

15-063-21822

20-13s-31w
Range is 31,
not 20 as
listed in report.



DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N #700
WICHITA KS 67278

ATTN: JEFF CHRISTIAN

31
20-13-20W GOVE

PHILLIPS 20C #2

Start Date: 2009.12.28 @ 18:38:00

End Date: 2009.12.29 @ 01:44:00

Job Ticket #: 16190 DST #: 1

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

Printed: 2010.01.04 @ 14:32:03

RITCHIE EXPLORATION INC
PHILLIPS 20C #2
20-13-20W GOVE
DST # 1
LKC "C" ZONE
2009.12.28
20-13s-31w



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16190

DST#: 1

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.28 @ 18:38:00

GENERAL INFORMATION:

Formation: LKC "C" ZONE
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:58:30
Time Test Ended: 01:44:00

Test Type: Conventional Bottom Hole (Initial)
Tester: JARED SCHECK
Unit No: 3320 - 70 - SCOTT

Interval: 3923.00 ft (KB) To 3950.00 ft (KB) (TVD)
Total Depth: 3950.00 ft (KB) (TVD)
Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 2879.00 ft (KB)
2874.00 ft (CF)
KB to GR/CF: 5.00 ft

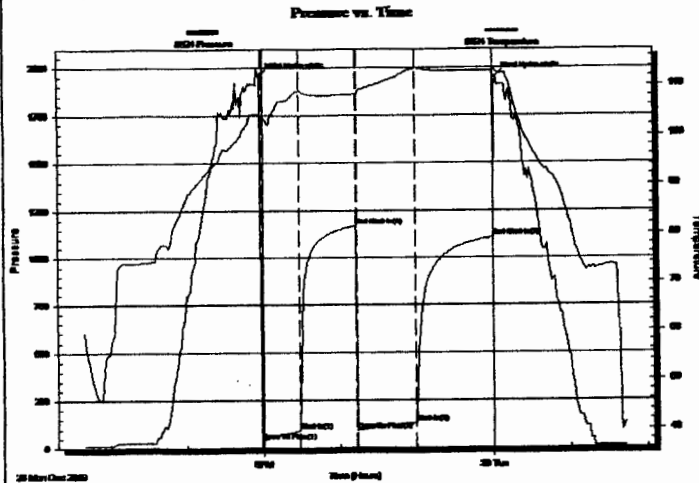
Serial #: 8524

Inside

Press@RunDepth: 131.41 psia @ 3945.00 ft (KB)
Start Date: 2009.12.28 End Date: 2009.12.29
Start Time: 18:39:00 End Time: 01:44:00

Capacity: 5000.00 psia
Last Calib.: 2009.12.29
Time On Btm: 2009.12.28 @ 20:57:30
Time Off Btm: 2009.12.29 @ 00:02:00

TEST COMMENT: 30/INITIAL OPEN:VERY WEAK BUT BUILDING BLOW BUILT 1 1/4 INCH INTO WATER IN 30 MINUTES
45/INITIAL SHUT IN:NO BLOW BACK
45/FINAL OPEN:VERY WEAK SURFACE BLOW STAYED STEADY THROUGHOUT OPEN
60/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

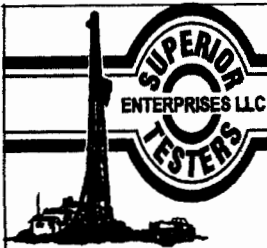
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1955.21	104.12	Initial Hydro-static
1	38.81	103.63	Open To Flow (1)
31	91.10	109.07	Shut-in(1)
76	1170.23	108.32	End Shut-in(1)
76	93.90	108.09	Open To Flow (2)
122	131.41	113.69	Shut-in(2)
182	1112.52	113.01	End Shut-in(2)
185	1950.64	113.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MUD CUT WATER 50%M 50%W	0.89

Gas Rates

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



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

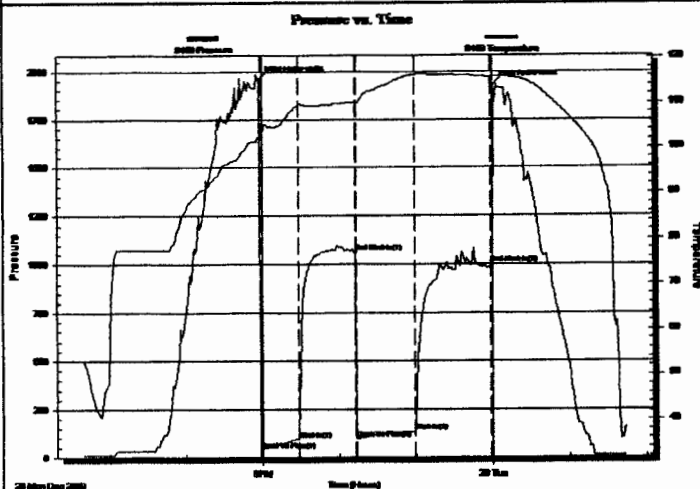
PHILLIPS 20C #2
 20-13-20W GOVE
 Job Ticket: 16190 DST#: 1
 Test Start: 2009.12.28 @ 18:38:00

GENERAL INFORMATION:

Formation: LKC "C" ZONE
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:58:30
 Time Test Ended: 01:44:00
 Test Type: Conventional Bottom Hole (Initial)
 Tester: JARED SCHECK
 Unit No: 3320 - 70 - SCOTT
 Interval: 3923.00 ft (KB) To 3950.00 ft (KB) (TVD)
 Total Depth: 3950.00 ft (KB) (TVD)
 Reference Elevations: 2879.00 ft (KB)
 2874.00 ft (CF)
 Hole Diameter: 6.88 inches Hole Condition: Fair
 KB to GR/CF: 5.00 ft

Serial #: 8419 Outside
 Press@RunDepth: 1000.05 psia @ 3945.00 ft (KB)
 Capacity: 5000.00 psia
 Start Date: 2009.12.28 End Date: 2009.12.29
 Last Calib.: 2009.12.29
 Start Time: 18:39:00 End Time: 01:44:00
 Time On Btm: 2009.12.28 @ 20:57:30
 Time Off Btm: 2009.12.29 @ 00:00:30

TEST COMMENT: 30/INITIAL OPEN:VERY WEAK BUT BUILDING BLOW BUILT 1 1/4 INCH INTO WATER IN 30 MINUTES
 45/INITIAL SHUT IN:NO BLOW BACK
 45/FINAL OPEN:VERY WEAK SURFACE BLOW STAYED STEADY THROUGHOUT OPEN
 60/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

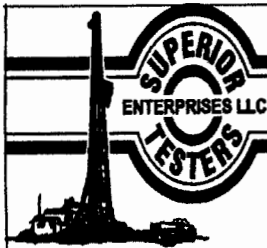
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1956.91	102.69	Initial Hydro-static
1	40.73	102.66	Open To Flow (1)
31	94.18	109.42	Shut-in(1)
75	1065.29	109.97	End Shut-in(1)
76	96.20	109.68	Open To Flow (2)
122	134.85	116.33	Shut-in(2)
181	1000.05	115.66	End Shut-in(2)
183	1931.13	115.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MUD CUT WATER 50%M 50%W	0.89

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16190

DST#: 1

ATTN: JEFF CHRISTIAN

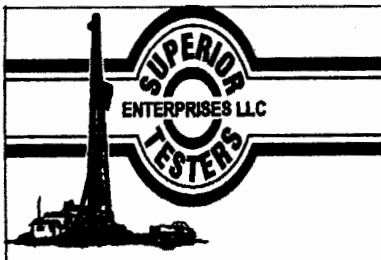
Test Start: 2009.12.28 @ 18:38:00

Tool Information

Drill Pipe:	Length: 3752.00 ft	Diameter: 3.80 inches	Volume: 52.63 bbl	Tool Weight: 10000.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 53.52 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3923.00 ft			Final 55000.00 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
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Change Over Sub	1.00			3903.00	
Shut-In Tool	5.00			3908.00	
Hydraulic Tool	5.00			3913.00	
Packer	5.00			3918.00	21.00 Bottom Of Top Packer
Packer	5.00			3923.00	
Perforations	22.00			3945.00	
Recorder	0.00	8524	Inside	3945.00	
Recorder	0.00	8419	Outside	3945.00	
Bullnose	5.00			3950.00	27.00 Bottom Packers & Anchor
Total Tool Length:	48.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16190

DST#: 1

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.28 @ 18:38:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.76 in³

Gas Cushion Type:

Resistivity: 0.30 ohm.m

Gas Cushion Pressure:

psia

Salinity: 1300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	MUD CUT WATER 50%M 50%W	0.885

Total Length: 180.00 ft Total Volume: 0.885 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: CHLORIDES 23,000 RESISTIVITY .3 2 70 DEGREES

DST Test Number: 1

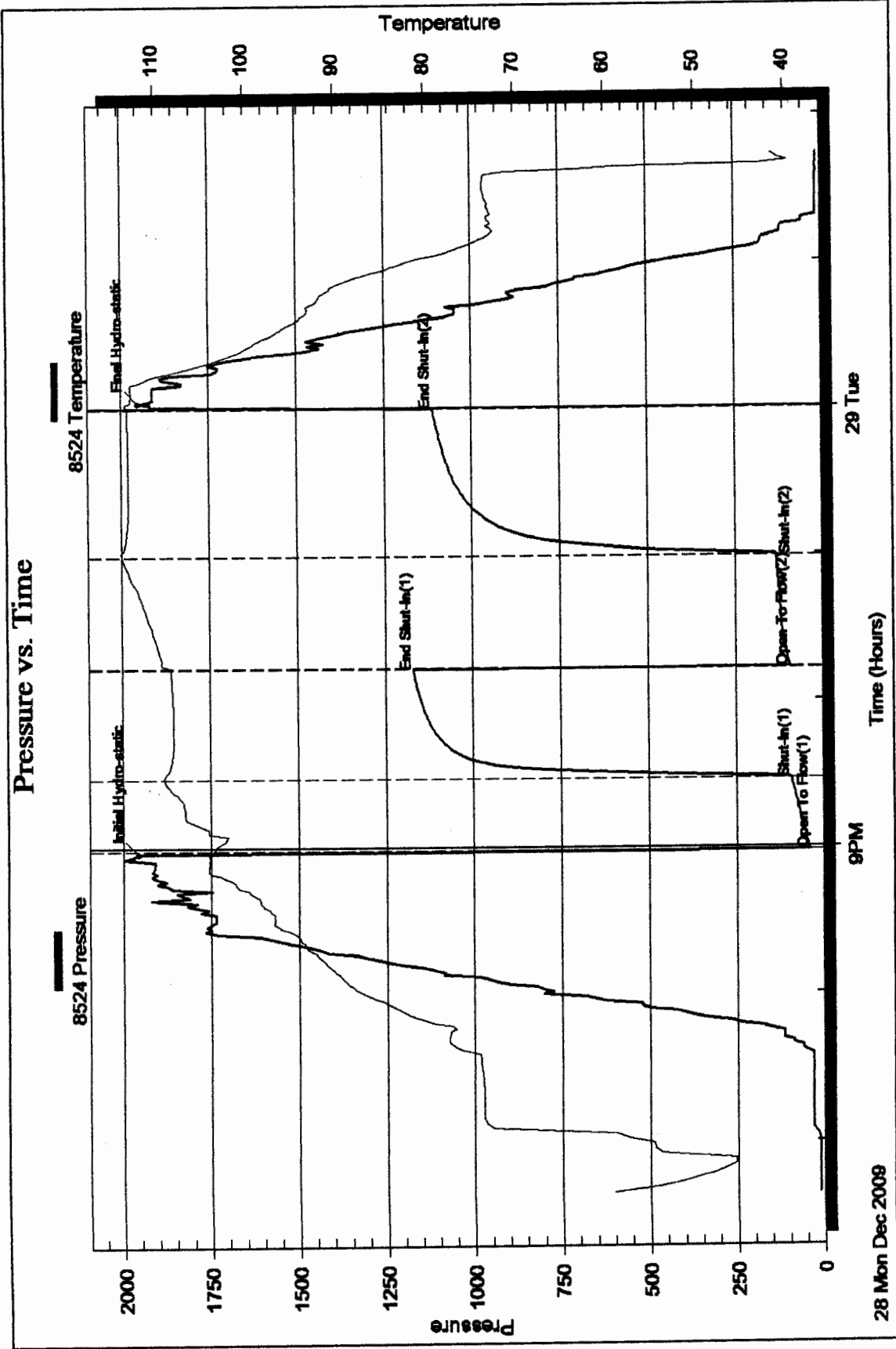
20-13-20W GOVE

RITCHE EXPLORATION INC

Inside

Serial #: 8524

Pressure vs. Time



DST Test Number: 1

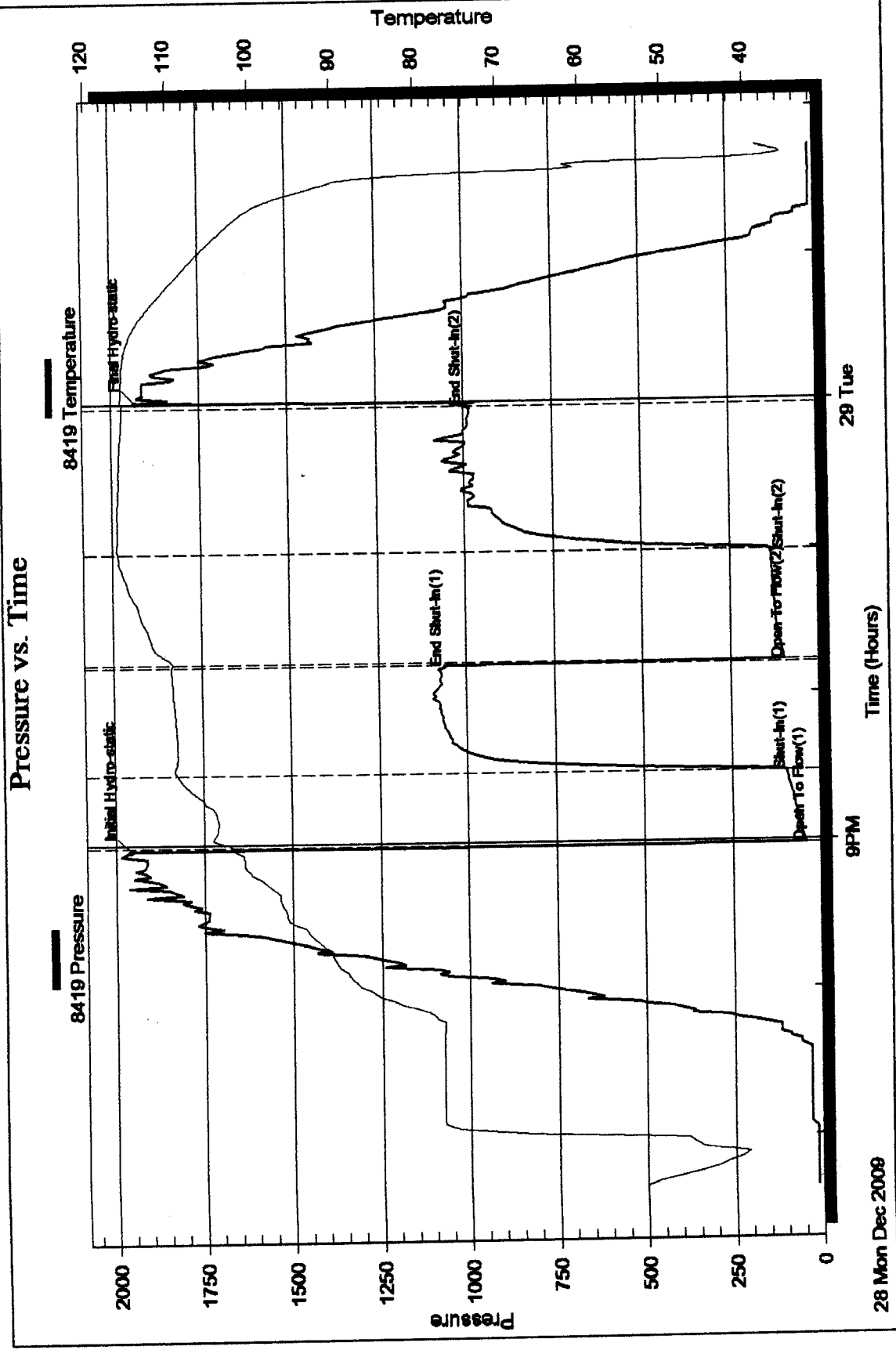
20-13-20W GOVE

RITCHE EXPLORATION INC

Outside

Serial #: 8419

Pressure vs. Time



29 Tue

Time (Hours)

8PM

28 Mon Dec 2009



DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N #700
WICHITA KS 67278

ATTN: JEFF CHRISTIAN

20-13-20W GOVE

PHILLIPS 20C #2

Start Date: 2009.12.29 @ 08:21:00

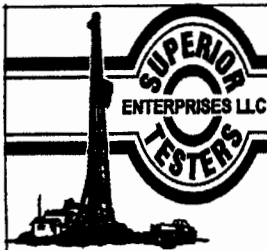
End Date: 2009.12.29 @ 13:57:30

Job Ticket #: 16191 DST #: 2

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

Printed: 2010.01.04 @ 14:33:00

RITCHIE EXPLORATION INC
PHILLIPS 20C #2
20-13-20W GOVE
DST # 2
LKC "D" ZONE
2009.12.29



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16191

DST#: 2

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.29 @ 08:21:00

GENERAL INFORMATION:

Formation: LKC "D" ZONE

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:06:30

Time Test Ended: 13:57:30

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320-70- SCOTT CITY

Interval: 3953.00 ft (KB) To 3964.00 ft (KB) (TVD)

Total Depth: 3964.00 ft (KB) (TVD)

Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 2879.00 ft (KB)

2874.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8419 Outside

Press@RunDepth: 28.63 psia @ 3959.00 ft (KB)

Start Date: 2009.12.29

End Date: 2009.12.29

Start Time: 08:22:00

End Time: 13:57:30

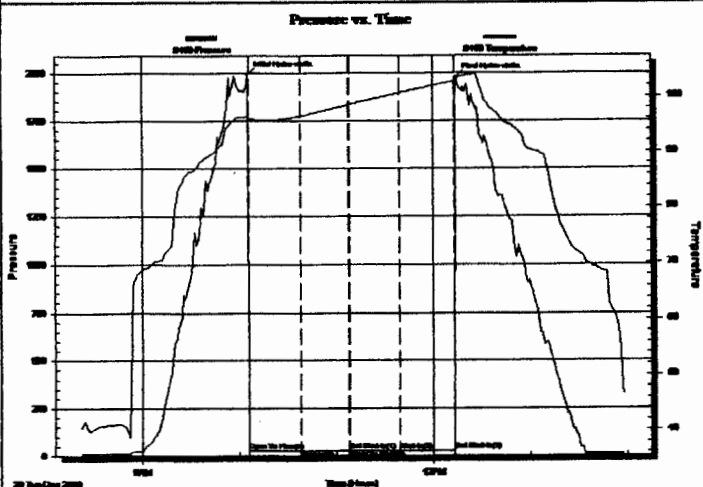
Capacity: 5000.00 psia

Last Calib.: 2009.12.29

Time On Btmr: 2009.12.29 @ 10:05:30

Time Off Btmr: 2009.12.29 @ 12:14:00

TEST COMMENT: 30/INITIAL OPEN:VERY WEAK BUT BUILDING BLOW BUILT 1/2 INCH INTO WATER IN 30 MINUTES
30/INITIAL SHUT IN:NO BLOW BACK
30/FINAL OPEN:VERY WEAK BUT BUILDING BLOW BUILT 1/2 INCH INTO WATER IN 30 MINUTES
30/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

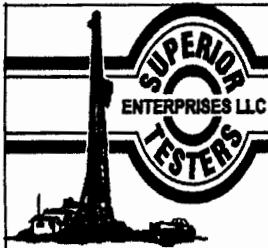
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1991.48	96.27	Initial Hydro-static
1	27.40	95.85	Open To Flow (1)
33	28.48	96.42	Shut-In(1)
63	30.71	98.48	End Shut-in(1)
63	28.18	98.52	Open To Flow (2)
94	28.63	100.59	Shut-In(2)
128	30.46	102.66	End Shut-in(2)
129	1973.00	103.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	MUD 100%	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16191

DST#: 2

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.29 @ 08:21:00

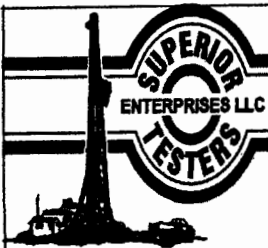
Tool Information

Drill Pipe:	Length: 3783.00 ft	Diameter: 3.80 inches	Volume: 53.07 bbl	Tool Weight: 10000.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 73000.00 lb
			<u>Total Volume: 53.96 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3953.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	32.00 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			3933.00	
Shut-In Tool	5.00			3938.00	
Hydraulic Tool	5.00			3943.00	
Packer	5.00			3948.00	21.00 Bottom Of Top Packer
Packer	5.00			3953.00	
Perforations	6.00			3959.00	
Recorder	0.00	3088	Inside	3959.00	
Recorder	0.00	8419	Outside	3959.00	
Bullnose	5.00			3964.00	11.00 Bottom Packers & Anchor
Total Tool Length:	32.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16191

