

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

ORIGINAL

Form ACO-1

June 2009

Form Must Be Typed

Form must be Signed

All blanks must be Filled

8/13/12

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 30606

Name: Murfin Drilling Company, Inc.

Address 1: 250 N. Water, Suite 300

Address 2: _____

City: Wichita State: KS Zip: 67202 + _____

Contact Person: Leon Rodak

Phone: (316) 267-3241

CONTRACTOR: License # 30606

Name: Murfin Drilling Company, Inc.

Wellsite Geologist: Bob Peterson

Purchaser: None

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SLOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Cora, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

<u>04/26/10</u>	<u>05/03/10</u>	<u>05/03/10</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 051-25975-0000

Spot Description: _____

_____ SW SW Sec. 27 Twp. 15 S. R. 20 East West

660 Feet from North / South Line of Section

660 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Ellis

Lease Name: Graham Well #: 1-27

Field Name: Wildcat

Producing Formation: None

Elevation: Ground: 2282 Kelly Bushing: 2287

Total Depth: 4085 Plug Back Total Depth: None

Amount of Surface Pipe Set and Cemented at: 220 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature: _____

Title: VP Production Date: 08/13/10

KCC Office Use ONLY RECEIVED

Letter of Confidentiality Received
Date: 8/13/10 - 8/13/12 AUG 13 2010

Confidential Release Date: _____

Wireline Log Received

Geologist Report Received

UIC Distribution

ALT I II III Approved by: NS Date: 8/19/10

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PA

Operator Name: Murfin Drilling Company, Inc. Lease Name: Graham Well #: 1-27
 Sec. 27 Twp. 15 S. R. 20 East West County: Ellis

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Dual Induction, Compensated Porosity, Microresistivity <input checked="" type="checkbox"/>	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum See Attached List <div style="text-align: center;"> KCC AUG 13 2010 CONFIDENTIAL. </div>
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CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface		8 5/8	23#	220	Common	150	3% cc, 2% gel

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

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TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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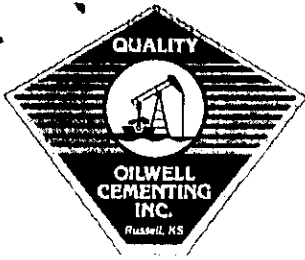
Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____
Estimated Production Per 24 Hours	Oil Bbls. Gas Mcf Water Bbls. Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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MDCI Graham #1-27 660 FSL 660 FWL Sec. 27-T15S-R20W 2287' KB							Rains & Williamson Oil Co, Inc #1 Crotinger 1650 FSL 2970 FEL Sec. 27-T15S-R20W 2262' KB	
Formation	Sample top	Datum	Ref	Log tops	Datum	Ref	Log tops	Datum
Anhydrite	1538	+749	-9	1538	+749	-9	1504	+758
B/Anhydrite	1580	+707	-8	1580	+707	-8	1547	+715
Topeka	3309	-1022	-10	3309	-1022	-10	3274	-1012
Heebner	3587	-1300	-10	3584	-1297	-7	3552	-1290
Lansing	3634	-1347	-11	3634	-1347	-11	3598	-1336
Stark	3835	-1548	-7	3838	-1551	-10	3803	-1541
BKC	3881	-1594	-6	3884	-1597	-9	3850	-1588
Pawnee	3939	-1652	-12	3944	-1657	-17	3902	-1640
Lwr Pawnee	3953	-1666	-12	3953	-1666	-12	3916	-1654
Labette	4005	-1718	-13	4004	-1717	-12	3967	-1705
Cong Sand	4012	-1725	-11	4012	-1725	-11	3976	-1714
Arbuckle	4071	-1784	-46	4070	-1783	-45	4000	-1738
Reagan							4023	-1761
RTD	4085						4032	
LTD				4087			4032	

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QUALITY OILWELL CEMENTING, INC.

740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net
 Pratt Location 620-388-5422

Date: 4/27/2010
 Invoice # 3862

P.O.#:
 Due Date: 15-30
 Division: Russell

Invoice

Contact:
 Murfin Drilling Company
Address/Job Location:
 Murfin Drilling Company
 P.O. Box 288
 Russell Ks 67665

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PROD COPY

Reference:
 SURFACE JOB GRAHAM 1-27

USED FOR New Well Drilling
 APPROVED [Signature]

Description of Work:

Services / Items Included:	Item	Quantity	Item	Quantity
	Surface Job	1		
	Premium Gel (Bentonite)	3		
	Common-Class A	150		
	Calcium Chloride	5		
Bulk Truck Mileage-from Job location to Nearest Bulk Plant		35		
Bulk Truck Material-Material Service Charge		35		

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Invoice Terms:
 Net 15

Quoted by: Dave Funk
 SubTotal: \$ 3,476.69
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (521.50)
 Total: \$ 2,955.18
 Tax: \$ 156.62
 \$ 3,111.81

Applied Payments:
Balance Due: \$ 3,111.81

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
 ©2008-2013 Straker Investments, LLC. All rights reserved.

