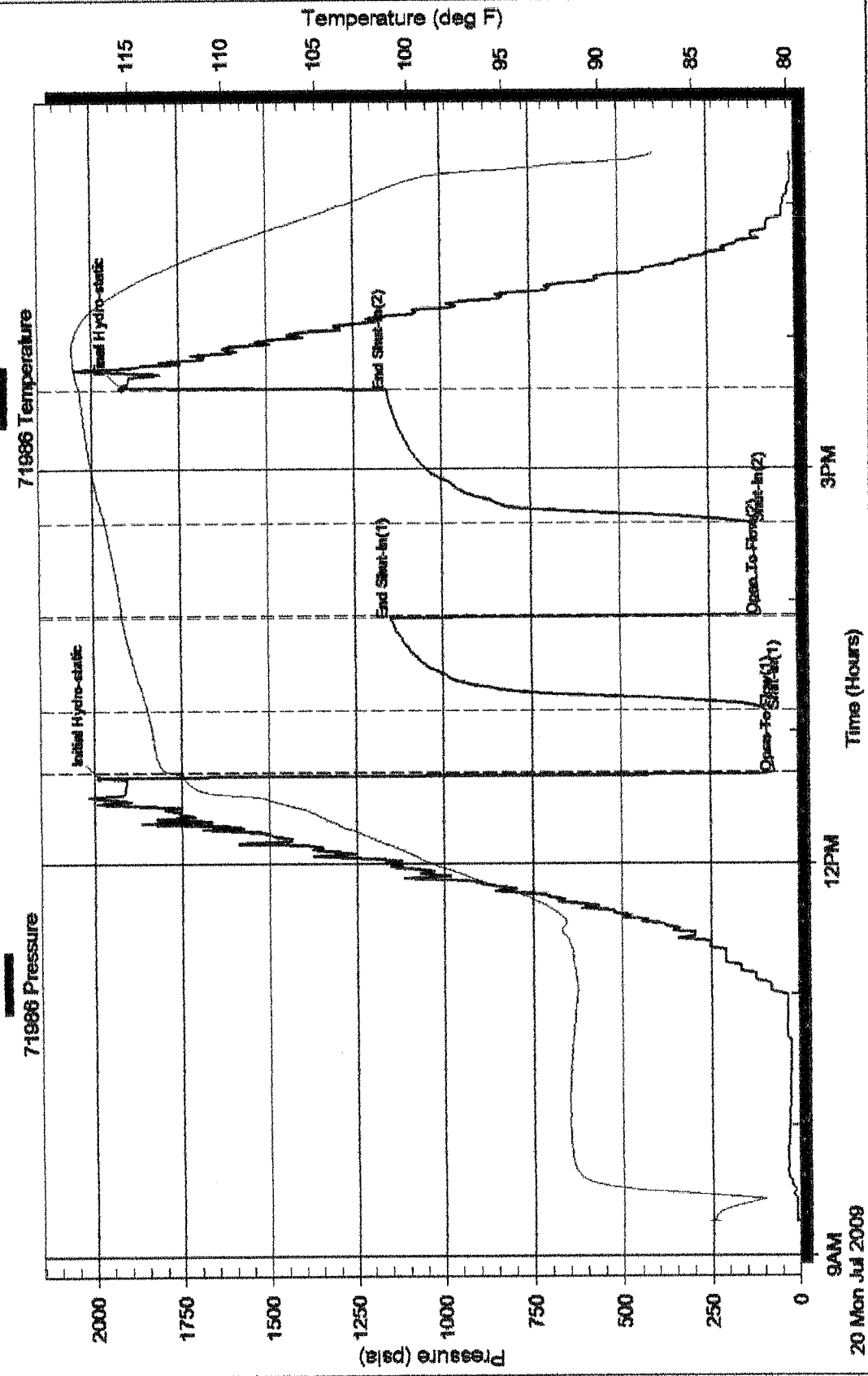
Laboratory Name:

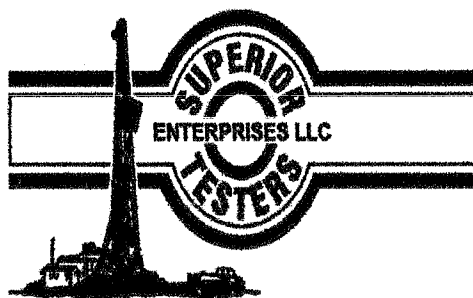
Laboratory Location:

Recovery Comments:



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

29-13-31

HESS 29C #1

Start Date: 2009.07.21 @ 00:34:10

End Date: 2009.07.21 @ 07:20:40

Job Ticket #: 16419 DST #: 3

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2009.07.21 @ 00:44:38

RITCHIE EXPLORATION INC

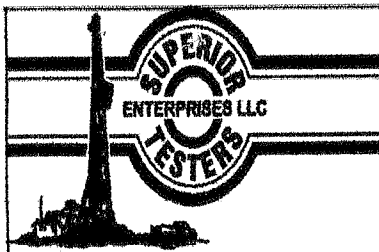
HESS 29C #1

29-13-31

DST # 3

LKC H

2009.07.21



DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16419

DST#: 3

ATTN: STEVE CARL

Test Start: 2009.07.21 @ 00:34:10

GENERAL INFORMATION:

Formation: LKC H

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:16:10

Time Test Ended: 07:20:40

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: 4058.00 ft (KB) To 4097.00 ft (KB) (TVD)

Reference Elevations: 2897.00 ft (KB)

Total Depth: 4097.00 ft (KB) (TVD)

2887.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 71986

Outside

Press@RunDepth: 1186.82 psia @ 4092.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2009.07.21

End Date:

2009.07.21

Last Calib.: 2009.07.21

Start Time: 00:33:47

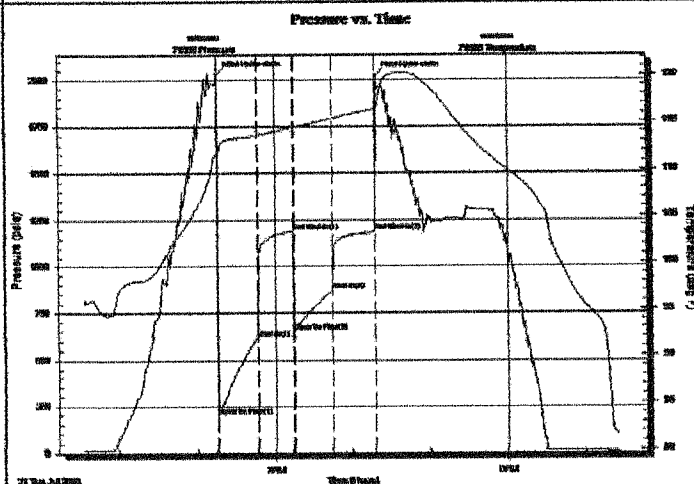
End Time:

07:25:57

Time On Btm: 2009.07.21 @ 02:15:28

Time Off Btm: 2009.07.21 @ 04:18:28

TEST COMMENT: 30-INITIAL OPENING STRONG BLOW BOTTOM BUCKET IN 1 MIN
30-INITIAL SHUT IN STRONG BLOW BACK GAS TO SURFACE IN 20 MINS
30-FINAL OPENING STRONG BLOW BOTTOM OF THE BUCKET IN 1 MIN
30-FINAL SHUT IN STRONG BLOW BACK



PRESSURE SUMMARY

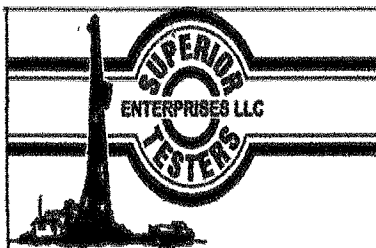
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2032.82	111.60	Initial Hydro-static
1	198.55	111.56	Open To Flow (1)
31	616.35	113.53	Shut-In (1)
59	1191.41	114.40	End Shut-In (1)
59	649.49	114.36	Open To Flow (2)
89	870.86	115.31	Shut-In (2)
122	1186.82	116.32	End Shut-In (2)
123	2024.09	116.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1500.00	GAS IN PIPE 100% GAS	16.69
2340.00	GASSEY OIL 80% O 20% G	34.22
90.00	OIL CUT MUD 30% O 70% M	1.32

Gas Rates

	Choke (Inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16419

DST#: 3

ATTN: STEVE CARL

Test Start: 2009.07.21 @ 00:34:10

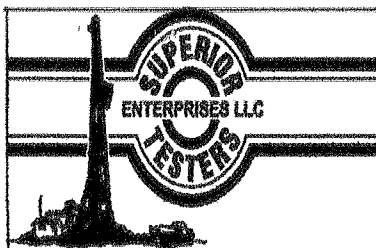
Tool Information

Drill Pipe:	Length: 3499.00 ft	Diameter: 3.88 inches	Volume: 51.17 bbl	Tool Weight: 2000.00 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: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume: 53.83 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4058.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	60.00 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			4038.00	
Shut-in Tool	5.00			4043.00	
Hydrolic Tool	5.00			4048.00	
Packer	5.00			4053.00	21.00 Bottom Of Top Packer
Packer	5.00			4058.00	
Perforations	34.00			4092.00	
Recorder	0.00	8405	Inside	4092.00	
Recorder	0.00	71986	Outside	4092.00	
Bullnose	5.00			4097.00	39.00 Bottom Packers & Anchor
Total Tool Length:	60.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16419

DST#: 3

ATTN: STEVE CARL

Test Start: 2009.07.21 @ 00:34:10

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 7.20 in³
Resistivity: ohm.m
Salinity: 2300.00 ppm
Filter Cake: inches

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

Oil API: 37 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1500.00	GAS IN PIPE 100%GAS	18.695
2340.00	GASSEY OIL 80%O20%G	34.221
90.00	OIL CUT MUD 30%O 70%M	1.316

Total Length: 3930.00 ft

Total Volume: 52.232 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

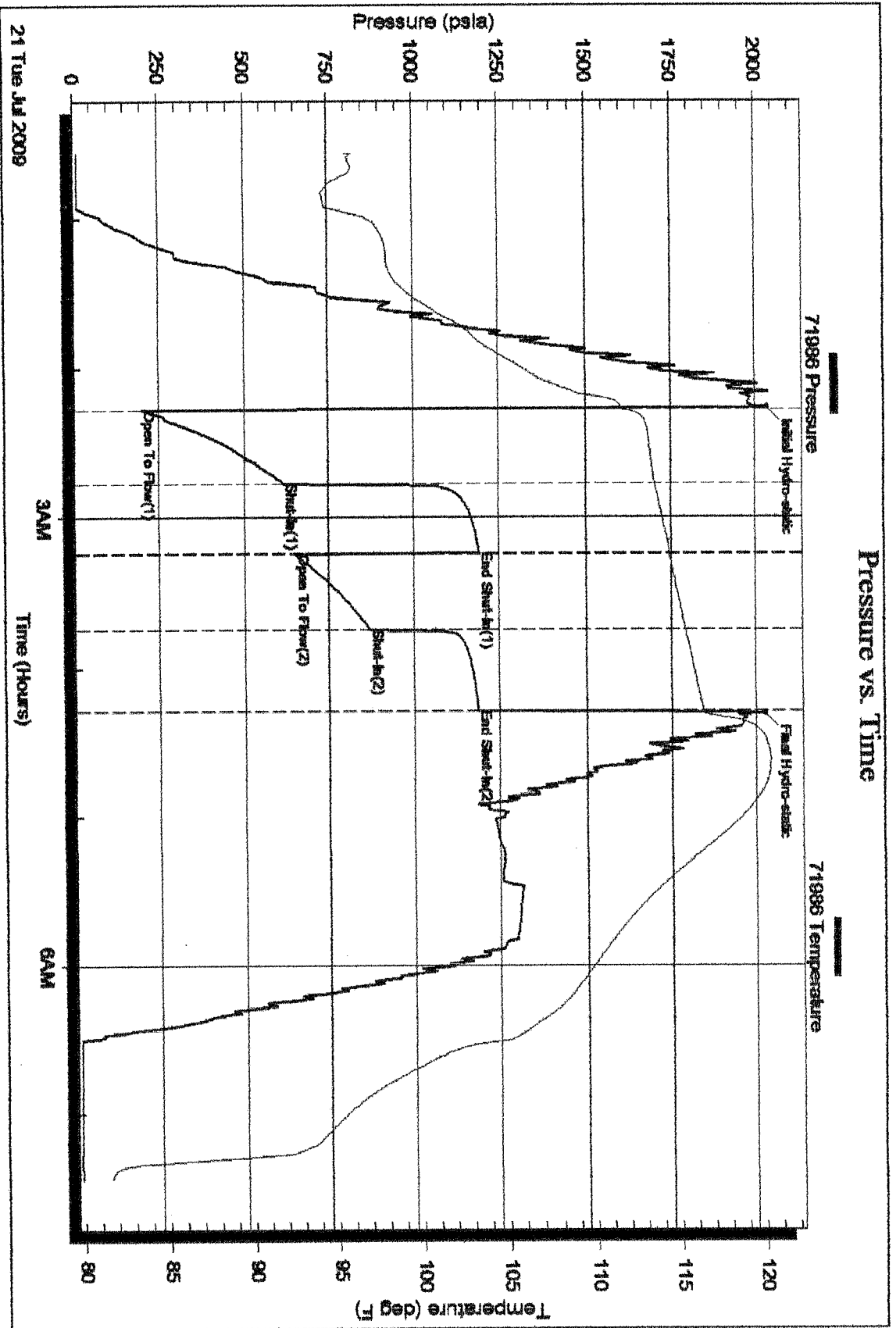
Serial #: 71986

Outside RTICHE EXPLORATION INC

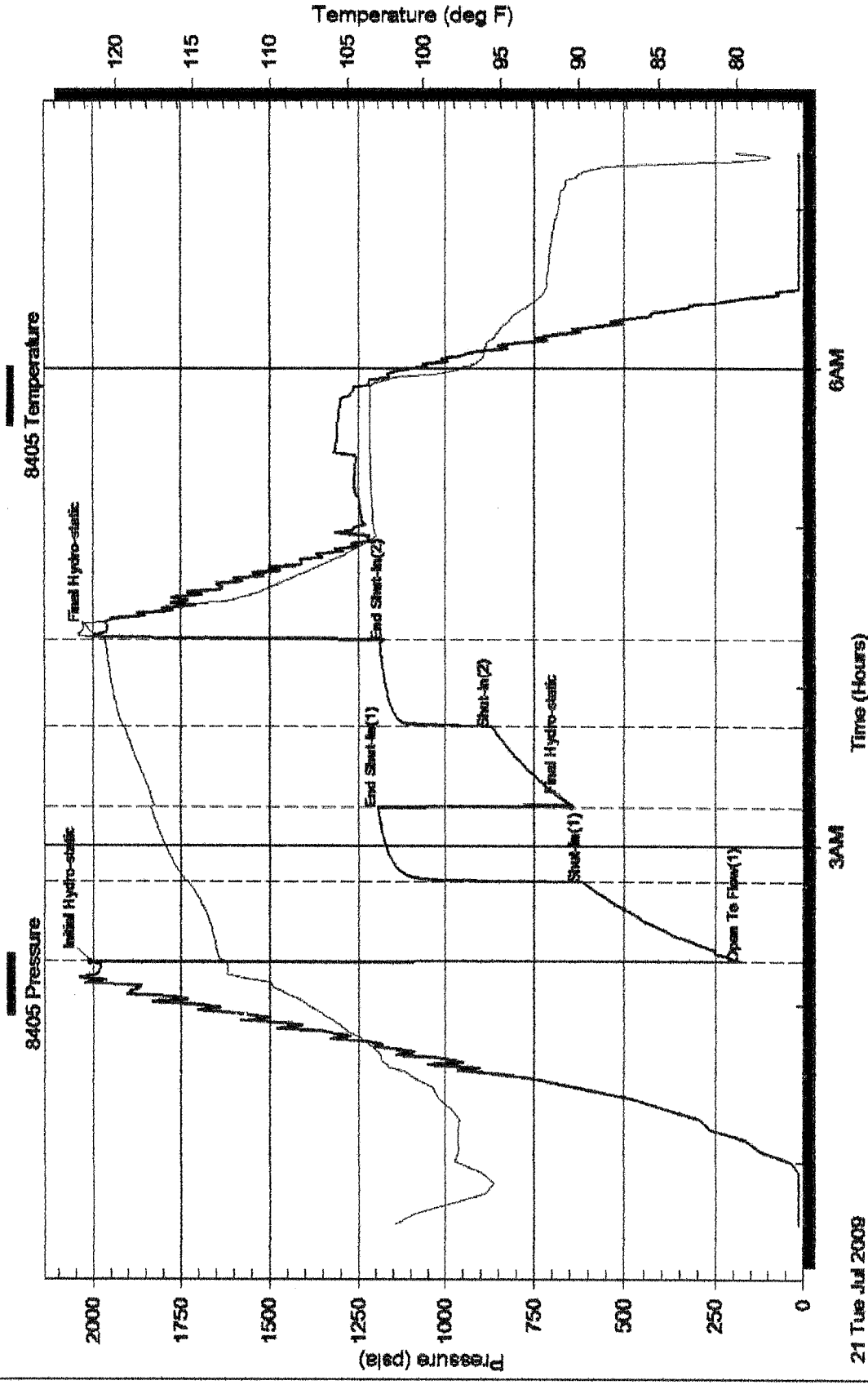
28-13-31

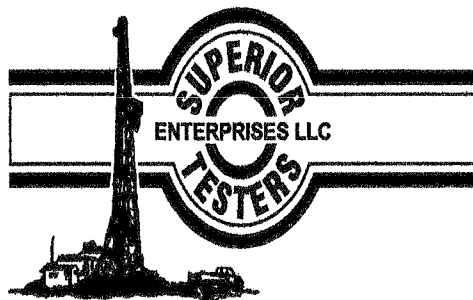
DST Test Number: 3

Pressure vs. Time



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **RITICHIE EXPLORATION INC**

