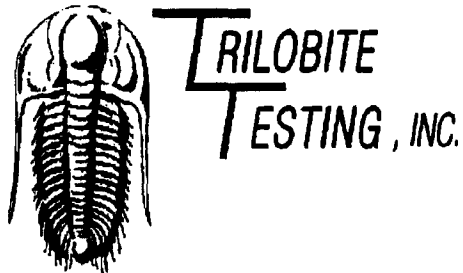


IND

RECEIVED
JUL 21 2009
KCC WICHITA



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co**
250 N Water Ste 300
Wichita, KS 67202

ATTN: Tom Funk

32 12n 32w Logan, KS

KWS #1-32

Start Date: 2009.03.26 @ 11:30:05

End Date: 2009.03.26 @ 20:55:00

Job Ticket #: 33336 DST #: 2

Murfin Drilling Co

KWS #1-32

32 12n 32w Logan, KS

DST # 2

H-J

2009.03.26

KCC
JUL 21 2009
CONFIDENTIAL

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co
250 N Water Ste 300
Wichita, KS 67202
ATTN: Tom Funk

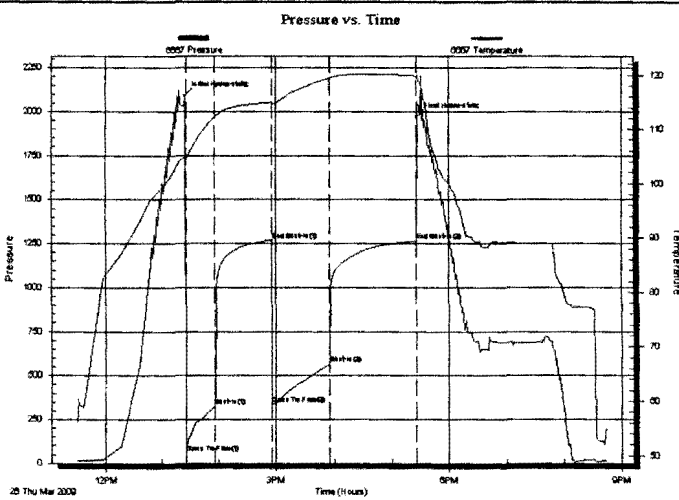
KWS #1-32
32 12n 32w Logan, KS
Job Ticket: 33336 **DST#: 2**
Test Start: 2009.03.26 @ 11:30:05

GENERAL INFORMATION:

Formation: **H-J**
Deviated: **No Whipstock** ft (KB)
Time Tool Opened: 13:26:00
Time Test Ended: 20:55:00
Test Type: **Conventional Bottom Hole**
Tester: **Shane McBride**
Unit No: **40**
Interval: **4199.00 ft (KB) To 4280.00 ft (KB) (TVD)**
Reference Elevations: **3074.00 ft (KB)**
Total Depth: **4280.00 ft (KB) (TVD)**
3064.00 ft (CF)
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
KB to GR/CF: **10.00 ft**

Serial #: 6667 Inside
Press@RunDepth: **565.40 psig @ 4200.00 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2009.03.26** End Date: **2009.03.26** Last Calib.: **2009.03.26**
Start Time: **11:30:05** End Time: **20:44:45** Time On Btm: **2009.03.26 @ 13:25:15**
Time Off Btm: **2009.03.26 @ 17:26:00**

TEST COMMENT: B.O.B. in 4 min
Return blow built to 5 1/2" in died back to 3/4" in
B.O.B. in 4 min
Return blow built to 4" in. died in 75 min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2092.36	104.90	Initial Hydro-static
1	61.21	104.63	Open To Flow (1)
31	328.97	112.39	Shut-In (1)
90	1269.72	114.92	End Shut-In (1)
91	335.45	114.70	Open To Flow (2)
151	565.40	119.37	Shut-In (2)
241	1264.97	119.82	End Shut-In (2)
241	1970.57	119.95	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	g m c o 25g 30m 45o under circ sub	0.44
1170.00	c g o reversed out 20g 80o	12.31
195.00	c g o 15%g 85%o	2.74
0.00	525' gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co
250 N Water Ste 300
Wichita, KS 67202
ATTN: Tom Funk