				Description
03600	07640	3649	3111.81	Cement 5. (Bq)

QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 3862

Date	4-26	Sec.	27	Twp.	15	Range	20	County	Ellis	State	Kansas	On-Location		Finish	6:45 PM	
Lease	6-12-10	Well No.	1-27			Location Ellis S to Co. Line 1E 1W										
Contractor	Muckin Drilling Rig 16							Owner								
Type Job								To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.								
Hole Size	12 1/4	T.D.	220													
Csg.	8 3/8 2 3/4	Depth	279													
Tbg. Size								Charge To Muckin Drilling Co								
Tool								Street								
Cement Left in Csg.	10-15	Shoe Joint														
Meas Line								City State								
							The above was done to satisfaction and supervision of owner agent or contractor.									
							Cement Amount Ordered 150 (com 300 280)									

EQUIPMENT

Pumptrk	9	No.	Cementor		
			Helper	Steve	3 1/2
Bulktrk	8	No.	Driver	Mark	3 1/2
			Driver		
Bulktrk		No.	Driver	Cisco	3 1/2
			Driver		

Common	150
Poz. Mix	
Gel.	83
Calcium	B5

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JOB SERVICES & REMARKS

Remarks:
Rat Hole
Mouse Hole
Centralizers
Baskets
D/V or Port Collar

Hulls
Salt
Flowseal
Kol-Seal
Mud CLR 48
CFL-117 or CD110 CAF 38

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Cement did Circulate

Sand
Handling 158
Mileage 34

FLOAT EQUIPMENT

Guide Shoe
Centralizer
Baskets
AFU Inserts
Float Shoe
Latch Down

SWAGE

Pumptrk Charge Surface
Mileage 35

Russell

Tax
Discount
Total Charge

X Signature *Ray Child*



QUALITY OILWELL CEMENTING, INC.
 740 West Wichita Ave, Russell KS 67665
 Phone: 785-324-1041 fax: 785-483-1087
 Email: cementing@ruraltel.net
 Pratt Location 620-388-5422

Date: 5/5/2010
 Invoice # 3868
 P.O.#:
 Due Date: 5/20/2010
 Division: Russell

PROD COPY

Invoice

Contact:
 Murfin Drilling Company
Address/Job Location:
 Murfin Drilling Company
 P.O. Box 288
 Russell Ks 67665

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Reference:
 PLUG JOB GRAHAM 1-27

USED FOR D+A
 APPROVED [Signature]

Description of Work:

Services / Items Included:	Item	Quantity	Item	Quantity
Pump Truck Mileage-from Job location to Nearest Camp		35		
Premium Gel (Bentonite)		7		
POZ Mix-Standard		82		
Plugging, the First Well Service		1		
Dry Hole Plug		1		
Common-Class A		123		
Bulk Truck Mileage-from Job location to Nearest Bulk Plant		35		
Bulk Truck Material-Material Service Charge		212		

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Invoice Terms:

Net 30

Quoted by: Dave Funk
 SubTotal: \$ 3,849.57
 Discount Available ONLY if Invoice is Paid &
 Received within listed terms of invoice: \$ (577.44)
 Total: \$ 3,272.14
 Tax: \$ 71.24
 \$ 3,343.38

Applied Payments:
Balance Due: \$ 3,343.38

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
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Account	Dr	Cr	No.	Amount	Description
03608	016	45	3649	3343.38	PTA

(KCC)

QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 3868

Cell 785-324-1041

Date	5-3-10	Sec.	27	Twp.	15	Range	20	County	Ellis	State	Kansas	On Location		Finish	9:45 PM
Lease	Graham	Well No.	1-27		Location						Ellis S. to Coline 1E 1W				
Contractor	Martin Drilling Rig 16				Owner										
Type Job	Dry Hole Plug				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.										
Hole Size	7 7/8				Charge To										
Csg.					Martin Drilling										
Tbg. Size					Depth										
Tool					Street										
Cement Left in Csg.					City										
Meas Line					State										
													CONFIDENTIAL		
													The above was done to satisfaction and supervision of owner agent or contractor.		
													Cement Amount Ordered		
													205 gal 4 1/2 gal 1 lb		

EQUIPMENT

Pumptrk	9	No.	Cementor	4	Flt-Seal
			Helper	Steve	Common
Bulktrk	8	No.	Driver	4	Poz. Mix
			Driver	Wente	82
Bulktrk		No.	Driver	4	Get.
			Driver	Dave	7

JOB SERVICES & REMARKS

Remarks:		Calcium	
Rat Hole	30sx	Hulls	
Mouse Hole		Salt	
Centralizers		Flowseal	50
Baskets		Kol-Seal	
D/V or Port Collar		Mud CLR 48	
1st Plug @ 1560	25sx	CFL-117 or CD110 CAF 38	
2nd " " 790	100sx	Sand	
3rd " " 270	40sx	Handling	212
4th " " 40	10sx	Mileage	
Root Hole	30sx		

FLOAT EQUIPMENT

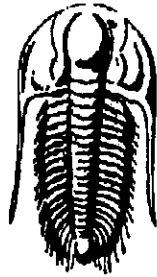
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
1 Dry Hole Plug	
Pumptrk Charge	square plug
Mileage	35

x Signature *Andy [Signature]*

Russell

Tax
Discount
Total Charge

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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water
Ste. 300
Wichita KS 67202-1216

ATTN: David Doyel

27-15s-20w Ellis KS

Graham #1-27

Start Date: 2010.04.30 @ 07:16:05

End Date: 2010.04.30 @ 13:57:29

Job Ticket #: 38560 DST #: 1

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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 Inc
250 N. Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