DST#: 2

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.29 @ 08:21:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 55.00 sec/qt

Water Loss: 8.75 in³

Resistivity: ohm.m

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbbl

psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	MUD 100%	0.005

Total Length: 1.00 ft

Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

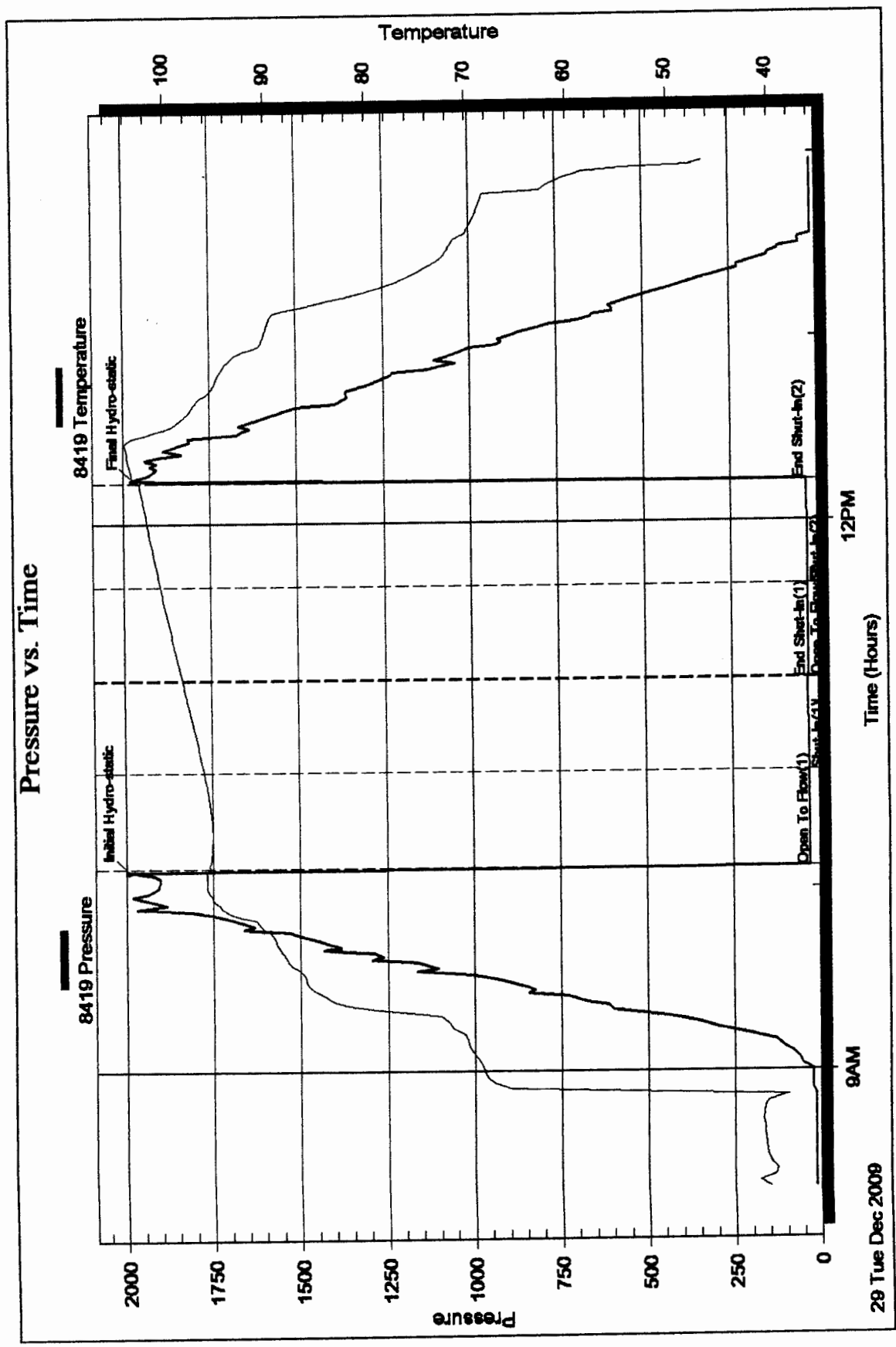
Recovery Comments:

DST Test Number: 2

20-13-20W GOVE

Serial #: 8419 Outside RITCHEE EXPLORATION INC

Pressure vs. Time



Printed: 2010.01.04 @ 14:33:00

Ref. No: 16191

Superior Testers Enterprises LLC



DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N #700
WICHITA KS 67278

ATTN: JEFF CHRISTIAN

20-13-20W GOVE

PHILLIPS 20C #2

Start Date: 2009.12.29 @ 21:49:00

End Date: 2009.12.30 @ 04:18:00

Job Ticket #: 16192 DST #: 3

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

Printed: 2010.01.04 @ 14:33:42

RITCHIE EXPLORATION INC

PHILLIPS 20C #2

20-13-20W GOVE

DST # 3

LKC "E" ZONE

2009.12.29



DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16192

DST#: 3

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.29 @ 21:49:00

GENERAL INFORMATION:

Formation: LKC "E" ZONE

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:34:30

Time Test Ended: 04:18:00

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320- 70-SCOTT CITY

Interval: 3978.00 ft (KB) To 3996.00 ft (KB) (TVD)

Total Depth: 3996.00 ft (KB) (TVD)

Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 2879.00 ft (KB)

2874.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8419

Outside

Press@RunDepth: 179.57 psia @ 3991.00 ft (KB)

Start Date: 2009.12.29

End Date:

2009.12.30

Capacity: 5000.00 psia

Last Calib.: 2009.12.30

Start Time: 21:50:00

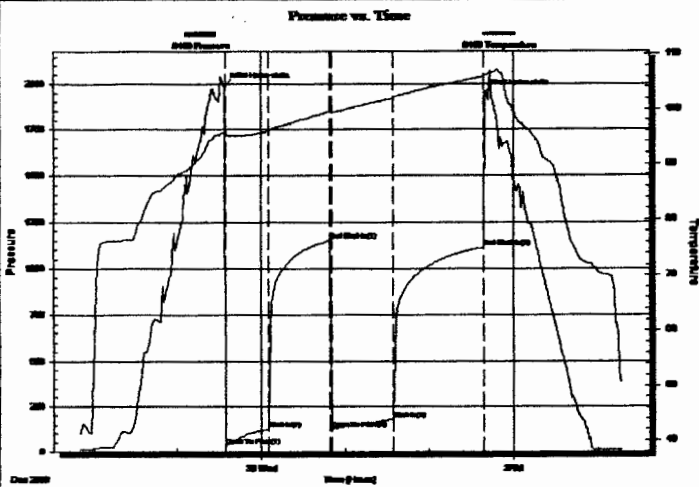
End Time:

04:18:00

Time On Btm: 2009.12.29 @ 23:34:00

Time Off Btm: 2009.12.30 @ 02:39:30

TEST COMMENT: 30/INITIAL OPEN:WEAK BLOW BUILT 9 INCHES INTO WATER IN 30 MINUTES
45/INITIAL SHUT IN:NO BLOW BACK
45/FINAL OPEN:WEAK BLOW BUILT 1 INCH INTO WATER IN 45 MINUTES
60/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

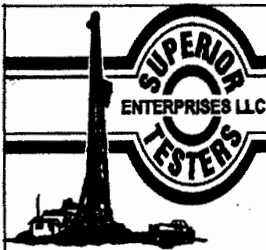
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1987.12	95.72	Initial Hydro-static
1	35.56	95.10	Open To Flow (1)
32	124.87	95.99	Shut-in(1)
76	1152.71	99.48	End Shut-in(1)
77	128.41	99.28	Open To Flow (2)
121	179.57	102.06	Shut-in(2)
185	1114.64	105.93	End Shut-in(2)
186	1948.92	106.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	MUD CUT WATER 40%M 60%W	2.57
20.00	SPOT OIL & MCT W 2%O 40%M 58%W	0.28

Gas Rates

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



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16192

DST#: 3

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.29 @ 21:49:00

GENERAL INFORMATION:

Formation: LKC "E" ZONE

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:34:30

Time Test Ended: 04:18:00

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320- 70-SCOTT CITY

Interval: 3978.00 ft (KB) To 3996.00 ft (KB) (TVD)

Total Depth: 3996.00 ft (KB) (TVD)

Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 2879.00 ft (KB)

2874.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8504

Inside

Press@RunDepth: 1113.44 psia @ 3991.00 ft (KB)

Start Date: 2009.12.29

End Date:

2009.12.30

Capacity: 5000.00 psia

Last Calib.: 2009.12.30

Start Time: 21:51:00

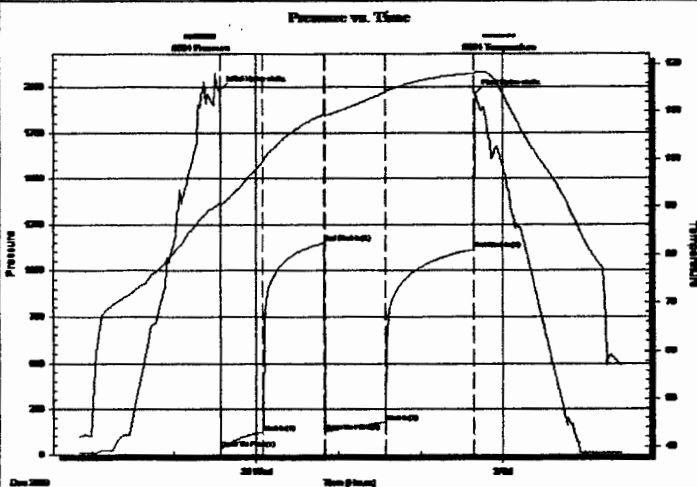
End Time:

04:26:30

Time On Btm: 2009.12.29 @ 23:34:00

Time Off Btm: 2009.12.30 @ 02:40:00

TEST COMMENT: 30/INITIAL OPEN:WEAK BLOW BUILT 9 INCHES INTO WATER IN 30 MINUTES
45/INITIAL SHUT IN:NO BLOW BACK
45/FINAL OPEN:WEAK BLOW BUILT 1 INCH INTO WATER IN 45 MINUTES
60/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

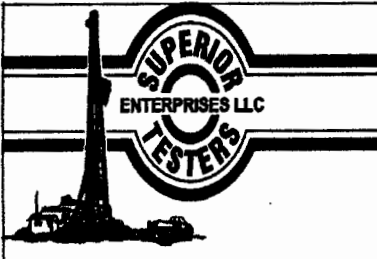
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1982.31	90.89	Initial Hydro-static
1	35.44	90.44	Open To Flow (1)
31	124.37	99.52	Shut-in(1)
76	1151.68	109.40	End Shut-in(1)
77	127.45	109.12	Open To Flow (2)
121	179.25	114.04	Shut-in(2)
185	1113.44	118.03	End Shut-in(2)
186	1965.19	118.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	MUD CUT WATER 40%M 60%W	2.57
20.00	SPOT OIL & MCT W 2%O 40%M 58%W 0.28	

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16192

DST#: 3

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.29 @ 21:49:00

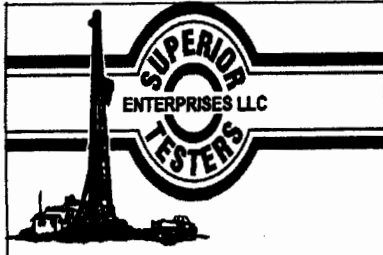
Tool Information

Drill Pipe:	Length: 3784.00 ft	Diameter: 3.80 inches	Volume: 53.08 bbl	Tool Weight: 10000.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 53.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3978.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	39.00 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			3958.00	
Shut-In Tool	5.00			3963.00	
Hydrolic Tool	5.00			3968.00	
Packer	5.00			3973.00	21.00 Bottom Of Top Packer
Packer	5.00			3978.00	
Perforations	13.00			3991.00	
Recorder	0.00	8504	Inside	3991.00	
Recorder	0.00	8419	Outside	3991.00	
Bullnose	5.00			3996.00	18.00 Bottom Packers & Anchor
Total Tool Length:	39.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHIE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

PHILLIPS 20C #2
 20-13-20W GOVE
 Job Ticket: 16192 DST#: 3
 Test Start: 2009.12.29 @ 21:49:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.75 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
300.00	MUD CUT WATER 40%M 60%W	2.568
20.00	SPOT OIL & MCT W 2%O 40%M 58%W	0.281

Total Length: 320.00 ft Total Volume: 2.849 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: CHLORIDES 30,000

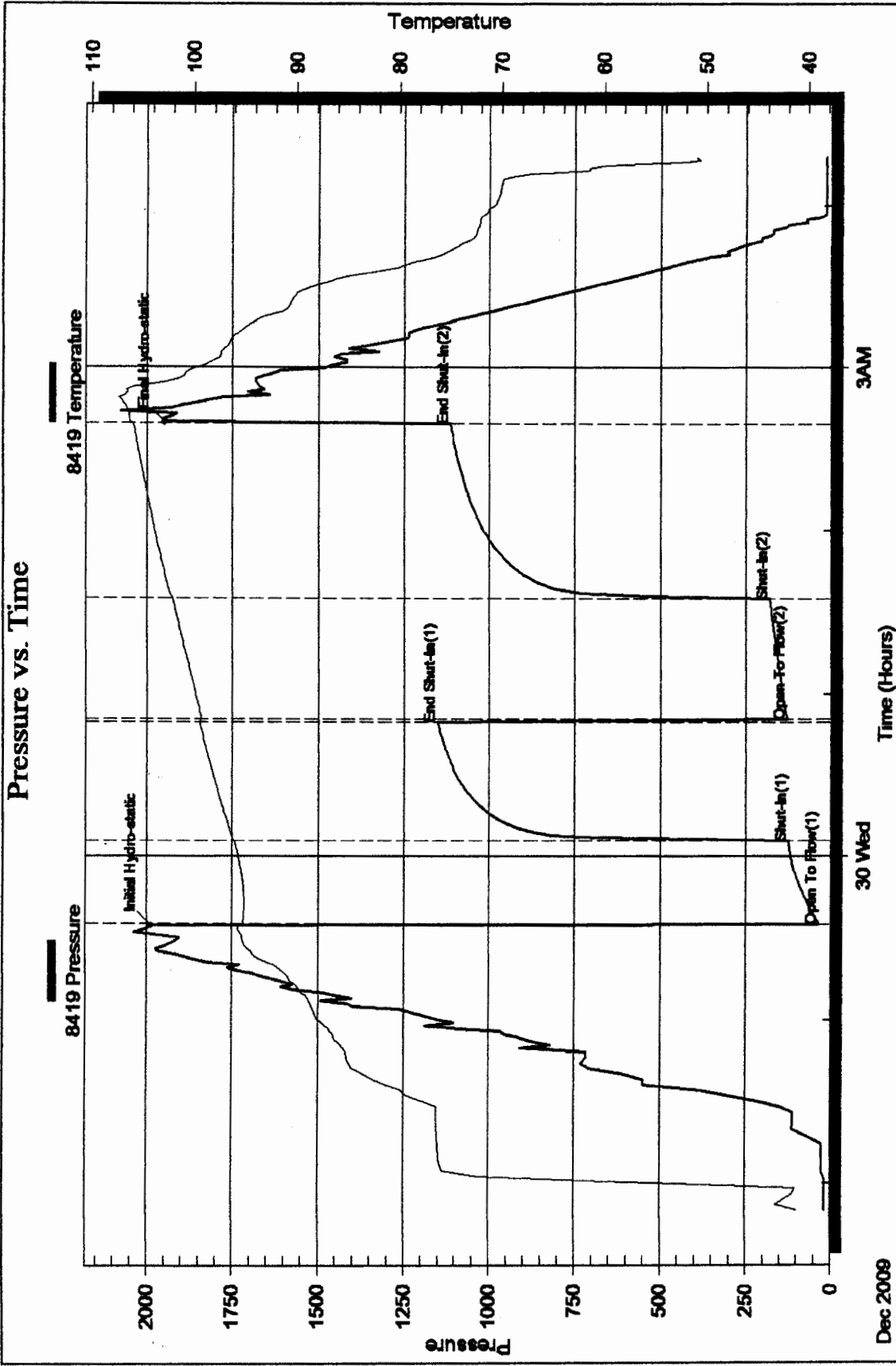
Serial #: 8419

Outside RITCHEE EXPLORATION INC

20-13-20W GOVE

DST Test Number: 3

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N #700
WICHITA KS 67278

ATTN: JEFF CHRISTIAN

20-13-20W GOVE

PHILLIPS 20C #2

Start Date: 2009.12.30 @ 14:56:00

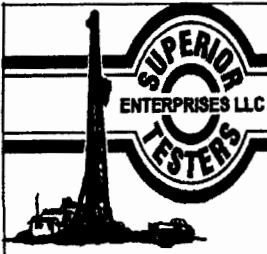
End Date: 2009.12.30 @ 21:49:30

Job Ticket #: 16193 DST #: 4

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

Printed: 2010.01.04 @ 14:35:41

RITCHIE EXPLORATION INC
PHILLIPS 20C #2
20-13-20W GOVE
DST # 4
LKC "H" ZONE
2009.12.30



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16193

DST#: 4

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.30 @ 14:56:00

GENERAL INFORMATION:

Formation: LKC "H" ZONE
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:34:30
Time Test Ended: 21:49:30

Test Type: Conventional Bottom Hole (Initial)
Tester: JARED SCHECK
Unit No: 3320- 70-SCOTT CITY

Interval: 4055.00 ft (KB) To 4085.00 ft (KB) (TVD)
Total Depth: 4085.00 ft (KB) (TVD)
Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 2879.00 ft (KB)
2874.00 ft (CF)
KB to GR/CF: 5.00 ft

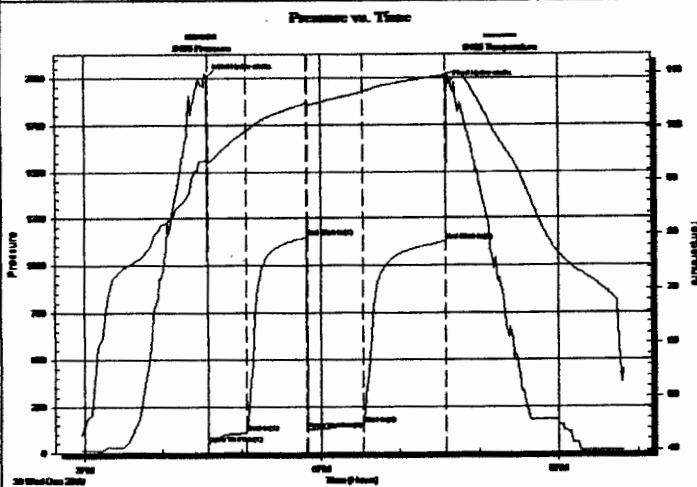
Serial #: 8405

Inside

Press@RunDepth: 154.23 psia @ 4080.00 ft (KB)
Start Date: 2009.12.30 End Date: 2009.12.30
Start Time: 14:58:00 End Time: 21:49:30

Capacity: 5000.00 psia
Last Calib.: 2009.12.30
Time On Btm: 2009.12.30 @ 16:34:00
Time Off Btm: 2009.12.30 @ 19:36:00

TEST COMMENT: 30/INITIAL OPEN:FAIR BLOW BUILT BOTTOM OF BUCKET IN 28 MINUTES
45/INITIAL SHUT IN:NO BLOW BACK
45/FINAL OPEN:WEAK SRFACE BLOW STAYED STEADY THROUGHOUT OPEN
60/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2004.28	94.02	Initial Hydro-static
1	48.65	93.45	Open To Flow (1)
30	111.91	99.37	Shut-In(1)
76	1149.70	104.33	End Shut-In(1)
77	123.65	104.03	Open To Flow (2)
119	154.23	106.52	Shut-In(2)
181	1126.95	109.55	End Shut-In(2)
182	1964.29	109.80	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	OIL CUT MUD 10%O 90%M	0.59
60.00	SGO CUT MD 10%G 20%O 70%M	0.30
120.00	GO 15%G 85%O	1.68
1020.00	GAS IN PIPE	14.31