KWS #1-32
32 12n 32w Logan, KS
Job Ticket: 33336 **DST#: 2**
Test Start: 2009.03.26 @ 11:30:05

Tool Information

Drill Pipe:	Length: 3651.00 ft	Diameter: 3.80 inches	Volume: 51.21 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose: 100000.0 lb
			Total Volume: 53.87 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4199.00 ft			Final 89000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	81.00 ft			
Tool Length:	101.00 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			4180.00	
Shut In Tool	5.00			4185.00	
Hydraulic tool	5.00			4190.00	
Packer	5.00			4195.00	20.00 Bottom Of Top Packer
Packer	4.00			4199.00	
Stubb	1.00			4200.00	
Recorder	0.00	6667	Inside	4200.00	
Recorder	0.00	6771	Outside	4200.00	
Perforations	10.00			4210.00	
Change Over Sub	1.00			4211.00	
Drill Pipe	63.00			4274.00	
Change Over Sub	1.00			4275.00	
Bullnose	5.00			4280.00	81.00 Bottom Packers & Anchor

Total Tool Length: 101.00

**RECEIVED
JUL 21 2009
KCC WICHITA**



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co
250 N Water Ste 300
Wichita, KS 67202

ATTN: Tom Funk

KWS #1-32
32 12n 32w Logan, KS
Job Ticket: 33336 **DST#: 2**
Test Start: 2009.03.26 @ 11:30:05

Mud and Cushion Information

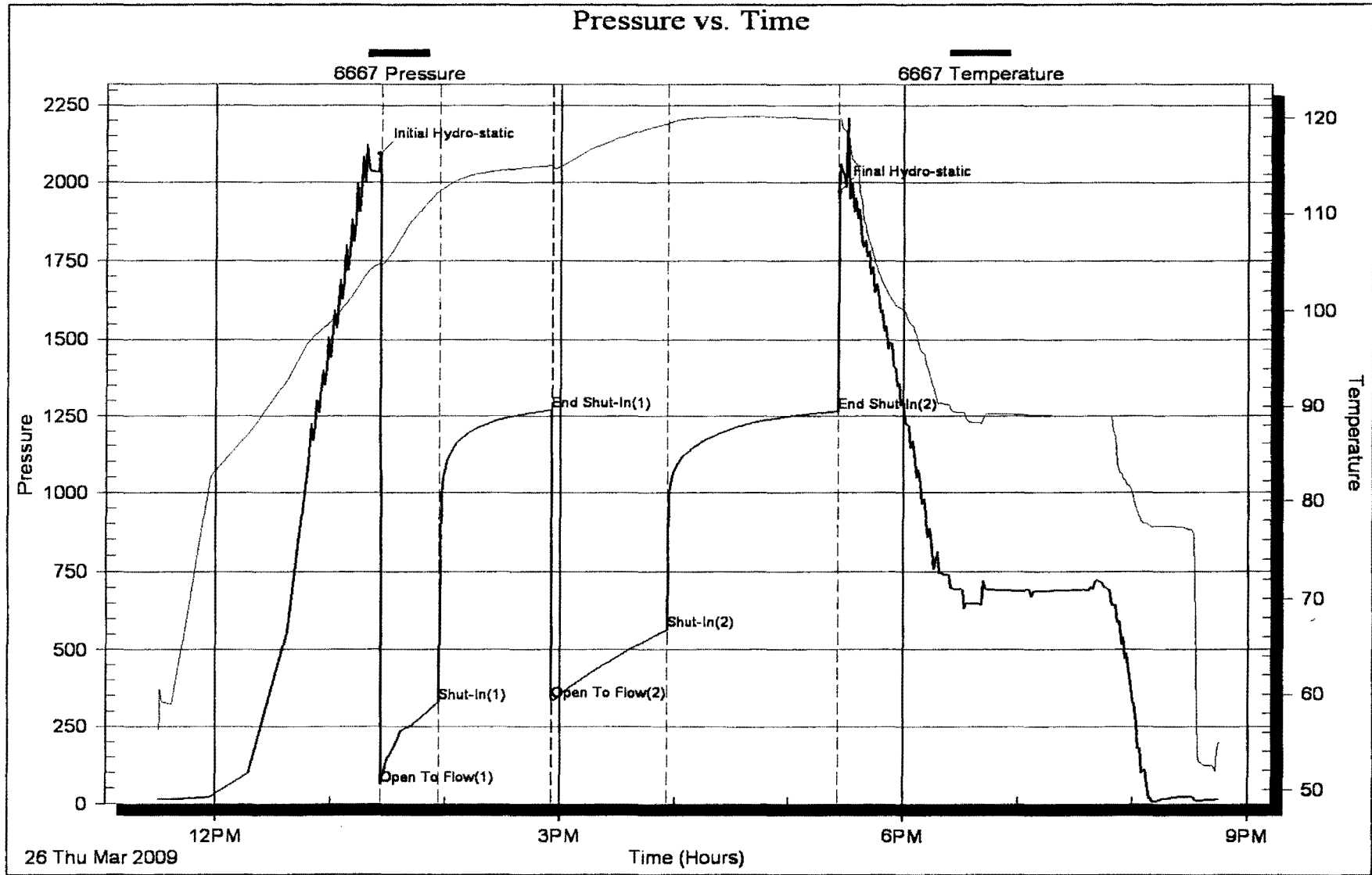
Mud Type: Gel Chem	Cushion Type:	Oil API:	37 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 62.00 sec/qt	Cushion Volume: bbl		
Water Loss: 5.98 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