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

29-13-31

HESS 29C #1

Start Date: 2009.07.21 @ 14:11:01

End Date: 2009.07.21 @ 20:25:31

Job Ticket #: 16420 DST #: 4

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2009.07.24 @ 15:08:11

RITICHIE EXPLORATION INC

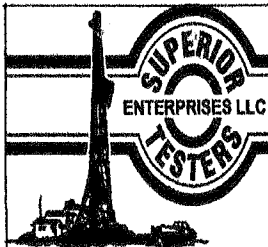
HESS 29C #1

29-13-31

DST # 4

LKC -1-

2009.07.21



DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16420

DST#: 4

ATTN: STEVE CARL

Test Start: 2009.07.21 @ 14:11:01

GENERAL INFORMATION:

Formation: LKC -I-

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:18:01

Time Test Ended: 20:25:31

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: 4100.00 ft (KB) To 4127.00 ft (KB) (TVD)

Total Depth: 4127.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8405

Inside

Press@RunDepth: 180.63 psia @ 4122.00 ft (KB)

Start Date: 2009.07.21

End Date:

2009.07.21

Capacity: 5000.00 psia

Last Calib.:

2009.07.21

Start Time: 14:13:01

End Time:

20:25:31

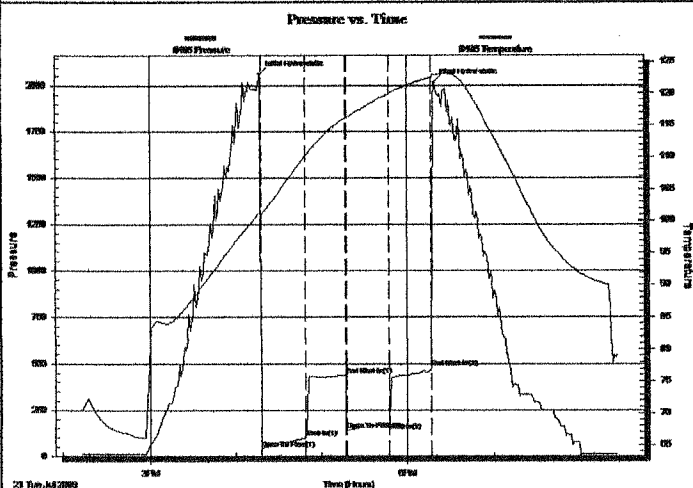
Time On Btm:

2009.07.21 @ 16:17:01

Time Off Btm:

2009.07.21 @ 18:18:31

TEST COMMENT: 30-INITIAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 10 MINS
30-INITIAL SHUT IN STRONG BLOW BACK
30-FINAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 5 MINS
30-FINAL SHUT IN STRONG BLOW BACK



PRESSURE SUMMARY

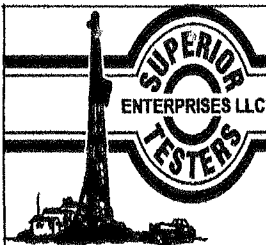
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2063.92	101.37	Initial Hydro-static
1	41.62	101.02	Open To Flow (1)
32	99.07	110.11	Shut-In (1)
60	439.52	116.16	End Shut-In (1)
61	140.29	116.08	Open To Flow (2)
91	180.63	119.95	Shut-In (2)
120	478.87	122.49	End Shut-In (2)
122	2015.52	122.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1340.00	GAS IN PIPE 100% GAS	14.36
510.00	GASSEY OIL 25% G 75% O	7.46
90.00	GASSEY OIL CUT MUD 20% G 30% O 50% M	1.32

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

RTICHEL EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16420

DST#: 4

ATTN: STEVE CARL

Test Start: 2009.07.21 @ 14:11:01

GENERAL INFORMATION:

Formation: LKC -I-

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:18:01

Time Test Ended: 20:25:31

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: 4100.00 ft (KB) To 4127.00 ft (KB) (TVD)

Reference Elevations: 2897.00 ft (KB)

Total Depth: 4127.00 ft (KB) (TVD)

2887.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 6450

Outside

Press@RunDepth: 483.05 psia @ 4122.00 ft (KB)

Start Date: 2009.07.21

End Date:

2009.07.21

Start Time: 14:10:15

End Time:

20:26:24

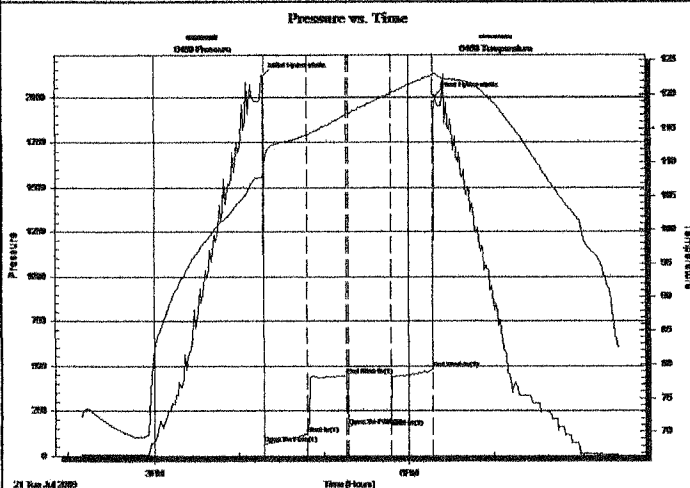
Capacity: 5000.00 psia

Last Calib.: 2009.07.21

Time On Btm: 2009.07.21 @ 16:16:55

Time Off Btm: 2009.07.21 @ 18:18:25

TEST COMMENT: 30-INITIAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 10 MINS
30-INITIAL SHUT IN STRONG BLOW BACK
30-FINAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 5 MINS
30-FINAL SHUT IN STRONG BLOW BACK



PRESSURE SUMMARY

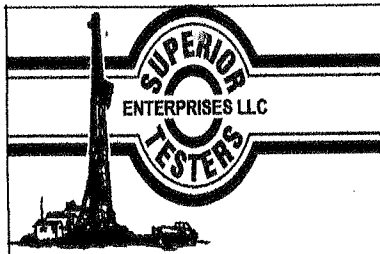
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2111.91	108.20	Initial Hydro-static
1	68.79	109.92	Open To Flow (1)
32	121.59	114.01	Shut-In(1)
60	448.65	117.04	End Shut-In(1)
61	159.93	117.14	Open To Flow (2)
91	204.99	120.15	Shut-In(2)
120	483.05	122.76	End Shut-In(2)
122	2005.35	123.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1340.00	GAS IN PIPE 100%GAS	14.36
510.00	GASSEY OIL 25%G75%O	7.46
90.00	GASSEY OIL CUT MUD20%G30%O50%M	1.32

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

RITICHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16420

DST#: 4

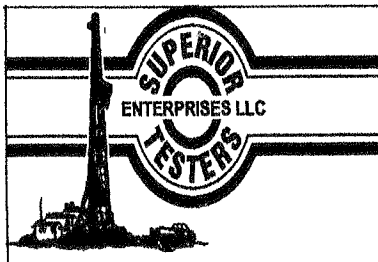
ATTN: STEVE CARL

Test Start: 2009.07.21 @ 14:11:01

Tool Information

Drill Pipe:	Length: 3541.00 ft	Diameter: 3.88 inches	Volume: 51.78 bbl	Tool Weight:	2000.00 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: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose:	80000.00 lb
		Total Volume:	54.44 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4100.00 ft			Final	74000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	27.00 ft				
Tool Length:	48.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4080.00	
Shut-In Tool	5.00			4085.00	
Hydraulic Tool	5.00			4090.00	
Packer	5.00			4095.00	21.00 Bottom Of Top Packer
Packer	5.00			4100.00	
Perforations	22.00			4122.00	
Recorder	0.00	8405	Inside	4122.00	
Recorder	0.00	71986	Outside	4122.00	
Bullnose	5.00			4127.00	27.00 Bottom Packers & Anchor
Total Tool Length:	48.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16420

DST#: 4

ATTN: STEVE CARL

Test Start: 2009.07.21 @ 14:11:01

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 58.00 sec/qt

Water Loss: 7.98 in³

Resistivity: ohm.m

Salinity: 2500.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

34 deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1340.00	GAS IN PIPE 100%GAS	14.355
510.00	GASSEY OIL 25%G75%O	7.458
90.00	GASSEY OIL CUT MUD20%G30%O50%M	1.316

Total Length: 1940.00 ft

Total Volume: 23.129 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

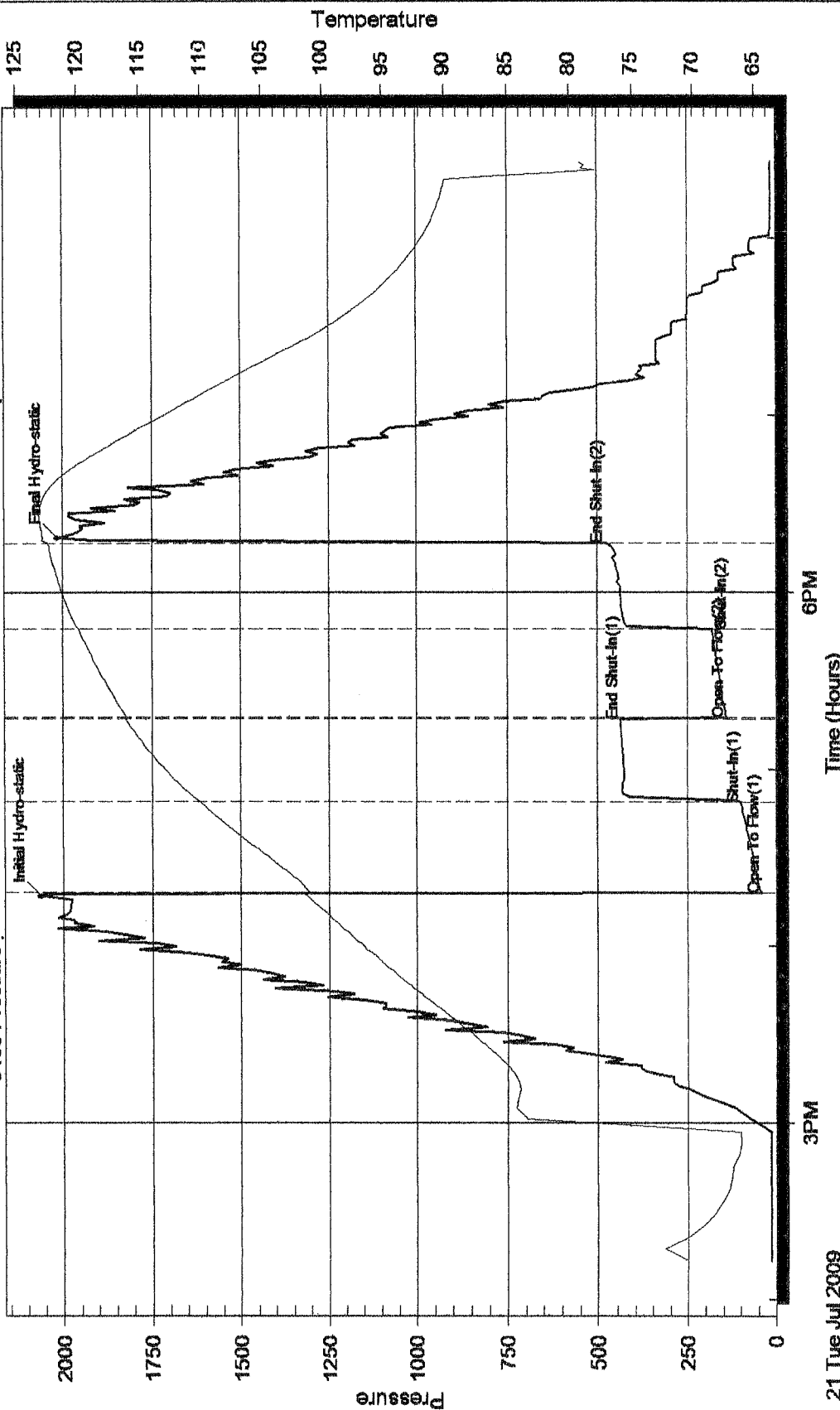
Laboratory Location:

Recovery Comments:

Pressure vs. Time

8405 Pressure

8405 Temperature



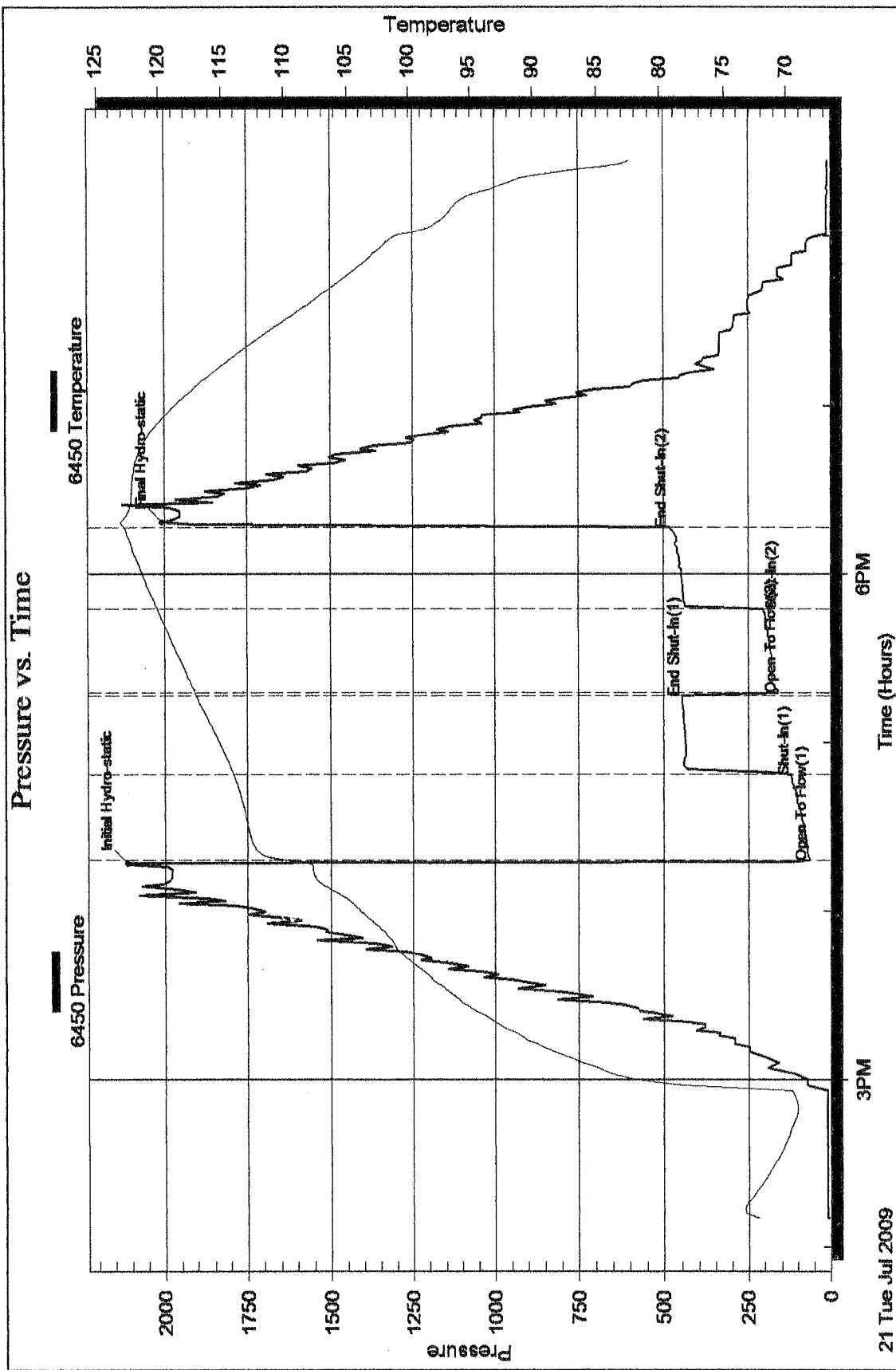
Serial #: 6450

Outside

RITCHIE EXPLORATION INC

29-13-31

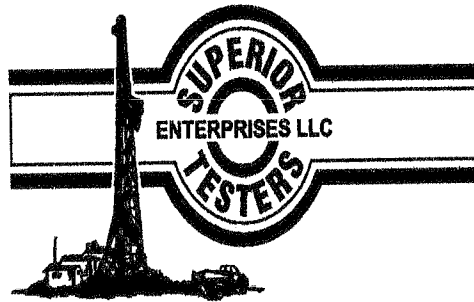
DST Test Number: 4



Superior Testers Enterprises LLC

Ref. No: 16420

Printed: 2009.07.24 @ 15:08:12



DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

29-13-31

HESS 29C #1

Start Date: 2009.07.22 @ 04:46:32

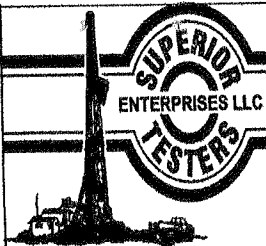
End Date: 2009.07.22 @ 12:34:02

Job Ticket #: 16421 DST #: 5

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2009.07.24 @ 15:08:34

RITCHIE EXPLORATION INC
HESS 29C #1
29-13-31
DST # 5
LKC-J-
2009.07.22



DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

HESS 29C #1

29-13-31

Job Ticket: 16421

DST#: 5

Test Start: 2009.07.22 @ 04:46:32

GENERAL INFORMATION:

Formation: LKC-J-

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:57:02

Time Test Ended: 12:34:02

Interval: 4128.00 ft (KB) To 4164.00 ft (KB) (TVD)

Total Depth: 4164.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8405

Inside

Press@RunDepth: 1042.36 psia @ 4159.00 ft (KB)

Start Date: 2009.07.22

End Date:

2009.07.22

Start Time: 04:48:32

End Time:

12:34:02

Capacity: 5000.00 psia

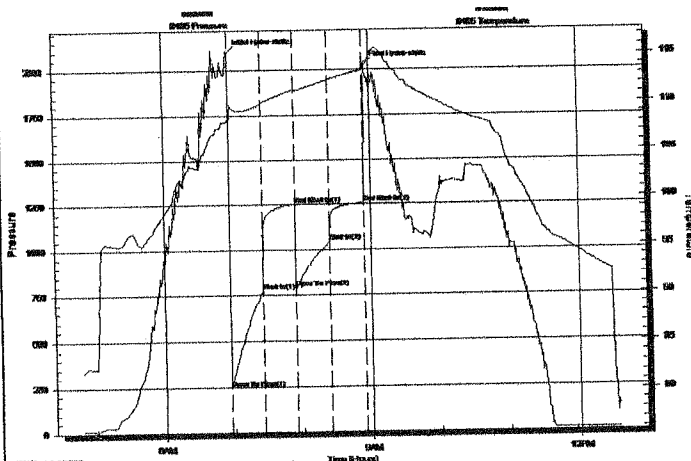
Last Calib.: 2009.07.22

Time On Btm: 2009.07.22 @ 06:56:32

Time Off Btm: 2009.07.22 @ 08:55:32

TEST COMMENT: 30-INITIAL OPENING STRONG BLOW BOTTOM BUCKET IN 1 MIN
30-INITIAL SHUT IN STRONG BLOW BACK
30-FINAL OPENING STRONG BLOW BOTTOM OF THE BUCKET IN 1 MIN
30-FINAL SHUT IN STRONG BLOW BACK

Pressure vs. Time



PRESSURE SUMMARY

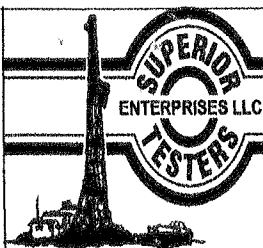
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2094.68	108.44	Initial Hydro-static
1	245.74	107.84	Open To Flow (1)
29	770.86	109.95	Shut-In(1)
58	1254.46	111.41	End Shut-In(1)
58	789.62	111.22	Open To Flow (2)
88	1042.36	112.41	Shut-In(2)
118	1257.99	113.42	End Shut-In(2)
119	2021.74	113.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1300.00	GAS IN PIPE 100%G	13.77
2710.00	GASSEY OIL 20%G80%O	39.63
90.00	GAS OIL MUD CUT WATER15%G10%O31.3245%W	

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16421

DST#: 5

ATTN: STEVE CARL

Test Start: 2009.07.22 @ 04:46:32

GENERAL INFORMATION:

Formation: LKC-J-

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:57:02

Time Test Ended: 12:34:02

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: 4128.00 ft (KB) To 4164.00 ft (KB) (TVD)

Total Depth: 4164.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6450

Outside

Press@RunDepth: 1256.81 psia @ 4159.00 ft (KB)

Start Date: 2009.07.22

End Date: 2009.07.22

Capacity: 5000.00 psia

Last Calib.: 2009.07.22

Start Time: 04:46:32

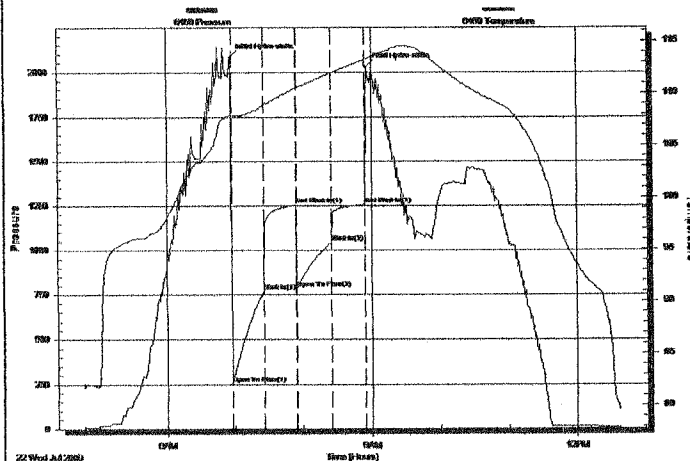
End Time: 12:38:41

Time On Btm: 2009.07.22 @ 06:56:42

Time Off Btm: 2009.07.22 @ 08:55:42

TEST COMMENT: 30-INITIAL OPENING STRONG BLOW BOTTOM BUCKET IN 1 MIN
30-INITIAL SHUT IN STRONG BLOW BACK
30-FINAL OPENING STRONG BLOW BOTTOM OF THE BUCKET IN 1 MIN
30-FINAL SHUT IN STRONG BLOW BACK

Pressure vs. Time



PRESSURE SUMMARY

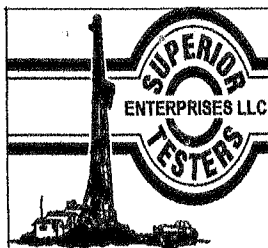
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2081.12	107.99	Initial Hydro-static
1	251.48	107.91	Open To Flow (1)
30	769.39	108.83	Shut-In(1)
58	1253.72	110.55	End Shut-In(1)
58	781.78	110.47	Open To Flow (2)
88	1043.80	111.96	Shut-In(2)
118	1256.81	113.22	End Shut-In(2)
119	2029.50	113.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1300.00	GAS IN PIPE 100%G	13.77
2710.00	GASSEY OIL 20%G80%O	39.63
90.00	GAS OIL MUD CUT WATER15%G10%O31.3245%W	

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16421

DST#: 5

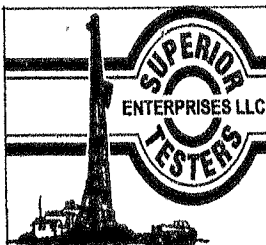
ATTN: STEVE CARL

Test Start: 2009.07.22 @ 04:46:32

Tool Information

Drill Pipe:	Length: 3569.00 ft	Diameter: 3.88 inches	Volume: 52.19 bbl	Tool Weight:	2000.00 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: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose:	90000.00 lb
		Total Volume:	54.85 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4128.00 ft			Final	81000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	36.00 ft				
Tool Length:	57.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4108.00	
Shut-In Tool	5.00			4113.00	
Hydraulic Tool	5.00			4118.00	
Packer	5.00			4123.00	21.00 Bottom Of Top Packer
Packer	5.00			4128.00	
Perforations	31.00			4159.00	
Recorder	0.00	8405	Inside	4159.00	
Recorder	0.00	71986	Outside	4159.00	
Bullnose	5.00			4164.00	36.00 Bottom Packers & Anchor
Total Tool Length:	57.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16421

DST#: 5

ATTN: STEVE CARL

Test Start: 2009.07.22 @ 04:46:32

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 58.00 sec/qt

Water Loss: 7.98 in³

Resistivity: ohm.m

Salinity: 2500.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psia

Oil API:

Water Salinity:

37 deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1300.00	GAS IN PIPE 100%G	13.770
2710.00	GASSEY OIL 20%G80%O	39.632
90.00	GAS OIL MUD CUT WATER15%G10%O30%W	1.316