Gas Rates

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



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16193

DST#: 4

ATTN: JEFF CHRISTIAN

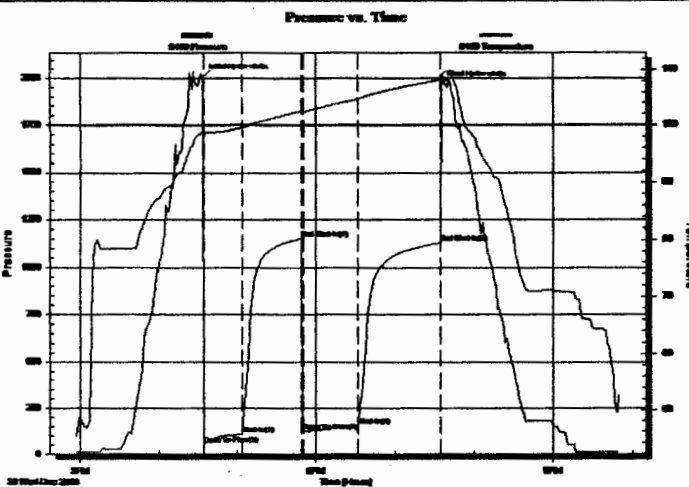
Test Start: 2009.12.30 @ 14:56:00

GENERAL INFORMATION:

Formation: LKC "H" ZONE
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 16:34:30
 Tester: JARED SCHECK
 Time Test Ended: 21:49:30
 Unit No: 3320- 70-SCOTT CITY
 Interval: 4055.00 ft (KB) To 4085.00 ft (KB) (TVD)
 Reference Elevations: 2879.00 ft (KB)
 Total Depth: 4085.00 ft (KB) (TVD)
 2874.00 ft (CF)
 Hole Diameter: 6.88 inches Hole Condition: Fair
 KB to GR/CF: 5.00 ft

Serial #: 8419 Outside
 Press@RunDepth: 1128.38 psia @ 4080.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2009.12.30 End Date: 2009.12.30 Last Calib.: 2009.12.30
 Start Time: 14:57:00 End Time: 21:49:30 Time On Btmr: 2009.12.30 @ 16:33:30
 Time Off Btmr: 2009.12.30 @ 19:35:30

TEST COMMENT: 30/INITIAL OPEN:FAIR BLOW BUILT BOTTOM OF BUCKET IN 28 MINUTES
 45/INITIAL SHUT IN:NO BLOW BACK
 45/FINAL OPEN:WEAK SRFACE BLOW STAYED STEADY THROUGHOUT OPEN
 60/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2005.62	98.86	Initial Hydro-static
1	54.20	98.57	Open To Flow (1)
30	111.98	99.57	Shut-in(1)
76	1151.12	102.63	End Shut-in(1)
77	125.15	102.43	Open To Flow (2)
119	154.86	104.77	Shut-in(2)
181	1128.38	108.12	End Shut-in(2)
182	1968.29	108.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	OIL CUT MUD 10%O 90%M	0.59
60.00	SGO CUT MD 10%G 20%O 70%M	0.30
120.00	GO 15%G 85%O	1.68
1020.00	GAS IN PIPE	14.31

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16193

DST#: 4

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.30 @ 14:56:00

Tool Information

Drill Pipe:	Length: 3880.00 ft	Diameter: 3.80 inches	Volume: 54.43 bbl	Tool Weight: 10000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 55.32 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4055.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	51.00 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			4035.00	
Shut-In Tool	5.00			4040.00	
Hydrolic Tool	5.00			4045.00	
Packer	5.00			4050.00	21.00 Bottom Of Top Packer
Packer	5.00			4055.00	
Perforations	25.00			4080.00	
Recorder	0.00	8405	Inside	4080.00	
Recorder	0.00	8419	Outside	4080.00	
Bullnose	5.00			4085.00	30.00 Bottom Packers & Anchor

Total Tool Length: 51.00



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

PHILLIPS 20C #2
 20-13-20W GOVE
 Job Ticket: 16193 DST#: 4
 Test Start: 2009.12.30 @ 14:56:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.17 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 2100.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	OIL CUT MUD 10%O 90%M	0.590
60.00	SGO CUT MD 10%G 20%O 70%M	0.295
120.00	G O 15%G 85%O	1.683
1020.00	GAS IN PIPE	14.308

Total Length: 1320.00 ft Total Volume: 16.876 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: GRAVITY OIL 49

DST Test Number: 4

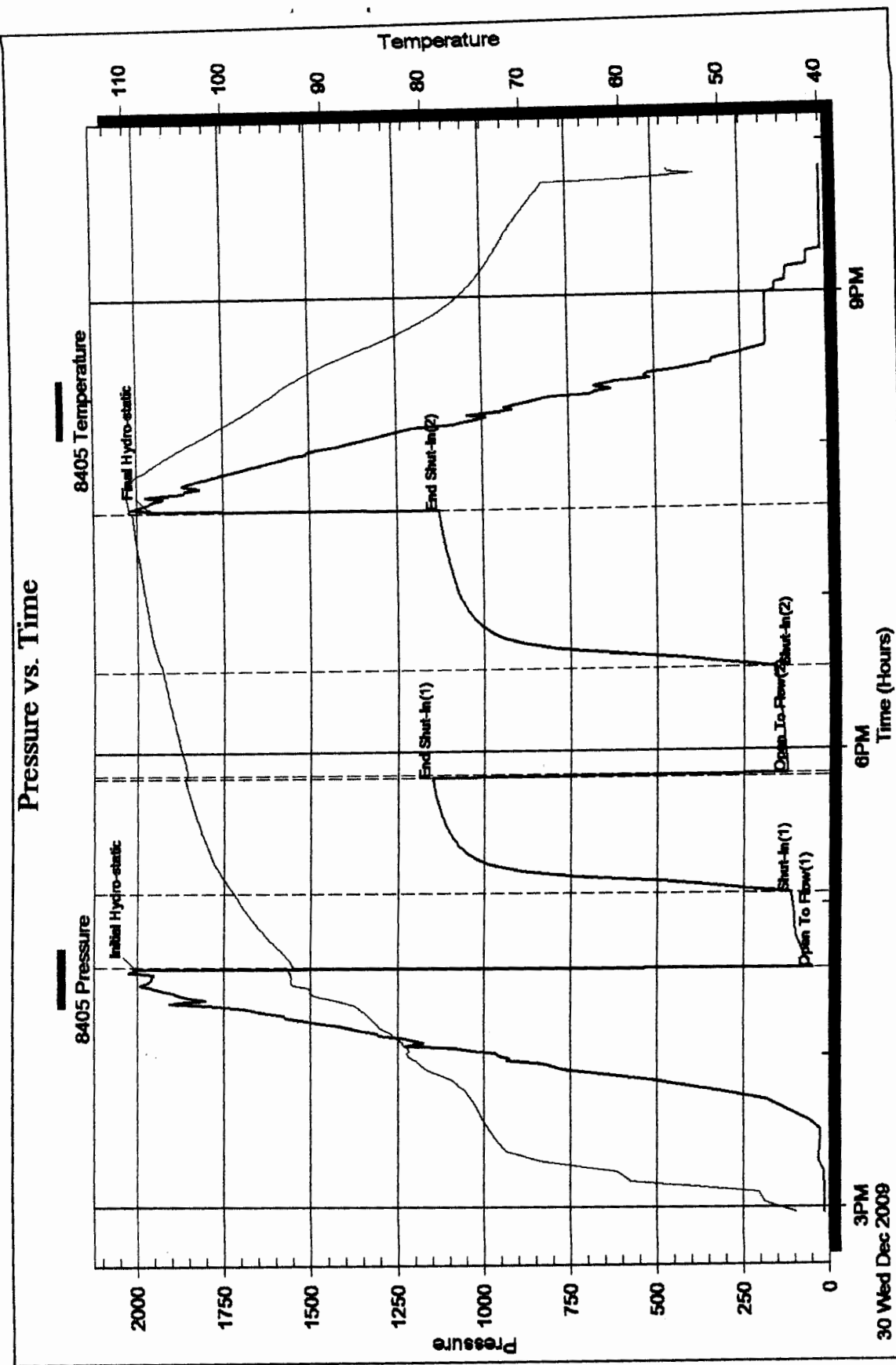
20-13-20W GOVE

RITCHIE EXPLORATION INC

Inside

Serial #: 8405

Pressure vs. Time



30 Wed Dec 2009

Printed: 2010.01.04 @ 14:35:41

Ref. No: 16193

Superior Testers Enterprises LLC

Serial #: 8419

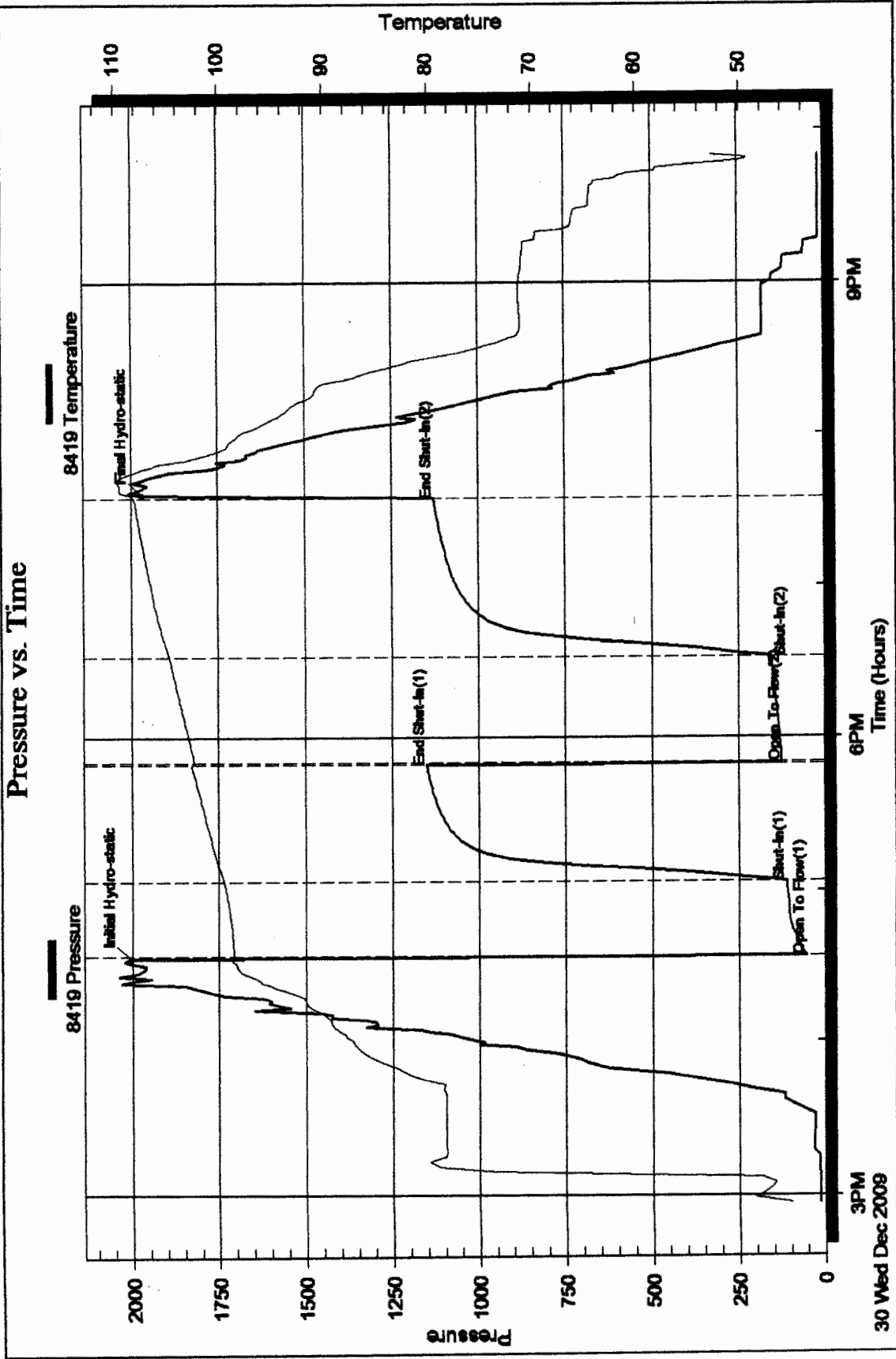
Outside

RITCHEXPLORATION INC

20-13-20W GOVE

DST Test Number: 4

Pressure vs. Time



30 Wed Dec 2009

3PM

6PM

9PM



DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N #700
WICHITA KS 67278

ATTN: JEFF CHRISTIAN

20-13-20W GOVE

PHILLIPS 20C #2

Start Date: 2009.12.31 @ 05:50:00

End Date: 2009.12.31 @ 12:45:30

Job Ticket #: 16194 DST #: 5

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

Printed: 2010.01.04 @ 14:36:04

RITCHIE EXPLORATION INC
PHILLIPS 20C #2
20-13-20W GOVE
DST # 5
LKC "1" ZONE
2009.12.31



DRILL STEM TEST REPORT

RTCHIE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16194

DST#: 5

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.31 @ 05:50:00

GENERAL INFORMATION:

Formation: LKC "I" ZONE
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 07:53:30
Time Test Ended: 12:45:30

Test Type: Conventional Bottom Hole (Initial)
Tester: JARED SCHECK
Unit No: 3320- 70 -SCOTT CITY

Interval: 4087.00 ft (KB) To 4117.00 ft (KB) (TVD)
Total Depth: 4117.00 ft (KB) (TVD)
Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 2879.00 ft (KB)
2874.00 ft (CF)
KB to GR/CF: 5.00 ft

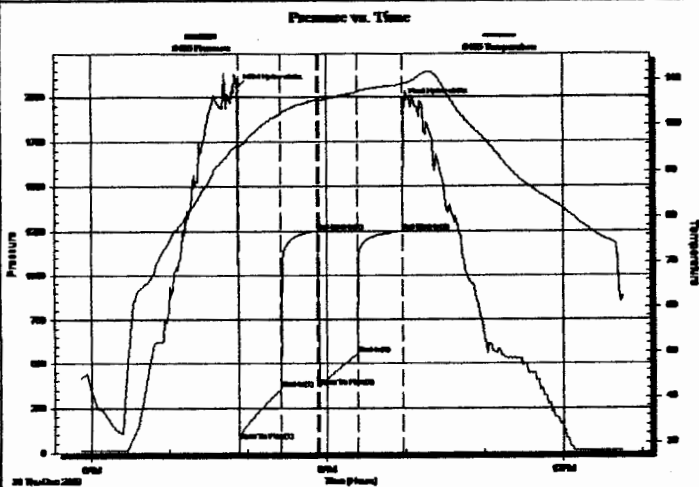
Serial #: 8405

Inside

Press@RunDepth: 554.77 psia @ 4112.00 ft (KB)
Start Date: 2009.12.31 End Date: 2009.12.31
Start Time: 05:52:00 End Time: 12:45:30

Capacity: 5000.00 psia
Last Calib.: 2009.12.31
Time On Btm: 2009.12.31 @ 07:52:30
Time Off Btm: 2009.12.31 @ 09:59:00

TEST COMMENT: 30/INITIAL OPEN:VERY WEAK SURFACE BLOW STAYED STEADY THROUGH OUT OPEN
30/INITIAL SHUT IN:NO BLOW BACK
30/FINAL OPEN:VERY WEAK SURFACE BLOW STAYED MSTEADY THROUGH OUT OPEN
30/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2051.15	95.90	Initial Hydro-static
1	66.72	95.56	Open To Flow (1)
33	356.81	102.56	Shut-In(1)
61	1250.13	105.71	End Shut-In(1)
62	369.86	105.49	Open To Flow (2)
91	554.77	107.31	Shut-In(2)
126	1248.30	109.10	End Shut-In(2)
127	1970.30	109.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
900.00	WATER 5%M 95%W	10.98
300.00	S OIL CUT MUDDY WATER 4%O 6%M 94.21'	
15.00	OIL CUT MUDDY WATER 10%G 30%O 20.21140%W	

Gas Rates

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



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

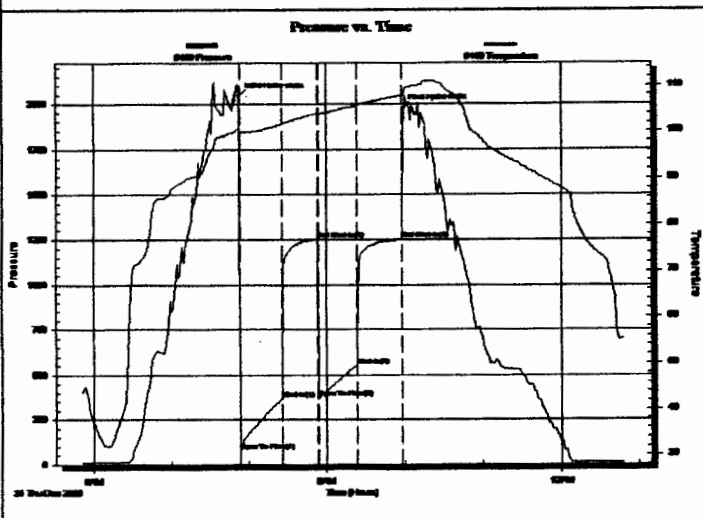
PHILLIPS 20C #2
 20-13-20W GOVE
 Job Ticket: 16194 DST#: 5
 Test Start: 2009.12.31 @ 05:50:00

GENERAL INFORMATION:

Formation: LKC "I" ZONE
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:53:30
 Time Test Ended: 12:45:30
 Test Type: Conventional Bottom Hole (Initial)
 Tester: JARED SCHECK
 Unit No: 3320- 70 -SCOTT CITY
 Interval: 4087.00 ft (KB) To 4117.00 ft (KB) (TVD)
 Reference Elevations: 2879.00 ft (KB)
 Total Depth: 4117.00 ft (KB) (TVD) 2874.00 ft (CF)
 Hole Diameter: 6.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8419 Outside
 Press@RunDepth: 1250.32 psia @ 4112.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2009.12.31 End Date: 2009.12.31 Last Calib.: 2009.12.31
 Start Time: 05:51:00 End Time: 12:49:00 Time On Btm: 2009.12.31 @ 07:52:30
 Time Off Btm: 2009.12.31 @ 09:59:00

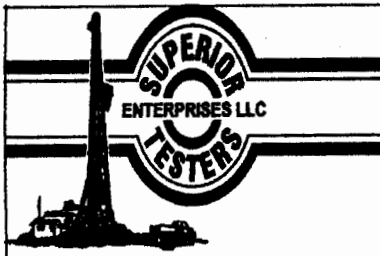
TEST COMMENT: 30/INITIAL OPEN:VERY WEAK SURFACE BLOW STAYED STEADY THROUGH OUT OPEN
 30/INITIAL SHUT IN:NO BLOW BACK
 30/FINAL OPEN:VERY WEAK SURFACE BLOW STAYED MSTEADY THROUGH OUT OPEN
 30/FINAL SHUT IN:NO BLOW BACK



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2043.35	100.48	Initial Hydro-static
1	80.31	99.94	Open To Flow (1)
33	368.82	101.51	Shut-in(1)
61	1252.15	103.97	End Shut-in(1)
62	370.02	103.79	Open To Flow (2)
91	553.76	105.58	Shut-in(2)
126	1250.32	107.74	End Shut-in(2)
127	1976.79	107.99	Final Hydro-static

Length (ft)	Description	Volume (bbl)
900.00	WATER 5%M 95%W	10.98
300.00	S OIL CUT MUDDY WATER 4%O 6%M 94.21'	
15.00	OIL CUT MUDDY WATER 10%G 30%O 20.21' 40%W	

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16194

DST#: 5

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.31 @ 05:50:00

Tool Information

Drill Pipe:	Length: 3910.00 ft	Diameter: 3.80 inches	Volume: 54.85 bbl	Tool Weight: 10000.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 55.74 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4087.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 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
Change Over Sub	1.00			4067.00	
Shut-In Tool	5.00			4072.00	
Hydraulic Tool	5.00			4077.00	
Packer	5.00			4082.00	21.00 Bottom Of Top Packer
Packer	5.00			4087.00	
Perforations	25.00			4112.00	
Recorder	0.00	8405	Inside	4112.00	
Recorder	0.00	8419	Outside	4112.00	
Bullnose	5.00			4117.00	30.00 Bottom Packers & Anchor
Total Tool Length:	51.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16194

DST#: 5

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.31 @ 05:50:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 63.00 sec/qt

Water Loss: 7.96 in³

Resistivity: ohm.m

Salinity: 2300.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
900.00	WATER 5%M 95%W	10.985
300.00	S OIL CUT MUDDY WATER 4%O 6%M 90%V	4.208
15.00	OIL CUT MUDDY WATER 10%G 30%O 20%A	0.210

Total Length: 1215.00 ft Total Volume: 15.403 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: CHLORIDES 38,000