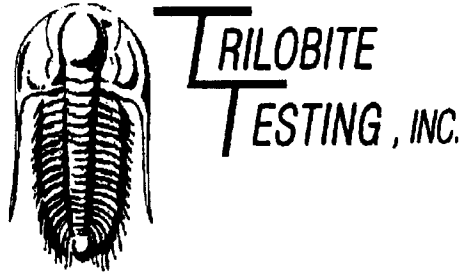
Recovery Table

Length ft	Description	Volume bbl
90.00	g m c o 25g 30m 45o under circ sub	0.443
1170.00	c g o reversed out 20g 80o	12.313
195.00	c g o 15%g 85%o	2.735
0.00	525' gas in pipe	0.000

Total Length: 1455.00 ft Total Volume: 15.491 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



RECEIVED
JUL 21 2009
KCC WICHITA



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co**

250 N Water Ste 300
Wichita, KS 67202

ATTN: Tom Funk

32 12n 32w Logan, KS

KWS #1-32

Start Date: 2009.03.27 @ 02:44:41

End Date: 2009.03.27 @ 10:45:00

Job Ticket #: 33337 DST #: 3

RECEIVED
JUL 21 2009
KCC WICHITA

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

Murfin Drilling Co

KWS #1-32

32 12n 32w Logan, KS

DST # 3

K

2009.03.27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co
250 N Water Ste 300
Wichita, KS 67202
ATTN: Tom Funk

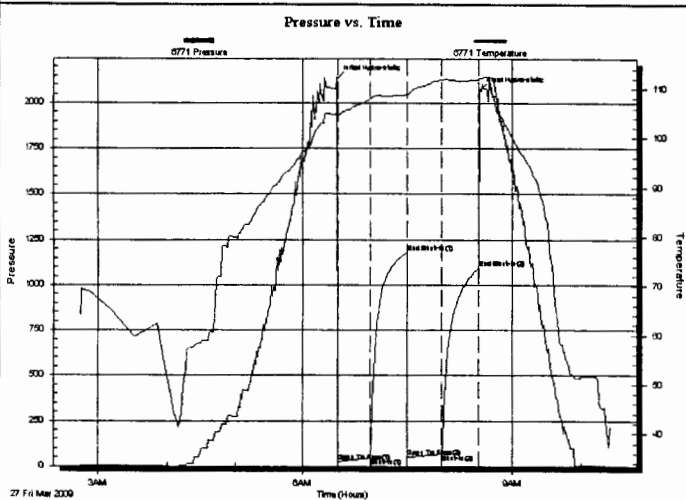
KWS #1-32
32 12n 32w Logan, KS
Job Ticket: 33337 **DST#: 3**
Test Start: 2009.03.27 @ 02:44:41

GENERAL INFORMATION:

Formation: **K**
Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole**
Time Tool Opened: **06:30:21** Tester: **Shane McBride**
Time Test Ended: **10:45:00** Unit No: **40**
Interval: **4282.00 ft (KB) To 4310.00 ft (KB) (TVD)** Reference Elevations: **3074.00 ft (KB)**
Total Depth: **4310.00 ft (KB) (TVD)** **3064.00 ft (CF)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair** KB to GR/CF: **10.00 ft**

Serial #: 6771 **Outside**
Press@RunDepth: **66.32 psig @ 4283.00 ft (KB)** Capacity: **7000.00 psig**
Start Date: **2009.03.27** End Date: **2009.03.27** Last Calib.: **2009.03.27**
Start Time: **02:44:41** End Time: **10:25:50** Time On Btm: **2009.03.27 @ 06:30:06**
Time Off Btm: **2009.03.27 @ 08:32:51**

TEST COMMENT: 1/4" in+ blow
No return
Surface blow died in 9 min
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2133.36	105.18	Initial Hydro-static
1	24.26	104.27	Open To Flow (1)
29	45.73	107.97	Shut-In(1)
61	1179.76	108.79	End Shut-In(1)
61	49.64	108.37	Open To Flow (2)
91	66.32	111.75	Shut-In(2)
122	1094.89	111.75	End Shut-In(2)
123	2070.39	112.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	mud 100% m	0.44

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co
250 N Water Ste 300
Wichita, KS 67202

KWS #1-32
32 12n 32w Logan, KS
Job Ticket: 33337 **DST#: 3**
Test Start: 2009.03.27 @ 02:44:41

ATTN: Tom Funk

Tool Information

Drill Pipe:	Length: 3747.00 ft	Diameter: 3.80 inches	Volume: 52.56 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 55.22 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 81000.00 lb
Depth to Top Packer:	4282.00 ft			Final 81000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 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			4263.00	
Shut In Tool	5.00			4268.00	
Hydraulic tool	5.00			4273.00	
Packer	5.00			4278.00	20.00 Bottom Of Top Packer
Packer	4.00			4282.00	
Stubb	1.00			4283.00	
Recorder	0.00	6667	Inside	4283.00	
Recorder	0.00	6771	Outside	4283.00	
Perforations	22.00			4305.00	
Bullnose	5.00			4310.00	28.00 Bottom Packers & Anchor
Total Tool Length:	48.00				

RECEIVED
JUL 21 2009
KCC WICHITA



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co
250 N Water Ste 300
Wichita, KS 67202
ATTN: Tom Funk

KWS #1-32
32 12n 32w Logan, KS
Job Ticket: 33337 **DST#: 3**
Test Start: 2009.03.27 @ 02:44:41