Total Length: 4100.00 ft

Total Volume: 54.718 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 5

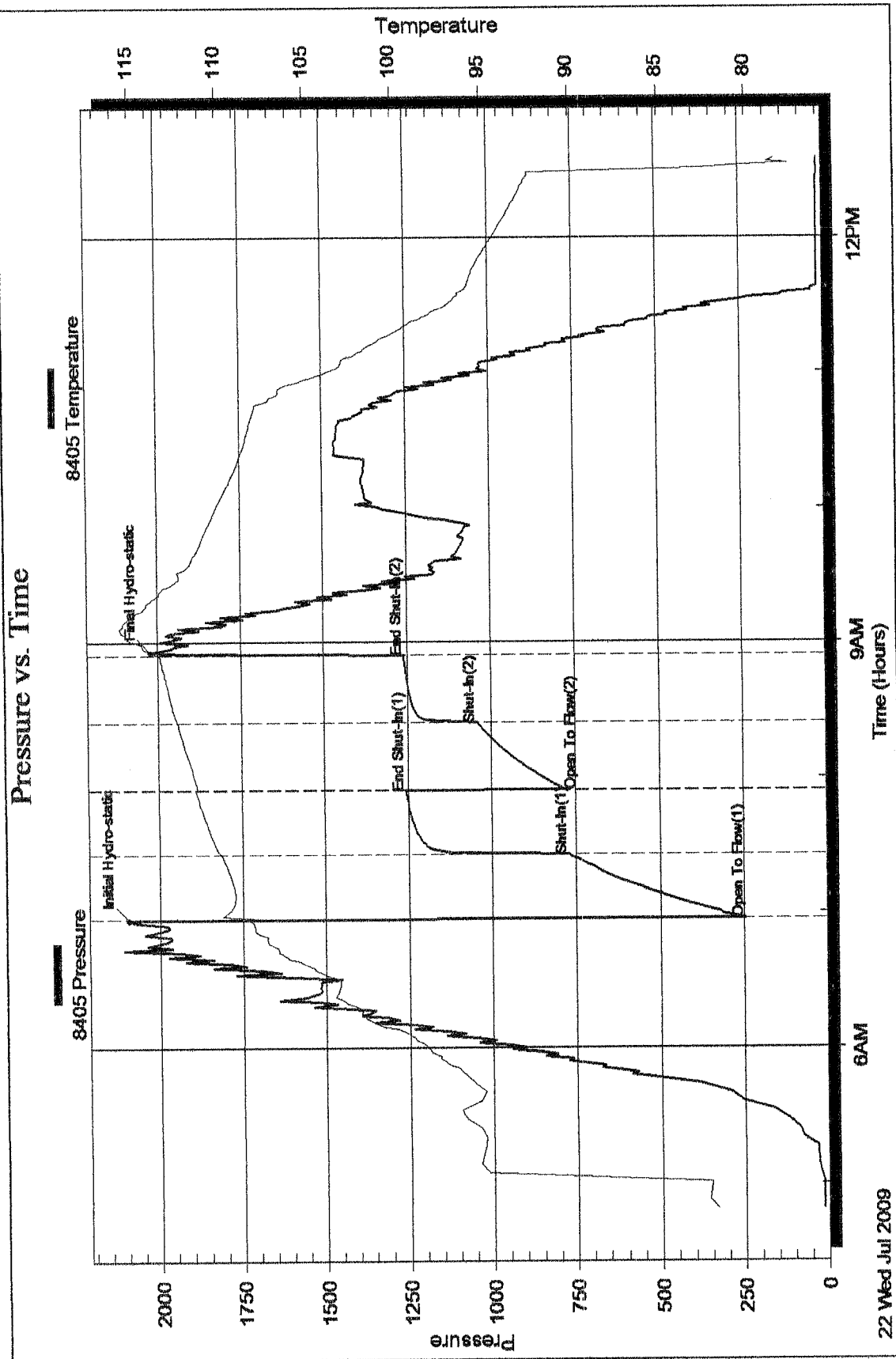
29-13-31

RTICHEL EXPLORATION INC

Inside

Serial #: 8405

Pressure vs. Time



Printed: 2009.07.24 @ 15:08:36

Ref. No: 16421

Superior Testers Enterprises LLC

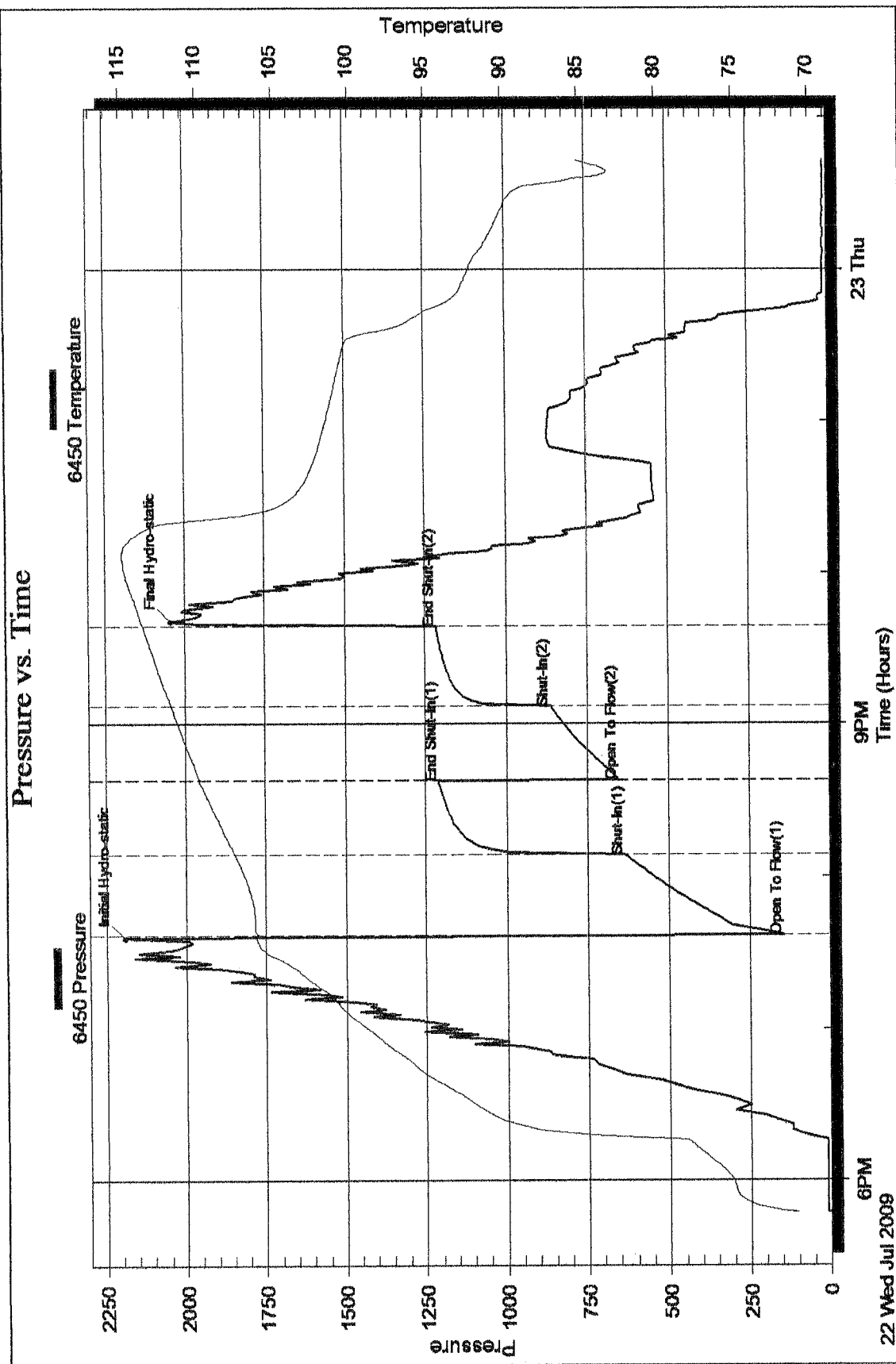
DST Test Number: 5

29-13-31

Outside RITCHEX EXPLORATION INC

Serial #: 6450

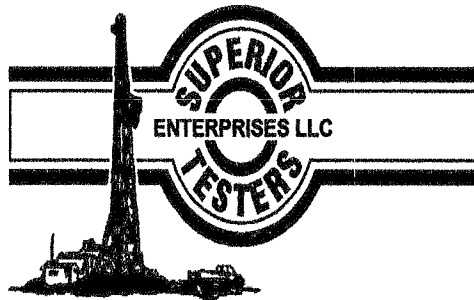
Pressure vs. Time



Printed: 2009.07.24 @ 15:08:36

Ref. No: 16421

Superior Testers Enterprises LLC



DRILL STEM TEST REPORT

Prepared For: **RITICHIE EXPLORATION INC**

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

29-13-31

HESS 29C #1

Start Date: 2009.07.22 @ 17:46:54

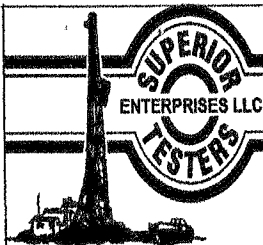
End Date: 2009.07.23 @ 00:40:54

Job Ticket #: 16422 DST #: 6

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2009.07.24 @ 15:08:50

RITICHIE EXPLORATION INC
HESS 29C #1
29-13-31
DST # 6
LKC-K-
2009.07.22



DRILL STEM TEST REPORT

RTICHEL EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16422

DST#: 6

ATTN: STEVE CARL

Test Start: 2009.07.22 @ 17:46:54

GENERAL INFORMATION:

Formation: LKC-K-

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:36:24

Time Test Ended: 00:40:54

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: 4163.00 ft (KB) To 4194.00 ft (KB) (TVD)

Total Depth: 4194.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8405

Inside

Press@RunDepth: 865.23 psia @ 4189.00 ft (KB)

Start Date: 2009.07.22

End Date:

2009.07.23

Start Time:

17:48:54

End Time:

00:40:54

Capacity: 5000.00 psia

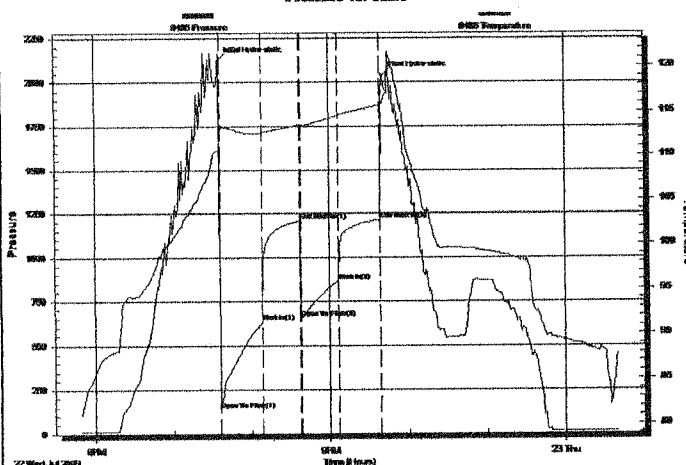
Last Calib.: 2009.07.22

Time On Btm: 2009.07.22 @ 19:35:54

Time Off Btm: 2009.07.22 @ 21:40:24

TEST COMMENT: 30-INITIAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 1 MIN
30-INITIAL SHUT IN GOOD BLOW BACK
30-FINAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 3 MINS
30-FINAL SHUT IN GOOD BLOW BACK

Pressure vs. Time



PRESSURE SUMMARY

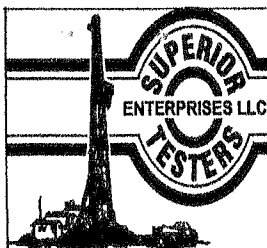
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2123.80	112.31	Initial Hydro-static
1	139.26	112.53	Open To Flow (1)
33	634.85	112.42	Shut-In(1)
62	1209.68	113.45	End Shut-In(1)
62	653.62	113.28	Open To Flow (2)
91	865.23	114.43	Shut-In(2)
123	1214.70	115.66	End Shut-In(2)
125	2041.49	115.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
900.00	GAS IN PIPE 100%G	7.92
270.00	MUD WATER CUT GASSEY OIL 20%G60'3.95%M15	
1440.00	WATER WITH A TRACE OF OIL 5%O95%21.06	
90.00	MUD CUT WATER 20%M80%W	1.32

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

HESS 29C #1

29-13-31

Job Ticket: 16422

DST#: 6

Test Start: 2009.07.22 @ 17:46:54

GENERAL INFORMATION:

Formation: LKC-K-

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:36:24

Time Test Ended: 00:40:54

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: 4163.00 ft (KB) To 4194.00 ft (KB) (TVD)

Total Depth: 4194.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6450

Outside

Press@RunDepth: 1214.45 psia @ 4189.00 ft (KB)

Start Date: 2009.07.22

End Date: 2009.07.23

Capacity: 5000.00 psia

Last Calib.: 2009.07.22

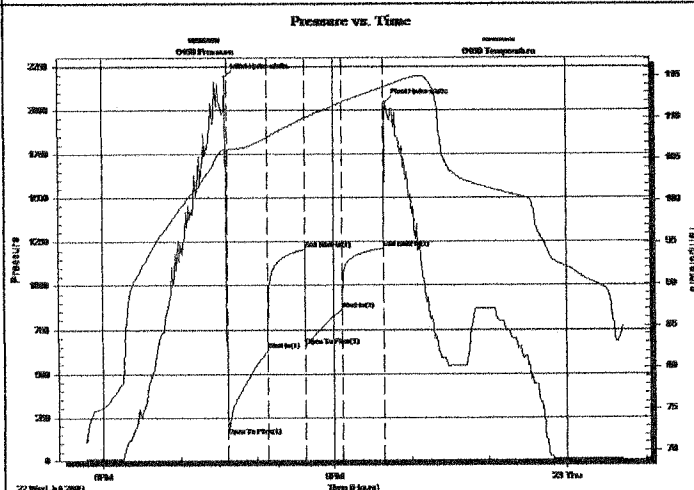
Start Time: 17:47:00

End Time: 00:43:10

Time On Btm: 2009.07.22 @ 19:35:41

Time Off Btm: 2009.07.22 @ 21:40:41

TEST COMMENT: 30-INITIAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 1 MIN
30-INITIAL SHUT IN GOOD BLOW BACK
30-FINAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 3 MINS
30-FINAL SHUT IN GOOD BLOW BACK



PRESSURE SUMMARY

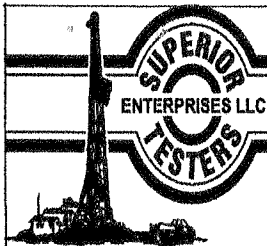
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2192.10	106.23	Initial Hydro-static
1	144.59	106.02	Open To Flow (1)
33	634.62	107.62	Shut-In(1)
62	1209.13	109.94	End Shut-In(1)
63	653.14	109.92	Open To Flow (2)
91	864.10	111.80	Shut-In(2)
123	1214.45	113.60	End Shut-In(2)
125	2044.64	113.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
900.00	GAS IN PIPE 100%G	7.92
270.00	MUD WATER CUT GASSEY OIL 20%G60%3.95%M15	
1440.00	WATER WITH A TRACE OF OIL 5%O95%21.06	
90.00	MUD CUT WATER 20%M80%W	1.32

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16422

DST#: 6

ATTN: STEVE CARL

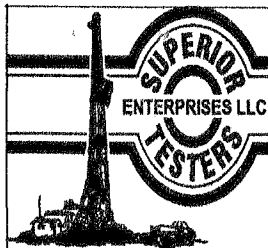
Test Start: 2009.07.22 @ 17:46:54

Tool Information

Drill Pipe:	Length: 3604.00 ft	Diameter: 3.88 inches	Volume: 52.71 bbl	Tool Weight:	2000.00 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: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose:	80000.00 lb	
			Total Volume:	55.37 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial	70000.00 lb	
Depth to Top Packer:	4163.00 ft			Final	78000.00 lb	
Depth to Bottom Packer:	ft					
Interval between Packers:	31.00 ft					
Tool Length:	52.00 ft					
Number of Packers:	2	Diameter:	6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4143.00	
Shut-In Tool	5.00			4148.00	
Hydrolic Tool	5.00			4153.00	
Packer	5.00			4158.00	21.00 Bottom Of Top Packer
Packer	5.00			4163.00	
Perforations	26.00			4189.00	
Recorder	0.00	8405	Inside	4189.00	
Recorder	0.00	71986	Outside	4189.00	
Bullnose	5.00			4194.00	31.00 Bottom Packers & Anchor
Total Tool Length:	52.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16422

DST#: 6

ATTN: STEVE CARL

Test Start: 2009.07.22 @ 17:46:54

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 7.59 in³

Resistivity: ohm.m

Salinity: 4400.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

36 deg API

Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
900.00	GAS IN PIPE 100%G	7.920
270.00	MUD WATER CUT GASSEY OIL 20%G60%OE	3.949
1440.00	WATER WITH A TRACE OF OIL 5%O95%W	21.059
90.00	MUD CUT WATER 20%M80%W	1.316