DST Test Number: 5

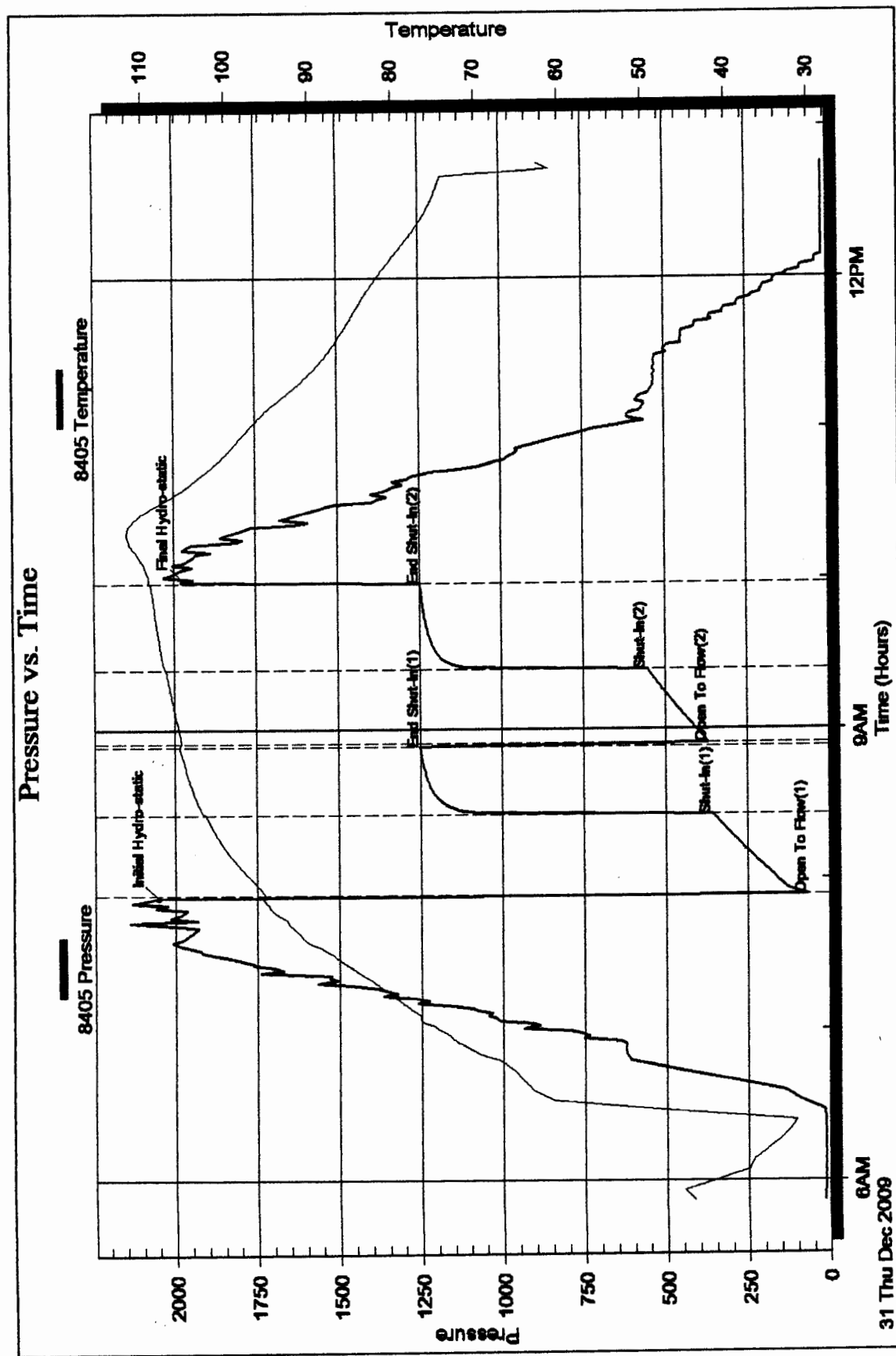
20-13-20W GOVE

RITCHE EXPLORATION INC

Inside

Serial #: 8405

Pressure vs. Time



Printed: 2010.01.04 @ 14:36:04

Ref. No: 16194

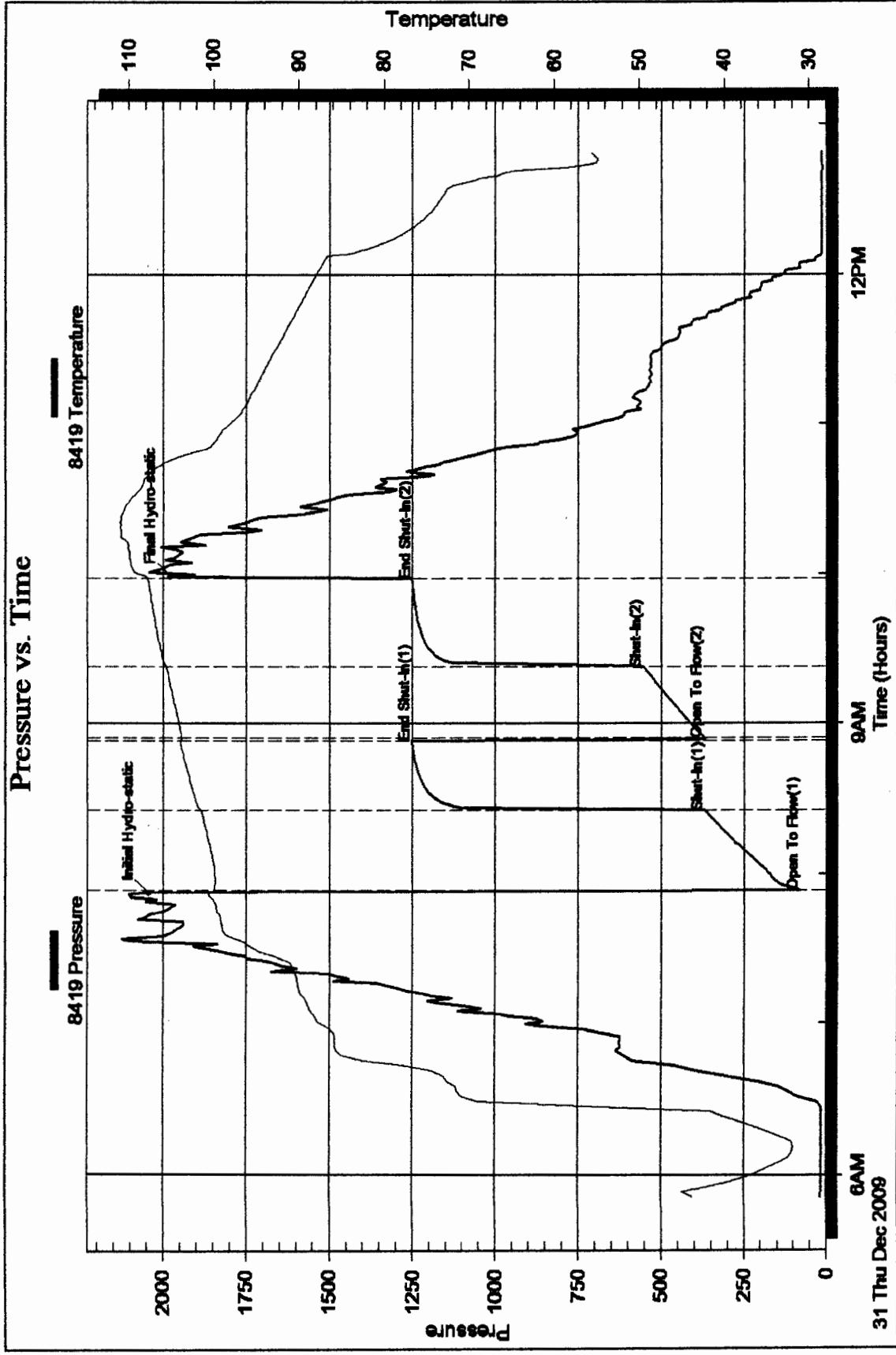
Superior Testers Enterprises LLC

Serial #: 8419

Outside RITCHEXPLORATION INC

20-13-20W GOVE

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N #700
WICHITA KS 67278

ATTN: JEFF CHRISTIAN

20-13-20W GOVE

PHILLIPS 20C #2

Start Date: 2009.12.31 @ 19:40:00

End Date: 2010.01.01 @ 02:29:00

Job Ticket #: 16195 DST #: 6

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

Printed: 2010.01.04 @ 14:39:27

RITCHIE EXPLORATION INC

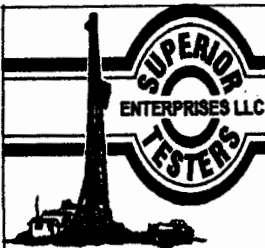
PHILLIPS 20C #2

20-13-20W GOVE

DST # 6

LKC "J" ZONE

2009.12.31



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16195

DST#: 6

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.31 @ 19:40:00

GENERAL INFORMATION:

Formation: LKC "J" ZONE

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:31:30

Time Test Ended: 02:29:00

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320-70- SCOTT CITY

Interval: 4123.00 ft (KB) To 4136.00 ft (KB) (TVD)

Total Depth: 4136.00 ft (KB) (TVD)

Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 2879.00 ft (KB)

2874.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8405

Inside

Press@RunDepth: 201.69 psia @ 4131.00 ft (KB)

Start Date: 2009.12.31

End Date:

2010.01.01

Start Time: 19:42:00

End Time:

02:29:00

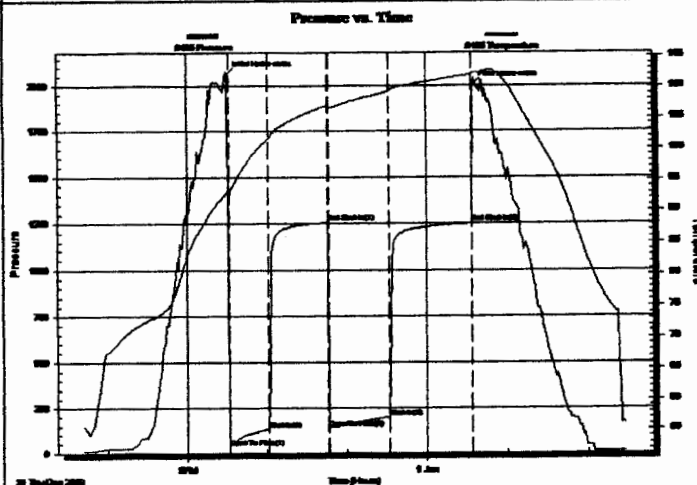
Capacity: 5000.00 psia

Last Calib.: 2010.01.01

Time On Btm: 2009.12.31 @ 21:30:30

Time Off Btm: 2010.01.01 @ 00:35:00

TEST COMMENT: 30/INITIAL OP:WEAK BUT BUILDING BLOW BUILT 4 INCHES INTO WATER IN 30 MINUTES
45/INITIAL SHUT IN:NO BLOW BACK
45/FINAL OPEN:WEAK BLOW STAYED STEADY THROUGH OUT OPEN
60/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2065.39	93.08	Initial Hydro-static
1	35.37	92.04	Open To Flow (1)
31	134.53	101.64	Shut-In(1)
76	1256.49	106.98	End Shut-In(1)
76	138.88	106.58	Open To Flow (2)
121	201.69	109.21	Shut-In(2)
183	1249.77	112.03	End Shut-In(2)
185	2002.02	112.28	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	WATER 100%	2.57
60.00	SO CUT MUDDY WATER 5%O 10%M	850.84
15.00	CLEAN OIL 100%	0.21
300.00	GAS IN PIPE 100 %	4.21

Gas Rates

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



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16195

DST#: 6

ATTN: JEFF CHRISTIAN

Test Start: 2009.12.31 @ 19:40:00

GENERAL INFORMATION:

Formation: LKC "J" ZONE

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:31:30

Time Test Ended: 02:29:00

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320-70- SCOTT CITY

Interval: 4123.00 ft (KB) To 4136.00 ft (KB) (TVD)

Total Depth: 4136.00 ft (KB) (TVD)

Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 2879.00 ft (KB)

2874.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8419

Outside

Press@RunDepth: 1251.78 psia @ 4131.00 ft (KB)

Start Date: 2009.12.31

End Date:

2010.01.01

Start Time: 19:41:00

End Time:

02:29:00

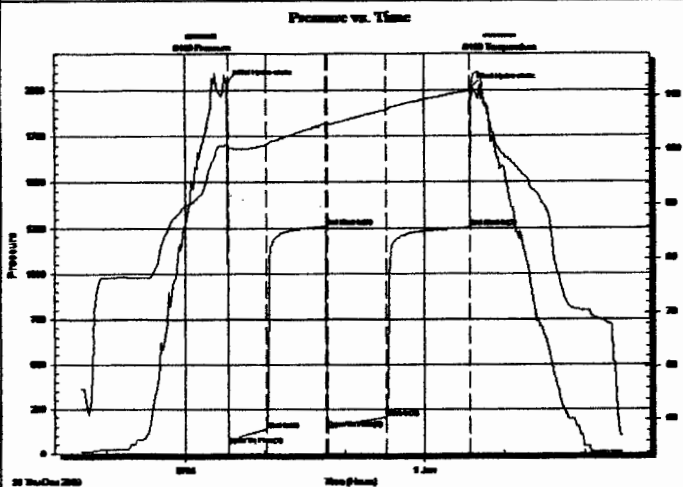
Capacity: 5000.00 psia

Last Calib.: 2010.01.01

Time On Btrr: 2009.12.31 @ 21:31:30

Time Off Btrr: 2010.01.01 @ 00:35:00

TEST COMMENT: 30/INITIAL OPENWEAK BUT BUILDING BLOW BUILT 4 INCHES INTO WATER IN 30 MINUTES
45/INITIAL SHUT IN:NO BLOW BACK
45/FINAL OPENWEAK BLOW STAYED STEADY THROUGH OUT OPEN
60/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

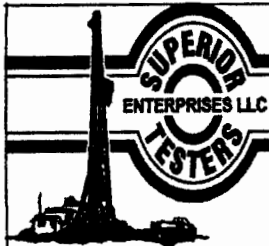
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2046.06	101.13	Initial Hydro-static
1	50.59	100.67	Open To Flow (1)
30	136.12	101.13	Shut-in(1)
75	1258.23	104.92	End Shut-in(1)
76	140.94	104.69	Open To Flow (2)
120	202.59	107.50	Shut-in(2)
183	1251.78	110.98	End Shut-in(2)
184	2018.49	111.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
300.00	WATER 100%	2.57
60.00	SO CUT MUDDY WATER 5%O 10%M	850.84
15.00	CLEAN OIL 100%	0.21
300.00	GAS IN PIPE 100 %	4.21

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16195

DST#: 6

ATTN: JEFF CHRISTIAN

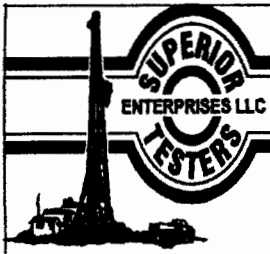
Test Start: 2009.12.31 @ 19:40:00

Tool Information

Drill Pipe:	Length: 3942.00 ft	Diameter: 3.80 inches	Volume: 55.30 bbl	Tool Weight: 10000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 200000.0 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 82000.00 lb
			<u>Total Volume: 56.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4123.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	34.00 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			4103.00	
Shut-In Tool	5.00			4108.00	
Hydraulic Tool	5.00			4113.00	
Packer	5.00			4118.00	21.00 Bottom Of Top Packer
Packer	5.00			4123.00	
Perforations	8.00			4131.00	
Recorder	0.00	8405	Inside	4131.00	
Recorder	0.00	8419	Outside	4131.00	
Bullnose	5.00			4136.00	13.00 Bottom Packers & Anchor
Total Tool Length:	34.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

PHILLIPS 20C #2
 20-13-20W GOVE
 Job Ticket: 16195 DST#: 6
 Test Start: 2009.12.31 @ 19:40:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 63.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 2300.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
300.00	WATER 100%	2.568
60.00	SO CUT MUDDY WATER 5%O 10%M 85%W	0.842
15.00	CLEAN OIL 100%	0.210
300.00	GAS IN PIPE 100 %	4.208

Total Length: 675.00 ft Total Volume: bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