Mud and Cushion Information

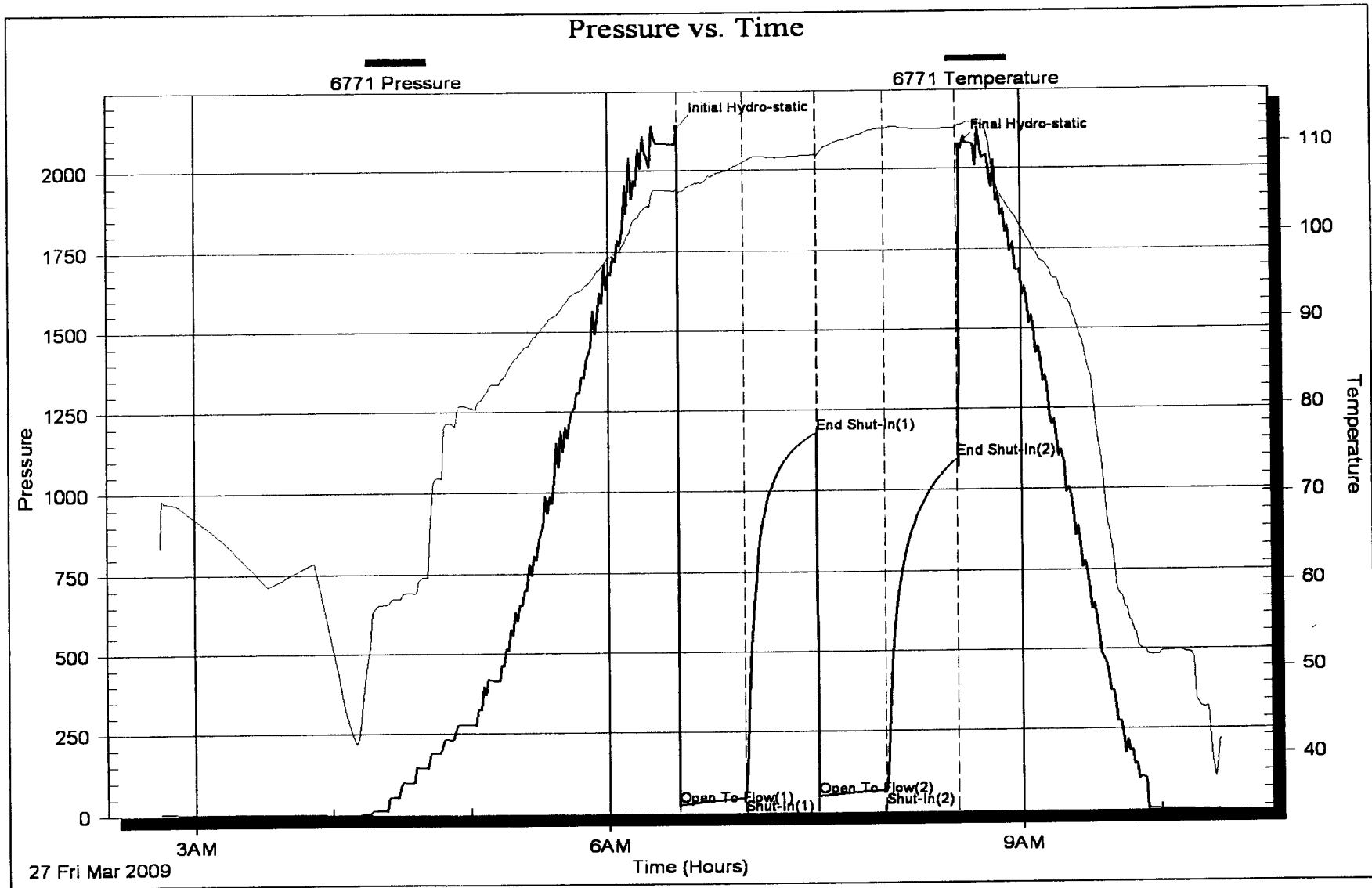
Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 62.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.18 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

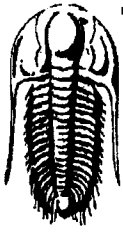
Recovery Table

Length ft	Description	Volume bbl
90.00	mud 100%m	0.443

Total Length: 90.00 ft Total Volume: 0.443 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:



RECEIVED
JUL 21 2009
KCC WICHITA



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co
250 N Water Ste 300
Wichita, KS 67202
ATTN: Tom Funk

KWS #1-32
32 12n 32w Logan, KS
Job Ticket: 33338 **DST#: 4**
Test Start: 2009.03.28 @ 12:25:05

Tool Information

Drill Pipe:	Length: 4063.00 ft	Diameter: 3.80 inches	Volume: 56.99 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 540.00 ft	Diameter: 2.25 inches	Volume: 2.66 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 59.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4593.00 ft			Final 88000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.00 ft			
Tool Length:	67.00 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			4574.00	
Shut In Tool	5.00			4579.00	
Hydraulic tool	5.00			4584.00	
Packer	5.00			4589.00	20.00 Bottom Of Top Packer
Packer	4.00			4593.00	
Stubb	1.00			4594.00	
Recorder	0.00	6667	Inside	4594.00	
Recorder	0.00	6771	Outside	4594.00	
Perforations	8.00			4602.00	
Change Over Sub	1.00			4603.00	
Drill Pipe	31.00			4634.00	
Change Over Sub	1.00			4635.00	
Bullnose	5.00			4640.00	47.00 Bottom Packers & Anchor

Total Tool Length: 67.00

**RECEIVED
JUL 21 2009
KCC WICHITA**



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co

KWS #1-32

250 N Water Ste 300
Wichita, KS 67202

32 12n 32w Logan, KS

Job Ticket: 33338

DST#: 4

ATTN: Tom Funk

Test Start: 2009.03.28 @ 12:25:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