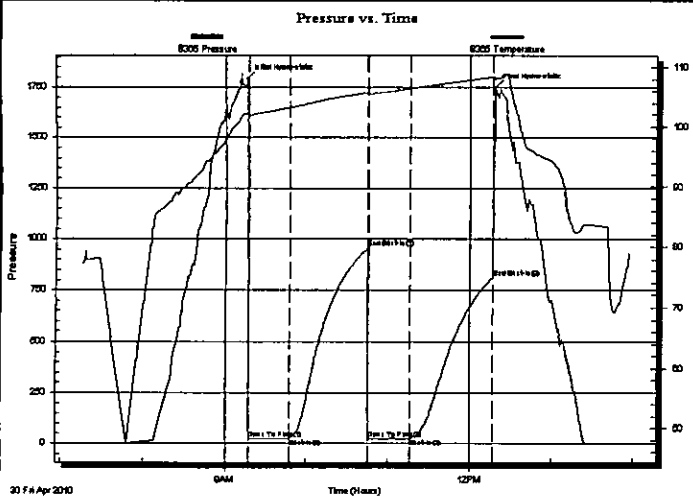
Graham #1-27
27-15s-20w Ellis KS
Job Ticket: 38560 **DST#: 1**
Test Start: 2010.04.30 @ 07:16:05

GENERAL INFORMATION:

Formation: LKC A-B
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 09:17:30
Time Test Ended: 13:57:29
Interval: 3622.00 ft (KB) To 3672.00 ft (KB) (TVD)
Total Depth: 3672.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Ray Schwager
Unit No: 42
Reference Elevations: 2287.00 ft (KB)
2282.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8365 **Inside**
Press@RunDepth: 24.17 psig @ 3636.01 ft (KB) Capacity: 8000.00 psig
Start Date: 2010.04.30 End Date: 2010.04.30 Last Calib.: 2010.04.30
Start Time: 07:16:05 End Time: 13:57:29 Time On Btm: 2010.04.30 @ 09:16:00
Time Off Btm: 2010.04.30 @ 12:18:59

TEST COMMENT: IFP-wk bl surface to 1/4"bl
FFP-surface bl, died in 12min
Times 30-60-30-60



PRESSURE SUMMARY

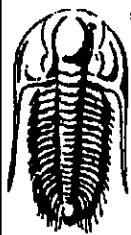
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1793.43	102.18	Initial Hydro-static
2	21.50	101.83	Open To Flow (1)
32	24.93	103.25	Shut-In(1)
90	956.88	105.77	End Shut-In(1)
90	23.39	105.49	Open To Flow (2)
121	24.17	106.47	Shut-In(2)
182	813.81	108.33	End Shut-In(2)
183	1750.96	108.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud w/show of oil	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Graham #1-27

250 N. Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

27-15s-20w Ellis KS
Job Ticket: 38560 **DST#: 1**
Test Start: 2010.04.30 @ 07:16:05

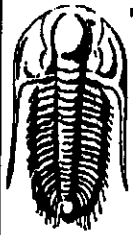
Tool Information

Drill Pipe:	Length: 3582.00 ft	Diameter: 3.80 inches	Volume: 50.25 bbl	Tool Weight: 2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 50.40 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3622.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.02 ft			
Tool Length:	78.02 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			3595.00	
Shut In Tool	5.00			3600.00	
Hydraulic tool	5.00			3605.00	
Jars	5.00			3610.00	
Safety Joint	2.00			3612.00	
Packer	5.00			3617.00	28.00 Bottom Of Top Packer
Packer	5.00			3622.00	
Stubb	1.00			3623.00	
Perforations	13.00			3636.00	
Recorder	0.01	8365	Inside	3636.01	
Recorder	0.01	6625	Outside	3636.02	
Blank Spacing	33.00			3669.02	
Bullnose	3.00			3672.02	50.02 Bottom Packers & Anchor

Total Tool Length: 78.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc
250 N.Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

Graham #1-27
27-15s-20w Ellis KS
Job Ticket: 38560 **DST#: 1**
Test Start: 2010.04.30 @ 07:16:05

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: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.15 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5800.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