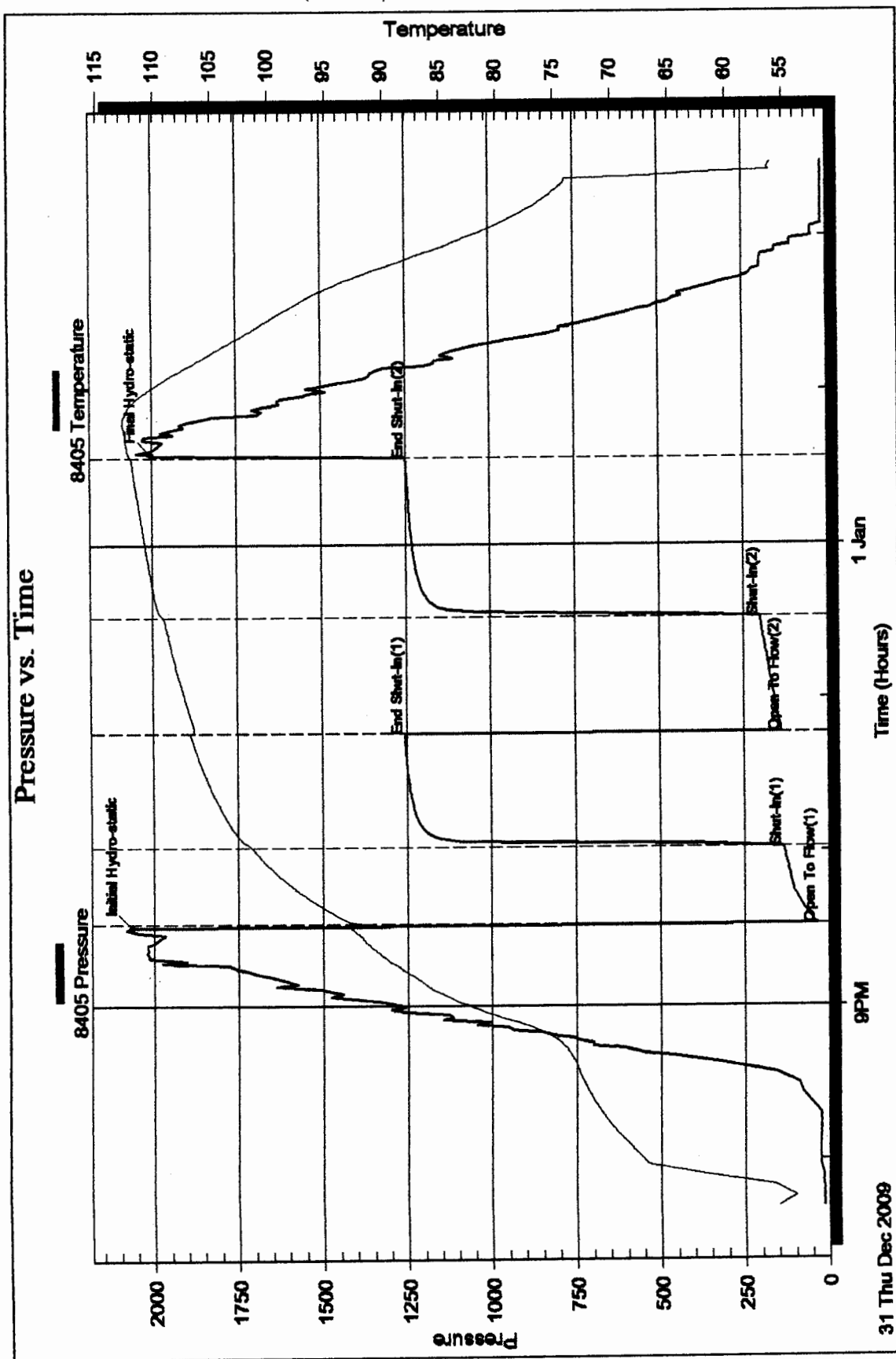
Serial #: 8405

Inside RITCHE EXPLORATION INC

20-13-20W GOVE

DST Test Number: 6

Pressure vs. Time



DST Test Number: 6

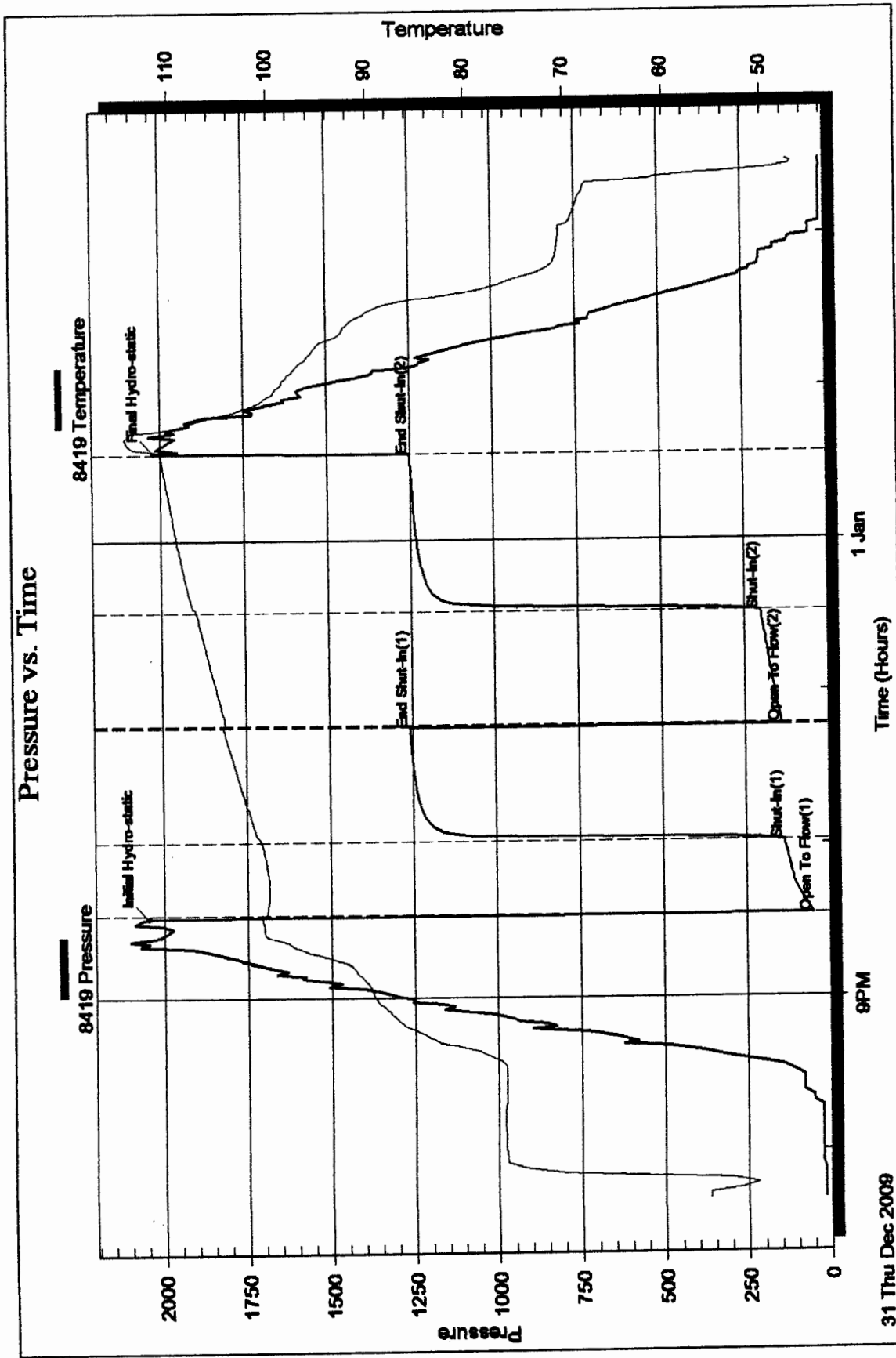
20-13-20W GOVE

RITCHIE EXPLORATION INC

Outside

Serial #: 8419

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N #700
WICHITA KS 67278

ATTN: JEFF CHRISTIAN

20-13-20W GOVE

PHILLIPS 20C #2

Start Date: 2010.01.02 @ 23:39:00

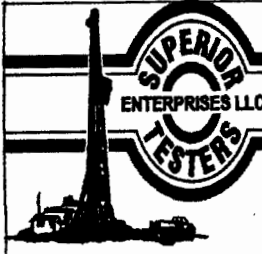
End Date: 2010.01.03 @ 06:31:00

Job Ticket #: 16196 DST #: 7

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

Printed: 2010.01.04 @ 14:43:55

RITCHIE EXPLORATION INC PHILLIPS 20C #2 20-13-20W GOVE DST # 7 NORM,PAWNEE 2010.01.02



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

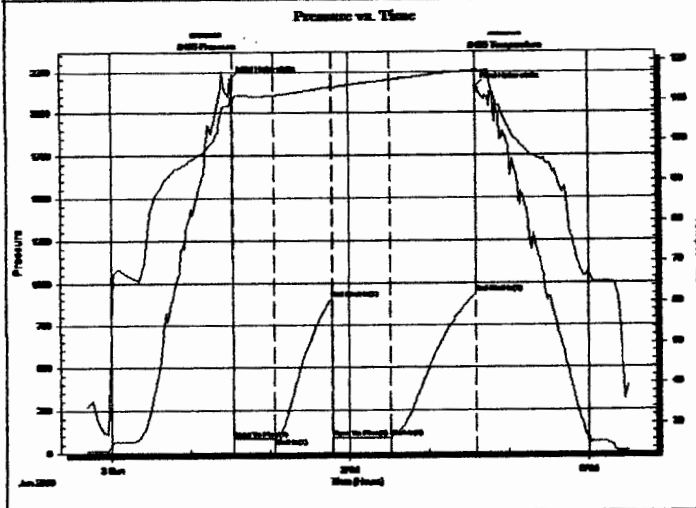
PHILLIPS 20C #2
 20-13-20W GOVE
 Job Ticket: 16196 DST#: 7
 Test Start: 2010.01.02 @ 23:39:00

GENERAL INFORMATION:

Formation: **MORM, PAWNEE**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 01:32:30
 Tester: JARED SCHECK
 Time Test Ended: 06:31:00
 Unit No: 3320- 70- SCOTT CI
 Interval: 4250.00 ft (KB) To 4356.00 ft (KB) (TVD)
 Reference Elevations: 2879.00 ft (KB)
 Total Depth: 4356.00 ft (KB) (TVD)
 2874.00 ft (CF)
 Hole Diameter: 6.88 inches Hole Condition: Fair
 KB to GR/CF: 5.00 ft

Serial #: 8405 Inside
 Press@RunDepth: 89.95 psia @ 4351.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2010.01.02 End Date: 2010.01.03 Last Calib.: 2010.01.02
 Start Time: 23:41:00 End Time: 06:31:00 Time On Btrr: 2010.01.03 @ 01:31:00
 Time Off Btrr: 2010.01.03 @ 04:35:30

TEST COMMENT: 30/INITIAL OPEN:WEAK BUT BUILDING BLOW BUILT 3/4 OF INCH INTO WATER
 45/INITIAL SHUT IN:NO BLOW BACK
 45/FINAL OPEN:WEAK BT BUILDING BLOW BUILT 3/4 OF INCH INTO WATER
 60/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

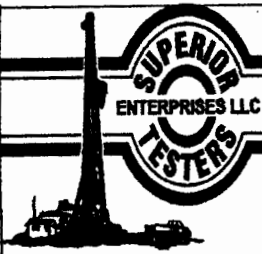
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2201.08	110.64	Initial Hydro-static
2	79.68	110.15	Open To Flow (1)
32	86.40	111.35	Shut-In(1)
76	908.17	113.38	End Shut-In(1)
77	86.91	113.09	Open To Flow (2)
120	89.95	115.12	Shut-In(2)
184	934.29	117.61	End Shut-In(2)
185	2152.78	117.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	MUD	0.05

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

PHILLIPS 20C #2
20-13-20W GOVE
 Job Ticket: 16196 **DST#: 7**
 Test Start: 2010.01.02 @ 23:39:00

Tool Information

Drill Pipe:	Length: 4069.00 ft	Diameter: 3.80 inches	Volume: 57.08 bbl	Tool Weight: 10000.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume:	57.97 bbl	Tool Chased: 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4250.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	106.00 ft			
Tool Length:	127.00 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			4230.00	
Shut-in Tool	5.00			4235.00	
Hydrolic Tool	5.00			4240.00	
Packer	5.00			4245.00	21.00 Bottom Of Top Packer
Packer	5.00			4250.00	
Change Over Sub	0.75			4250.75	
Drill Pipe	61.50			4312.25	
Change Over Sub	0.75			4313.00	
Perforations	38.00			4351.00	
Recorder	0.00	8405	Inside	4351.00	
Recorder	0.00	8419	Outside	4351.00	
Bullnose	5.00			4356.00	106.00 Bottom Packers & Anchor

Total Tool Length: 127.00



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16196

DST#: 7

ATTN: JEFF CHRISTIAN

Test Start: 2010.01.02 @ 23:39:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 61.00 sec/qt

Water Loss: 10.77 in³

Resistivity: ohm.m

Salinity: 3900.00 ppm

Filter Cake: 2.00 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
10.00	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:

DST Test Number: 7

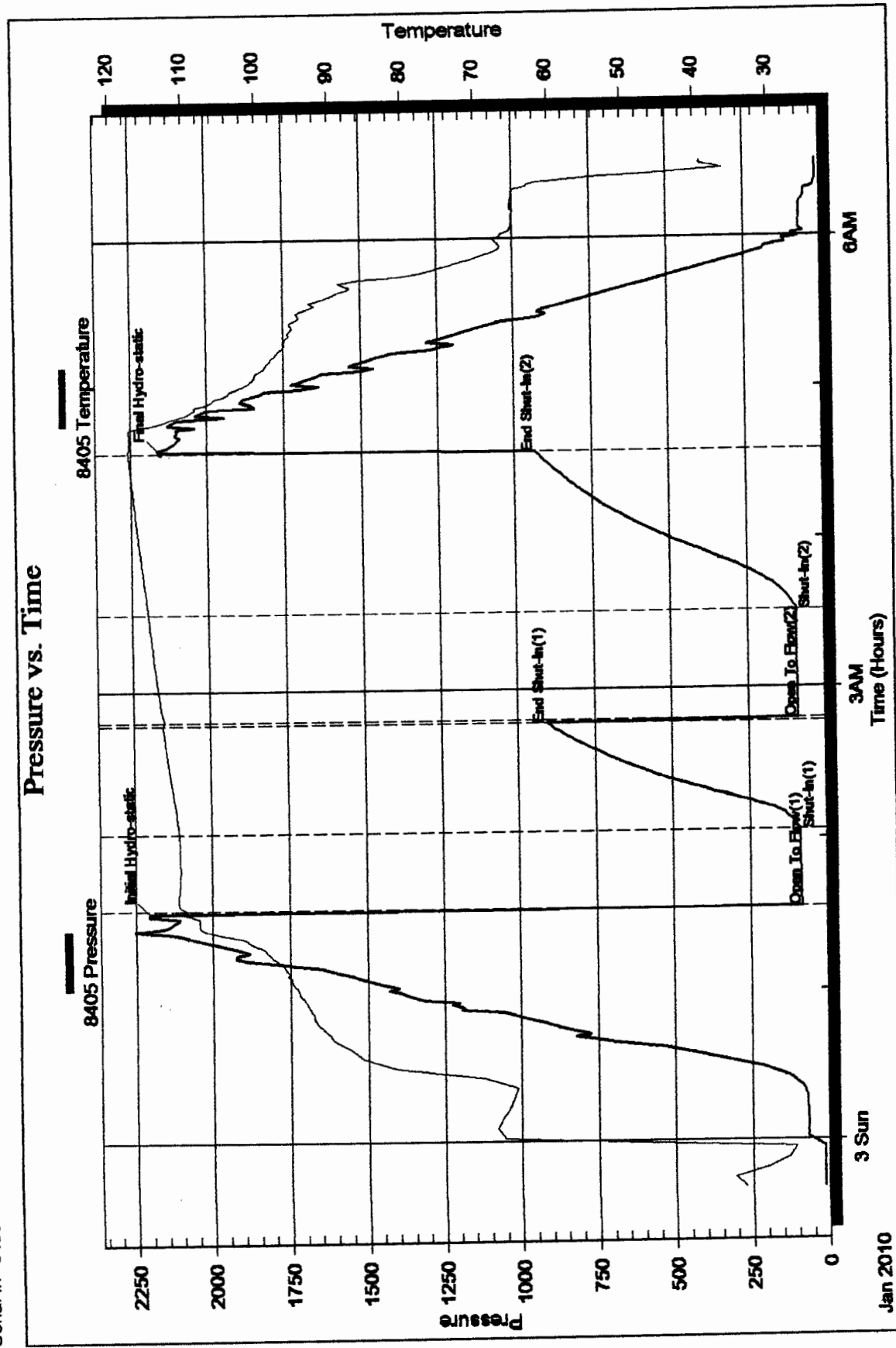
20-13-20W GOVE

RITCHE EXPLORATION INC

Inside

Serial #: 8405

Pressure vs. Time



Printed: 2010.01.04 @ 14:43:56

Ref. No: 16196

Superior Testers Enterprises LLC

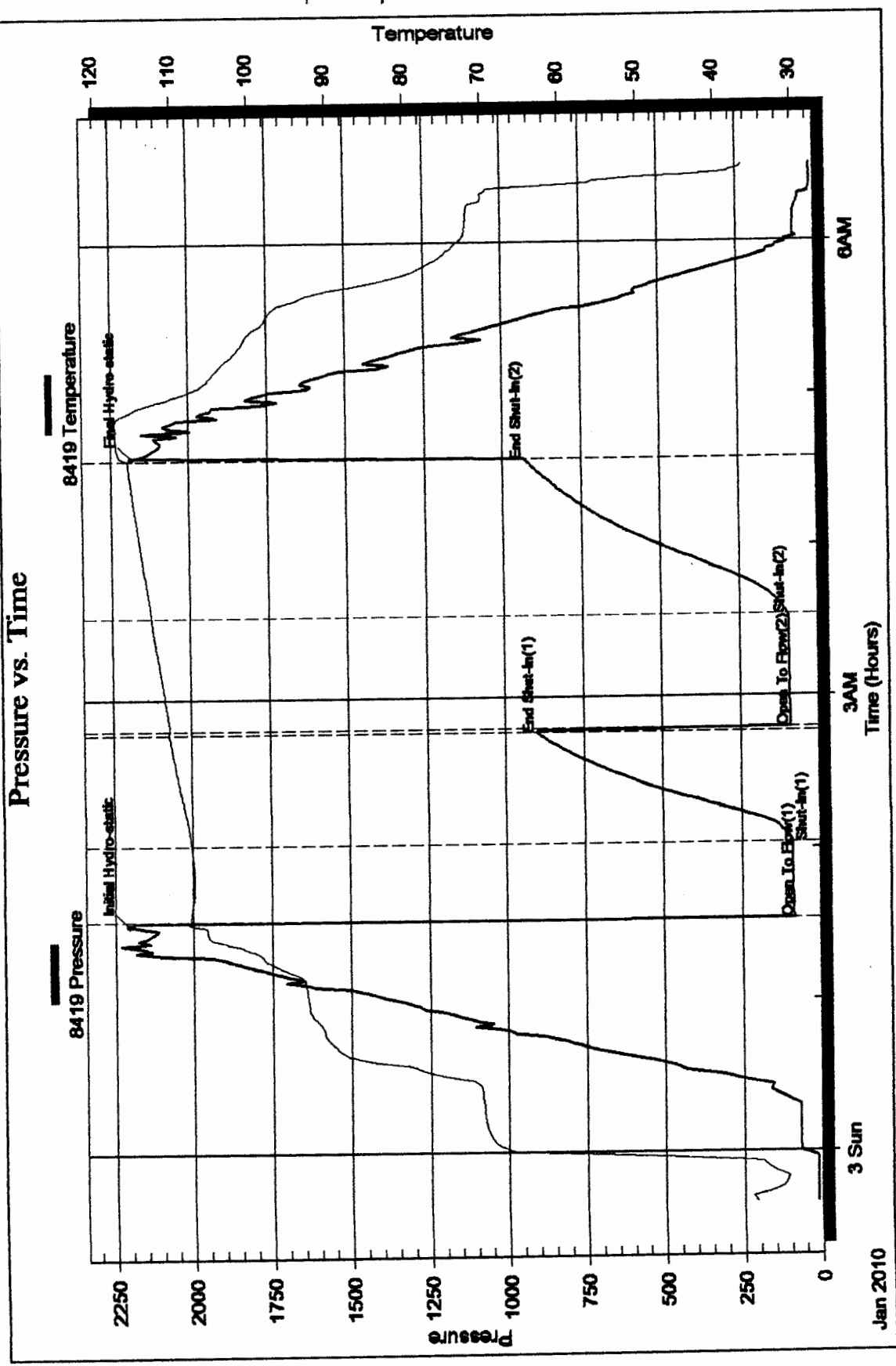
DST Test Number: 7

20-13-20W GOVE

Outside RITCHE EXPLORATION INC

Serial #: 8419

Pressure vs. Time



Printed: 2010.01.04 @ 14:43:56

Ref. No: 16196

Superior Testers Enterprises LLC



DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N #700
WICHITA KS 67278

ATTN: JEFF CHRISTIAN

20-13-20W GOVE

PHILLIPS 20C #2

Start Date: 2010.01.02 @ 16:41:00

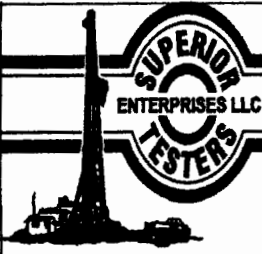
End Date: 2010.01.02 @ 22:45:00

Job Ticket #: 16197 DST #: 8

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

Printed: 2010.01.04 @ 14:40:10

RITCHIE EXPLORATION INC
PHILLIPS 20C #2
20-13-20W GOVE
DST # 8
MYRICK STATION , FT
2010.01.02



DRILL STEM TEST REPORT

RITCHIE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

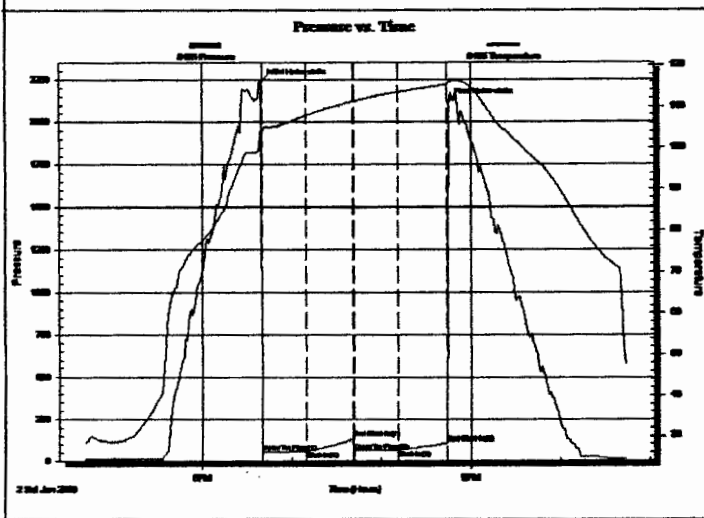
PHILLIPS 20C #2
 20-13-20W GOVE
 Job Ticket: 16197 DST#: 8
 Test Start: 2010.01.02 @ 16:41:00

GENERAL INFORMATION:

Formation: **MYRICK STATION, FT**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 18:40:30
 Tester: JARED SCHECK
 Time Test Ended: 22:45:00
 Unit No: 3320-70-SCOTT CITY
 Interval: 4362.00 ft (KB) To 4418.00 ft (KB) (TVD)
 Reference Elevations: 2879.00 ft (KB)
 Total Depth: 4418.00 ft (KB) (TVD)
 2874.00 ft (CF)
 Hole Diameter: 6.88 inches Hole Condition: Fair
 KB to GR/CF: 5.00 ft

Serial #: 8405 Inside
 Press@RunDepth: 66.53 psia @ 4413.00 ft (KB)
 Capacity: 5000.00 psia
 Start Date: 2010.01.02 End Date: 2010.01.02 Last Calib.: 2010.01.02
 Start Time: 16:41:00 End Time: 22:45:00 Time On Btrr: 2010.01.02 @ 18:39:30
 Time Off Btrr: 2010.01.02 @ 20:45:30

TEST COMMENT: 30/INITIAL OPEN:WEAK BLOW BILT 1 1/2 INTO WATER
 30/INITIAL SHUT IN: NO BLOW BACK
 30/FINAL OPEN:WEAK BLOW DIED OFF
 30/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY			
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2233.99	105.06	Initial Hydro-static
1	52.70	104.25	Open To Flow (1)
31	60.68	107.85	Shut-in(1)
62	137.02	111.37	End Shut-in(1)
63	61.02	111.37	Open To Flow (2)
92	66.53	113.55	Shut-in(2)
125	107.83	115.38	End Shut-in(2)
126	2115.77	116.06	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
5.00	SPOT OIL CUT MUD 2%O 98%M	0.02

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



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16197

DST#: 8

ATTN: JEFF CHRISTIAN

Test Start: 2010.01.02 @ 16:41:00

GENERAL INFORMATION:

Formation: **MYRICK STATION , FT**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:40:30

Time Test Ended: 22:45:00

Interval: **4362.00 ft (KB) To 4418.00 ft (KB) (TVD)**

Total Depth: **4418.00 ft (KB) (TVD)**

Hole Diameter: **6.88 inches** Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320-70-SCOTT CITY