25 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	g m c o 20%g 35%r 45%o under circ sub	0.443
1770.00	c g o 25%g 75%o reversed out	20.729
15.00	c g o 15%g 85%o	0.210

Total Length: 1875.00 ft Total Volume: 21.382 bbl

Num Fluid Samples: 0

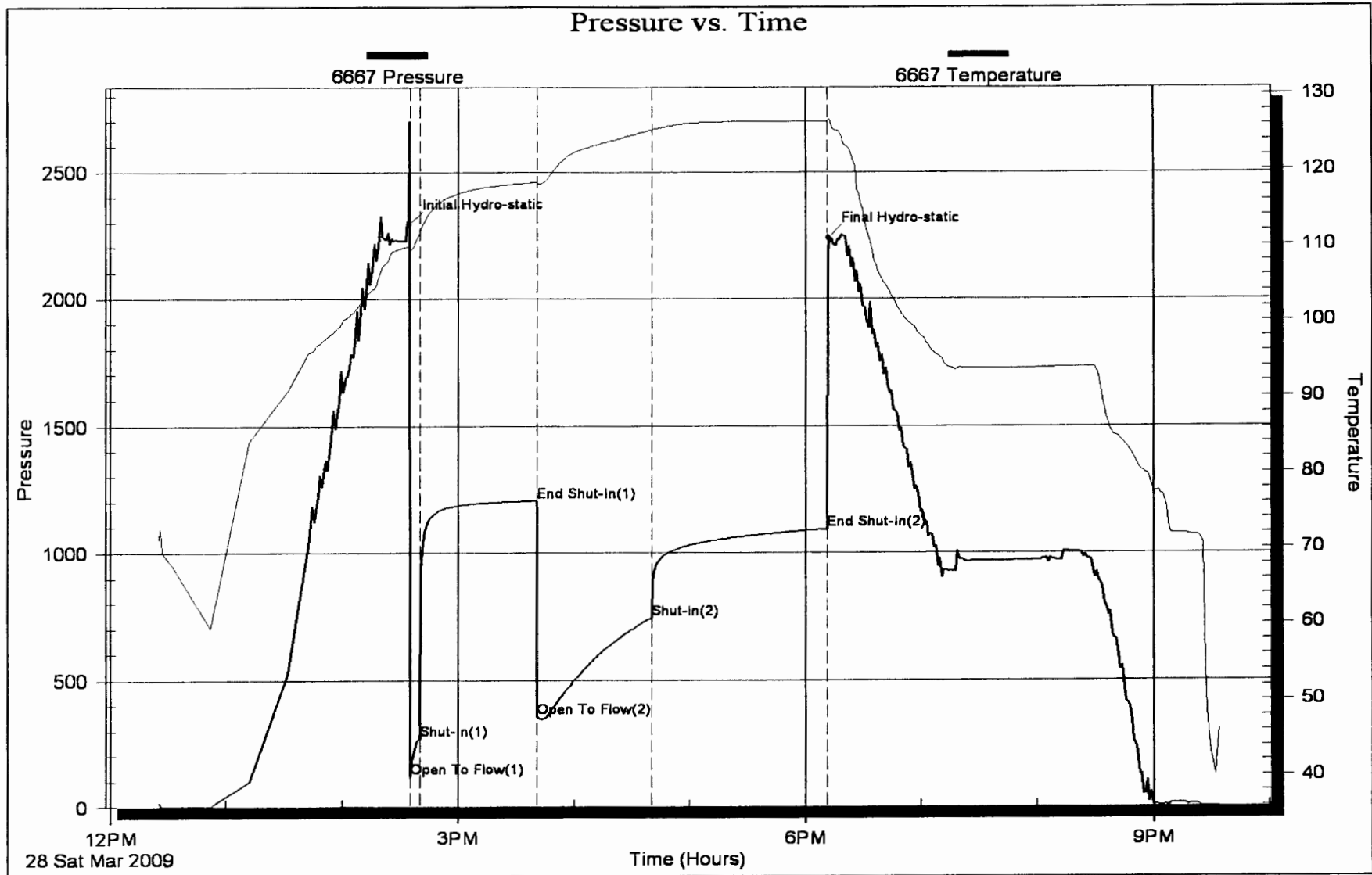
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



RECEIVED
JUL 21 2009
KCC WICHITA