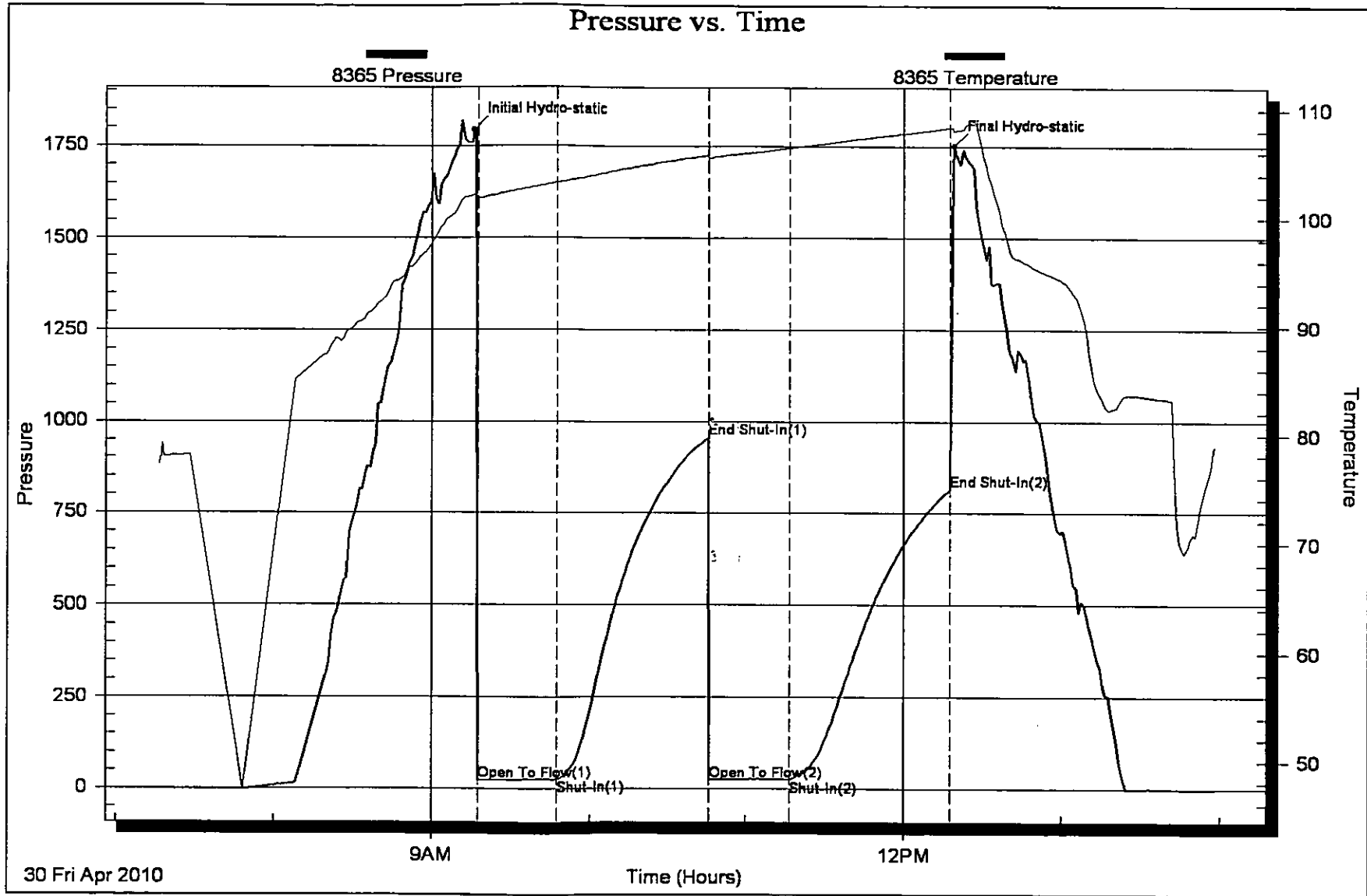
Length ft	Description	Volume bbl
5.00	Mud w /show of oil	0.025

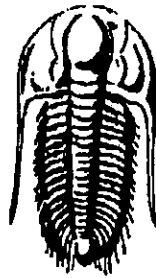
Total Length: 5.00 ft Total Volume: 0.025 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water
Ste. 300
Wichita KS 67202-1216

ATTN: David Doyel

27-15s-20w Ellis KS

Graham #1-27

Start Date: 2010.04.30 @ 21:57:54

End Date: 2010.05.01 @ 05:03:18

Job Ticket #: 38561 DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Murfin Drilling Co Inc

Graham #1-27

27-15s-20w Ellis KS

DST # 2

LKC C,D,E,F

2010.04.30



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc

Graham #1-27

250 N.Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

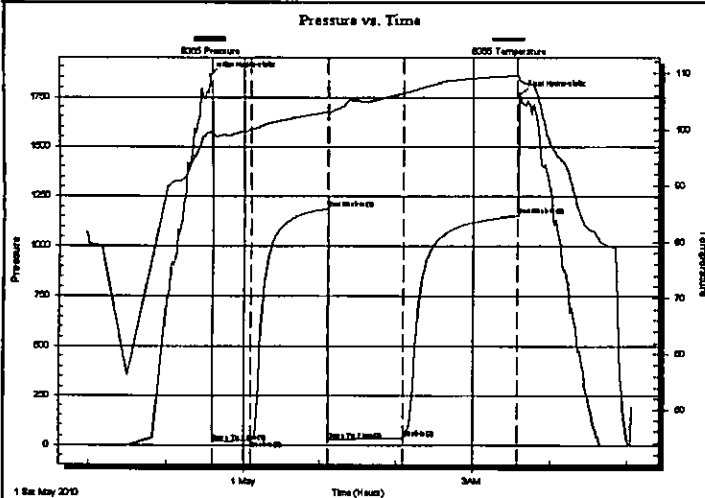
27-15s-20w Ellis KS
Job Ticket: 38561 DST#: 2
Test Start: 2010.04.30 @ 21:57:54

GENERAL INFORMATION:

Formation: LKC C,D,E,F
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:35:49
Time Test Ended: 05:03:18
Interval: 3670.00 ft (KB) To 3722.00 ft (KB) (TVD)
Total Depth: 3722.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Ray Schwager
Unit No: 42
Reference Elevations: 2287.00 ft (KB)
2282.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8365 Inside
Press@RunDepth: 34.73 psig @ 3671.01 ft (KB) Capacity: 8000.00 psig
Start Date: 2010.04.30 End Date: 2010.05.01 Last Calib.: 2010.05.01
Start Time: 21:57:54 End Time: 05:03:18 Time On Btm: 2010.04.30 @ 23:33:19
Time Off Btm: 2010.05.01 @ 03:36:18

TEST COMMENT: IFF-surface to 1 1/4"bl
FFP-surface to 1/4"bl
Times 30-60-60-90



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1855.20	99.44	Initial Hydro-static
3	16.21	98.97	Open To Flow (1)
32	24.17	99.93	Shut-In(1)
92	1187.67	103.03	End Shut-In(1)
93	25.84	102.72	Open To Flow (2)
152	34.73	106.57	Shut-In(2)
242	1154.18	109.52	End Shut-In(2)
243	1763.85	108.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	80'GIP	0.00
40.00	SOCM 1%O99%M	0.29

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Graham #1-27

250 N.Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

27-15s-20w E11s KS
Job Ticket: 38561 DST#: 2
Test Start: 2010.04.30 @ 21:57:54

Tool Information

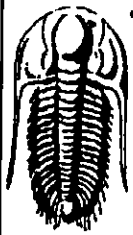
Drill Pipe:	Length: 3616.00 ft	Diameter: 3.80 inches	Volume: 50.72 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 50.87 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3670.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	52.02 ft			
Tool Length:	80.02 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			3643.00	
Shut In Tool	5.00			3648.00	
Hydraulic tool	5.00			3653.00	
Jars	5.00			3658.00	
Safety Joint	2.00			3660.00	
Packer	5.00			3665.00	28.00 Bottom Of Top Packer
Packer	5.00			3670.00	
Stubb	1.00			3671.00	
Recorder	0.01	8365	Inside	3671.01	
Recorder	0.01	6625	Outside	3671.02	
Blank Spacing	33.00			3704.02	
Perforations	15.00			3719.02	
Bullnose	3.00			3722.02	52.02 Bottom Packers & Anchor

Total Tool Length: 80.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Graham #1-27

250 N.Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

27-15s-20w Ellis KS
Job Ticket: 38561 **DST#: 2**
Test Start: 2010.04.30 @ 21:57:54

Mud and Cushion Information

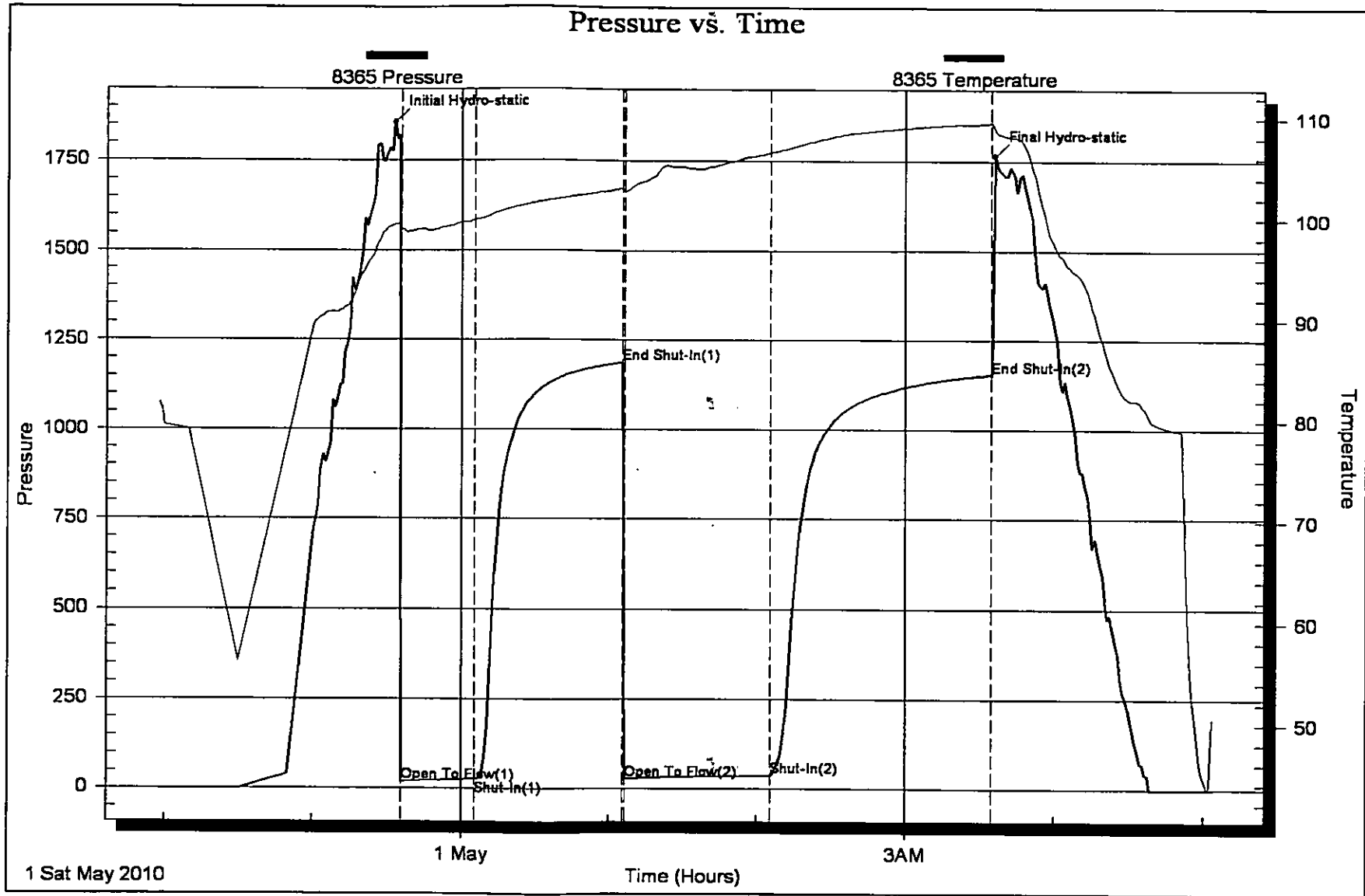
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 60.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.14 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5800.00 ppm			
Filter Cake: 2.00 inches			