Reference Elevations: 2879.00 ft (KB)

2874.00 ft (CF)

KB to GRVCF: 5.00 ft

Serial #: **8419**

Outside

Press@RunDepth: 108.96 psia @ 4413.00 ft (KB)

Start Date: 2010.01.02

End Date:

2010.01.02

Start Time: 16:40:00

End Time:

22:45:30

Capacity: 5000.00 psia

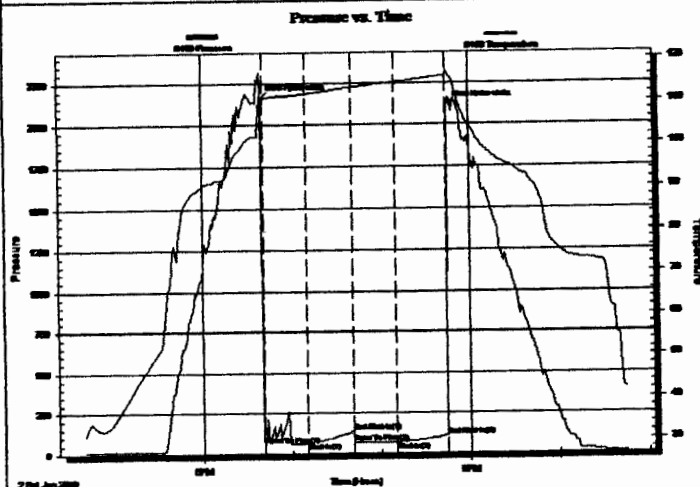
Last Calib.: 2010.01.02

Time On Btm: 2010.01.02 @ 18:40:00

Time Off Btm: 2010.01.02 @ 20:45:30

TEST COMMENT: 30/INITIAL OPEN:WEAK BLOW BILT 1 1/2 INTO WATER
30/INITIAL SHUT IN: NO BLOW BACK
30/FINAL OPEN:WEAK BLOW DIED OFF
30/FINAL SHUT IN:NO BLOW BACK

PRESSURE SUMMARY



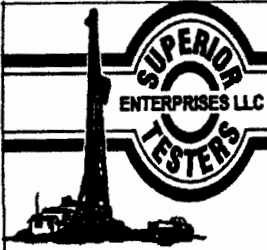
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2160.24	110.32	Initial Hydro-static
1	57.67	110.27	Open To Flow (1)
31	65.21	111.79	Shut-In(1)
61	137.96	113.19	End Shut-In(1)
62	66.20	113.18	Open To Flow (2)
91	69.15	114.46	Shut-In(2)
125	108.96	115.84	End Shut-In(2)
126	2113.71	117.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	SPOT OIL CUT MUD 2%O 98%M	0.02

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16197

DST#: 8

ATTN: JEFF CHRISTIAN

Test Start: 2010.01.02 @ 16:41:00

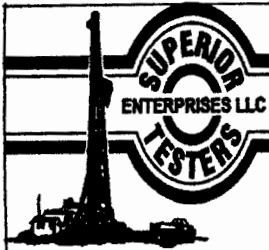
Tool Information

Drill Pipe:	Length: 4167.00 ft	Diameter: 3.80 inches	Volume: 58.45 bbl	Tool Weight: 10000.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 67000.00 lb
		Total Volume: 59.34 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4362.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	77.00 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			4342.00	
Shut-In Tool	5.00			4347.00	
Hydrolic Tool	5.00			4352.00	
Packer	5.00			4357.00	21.00 Bottom Of Top Packer
Packer	5.00			4362.00	
Change Over Sub	0.75			4362.75	
Drill Pipe	31.50			4394.25	
Change Over Sub	0.75			4395.00	
Perforations	18.00			4413.00	
Recorder	0.00	8405	Inside	4413.00	
Recorder	0.00	8419	Outside	4413.00	
Bullnose	5.00			4418.00	56.00 Bottom Packers & Anchor

Total Tool Length: 77.00



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16197

DST#: 8

ATTN: JEFF CHRISTIAN

Test Start: 2010.01.02 @ 16:41:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 56.00 sec/qt

Water Loss: 8.77 in³

Resistivity: ohm.m

Salinity: 3100.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

Water Salinity: deg API

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	SPOT OIL CUT MUD 2%O 98%M	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

DST Test Number: 8

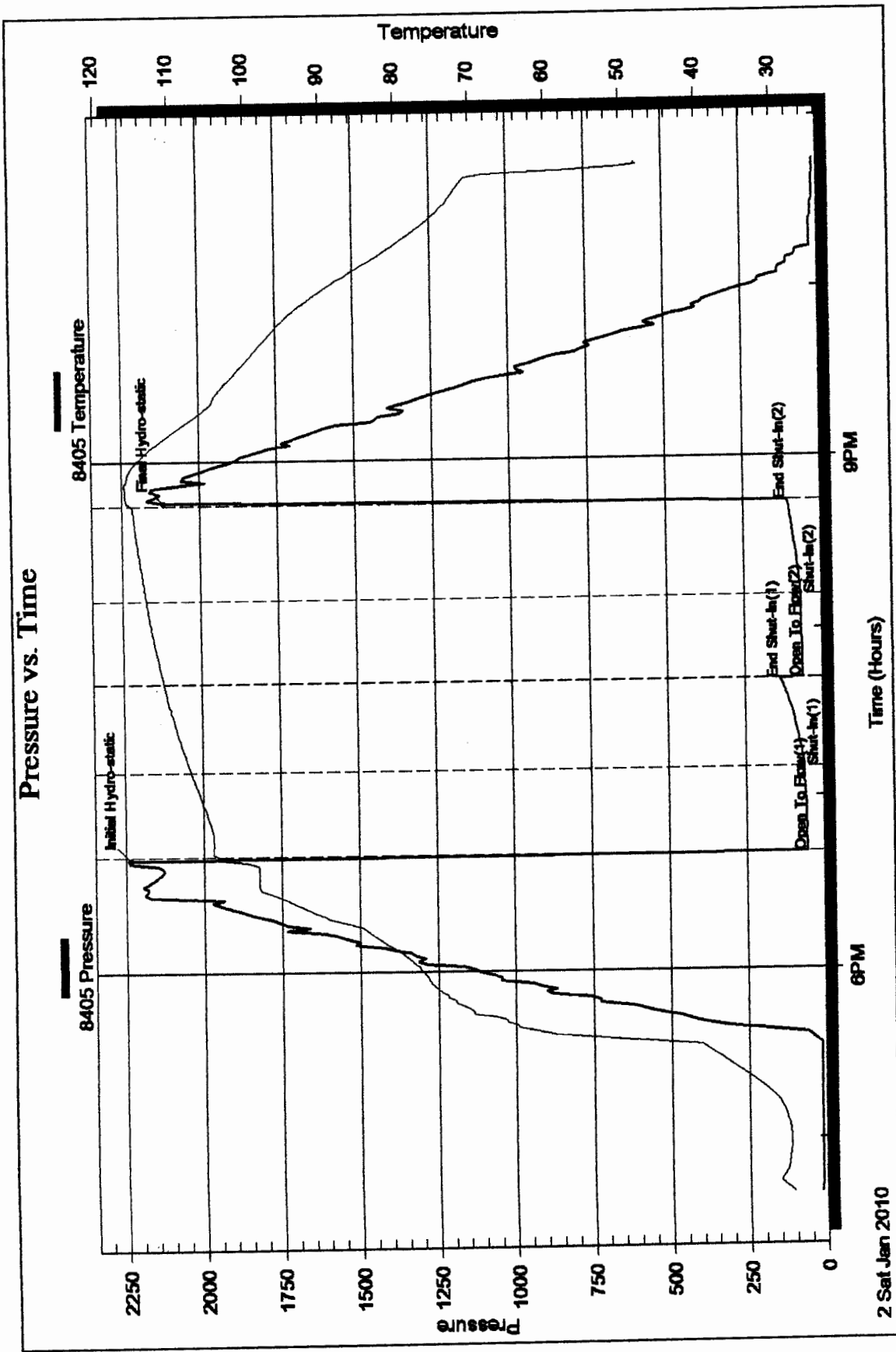
20-13-20W GOVE

RITCHIE EXPLORATION INC

Inside

Serial #: 8405

Pressure vs. Time



2 Sat Jan 2010

6PM

9PM

Time (Hours)

Printed: 2010.01.04 @ 14:40:11

Ref. No: 16197

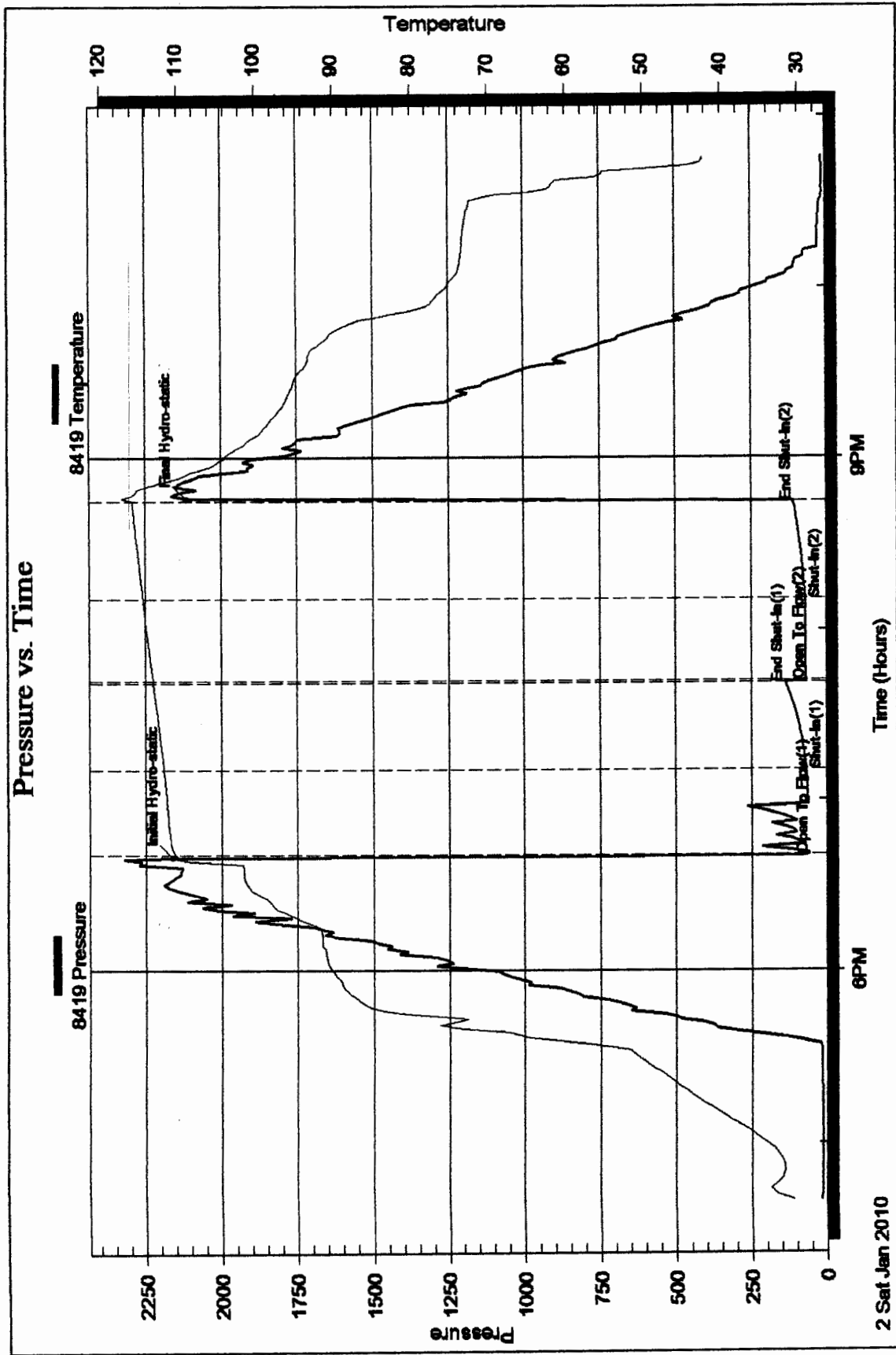
Superior Testers Enterprises LLC

Serial #: 8419

Outside RTCHIE EXPLORATION INC

20-13-20W GOVE

DST Test Number: 8





DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N #700
WICHITA KS 67278

ATTN: JEFF CHRISTIAN

20-13-20W GOVE

PHILLIPS 20C #2

Start Date: 2010.01.03 @ 08:34:00

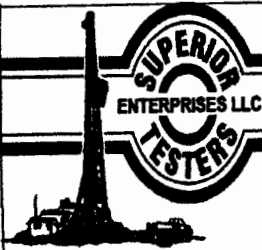
End Date: 2010.01.03 @ 15:54:30

Job Ticket #: 16198 DST #: 9

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

Printed: 2010.01.04 @ 14:42:50

RITCHIE EXPLORATION INC PHILLIPS 20C #2 20-13-20W GOVE DST # 9 JOHNSON 2010.01.03



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16198

DST#: 9

ATTN: JEFF CHRISTIAN

Test Start: 2010.01.03 @ 08:34:00

GENERAL INFORMATION:

Formation: JOHNSON

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:10:30

Time Test Ended: 15:54:30

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320-7- SCOTT CITY

Interval: 4456.00 ft (KB) To 4472.00 ft (KB) (TVD)

Total Depth: 4472.00 ft (KB) (TVD)

Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 2879.00 ft (KB)

2874.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8405

Inside

Press@RunDepth: 484.14 psia @ 4467.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.01.03

End Date:

2010.01.03

Last Calib.: 2010.01.03

Start Time: 08:34:00

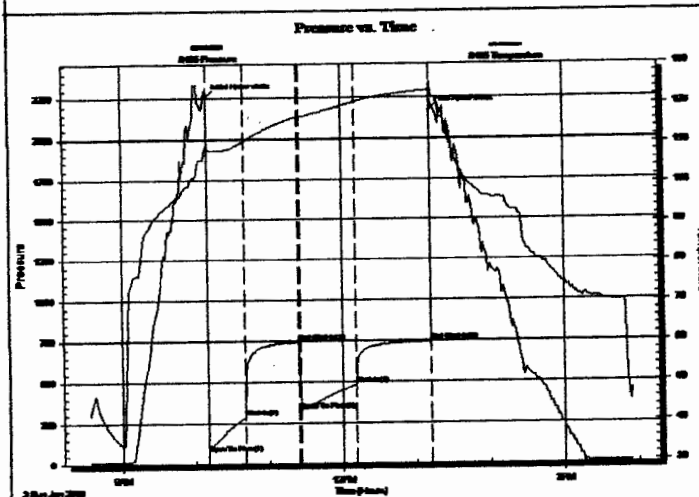
End Time:

15:54:30

Time On Btrr: 2010.01.03 @ 10:10:00

Time Off Btrr: 2010.01.03 @ 13:12:00

TEST COMMENT: 30/INITIAL OPEN:STRONG BLOW BUILT BOTTOM OF BUCKET IN 3 MINUTES
45/INITIAL SHUT IN:BOTTOM OF BUCKET
45/FINAL OPEN:STRONG BLOW BUILT BOTTOM OF BUCKET IN 10 MINUTES
60/FINAL SHUT IN:



PRESSURE SUMMARY

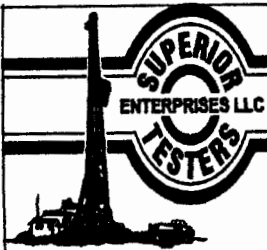
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2259.46	109.56	Initial Hydro-static
1	68.68	108.64	Open To Flow (1)
31	287.07	110.54	Shut-In(1)
75	744.69	116.78	End Shut-In(1)
76	328.00	116.69	Open To Flow (2)
121	484.14	120.45	Shut-In(2)
182	745.02	123.44	End Shut-In(2)
182	2173.28	124.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
480.00	GAS IN PIPE	5.09
600.00	CLEAN GASSEY OIL 15%G 85%O	8.42
120.00	GO CUT MV 10%G 10%O 30%M 50%	11.68
360.00	SO CUT WATER 5%O 5%M 90%W	5.05

Gas Rates

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



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16198

DST#: 9

ATTN: JEFF CHRISTIAN

Test Start: 2010.01.03 @ 08:34:00

GENERAL INFORMATION:

Formation: **JOHNSON**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:10:30

Time Test Ended: 15:54:30

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320-7- SCOTT CITY

Interval: 4456.00 ft (KB) To 4472.00 ft (KB) (TVD)

Total Depth: 4472.00 ft (KB) (TVD)

Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 2879.00 ft (KB)

2874.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8419

Outside

Press@RunDepth: 746.45 psia @ 4467.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.01.03

End Date: 2010.01.03

Last Calib.: 2010.01.03

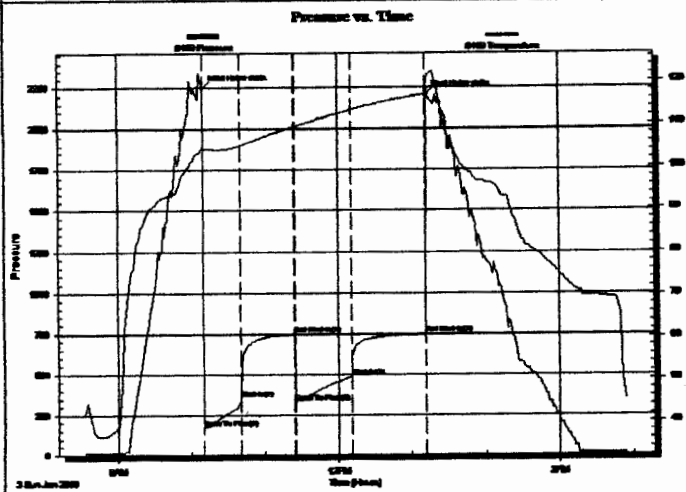
Start Time: 08:33:00

End Time: 15:55:00

Time On Btrm: 2010.01.03 @ 10:10:00

Time Off Btrm: 2010.01.03 @ 13:12:00

TEST COMMENT: 30/INITIAL OPEN:STRONG BLOW BUILT BOTTOM OF BUCKET IN 3 MINUTES
45/INITIAL SHUT IN:BOTTOM OF BUCKET
45/FINAL OPEN:STRONG BLOW BUILT BOTTOM OF BUCKET IN 10 MINUTES
60/FINAL SHUT IN:



PRESSURE SUMMARY

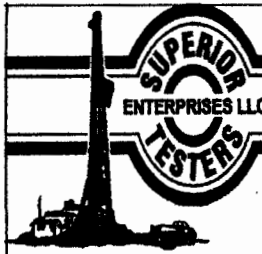
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2247.29	104.66	Initial Hydro-static
1	174.30	104.23	Open To Flow (1)
31	353.38	105.01	Shut-In(1)
75	746.46	109.37	End Shut-In(1)
76	329.13	109.34	Open To Flow (2)
121	486.50	113.18	Shut-In(2)
182	746.45	116.98	End Shut-In(2)
182	2205.65	118.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
480.00	GAS IN PIPE	5.09
600.00	CLEAN GASSEY OIL 15%G 85%O	8.42
120.00	GO CUT MW 10%G 10%O 30%M 50%W	11.68
360.00	SO CUT WATER 5%O 5%M 90%W	5.05

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

PHILLIPS 20C #2
 20-13-20W GOVE
 Job Ticket: 16198 DST#: 9
 Test Start: 2010.01.03 @ 08:34:00

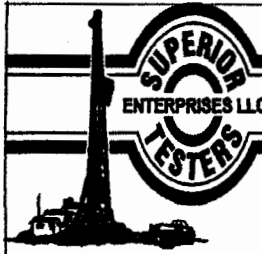
Tool Information

Drill Pipe:	Length: 4262.00 ft	Diameter: 3.80 inches	Volume: 59.78 bbl	Tool Weight: 10000.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 78000.00 lb
		Total Volume: 60.67 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4456.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	37.00 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			4436.00	
Shut-In Tool	5.00			4441.00	
Hydraulic Tool	5.00			4446.00	
Packer	5.00			4451.00	21.00 Bottom Of Top Packer
Packer	5.00			4456.00	
Perforations	11.00			4467.00	
Recorder	0.00	8405	Inside	4467.00	
Recorder	0.00	8419	Outside	4467.00	
Bullnose	5.00			4472.00	16.00 Bottom Packers & Anchor
Total Tool Length:	37.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16198 DST#: 9

ATTN: JEFF CHRISTIAN

Test Start: 2010.01.03 @ 08:34:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 61.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.18 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 3000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
480.00	GAS IN PIPE	5.093
600.00	CLEAN GASSEY OIL 15%G 85%O	8.416
120.00	GO CUT MV 10%G 10%O 30%M 50%W	1.683
360.00	SO CUT WATER 5%O 5%M 90%W	5.050