Total Length: 2700.00 ft

Total Volume: 34.244 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

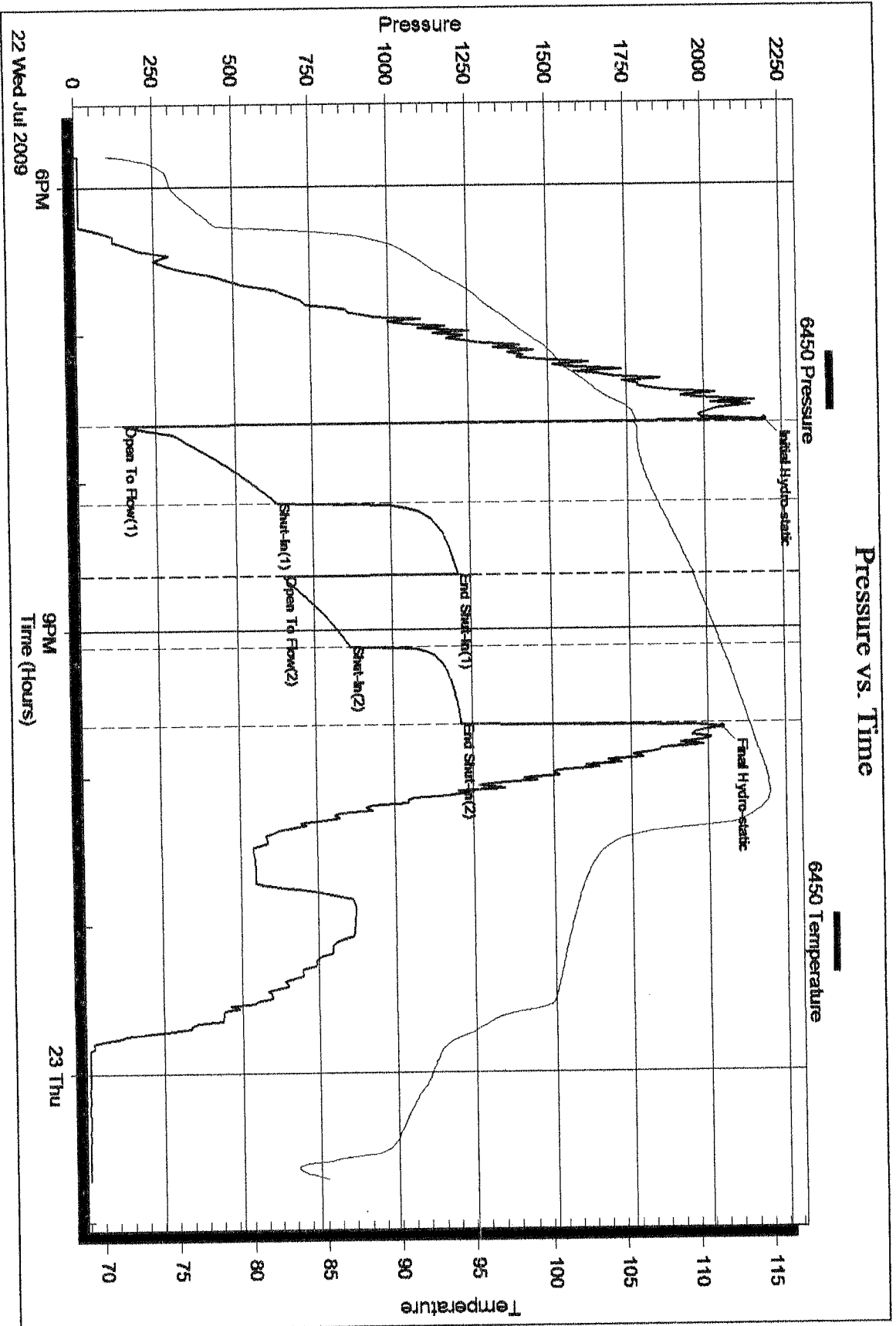
Serial #: 6450

Outside RITCHEE EXPLORATION INC

29-13-31

DST Test Number: 6

Pressure vs. Time



Serial #: 8405

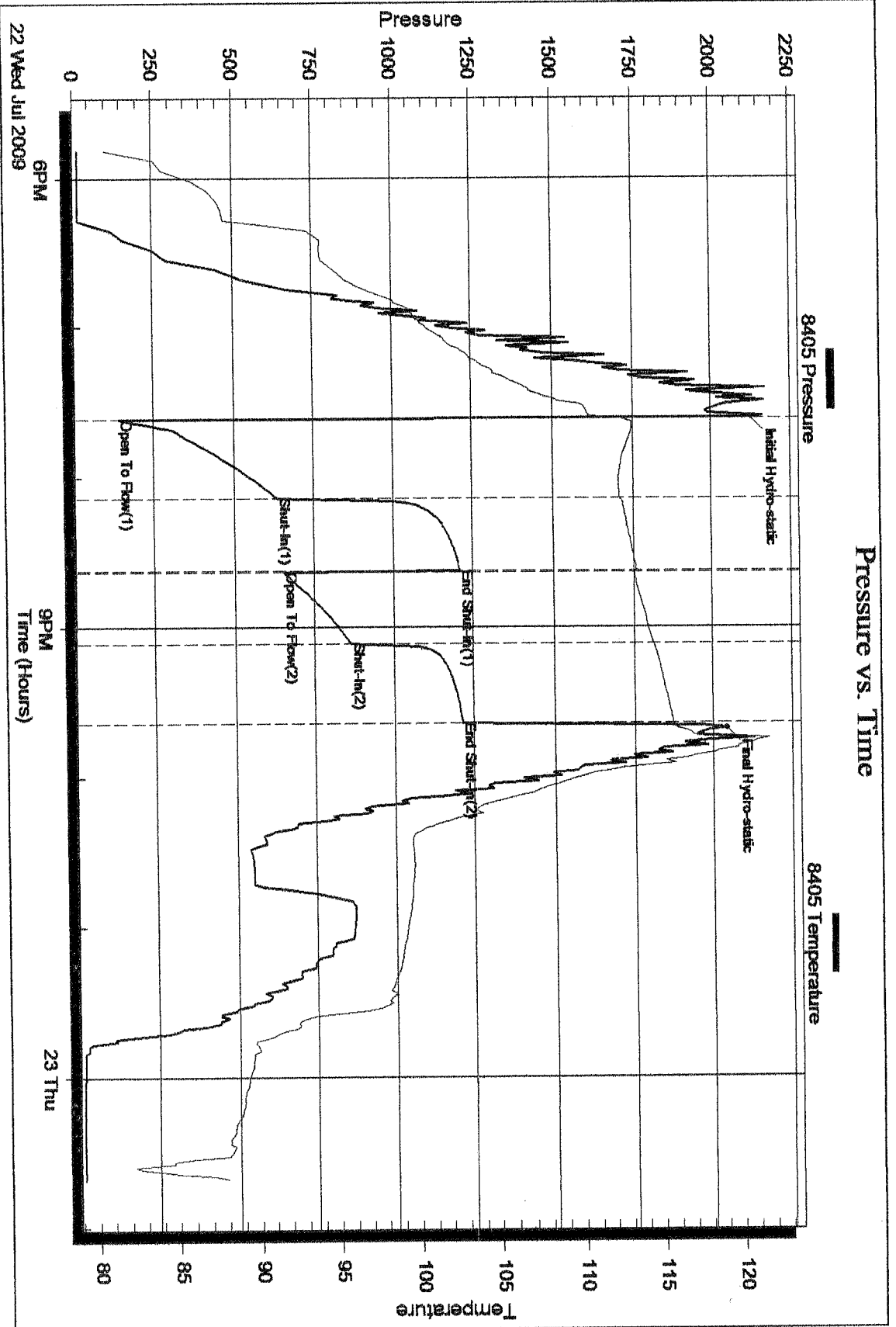
Inside

RITCHIE EXPLORATION INC

29-13-31

DST Test Number: 6

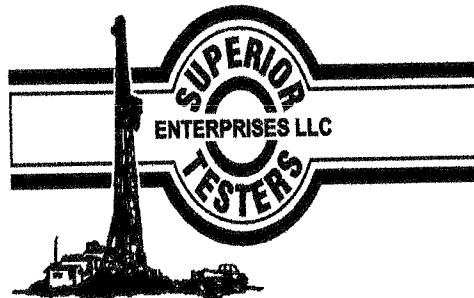
Pressure vs. Time



Superior Testers Enterprises LLC

Ref. No: 16422

Printed: 2009.07.24 @ 15:08:51



DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

29-13-31

HESS 29C #1

Start Date: 2009.07.23 @ 08:01:14

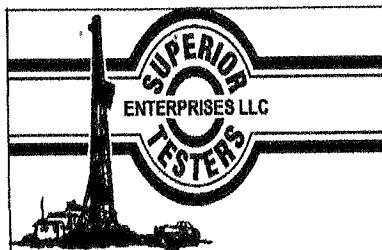
End Date: 2009.07.23 @ 15:40:14

Job Ticket #: 16423 DST #: 7

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2009.07.24 @ 15:09:07

RITCHIE EXPLORATION INC
HESS 29C #1
29-13-31
DST # 7
LKC-L-
2009.07.23



DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16423

DST#: 7

ATTN: STEVE CARL

Test Start: 2009.07.23 @ 08:01:14

GENERAL INFORMATION:

Formation: LKC-L-

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:19:14

Time Test Ended: 15:40:14

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: 4194.00 ft (KB) To 4230.00 ft (KB) (TVD)

Total Depth: 4230.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8405

Inside

Press@RunDepth: 427.16 psia @ 4225.00 ft (KB)

Start Date: 2009.07.23

End Date:

2009.07.23

Start Time: 08:03:14

End Time:

15:40:14

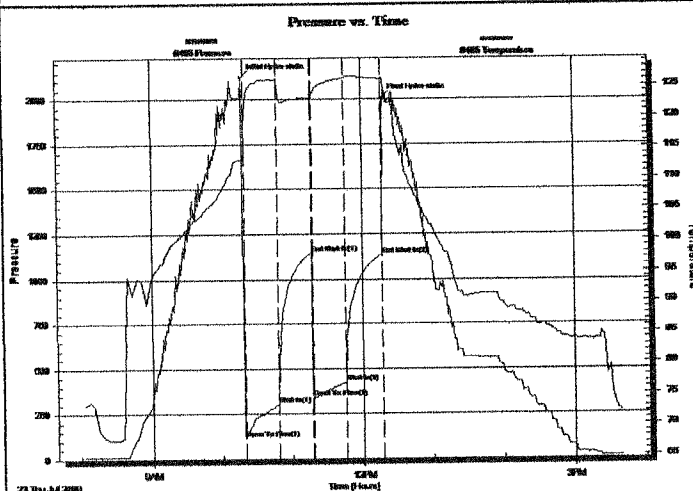
Capacity: 5000.00 psia

Last Calib.: 2009.07.23

Time On Btm: 2009.07.23 @ 10:17:44

Time Off Btm: 2009.07.23 @ 12:17:44

TEST COMMENT: 30-INITIAL OPENING STRONG BLOW BOTTOM OF THE BUCKET IN 2 MNS
30-INITIAL SHUT IN GOOD BLOW BACK
30-FINAL OPENING GOOD BLOW BACK BOTTOM OF THE BUCKET IN 3 MINS
30-FINAL SHUT IN GOOD BLOW BACK



PRESSURE SUMMARY

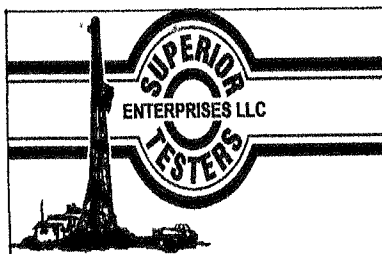
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2124.77	113.03	Initial Hydro-static
2	112.89	114.43	Open To Flow (1)
30	303.95	126.22	Shut-In(1)
59	1146.11	122.98	End Shut-In(1)
60	342.58	123.06	Open To Flow (2)
88	427.16	126.26	Shut-In(2)
120	1137.17	126.12	End Shut-In(2)
120	2007.01	126.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1500.00	GAS IN PIPE	16.69
960.00	GASSEY OIL 20%G80%O	14.04
180.00	GASSEY OIL TRACE OF MUD20%G60%C2.63%M	

Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16423

DST#: 7

ATTN: STEVE CARL

Test Start: 2009.07.23 @ 08:01:14

GENERAL INFORMATION:

Formation: LKC-L-

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:19:14

Time Test Ended: 15:40:14

Interval: 4194.00 ft (KB) To 4230.00 ft (KB) (TVD)

Total Depth: 4230.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No. 3345 50 M SCOTT CITY

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6450

Outside

Press@RunDepth: 1137.57 psia @ 4225.00 ft (KB)

Start Date: 2009.07.23

End Date:

2009.07.23

Capacity:

5000.00 psia

Start Time:

08:00:37

End Time:

15:44:46

Last Calib.:

2009.07.23

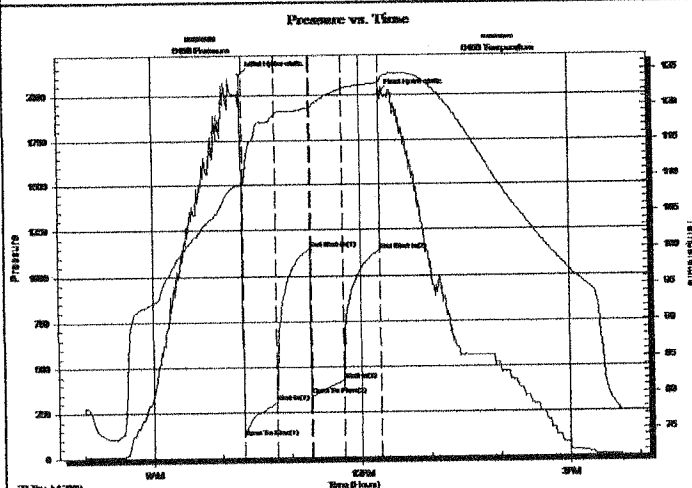
Time On Btm:

2009.07.23 @ 10:17:17

Time Off Btm:

2009.07.23 @ 12:17:17

TEST COMMENT: 30-INITIAL OPENING STRONG BLOW BOTTOM OF THE BUCKET IN 2 MINS
30-INITIAL SHUT IN GOOD BLOW BACK
30-FINAL OPENING GOOD BLOW BACK BOTTOM OF THE BUCKET IN 3 MINS
30-FINAL SHUT IN GOOD BLOW BACK



PRESSURE SUMMARY

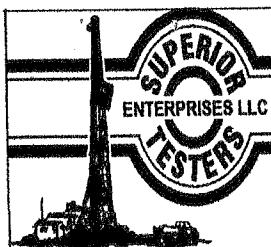
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2115.49	108.82	Initial Hydro-static
2	113.12	108.88	Open To Flow (1)
30	306.66	118.82	Shut-In(1)
59	1142.97	119.52	End Shut-In(1)
60	344.99	119.58	Open To Flow (2)
88	427.96	122.30	Shut-In(2)
120	1137.57	123.11	End Shut-In(2)
120	2007.64	123.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1500.00	GAS IN PIPE	16.69
960.00	GASSEY OIL 20%G80%O	14.04
180.00	GASSEY OIL TRACE OF MUD20%G60%C2.63%M	

Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16423

DST#: 7

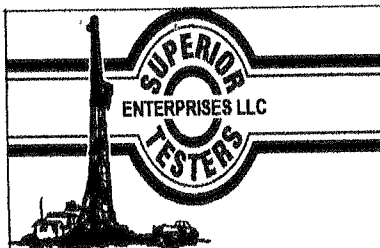
ATTN: STEVE CARL

Test Start: 2009.07.23 @ 08:01:14

Tool Information

Drill Pipe:	Length: 3635.00 ft	Diameter: 3.88 inches	Volume: 53.16 bbl	Tool Weight:	2000.00 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: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose:	100000.0 lb
		Total Volume:	55.82 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4194.00 ft			Final	78000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	36.00 ft				
Tool Length:	57.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4174.00	
Shut-In Tool	5.00			4179.00	
Hydraulic Tool	5.00			4184.00	
Packer	5.00			4189.00	21.00 Bottom Of Top Packer
Packer	5.00			4194.00	
Perforations	31.00			4225.00	
Recorder	0.00	8405	Inside	4225.00	
Recorder	0.00	71986	Outside	4225.00	
Bullnose	5.00			4230.00	36.00 Bottom Packers & Anchor
Total Tool Length:	57.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16423

DST#: 7

ATTN: STEVE CARL

Test Start: 2009.07.23 @ 08:01:14

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 52.00 sec/qt
Water Loss: 7.59 in³
Resistivity: ohm.m
Salinity: 4400.00 ppm
Filter Cake: inches

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

Oil API: 34 deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1500.00	GAS IN PIPE	16.695
960.00	GASSEY OIL 20%G80%O	14.039
180.00	GASSEY OIL TRACE OF MUD20%G60%O20%	2.632

Total Length: 2640.00 ft Total Volume: 33.366 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

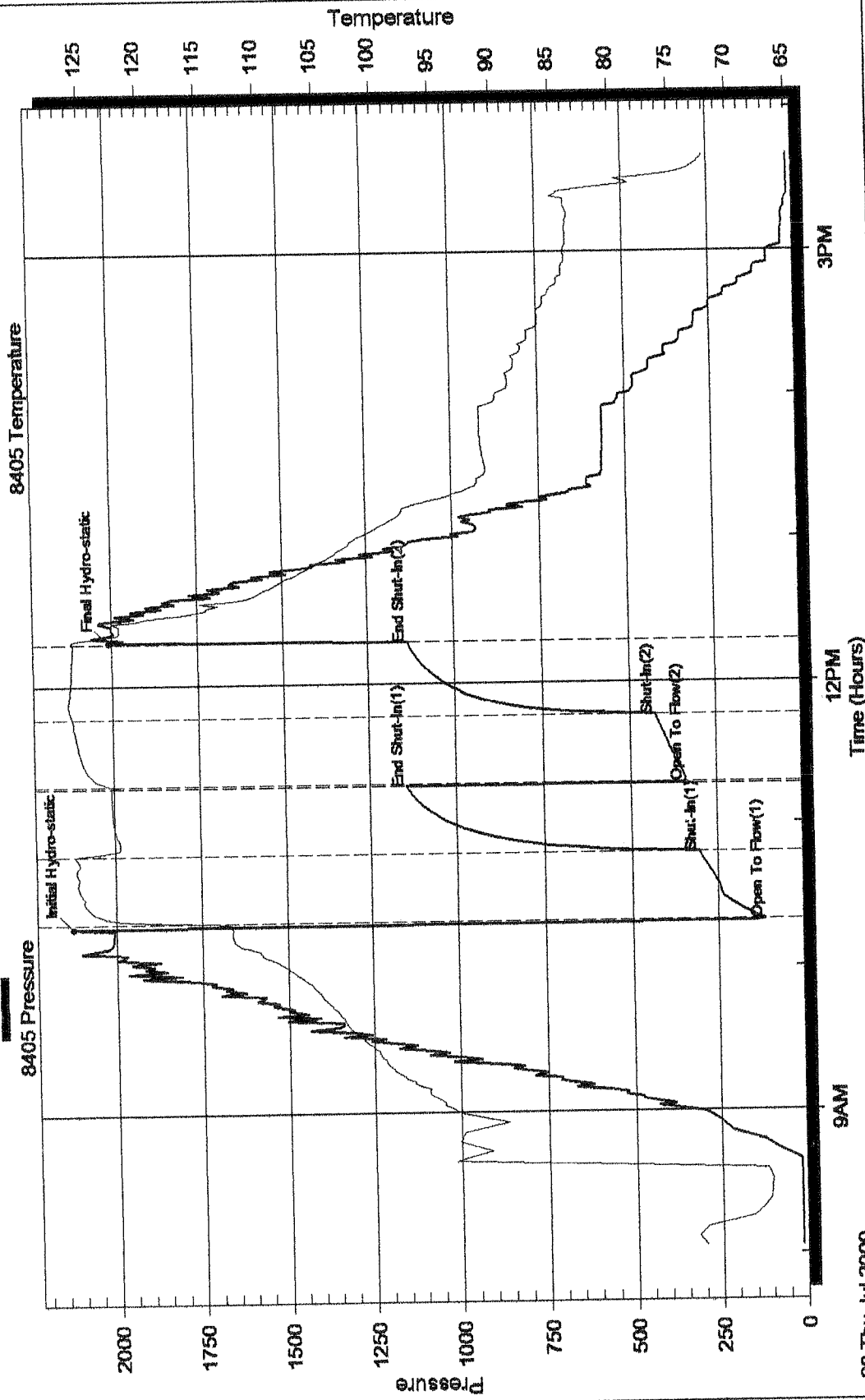
Serial #:

Laboratory Name:

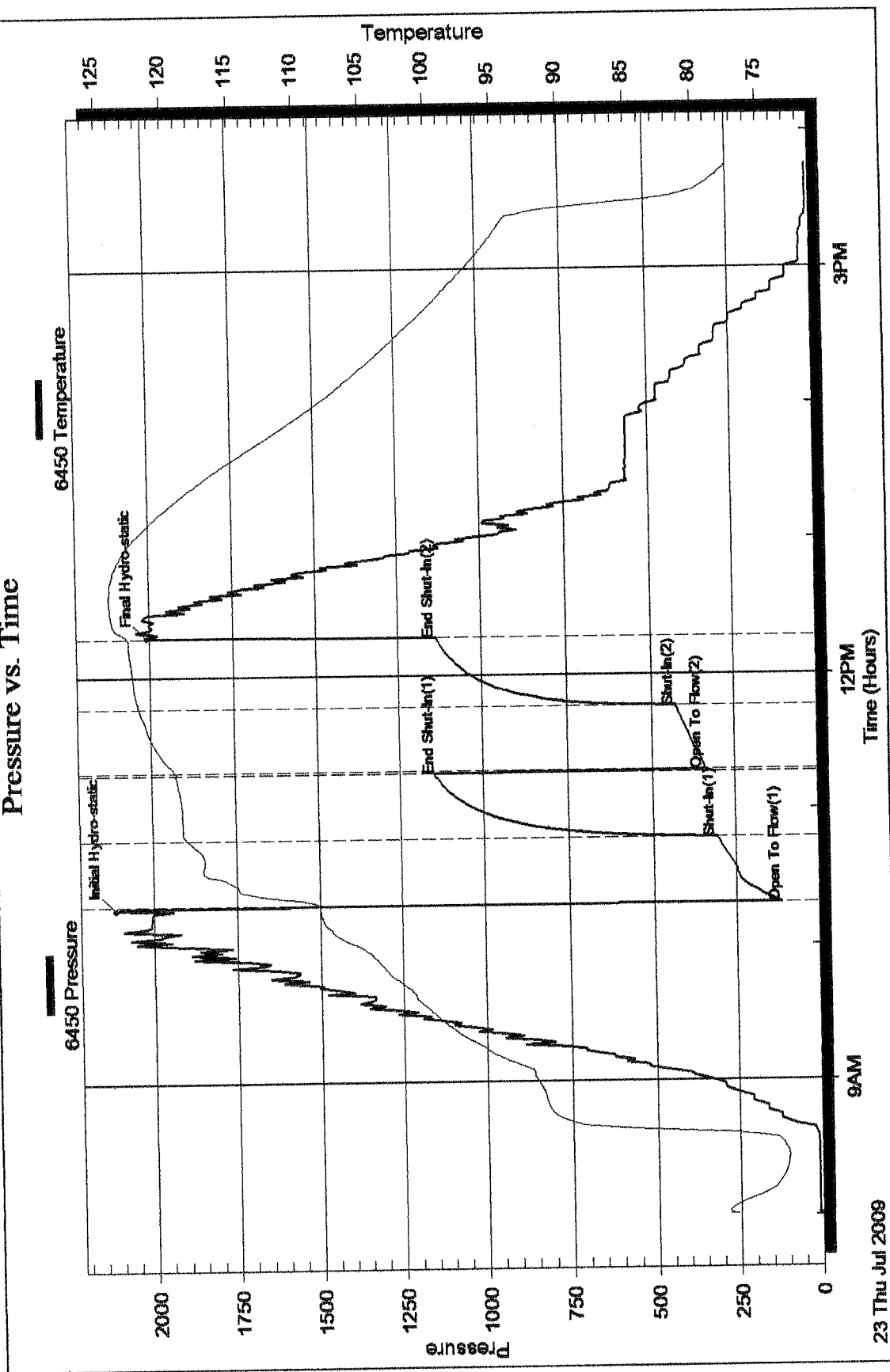
Laboratory Location:

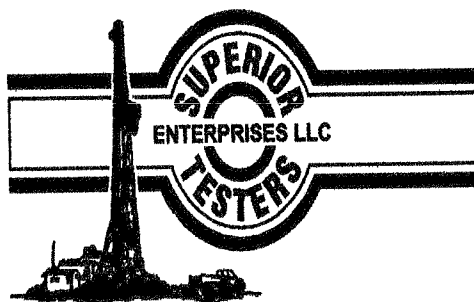
Recovery Comments:

Pressure vs. Time



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **RITICHIE EXPLORATION INC**

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

29-13-31

HESS 29C #1

Start Date: 2009.07.24 @ 08:17:29

End Date: 2009.07.24 @ 15:54:29

Job Ticket #: 16424 DST #: 8

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2009.07.24 @ 15:09:24

RITICHIE EXPLORATION INC

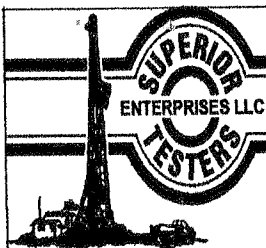
HESS 29C #1

29-13-31

DST # 8

MYRICK STATION

2009.07.24



DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16424

DST#: 8

ATTN: STEVE CARL

Test Start: 2009.07.24 @ 08:17:29

GENERAL INFORMATION:

Formation: **MYRICK STATION**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:40:29

Time Test Ended: 15:54:29

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: 4376.00 ft (KB) To 4404.00 ft (KB) (TVD)

Total Depth: 4404.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8405

Inside

Press@RunDepth: 440.11 psia @ 4399.00 ft (KB)

Start Date: 2009.07.24

End Date: 2009.07.24

Capacity: 5000.00 psia

Last Calib.: 2009.07.24

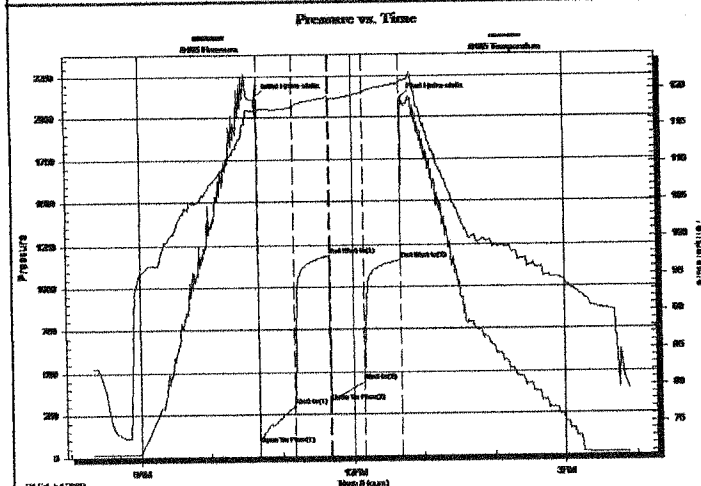
Start Time: 08:19:29

End Time: 15:54:29

Time On Btm: 2009.07.24 @ 10:39:29

Time Off Btm: 2009.07.24 @ 12:41:59

TEST COMMENT: 30-INITIAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 2 MINS
30-INITIAL SHUT IN GOOD BLOW BACK
30-FINAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 2 MINS
30-FINAL SHUT GOOD BLOW BACK



PRESSURE SUMMARY

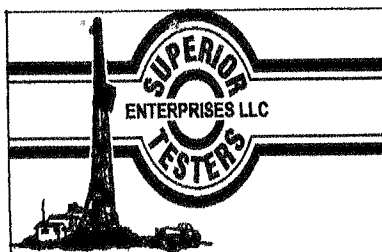
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2123.32	117.06	Initial Hydro-static
1	70.21	116.20	Open To Flow (1)
31	300.73	117.59	Shut-In (1)
61	1186.14	118.99	End Shut-In (1)
62	326.51	118.70	Open To Flow (2)
90	440.11	119.56	Shut-In (2)
121	1158.05	120.81	End Shut-In (2)
123	2116.94	121.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
720.00	GAS IN PIPE	5.29
1360.00	GASSEY OIL 30%G70%O	19.89
90.00	MUD CUT GASSEY OIL20%G60%O20%M1.32	

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16424

DST#: 8

ATTN: STEVE CARL

Test Start: 2009.07.24 @ 08:17:29

GENERAL INFORMATION:

Formation: **MYRICK STATION**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:40:29

Time Test Ended: 15:54:29

Interval: **4376.00 ft (KB) To 4404.00 ft (KB) (TVD)**

Total Depth: **4404.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: **DAVID NICHOLS**

Unit No: **3345 50 M SCOTT CITY**

Reference Elevations: **2897.00 ft (KB)**

2887.00 ft (CF)

KB to GR/CF: **10.00 ft**

Serial #: **6450**

Outside

Press@RunDepth: **1158.72 psia @ 4399.00 ft (KB)**

Start Date: **2009.07.24**

End Date: **2009.07.24**

Capacity: **5000.00 psia**

Last Calib.: **2009.07.24**

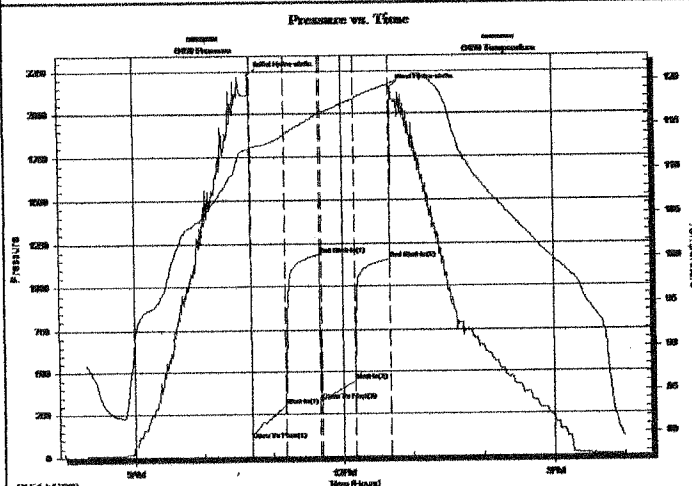
Start Time: **08:18:50**

End Time: **15:58:59**

Time On Btm: **2009.07.24 @ 10:40:30**

Time Off Btm: **2009.07.24 @ 12:42:00**

TEST COMMENT: 30-INITIAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 2 MINS
30-INITIAL SHUT IN GOOD BLOW BACK
30-FINAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 2 MINS
30-FINAL SHUT GOOD BLOW BACK



PRESSURE SUMMARY

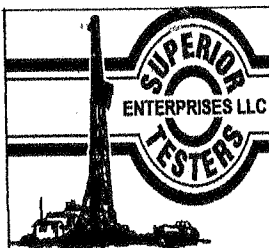
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2229.09	112.27	Initial Hydro-static
1	96.48	112.25	Open To Flow (1)
31	303.98	113.83	Shut-In(1)
60	1186.72	116.19	End Shut-In(1)
61	328.47	116.24	Open To Flow (2)
90	443.54	117.85	Shut-In(2)
120	1158.72	119.45	End Shut-In(2)
122	2147.52	119.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
720.00	GAS IN PIPE	5.29
1360.00	GASSEY OIL 30%G70%O	19.89
90.00	MUD CUT GASSEY OIL20%G60%O20%M.32	

Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16424

DST#: 8

ATTN: STEVE CARL

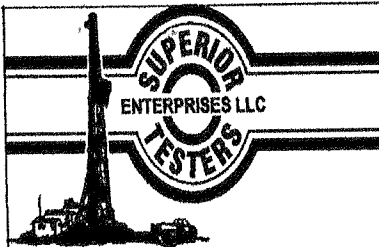
Test Start: 2009.07.24 @ 08:17:29

Tool Information

Drill Pipe:	Length: 3817.00 ft	Diameter: 3.88 inches	Volume: 55.82 bbl	Tool Weight:	2000.00 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: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose:	80000.00 lb
		Total Volume:	58.48 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4376.00 ft			Final	78000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	28.00 ft				
Tool Length:	49.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4356.00	
Shut-In Tool	5.00			4361.00	
Hydraulic Tool	5.00			4366.00	
Packer	5.00			4371.00	21.00 Bottom Of Top Packer
Packer	5.00			4376.00	
Perforations	23.00			4399.00	
Recorder	0.00	8405	Inside	4399.00	
Recorder	0.00	71986	Outside	4399.00	
Bullnose	5.00			4404.00	28.00 Bottom Packers & Anchor
Total Tool Length:		49.00			



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16424

DST#: 8

ATTN: STEVE CARL

Test Start: 2009.07.24 @ 08:17:29

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 49.00 sec/qt

Water Loss: 8.39 in³

Resistivity: ohm.m

Salinity: 6000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

34 deg API

Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
720.00	GAS IN PIPE	5.288
1360.00	GASSEY OIL 30%G70%O	19.889
90.00	MUD CUT GASSEY OIL20%G60%O20%M	1.316

Total Length: 2170.00 ft Total Volume: 26.493 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

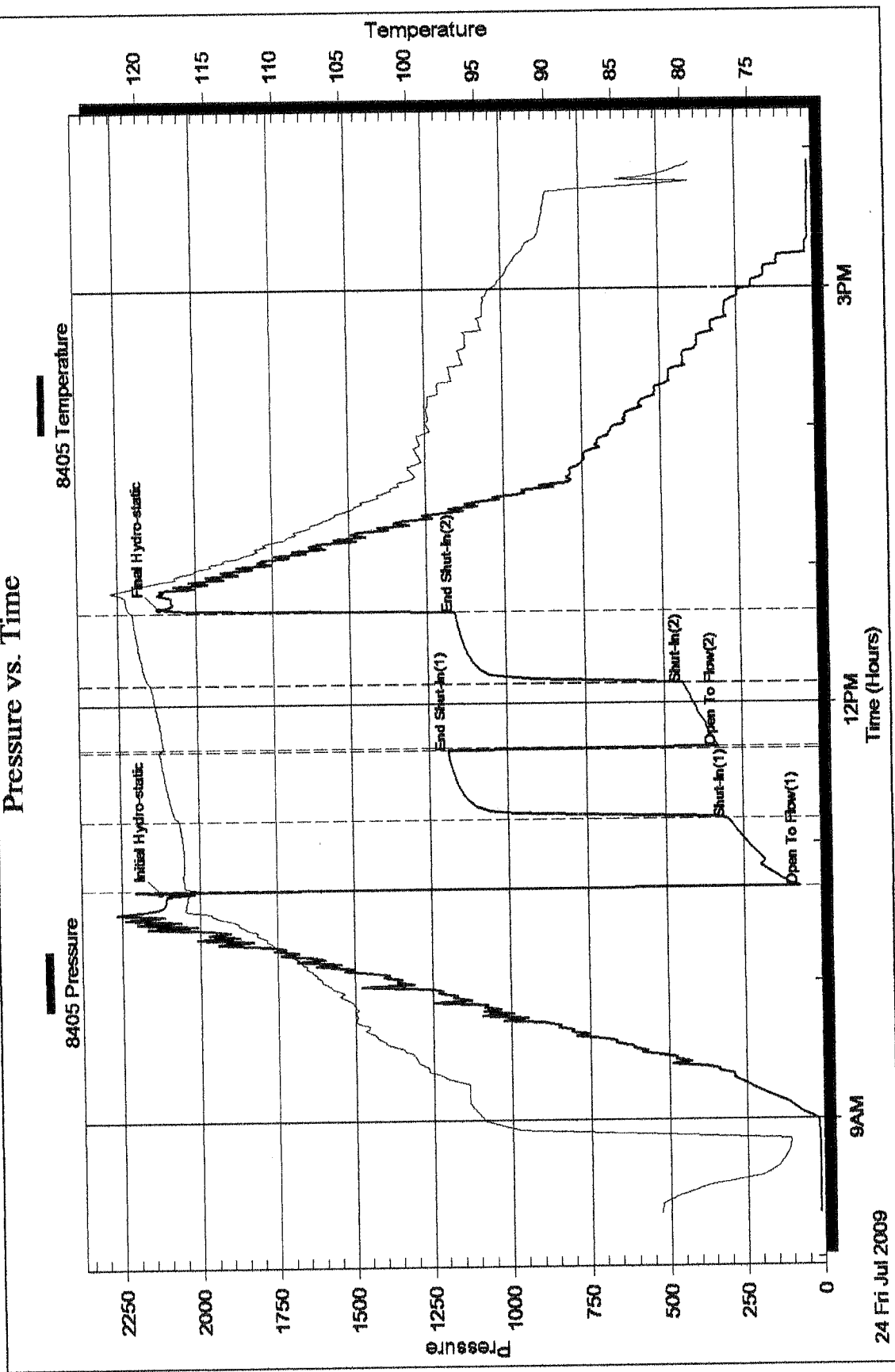
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