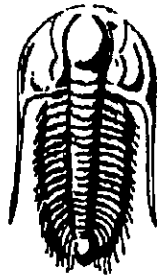
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	80'GIP	0.000
40.00	SOCM 1%O99%M	0.288

Total Length: 40.00 ft Total Volume: 0.288 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water
Ste. 300
Wichita KS 67202-1216

ATTN: David Doyel

27-15s-20w Ellis KS

Graham #1-27

Start Date: 2010.05.01 @ 19:45:57

End Date: 2010.05.02 @ 03:12:51

Job Ticket #: 38562 DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Murfin Drilling Co Inc

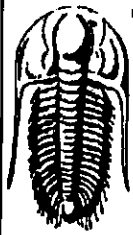
Graham #1-27

27-15s-20w Ellis KS

DST # 3

LKC H-K

2010.05.01



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N.Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

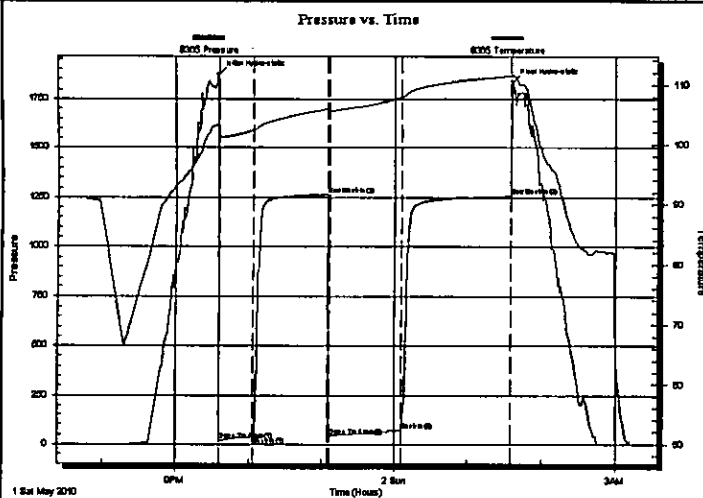
Graham #1-27
27-15s-20w Ellis KS
Job Ticket: 38562 **DST#: 3**
Test Start: 2010.05.01 @ 19:45:57

GENERAL INFORMATION:

Formation: **LKC H-K**
Deviated: **No Whipstock:** **ft (KB)**
Time Tool Opened: **21:35:22**
Time Test Ended: **03:12:51**
Interval: **3748.00 ft (KB) To 3864.00 ft (KB) (TVD)**
Total Depth: **3864.00 ft (KB) (TVD)**
Hole Diameter: **7.85 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole**
Tester: **Ray Schwager**
Unit No: **42**
Reference Elevations: **2287.00 ft (KB)**
2282.00 ft (CF)
KB to GR/CF: **5.00 ft**

Serial #: 8365 **Inside**
Press@RunDepth: **70.21 psig @ 3750.01 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2010.05.01** End Date: **2010.05.02** Last Calib.: **2010.05.02**
Start Time: **19:45:57** End Time: **03:12:51** Time On Btm: **2010.05.01 @ 21:34:22**
Time Off Btm: **2010.05.02 @ 01:36:21**

TEST COMMENT: IFF-w k bl 1/4" to 1 1/2" bl
FFP-w k bl 1/4" to 1/2" bl
Times 30-60-60-90



PRESSURE SUMMARY

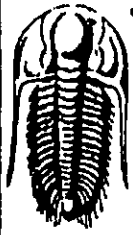
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1872.51	103.05	Initial Hydro-static
1	18.35	101.73	Open To Flow (1)
29	38.46	102.36	Shut-In(1)
90	1264.40	105.92	End Shut-In(1)
92	40.32	105.55	Open To Flow (2)
151	70.21	107.91	Shut-In(2)
241	1257.15	111.56	End Shut-In(2)
242	1834.10	111.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
110.00	MW 25%M75%W	1.27

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Graham #1-27

250 N.Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

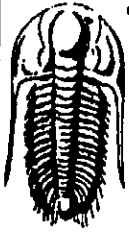
27-15s-20w Ellis KS
Job Ticket: 38562 DST#: 3
Test Start: 2010.05.01 @ 19:45:57