Total Length: 1560.00 ft Total Volume: 20.242 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: GRAVITY OIL 49 CHLORIDES 43,000

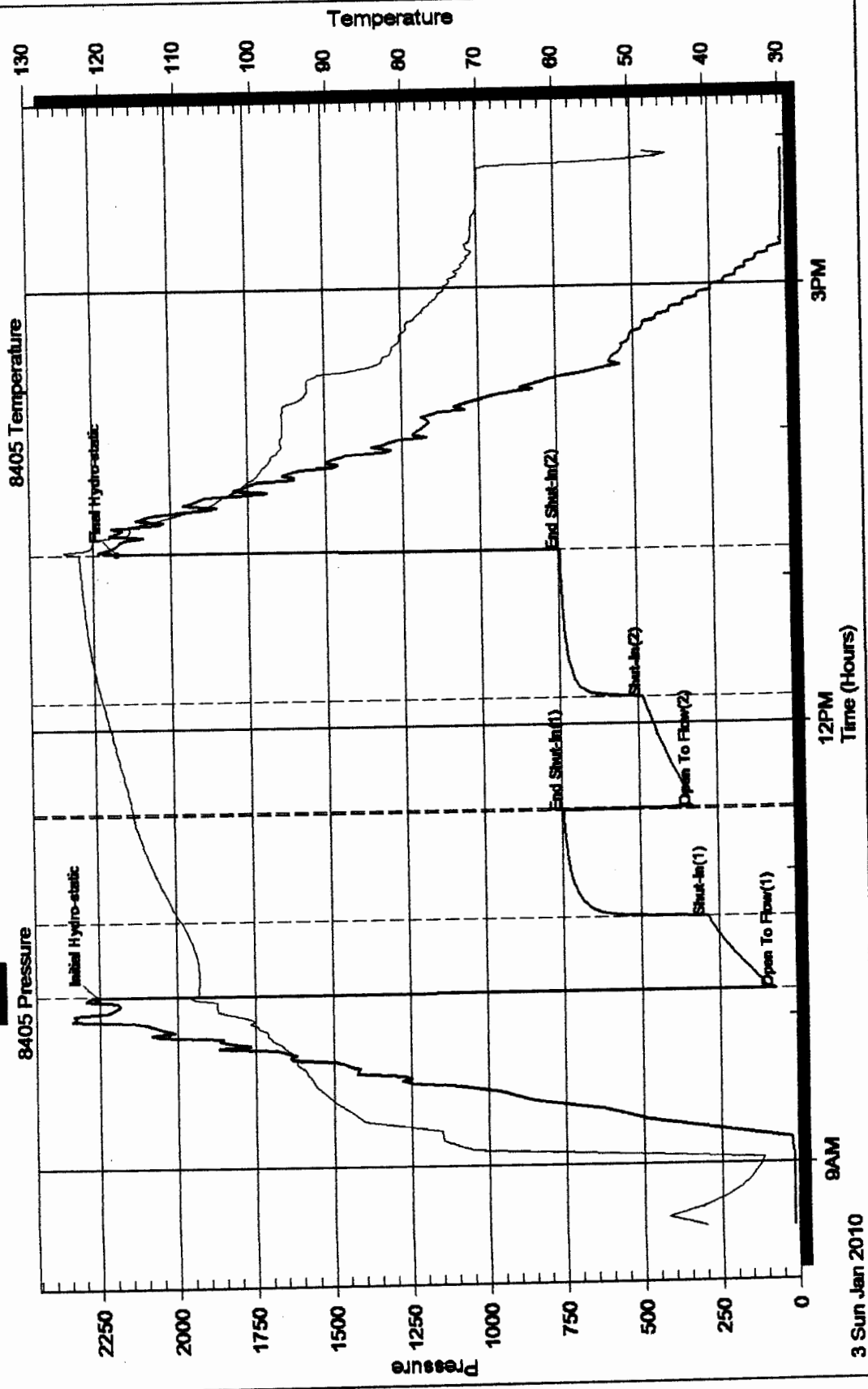
DST Test Number: 9

20-13-20W GOVE

Inside RITCHEE EXPLORATION INC

Serial #: 8405

Pressure vs. Time



Printed: 2010.01.04 @ 14:42:51

Ref. No: 16198

Superior Testers Enterprises LLC

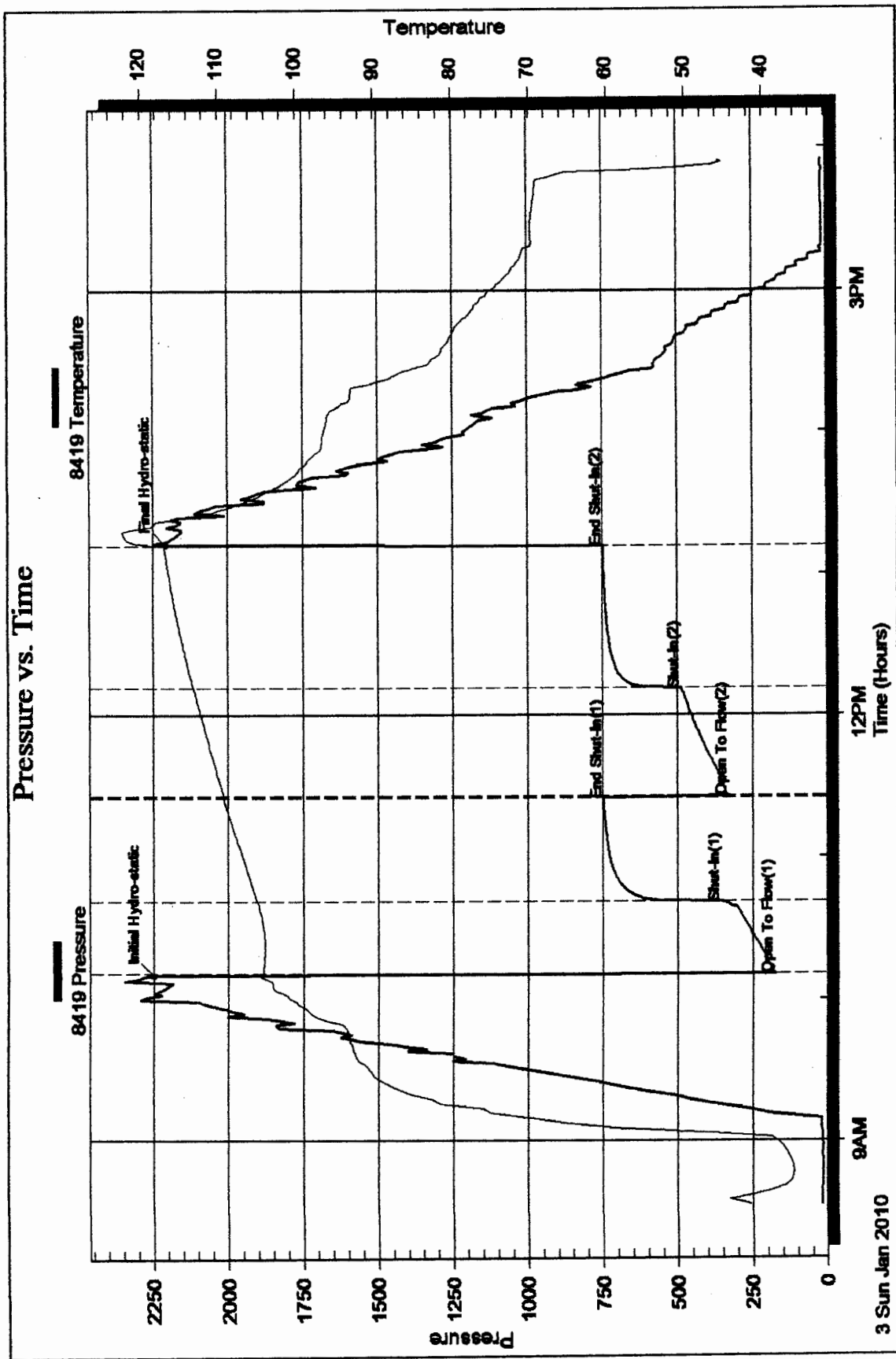
Serial #: 8419

Outside RITCHE EXPLORATION INC

20-13-20W GOVE

DST Test Number: 9

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N #700
WICHITA KS 67278

ATTN: JEFF CHRISTIAN

20-13-20W GOVE

PHILLIPS 20C #2

Start Date: 2010.01.03 @ 23:49:00

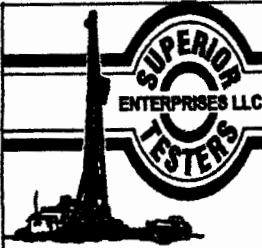
End Date: 2010.01.04 @ 05:38:30

Job Ticket #: 16199 DST #: 10

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

Printed: 2010.01.04 @ 05:48:53

RITCHIE EXPLORATION INC
PHILLIPS 20C #2
20-13-20W GOVE
DST # 10
MORROW
2010.01.03



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16199

DST#: 10

ATTN: JEFF CHRISTIAN

Test Start: 2010.01.03 @ 23:49:00

GENERAL INFORMATION:

Formation: MORROW

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:48:00

Time Test Ended: 05:38:30

Test Type: Conventional Bottom Hole (Initial)

Tester: JARED SCHECK

Unit No: 3320-70-SCOTT CITY

Interval: 4484.00 ft (KB) To 4506.00 ft (KB) (TVD)

Total Depth: 4506.00 ft (KB) (TVD)

Hole Diameter: 6.88 inches Hole Condition: Fair

Reference Elevations: 2879.00 ft (KB)

2874.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8405

Inside

Press@RunDepth: 36.97 psia @ 4501.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.01.03

End Date: 2010.01.04

Last Calib.: 2010.01.04

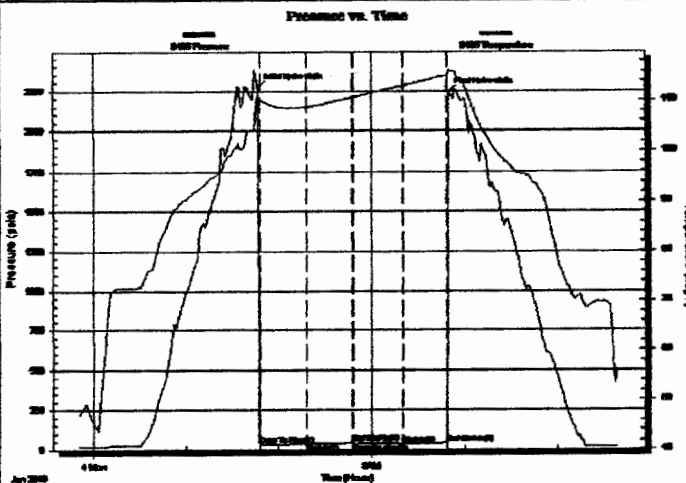
Start Time: 23:49:00

End Time: 05:38:30

Time On Btrr: 2010.01.04 @ 01:47:00

Time Off Btrr: 2010.01.04 @ 03:49:30

TEST COMMENT: 30/INITIAL OPEN:WEAK BUT BUILDING BLOW BUILT 1 INCH INTO BUCKET IN 30 MINUTES
30/INITIAL SHUT IN:NO BLOW BACK
30/FINAL OPEN:WEAK BUT BUILDING BLOW BUILT 1 INCH INTO BUCKET
30/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

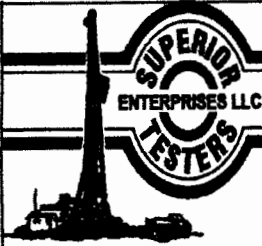
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2270.73	110.60	Initial Hydro-static
1	35.40	110.14	Open To Flow (1)
31	36.38	108.76	Shut-In(1)
61	44.57	110.65	End Shut-In(1)
61	35.48	110.68	Open To Flow (2)
94	36.97	113.08	Shut-In(2)
122	43.16	115.03	End Shut-In(2)
123	2241.43	116.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	SPOT OIL CUT MUD 1%O 99%M	0.00

Gas Rates

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



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

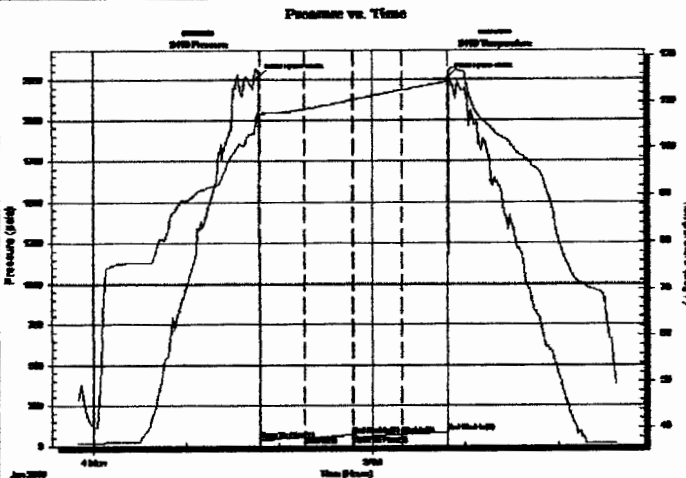
PHILLIPS 20C #2
20-13-20W GOVE
 Job Ticket: 16199 DST#: 10
 Test Start: 2010.01.03 @ 23:49:00

GENERAL INFORMATION:

Formation: **MORROW**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:48:00
 Time Test Ended: 05:38:30
 Interval: **4484.00 ft (KB) To 4506.00 ft (KB) (TVD)**
 Total Depth: **4506.00 ft (KB) (TVD)**
 Hole Diameter: **6.88 inches** Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: JARED SCHECK
 Unit No: 3320-70-SCOTT CITY
 Reference Elevations: 2879.00 ft (KB)
 2874.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: **8419** Outside
 Press@RunDepth: 82.05 psia @ 4501.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2010.01.03 End Date: 2010.01.04 Last Calib.: 2010.01.04
 Start Time: 23:49:00 End Time: 05:38:00 Time On Btrr: 2010.01.04 @ 01:47:00
 Time Off Btrr: 2010.01.04 @ 03:49:00

TEST COMMENT: 30/INITIAL OPENWEAK BUT BUILDING BLOW BUILT 1 INCH INTO BUCKET IN 30 MINUTES
 30/INITIAL SHUT IN:NO BLOW BACK
 30/FINAL OPENWEAK BUT BUILDING BLOW BUILT 1 INCH INTO BUCKET
 30/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

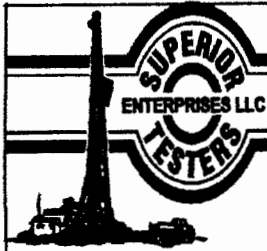
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2266.67	107.56	Initial Hydro-static
1	37.04	108.64	Open To Flow (1)
30	55.90	108.25	Shut-in(1)
61	67.66	110.38	End Shut-in(1)
61	63.53	110.41	Open To Flow (2)
93	69.77	112.58	Shut-in(2)
122	82.05	114.36	End Shut-in(2)
122	2264.52	115.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	SPOT OIL CUT MUD 1%O 99%M	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16199

DST#: 10

ATTN: JEFF CHRISTIAN

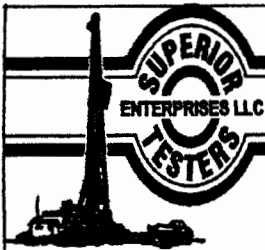
Test Start: 2010.01.03 @ 23:49:00

Tool Information

Drill Pipe:	Length: 4291.00 ft	Diameter: 3.80 inches	Volume: 60.19 bbl	Tool Weight: 10000.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 61.08 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4484.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	43.00 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			4464.00	
Shut-In Tool	5.00			4469.00	
Hydrolic Tool	5.00			4474.00	
Packer	5.00			4479.00	21.00 Bottom Of Top Packer
Packer	5.00			4484.00	
Perforations	17.00			4501.00	
Recorder	0.00	8405	Inside	4501.00	
Recorder	0.00	8419	Outside	4501.00	
Bullnose	5.00			4506.00	22.00 Bottom Packers & Anchor
Total Tool Length:	43.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16199

DST#: 10

ATTN: JEFF CHRISTIAN

Test Start: 2010.01.03 @ 23:49:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 61.00 sec/qt

Water Loss: 9.20 in³

Resistivity: ohm.m

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psia

Oil API:

Water Salinity: ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	SPOT OIL CUT MUD 1%O 99%M	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