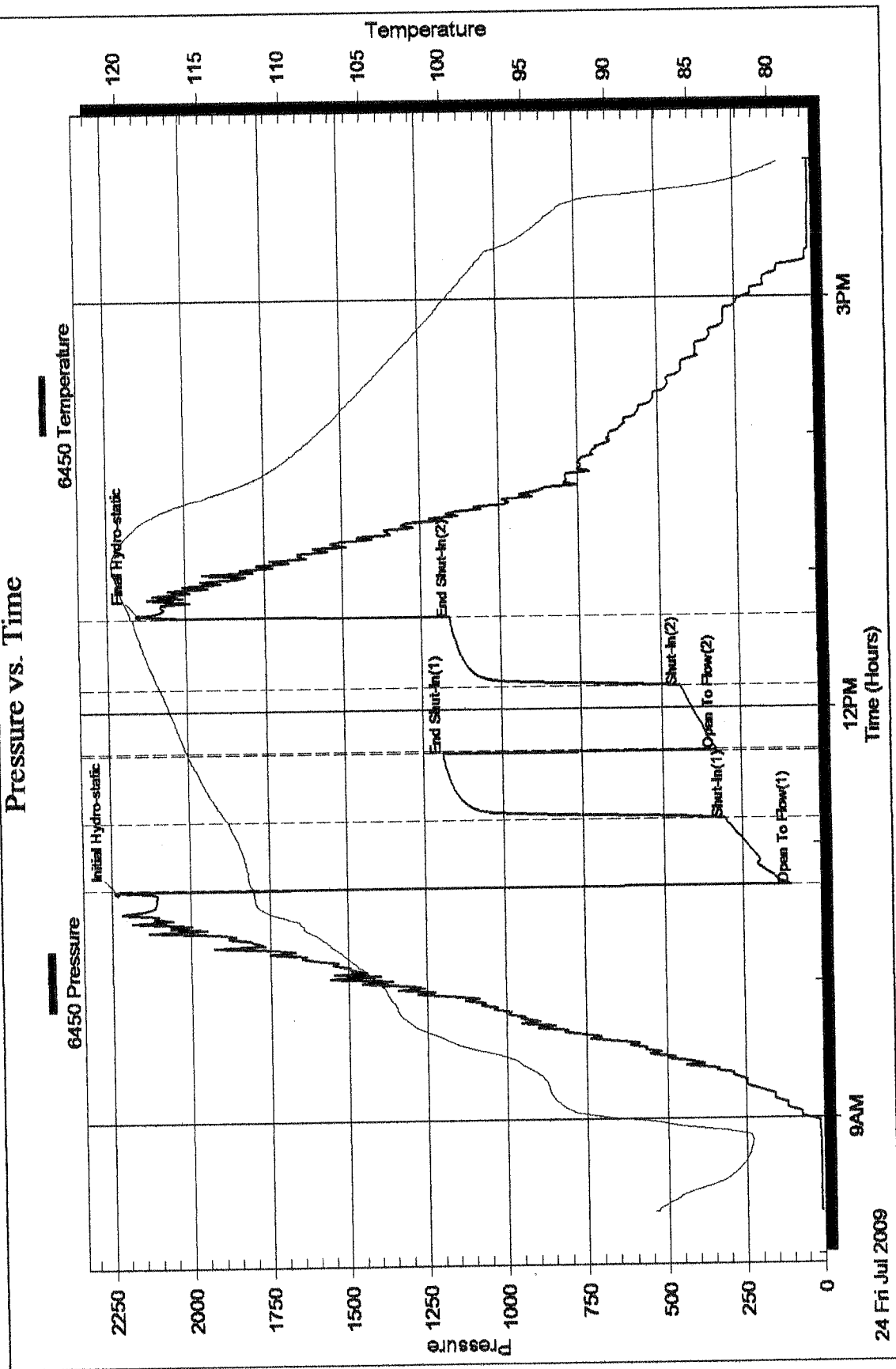
DST Test Number: 8

29-13-31

Outside RITCHIE EXPLORATION INC

Serial #: 6450

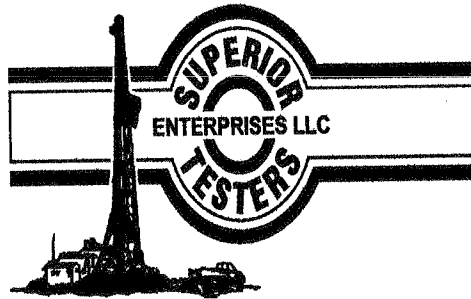
Pressure vs. Time



Printed: 2009.07.24 @ 15:09:25

Ref. No: 16424

Superior Testers Enterprises LLC



DRILL STEM TEST REPORT

Prepared For: **RITICHIE EXPLORATION INC**

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

29-13-31

HESS 29C #1

Start Date: 2009.07.25 @ 04:07:30

End Date: 2009.07.25 @ 12:23:00

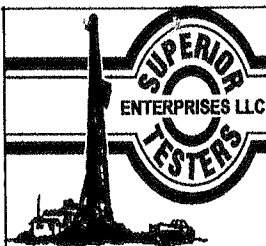
Job Ticket #: 16425

DST #: 9

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2009.07.25 @ 04:17:21

RITICHIE EXPLORATION INC
HESS 29C #1
29-13-31
DST # 9
JOHSON
2009.07.25



DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16425

DST#: 9

ATTN: STEVE CARL

Test Start: 2009.07.25 @ 04:07:30

GENERAL INFORMATION:

Formation: **JOHSON**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:54:30

Time Test Ended: 12:23:00

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: 4461.00 ft (KB) To 4490.00 ft (KB) (TVD)

Total Depth: 4490.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8405

Inside

Press@RunDepth: 449.89 psia @ 4485.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2009.07.25

End Date:

2009.07.25

Last Calib.: 2009.07.25

Start Time: 04:07:30

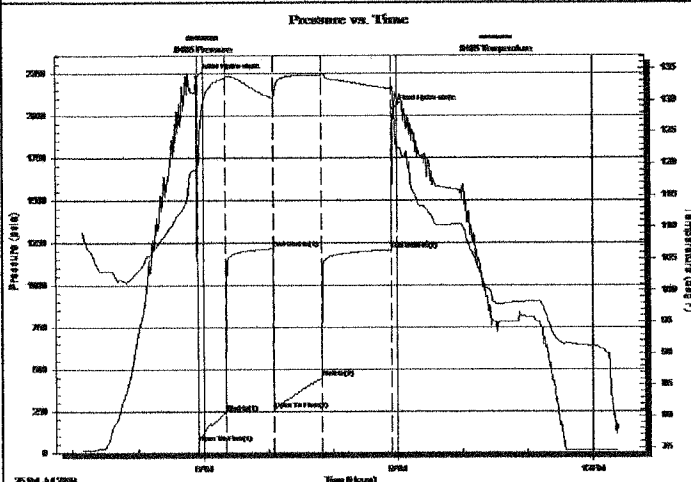
End Time:

12:23:00

Time On Btm: 2009.07.25 @ 05:54:00

Time Off Btm: 2009.07.25 @ 08:56:00

TEST COMMENT: 30-INITIAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 3 MINS
45-INITIAL SHUT IN GOOD BLOW BACK
45-FINAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 6 MINS
60-FINAL SHUT IN GOOD BLOW BACK



PRESSURE SUMMARY

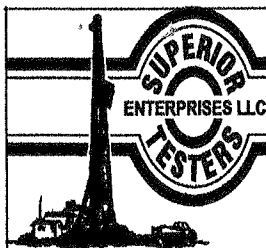
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2226.93	119.12	Initial Hydro-static
1	58.34	117.98	Open To Flow (1)
26	242.24	133.52	Shut-In(1)
71	1213.88	130.32	End Shut-In(1)
71	262.23	129.82	Open To Flow (2)
116	449.89	133.92	Shut-In(2)
181	1206.80	131.79	End Shut-In(2)
182	2038.37	130.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1080.00	GAS IN PIPE	10.55
1440.00	GASSEY OIL 20%G80%O	21.06
90.00	MUD CUT GASSEY OIL 20%G60%O20%M1.32	

Gas Rates

	Choke (Inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16425

DST#: 9

ATTN: STEVE CARL

Test Start: 2009.07.25 @ 04:07:30

GENERAL INFORMATION:

Formation: **JOHSON**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:54:30

Time Test Ended: 12:23:00

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: **4461.00 ft (KB) To 4490.00 ft (KB) (TVD)**

Total Depth: 4490.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: **6450** Outside

Press@RunDepth: 1207.58 psia @ 4485.00 ft (KB)

Start Date: 2009.07.25

End Date: 2009.07.25

Capacity: 5000.00 psia

Last Calib.: 2009.07.25

Start Time: 04:07:40

End Time: 12:27:51

Time On Btm: 2009.07.25 @ 05:54:21

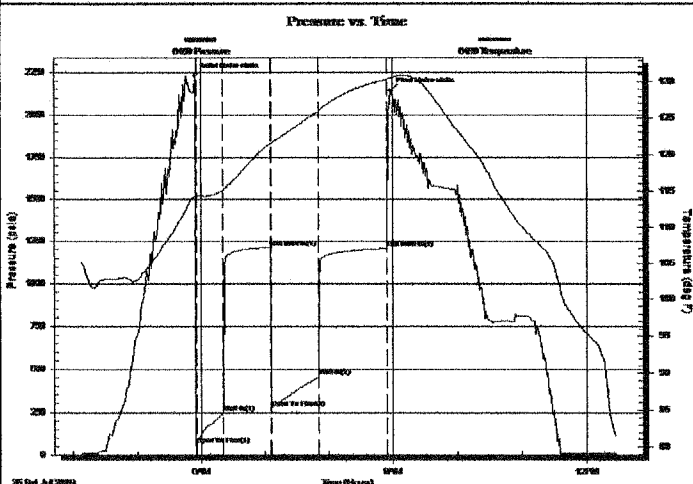
Time Off Btm: 2009.07.25 @ 08:57:51

TEST COMMENT: 30-INITIAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 3 MINS

45-INITIAL SHUT IN GOOD BLOW BACK

45-FINAL OPENING GOOD BLOW BOTTOM OF THE BUCKET IN 6 MINS

60-FINAL SHUT IN GOOD BLOW BACK



PRESSURE SUMMARY

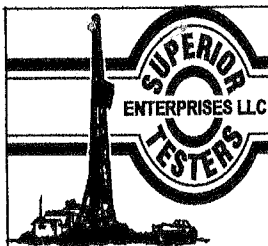
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2231.79	114.23	Initial Hydro-static
1	60.22	113.98	Open To Flow (1)
26	245.40	115.10	Shut-In(1)
71	1215.08	121.47	End Shut-In(1)
72	272.45	121.54	Open To Flow (2)
116	456.28	125.94	Shut-In(2)
181	1207.58	130.32	End Shut-In(2)
184	2143.06	130.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1080.00	GAS IN PIPE	10.55
1440.00	GASSEY OIL 20%G80%O	21.06
90.00	MUD CUT GASSEY OIL 20%G60%O20%M.32	

Gas Rates

	Choke (Inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16425

DST#: 9

ATTN: STEVE CARL

Test Start: 2009.07.25 @ 04:07:30

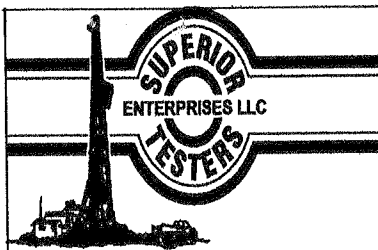
Tool Information

Drill Pipe:	Length: 3902.00 ft	Diameter: 3.88 inches	Volume: 57.06 bbl	Tool Weight: 2000.00 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: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose: 90000.00 lb
			Total Volume: 59.72 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4461.00 ft			Final 79000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	50.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4441.00	
Shut-In Tool	5.00			4446.00	
Hydraulic Tool	5.00			4451.00	
Packer	5.00			4456.00	21.00 Bottom Of Top Packer
Packer	5.00			4461.00	
Perforations	24.00			4485.00	
Recorder	0.00	8405	Inside	4485.00	
Recorder	0.00	71986	Outside	4485.00	
Bullnose	5.00			4490.00	29.00 Bottom Packers & Anchor
Total Tool Length:	50.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16425

DST#: 9

ATTN: STEVE CARL

Test Start: 2009.07.25 @ 04:07:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 75.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 7600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1080.00	GAS IN PIPE	10.553
1440.00	GASSEY OIL 20%G80%O	21.059
90.00	MUD CUT GASSEY OIL 20%G60%O20%M	1.316