Tool Information

Drill Pipe:	Length: 3694.00 ft	Diameter: 3.80 inches	Volume: 51.82 bbl	Tool Weight: 2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 51.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3748.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	116.02 ft			
Tool Length:	144.02 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			3721.00	
Shut In Tool	5.00			3726.00	
Hydraulic tool	5.00			3731.00	
Jars	5.00			3736.00	
Safety Joint	2.00			3738.00	
Packer	5.00			3743.00	28.00 Bottom Of Top Packer
Packer	5.00			3748.00	
Stubb	1.00			3749.00	
Perforations	1.00			3750.00	
Recorder	0.01	8365	Inside	3750.01	
Recorder	0.01	6625	Outside	3750.02	
Blank Spacing	96.00			3846.02	
Perforations	15.00			3861.02	
Bullnose	3.00			3864.02	116.02 Bottom Packers & Anchor
Total Tool Length:	144.02				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Graham #1-27

250 N.Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

27-15s-20w Ellis KS
Job Ticket: 38562 **DST#: 3**
Test Start: 2010.05.01 @ 19:45:57

Mud and Cushion Information

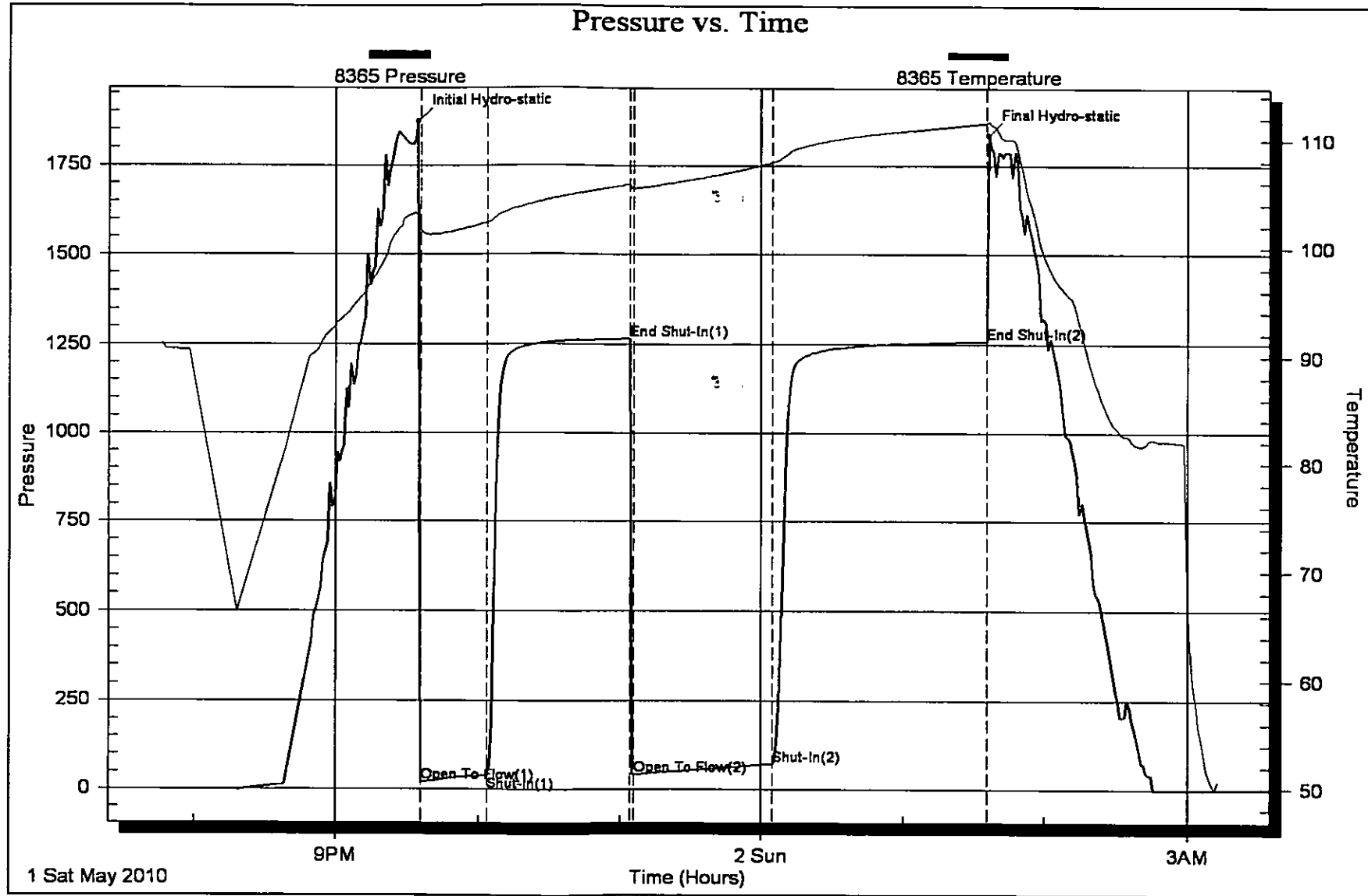
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	55000 ppm
Viscosity: 58.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.58 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 9200.00 ppm			
Filter Cake: 2.00 inches			

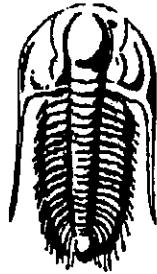
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
110.00	MW 25%M75%W	1.270