DST Test Number: 10

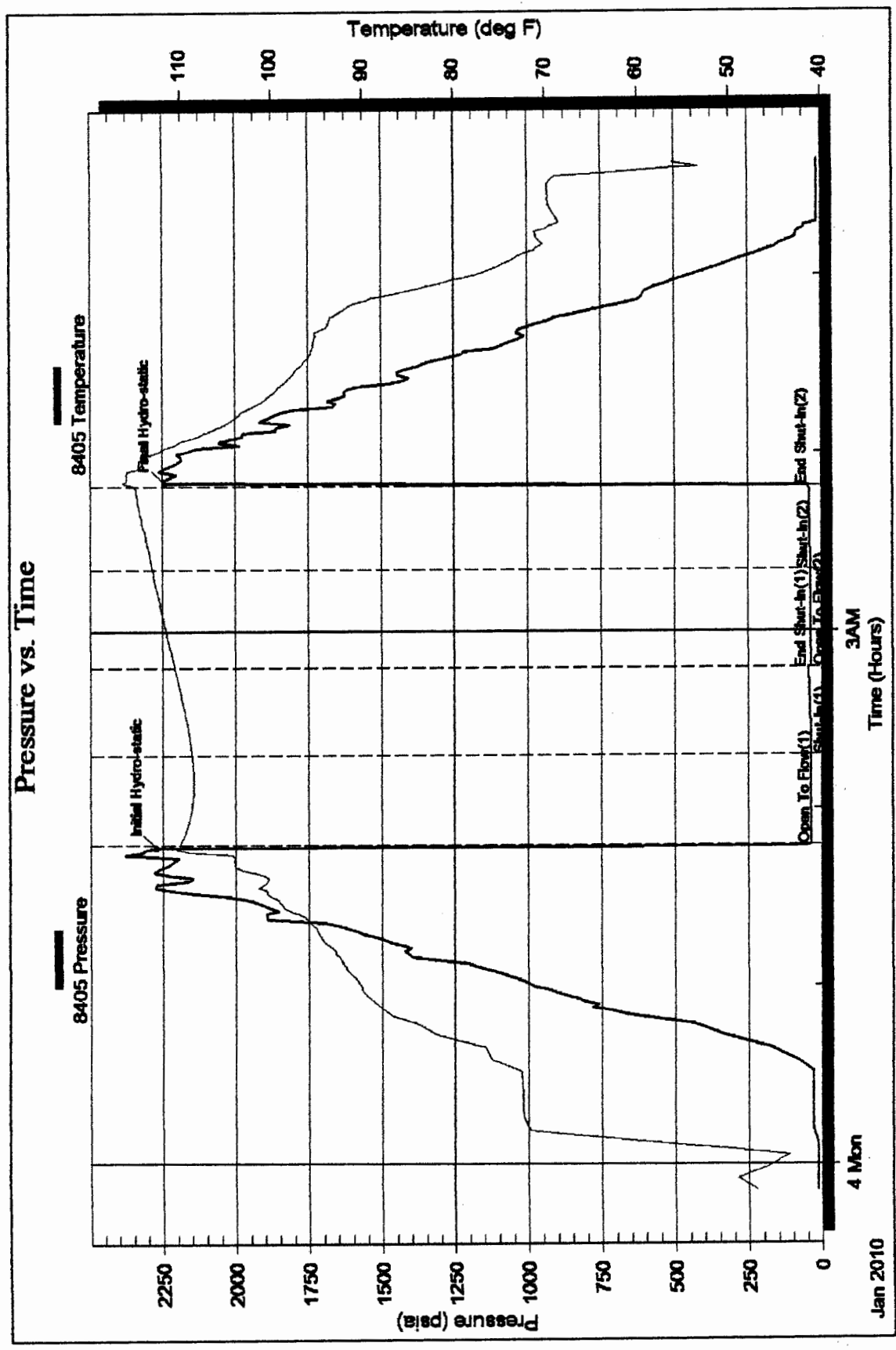
20-13-20W GOVE

RITCHE EXPLORATION INC

Inside

Serial #: 8405

Pressure vs. Time



Printed: 2010.01.04 @ 05:48:55

Ref. No: 16199

Superior Testers Enterprises LLC

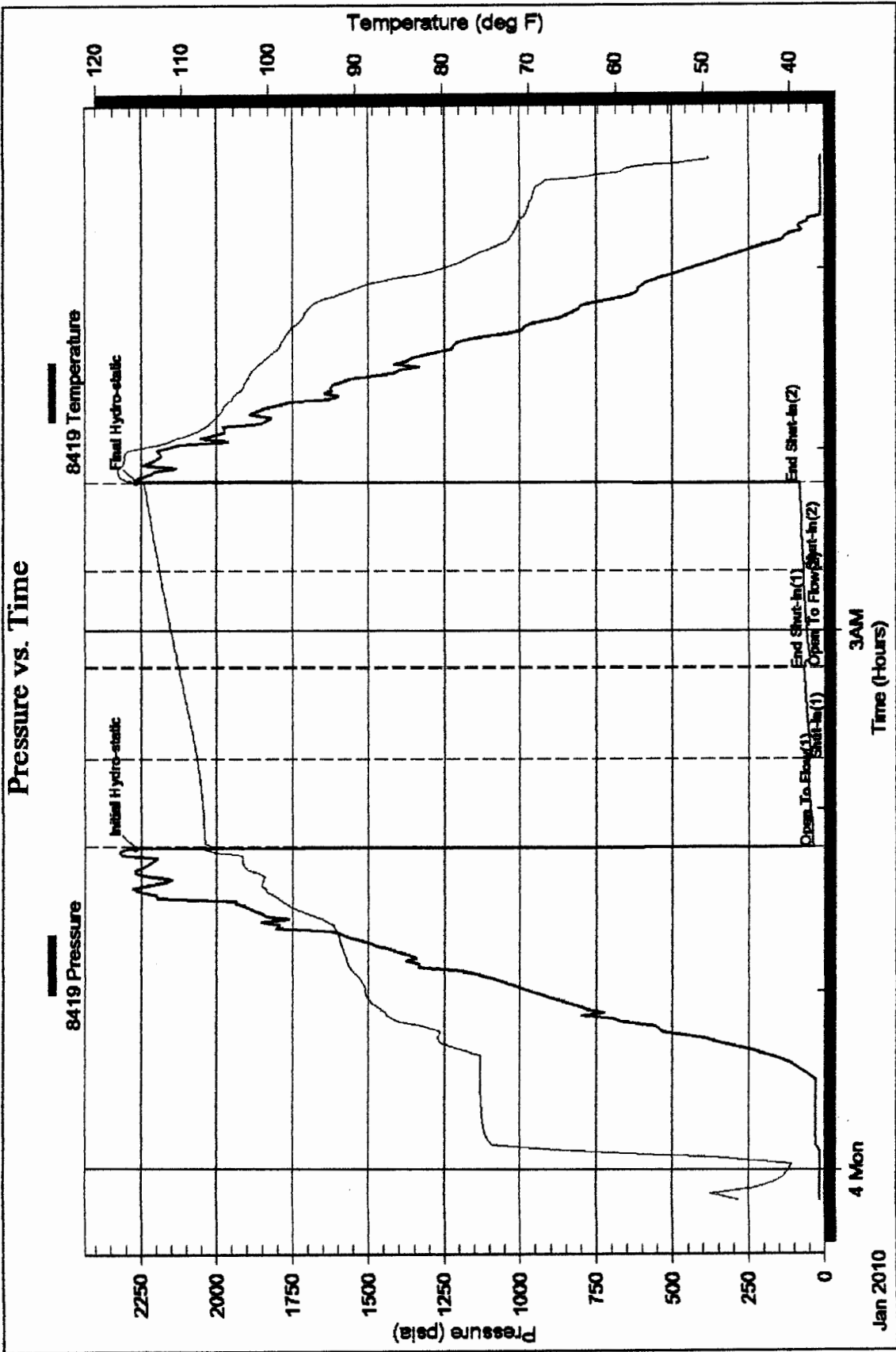
Serial #: 8419

Outside RITCHE EXPLORATION INC

20-13-20W GOVE

DST Test Number: 10

Pressure vs. Time



Printed: 2010.01.04 @ 05:48:56

Ref. No. 16199

Superior Testers Enterprises LLC



DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION INC**

8100 E 22ND ST N #700
WICHITA KS 67278

ATTN: JEFF CHRISTIAN

20-13-20W GOVE

PHILLIPS 20C #2

Start Date: 2010.01.04 @ 15:45:00

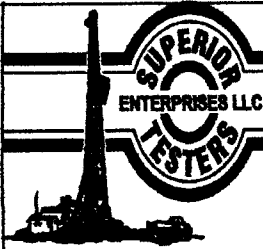
End Date: 2010.01.04 @ 23:01:30

Job Ticket #: 16200 DST #: 11

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

Printed: 2010.01.04 @ 23:14:37

RITCHIE EXPLORATION INC PHILLIPS 20C #2 20-13-20W GOVE DST # 11 MISSISSIPPI 2010.01.04



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

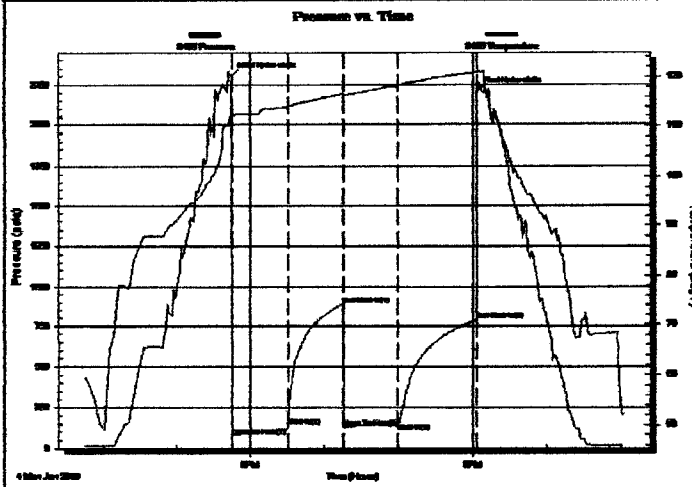
PHILLIPS 20C #2
20-13-20W GOVE
 Job Ticket: 16200 DST#: 11
 Test Start: 2010.01.04 @ 15:45:00

GENERAL INFORMATION:

Formation: **MISSISSIPPI**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 17:45:00 Tester: JARED SCHECK
 Time Test Ended: 23:01:30 Unit No: 3320-70-SCOTT CITY
 Interval: 4485.00 ft (KB) To 4558.00 ft (KB) (TVD) Reference Elevations: 2879.00 ft (KB)
 Total Depth: 4558.00 ft (KB) (TVD) 2874.00 ft (CF)
 Hole Diameter: 6.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8405 Inside
 Press@RunDepth: 152.39 psia @ 4491.50 ft (KB) Capacity: 5000.00 psia
 Start Date: 2010.01.04 End Date: 2010.01.04 Last Calib.: 2010.01.04
 Start Time: 15:45:00 End Time: 23:01:30 Time On Btm: 2010.01.04 @ 17:44:30
 Time Off Btm: 2010.01.04 @ 21:03:30

TEST COMMENT: 45/INITIAL OPEN:WEAK BLOW BUILT 6 INCHES INTO WATER
 45/INITIAL SHUT IN:NO BLOW BACK
 45/FINAL OPEN:WEAK SURFACE BLOW DIED OFF FLUSHED TOOL GOOD SURGE DIED OFF
 60/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2303.88	111.96	Initial Hydro-static
1	73.24	110.99	Open To Flow (1)
46	136.81	113.99	Shut-in(1)
91	889.90	116.56	End Shut-in(1)
92	124.17	116.00	Open To Flow (2)
135	152.39	118.31	Shut-in(2)
199	787.64	120.86	End Shut-in(2)
199	2208.57	121.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	SPOT OIL CT MUD 1%O 99%M	0.10
180.00	MUD	1.07

Gas Rates

Choke (inches)	Pressure (psia)	Gas Rate (Mcfd)



DRILL STEM TEST REPORT

RITCHE EXPLORATION INC
 8100 E 22ND ST N #700
 WICHITA KS 67278
 ATTN: JEFF CHRISTIAN

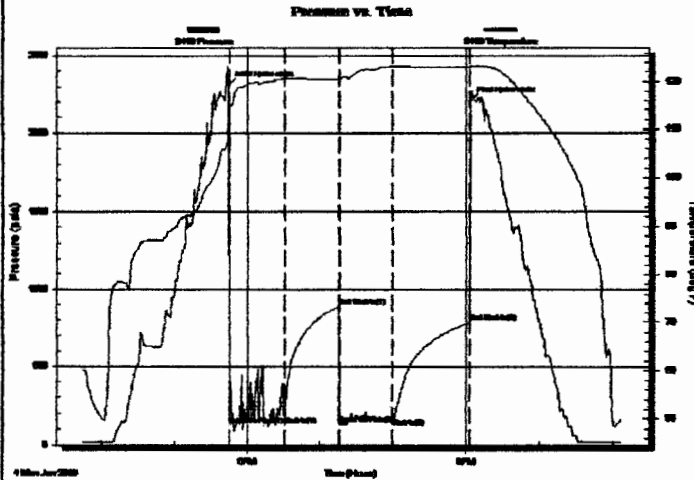
PHILLIPS 20C #2
20-13-20W GOVE
 Job Ticket: 16200 DST#: 11
 Test Start: 2010.01.04 @ 15:45:00

GENERAL INFORMATION:

Formation: **MISSISSIPPI**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:45:00
 Time Test Ended: 23:01:30
 Interval: **4485.00 ft (KB) To 4558.00 ft (KB) (TVD)**
 Total Depth: **4558.00 ft (KB) (TVD)**
 Hole Diameter: **6.88 inches** Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: JARED SCHECK
 Unit No: 3320-70-SCOTT CITY
 Reference Elevations: 2879.00 ft (KB)
 2874.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: **8419** Outside
 Press@RunDepth: 785.12 psia @ 4491.50 ft (KB) Capacity: 5000.00 psia
 Start Date: 2010.01.04 End Date: 2010.01.04 Last Calib.: 2010.01.04
 Start Time: 15:43:00 End Time: 23:07:30 Time On Btrr: 2010.01.04 @ 17:44:30
 Time Off Btrr: 2010.01.04 @ 21:03:30

TEST COMMENT: 45/INITIAL OPEN:WEAK BLOW BUILT 6 INCHES INTO WATER
 45/INITIAL SHUT IN:NO BLOW BACK
 45/FINAL OPEN:WEAK SURFACE BLOW DIED OFF FLUSHED TOOL GOOD SURGE DIED OFF
 60/FINAL SHUT IN:NO BLOW BACK



PRESSURE SUMMARY

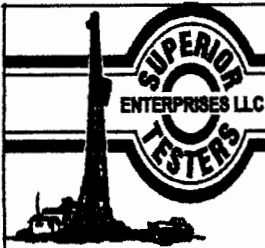
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2312.98	112.24	Initial Hydro-static
1	127.64	114.21	Open To Flow (1)
46	125.39	120.38	Shut-In(1)
91	887.31	120.53	End Shut-In(1)
92	129.56	120.45	Open To Flow (2)
135	169.97	123.20	Shut-In(2)
199	785.12	122.94	End Shut-In(2)
199	2206.24	123.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	SPOT OIL CT MUD 1%O 99%M	0.10
180.00	MUD	1.07

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16200

DST#: 11

ATTN: JEFF CHRISTIAN

Test Start: 2010.01.04 @ 15:45:00

Tool Information

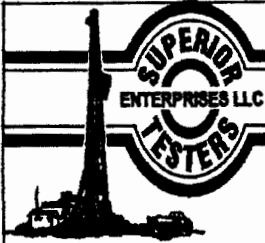
Drill Pipe:	Length: 4294.00 ft	Diameter: 3.80 inches	Volume: 60.23 bbl	Tool Weight: 10000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 80000.00 lb
		Total Volume: 61.12 bbl		Tool Chased 2.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4485.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.50 ft			
Tool Length:	32.50 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			4465.00	
Shut-In Tool	5.00			4470.00	
Hydrolic Tool	5.00			4475.00	
Packer	5.00			4480.00	21.00 Bottom Of Top Packer
Packer	5.00			4485.00	
Change Over Sub	0.75			4485.75	
Drill Pipe	0.00			4485.75	
Change Over Sub	0.75			4486.50	
Perforations	5.00			4491.50	
Recorder	0.00	8405	Inside	4491.50	
Recorder	0.00	8419	Outside	4491.50	
Bullnose	5.00			4496.50	11.50 Bottom Packers & Anchor

Total Tool Length: 32.50



DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION INC

PHILLIPS 20C #2

8100 E 22ND ST N #700
WICHITA KS 67278

20-13-20W GOVE

Job Ticket: 16200

DST#: 11

ATTN: JEFF CHRISTIAN

Test Start: 2010.01.04 @ 15:45:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 63.00 sec/qt
Water Loss: 10.39 in³
Resistivity: ohm.m
Salinity: 4500.00 ppm
Filter Cake: 2.00 inches

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

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	SPOT OIL CT MUD 1%O 99%M	0.098
180.00	MUD	1.067

Total Length: 200.00 ft Total Volume: 1.165 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

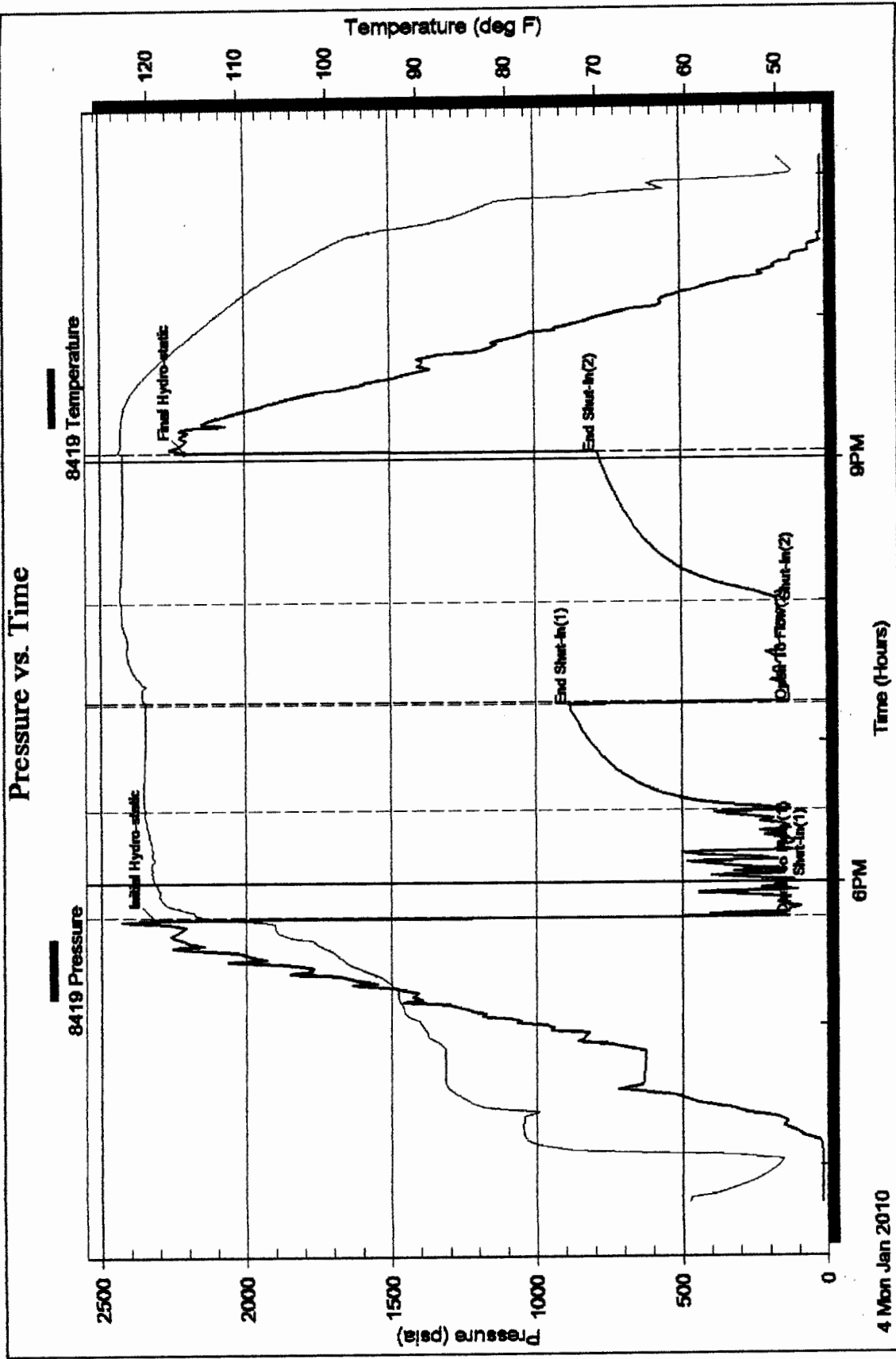
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Outside RITCHE EXPLORATION INC

20-13-20W GOVE

DST Test Number: 11

Pressure vs. Time



Printed: 2010.01.04 @ 23:14:39

Ref. No: 16200

Superior Testers Enterprises LLC

Serial #: 8405

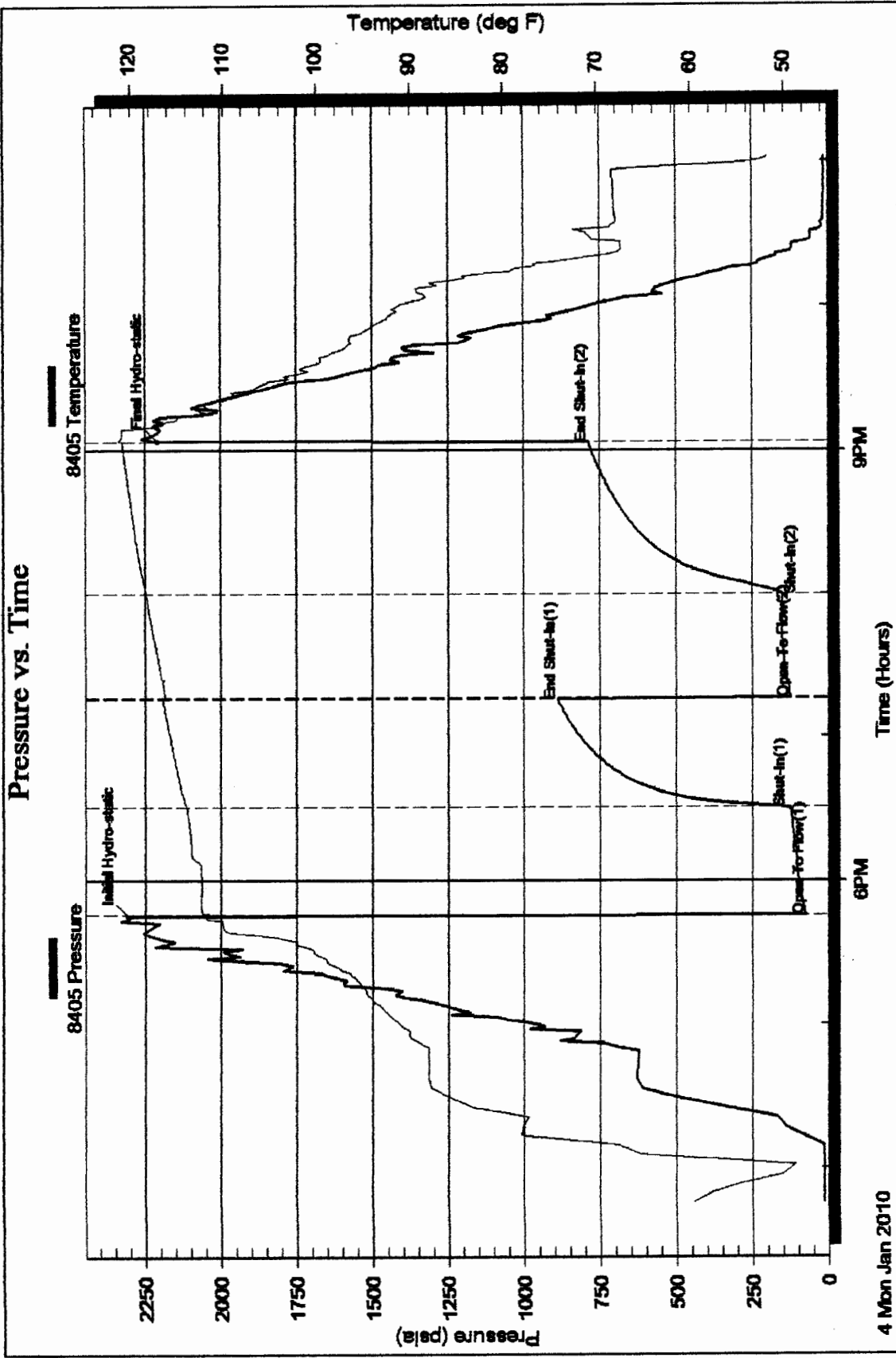
Inside

RITCHIE EXPLORATION INC

20-13-20W GOVE

DST Test Number: 11

Pressure vs. Time



Printed: 2010.01.04 @ 23:14:39

Ref. No: 16200

Superior Testers Enterprises LLC