Total Length: 2610.00 ft

Total Volume: 32.928 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

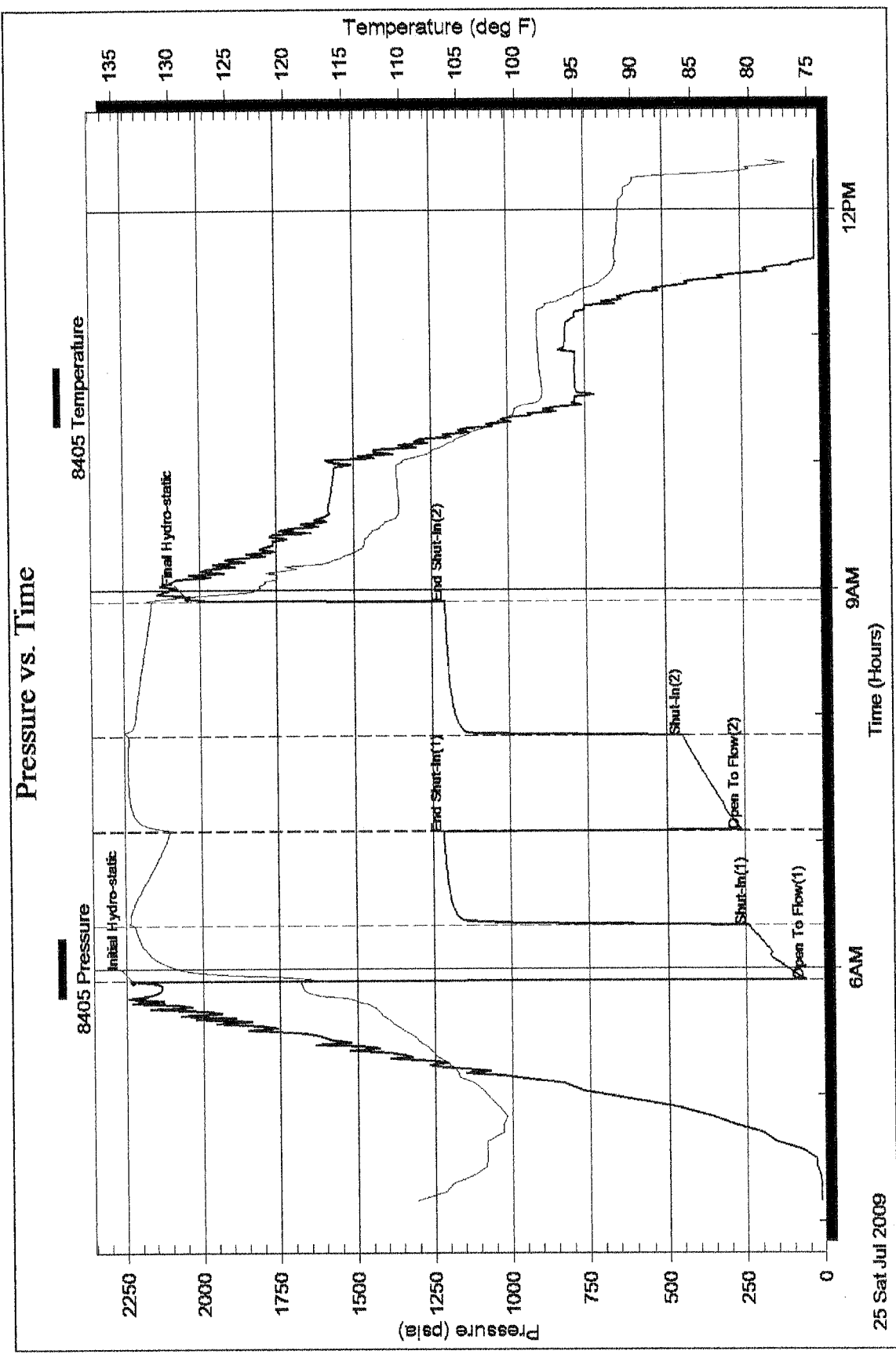
DST Test Number: 9

29-13-31

RITCHIE EXPLORATION INC

Inside

Serial #: 8405



Printed: 2009.07.25 @ 04:17:23

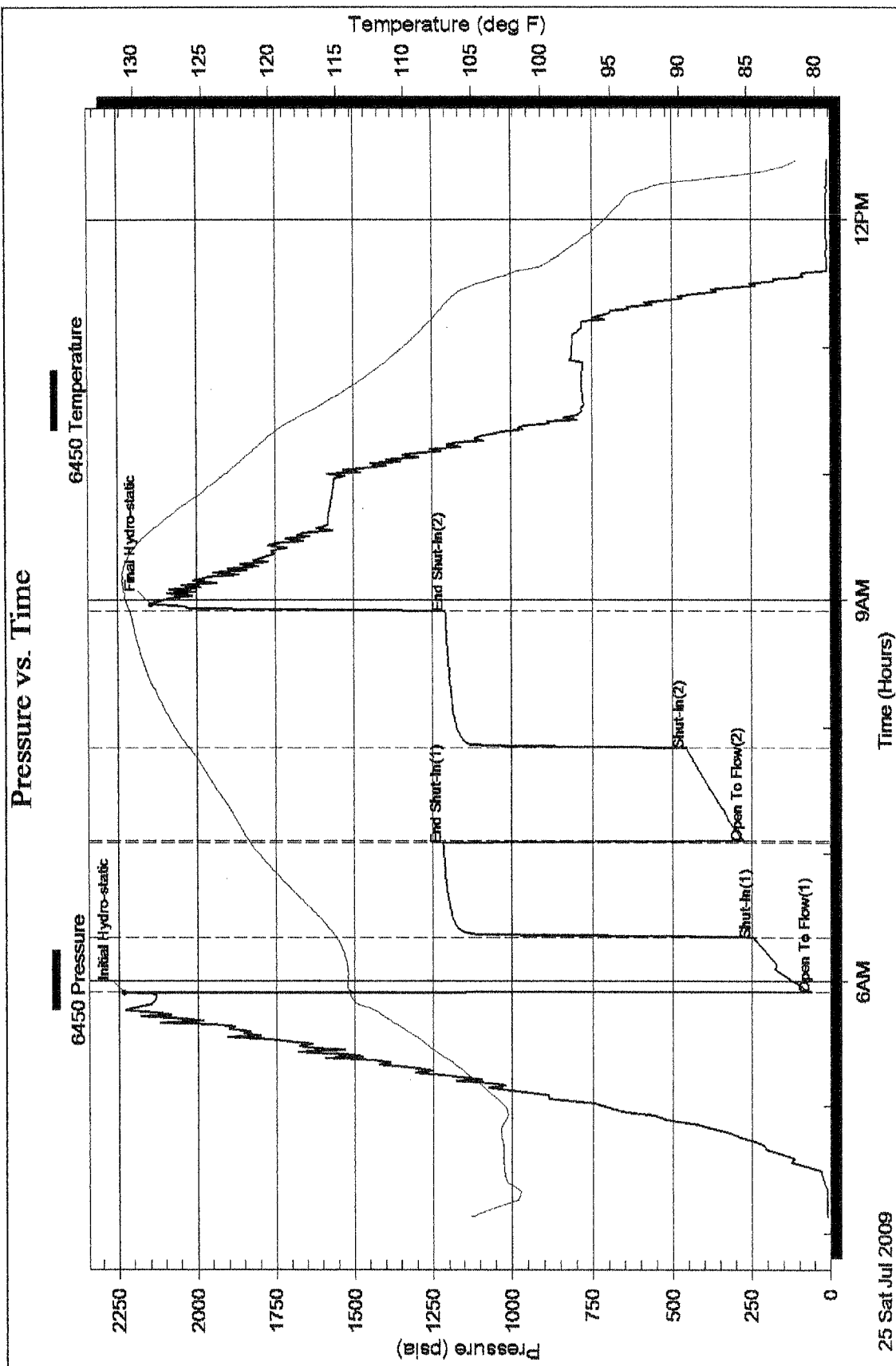
Ref. No: 16425

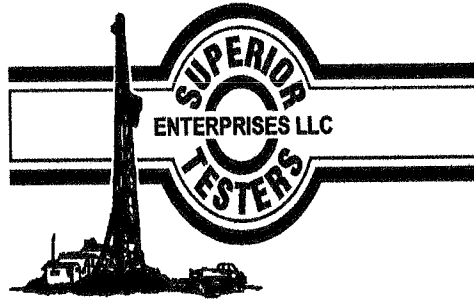
Superior Testers Enterprises LLC

DST Test Number: 9

29-13-31

Serial #: 6450 Outside RITCHIE EXPLORATION INC





DRILL STEM TEST REPORT

Prepared For: **RITICHIE EXPLORATION INC**

8100 E 22ND ST N#700
WICHITA KS 67278

ATTN: STEVE CARL

29-13-31

HESS 29C #1

Start Date: 2009.07.25 @ 19:45:39

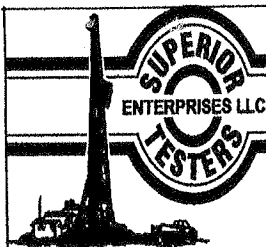
End Date: 2009.07.26 @ 01:41:09

Job Ticket #: 16246 DST #: 10

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2009.07.25 @ 19:54:10

RITICHIE EXPLORATION INC
HESS 29C #1
29-13-31
DST # 10
MORROW
2009.07.25



DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16246

DST#: 10

ATTN: STEVE CARL

Test Start: 2009.07.25 @ 19:45:39

GENERAL INFORMATION:

Formation: **MORROW**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:43:09

Time Test Ended: 01:41:09

Interval: **4500.00 ft (KB) To 4535.00 ft (KB) (TVD)**

Total Depth: 4535.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Reference Elevations: 2897.00 ft (KB)

2887.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8405

Inside

Press@RunDepth: 45.28 psia @ 4530.00 ft (KB)

Start Date: 2009.07.25

End Date:

2009.07.26

Start Time: 19:45:39

End Time:

01:41:09

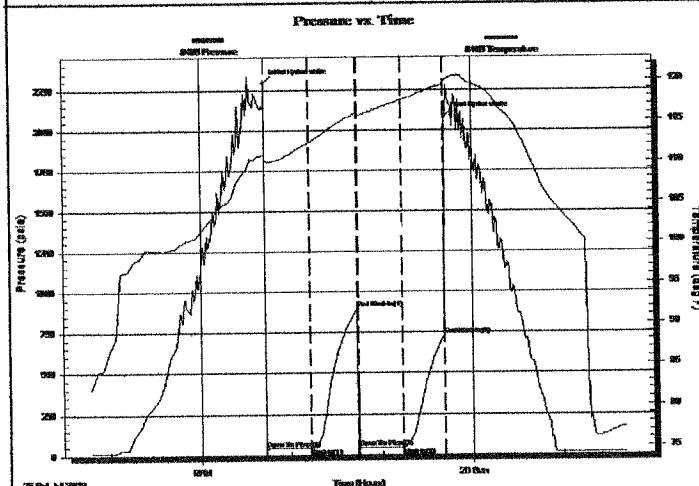
Capacity: 5000.00 psia

Last Calib.: 2009.07.25

Time On Btm: 2009.07.25 @ 21:42:39

Time Off Btm: 2009.07.25 @ 23:42:39

TEST COMMENT: 30-INITIAL OPENING SURFACE BLOW
30-INITIAL SHUT IN NO BLOW BACK
30-FINAL OPENING NO BLOW
30-FINAL SHUT IN NO BLOW BACK



PRESSURE SUMMARY

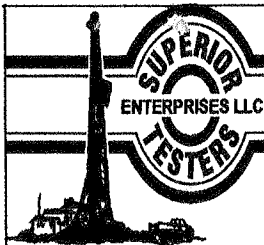
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2294.12	110.85	Initial Hydro-static
1	41.42	110.02	Open To Flow (1)
30	43.19	112.24	Shut-In(1)
61	894.38	115.84	End Shut-In(1)
62	43.37	115.49	Open To Flow (2)
91	45.28	117.47	Shut-In(2)
119	727.50	119.41	End Shut-In(2)
120	2087.33	119.89	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	DRILLING MUD 100%MUD	0.05

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

RTICHEL EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16246

DST#: 10

ATTN: STEVE CARL

Test Start: 2009.07.25 @ 19:45:39

GENERAL INFORMATION:

Formation: **MORROW**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:43:09

Time Test Ended: 01:41:09

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 3345 50 M SCOTT CITY

Interval: **4500.00 ft (KB) To 4535.00 ft (KB) (TVD)**

Reference Elevations: 2897.00 ft (KB)

Total Depth: 4535.00 ft (KB) (TVD)

2887.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 6450

Outside

Press@RunDepth: 728.66 psia @ 4530.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2009.07.25

End Date:

2009.07.26

Last Calib.: 2009.07.25

Start Time: 19:45:07

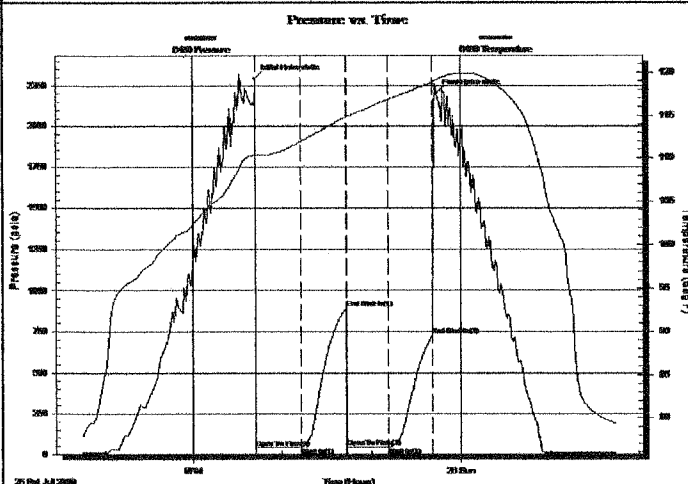
End Time:

01:45:18

Time On Btm: 2009.07.25 @ 21:42:19

Time Off Btm: 2009.07.25 @ 23:43:49

TEST COMMENT: 30-INITIAL OPENING SURFACE BLOW
30-INITIAL SHUT IN NO BLOW BACK
30-FINAL OPENING NO BLOW
30-FINAL SHUT IN NO BLOW BACK



PRESSURE SUMMARY

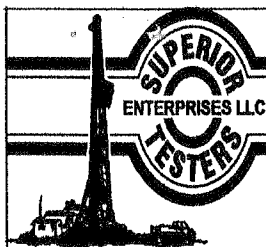
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2293.95	110.37	Initial Hydro-static
1	41.41	110.22	Open To Flow (1)
31	46.46	111.92	Shut-In(1)
61	895.01	114.85	End Shut-In(1)
62	43.97	114.83	Open To Flow (2)
89	47.12	116.83	Shut-In(2)
119	728.66	118.78	End Shut-In(2)
122	2201.43	119.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	DRILLING MUD 100%MUD	0.05

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)
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DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16246

DST#: 10

ATTN: STEVE CARL

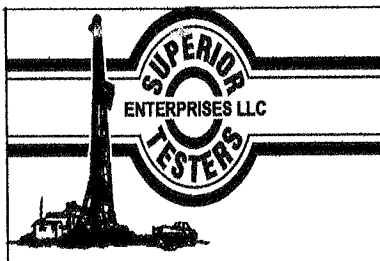
Test Start: 2009.07.25 @ 19:45:39

Tool Information

Drill Pipe:	Length: 3941.00 ft	Diameter: 3.88 inches	Volume: 57.63 bbl	Tool Weight:	2000.00 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: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose:	100000.0 lb
		Total Volume:	60.29 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4500.00 ft			Final	71000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	35.00 ft				
Tool Length:	56.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4480.00	
Shut-In Tool	5.00			4485.00	
Hydraulic Tool	5.00			4490.00	
Packer	5.00			4495.00	21.00 Bottom Of Top Packer
Packer	5.00			4500.00	
Perforations	30.00			4530.00	
Recorder	0.00	8405	Inside	4530.00	
Recorder	0.00	71986	Outside	4530.00	
Bullnose	5.00			4535.00	35.00 Bottom Packers & Anchor
Total Tool Length:		56.00			



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHIE EXPLORATION INC

HESS 29C #1

8100 E 22ND ST N#700
WICHITA KS 67278

29-13-31

Job Ticket: 16246

DST#: 10

ATTN: STEVE CARL

Test Start: 2009.07.25 @ 19:45:39

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:

ppm

Viscosity: 68.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.80 in*

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 6600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	DRILLING MUD 100%MUD	0.049

Total Length: 10.00 ft

Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

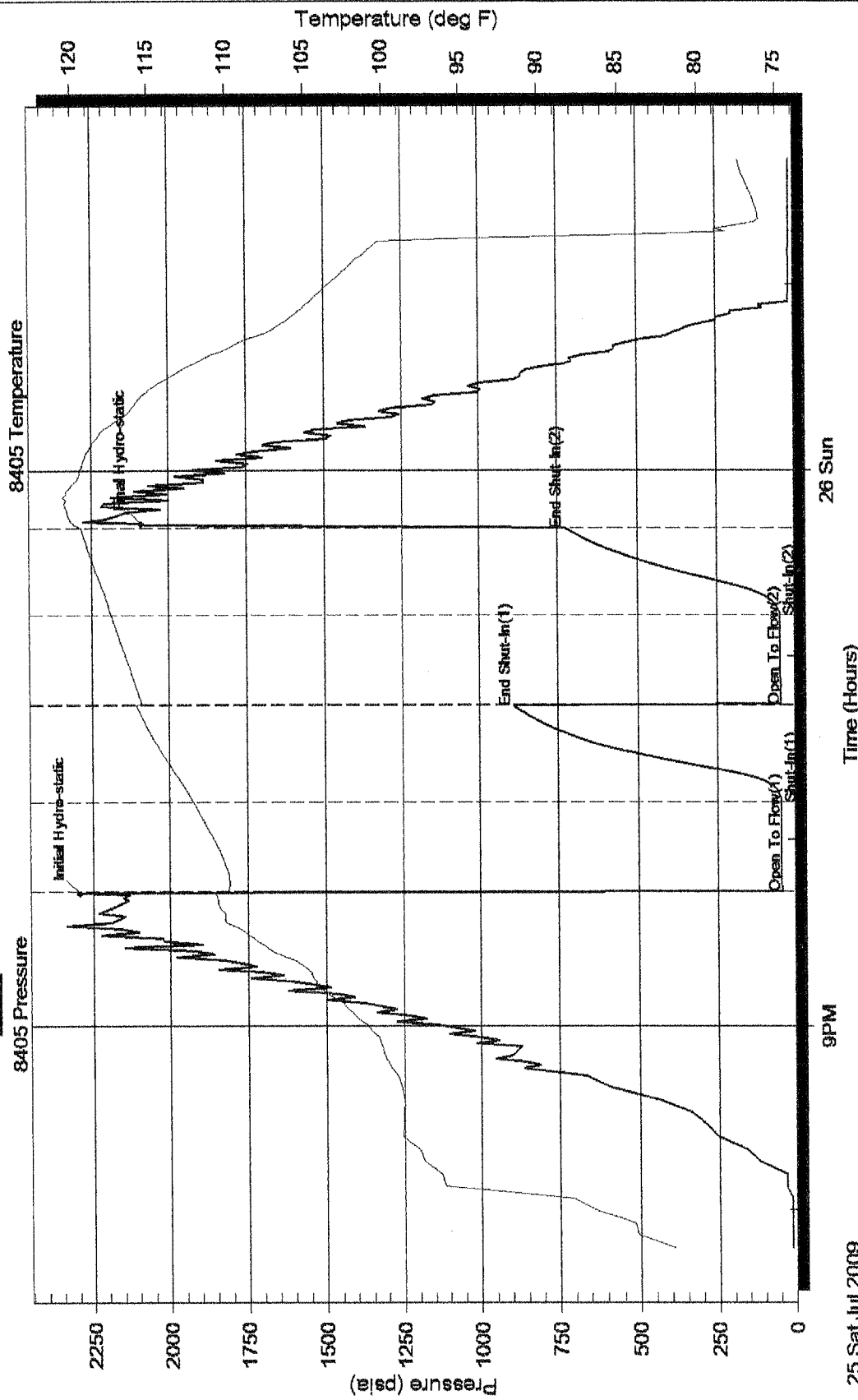
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



Pressure vs. Time