Total Length: 110.00 ft Total Volume: 1.270 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: RW .13@73F





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co Inc**

250 N. Water
Ste. 300
Wichita KS 67202-1216

ATTN: David Doyel

27-15s-20w Ellis KS

Graham #1-27

Start Date: 2010.05.02 @ 18:22:56

End Date: 2010.05.02 @ 22:53:50

Job Ticket #: 38563 DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Murfin Drilling Co Inc

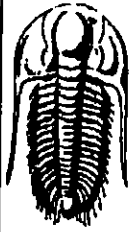
Graham #1-27

27-15s-20w Ellis KS

DST # 4

Basal Penn Sand

2010.05.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co Inc
250 N. Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

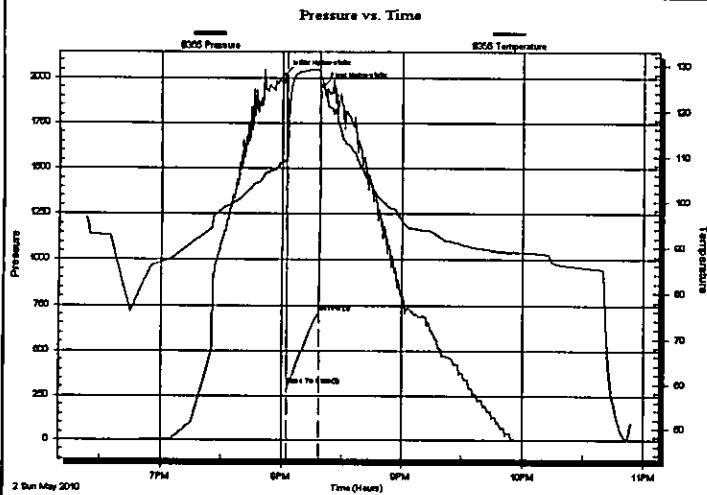
Graham #1-27
27-15s-20w Ellis KS
Job Ticket: 38563 DST#: 4
Test Start: 2010.05.02 @ 18:22:56

GENERAL INFORMATION:

Formation: **Basal Penn Sand**
Deviated: **No** Whipstock: ft (KB)
Time Tool Opened: 20:02:21
Time Test Ended: 22:53:50
Interval: **3998.00 ft (KB) To 4018.00 ft (KB) (TVD)**
Total Depth: **4018.00 ft (KB) (TVD)**
Hole Diameter: **7.85 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole**
Tester: **Ray Schwager**
Unit No: **42**
Reference Elevations: **2287.00 ft (KB)**
2282.00 ft (CF)
KB to GR/CF: **5.00 ft**

Serial #: 8365 Inside
Press@RunDepth: psig @ 3999.01 ft (KB) Capacity: 8000.00 psig
Start Date: 2010.05.02 End Date: 2010.05.02 Last Calib.: 2010.05.02
Start Time: 18:22:56 End Time: 22:53:50 Time On Btm: 2010.05.02 @ 20:01:21
Time Off Btm: 2010.05.02 @ 20:19:51

TEST COMMENT: IFF-strg bl in 45sec.
Times 15-out



PRESSURE SUMMARY

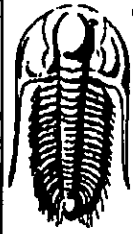
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2019.02	109.19	Initial Hydro-static
1	308.69	110.45	Open To Flow (1)
18	709.99	129.05	Shut-In(1)
19	1952.98	126.92	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	SOCMW 1%O25%M74%W	2.34
434.00	SOCW 1%O99%W	6.09
682.00	Water	9.57

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co Inc

Graham #1-27

250 N.Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

27-15s-20w Ells KS
Job Ticket: 38563 **DST#: 4**
Test Start: 2010.05.02 @ 18:22:56

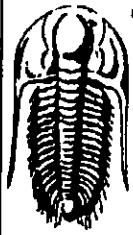
Tool Information

Drill Pipe:	Length: 3963.00 ft	Diameter: 3.80 inches	Volume: 55.59 bbl	Tool Weight: 2200.00 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 55.74 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3998.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.02 ft			
Tool Length:	48.02 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			3971.00	
Shut In Tool	5.00			3976.00	
Hydraulic tool	5.00			3981.00	
Jars r'	5.00			3986.00	
Safety Joint	2.00			3988.00	
Packer	5.00			3993.00	28.00 Bottom Of Top Packer
Packer	5.00			3998.00	
Stubb	1.00			3999.00	
Recorder	0.01	8365	Inside	3999.01	
Recorder	0.01	6625	Outside	3999.02	
Perforations	16.00			4015.02	
Bullnose	3.00			4018.02	20.02 Bottom Packers & Anchor

Total Tool Length: 48.02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co Inc

Graham #1-27

250 N.Water
Ste. 300
Wichita KS 67202-1216
ATTN: David Doyel

27-15s-20w Ellis KS
Job Ticket: 38563 **DST#: 4**
Test Start: 2010.05.02 @ 18:22:56

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:	42000 ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.15 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 9200.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	SOCMW 1%O25%M74%W	2.336
434.00	SOCW 1%O99%W	6.088
682.00	Water	9.567

Total Length: 1302.00 ft Total Volume: 17.991 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW .22 @ 54F

