

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

**WELL COMPLETION FORM**  
**WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # 32875  
Name: C. W. Bowles dba CWB Co.  
Address 1: P. O. Box 186  
Address 2: \_\_\_\_\_  
City: Hays State: KS Zip: 67601 + \_\_\_\_\_  
Contact Person: Tom Denning  
Phone: (785) 628-2593  
CONTRACTOR: License # 5184  
Name: Shields Oil Producers  
Wellsite Geologist: Herb Deines  
Purchaser: NCRA

RECEIVED

OCT 05 2010

KCC WICHITA

Designate Type of Completion:

New Well     Re-Entry     Workover

Oil     WSW     SWD     SIOW  
 Gas     D&A     ENHR     SIGW  
 OG     GSW     Temp. Abd.  
 CM (Coal Bed Methane)  
 Cathodic     Other (Core, 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 #: \_\_\_\_\_

03/13/2010	03/21/2010	06/15/2010
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 051-25957-00-00

Spot Description: \_\_\_\_\_  
SE SW NE NW Sec. 3 Twp. 15 S. R. 19  East  West  
1,200 Feet from  North /  South Line of Section  
1,850 Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:  
 NE  NW  SE  SW

County: Ellis  
Lease Name: Doug Well #: 1  
Field Name: wildcat  
Producing Formation: Kansas City  
Elevation: Ground: 2065 Kelly Bushing: 2070  
Total Depth: 3800' Plug Back Total Depth: 3700'  
Amount of Surface Pipe Set and Cemented at: 218 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: 1328 Feet  
If Alternate II completion, cement circulated from: 1328  
feet depth to: surface w/ 175 sx cmt.

**Drilling Fluid Management Plan**  
(Data must be collected from the Reserve Pit)

Chloride content: 48000 ppm Fluid volume: 1000 bbls  
Dewatering method used: evaporation

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: [Signature]  
Title: Tom Denning, Agent Date: 10/04/2010

**KCC Office Use ONLY**

Letter of Confidentiality Received  
Date: \_\_\_\_\_  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: Dlg Date: 10/14/10

Operator Name: C. W. Bowles dba CWB Co. Lease Name: Doug Well #: 1  
 Sec. 3 Twp. 15 S. R. 19  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 Dual Compensated Porosity Microresistivity	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:70%;">Name</td> <td style="width:15%;">Top</td> <td style="width:15%;">Datum</td> </tr> <tr> <td>Anhydrite</td> <td>1322'</td> <td>+748'</td> </tr> <tr> <td>Topeka</td> <td>3070'</td> <td>-1000'</td> </tr> <tr> <td>Heebner</td> <td>3337'</td> <td>-1267'</td> </tr> <tr> <td>Lans/ Kansas City</td> <td>3384'</td> <td>-1314'</td> </tr> <tr> <td>Base Kansas City</td> <td>3627'</td> <td>-1557'</td> </tr> <tr> <td>Arbuckle</td> <td>3713'</td> <td>-1643'</td> </tr> </table>	Name	Top	Datum	Anhydrite	1322'	+748'	Topeka	3070'	-1000'	Heebner	3337'	-1267'	Lans/ Kansas City	3384'	-1314'	Base Kansas City	3627'	-1557'	Arbuckle	3713'	-1643'
Name	Top	Datum																				
Anhydrite	1322'	+748'																				
Topeka	3070'	-1000'																				
Heebner	3337'	-1267'																				
Lans/ Kansas City	3384'	-1314'																				
Base Kansas City	3627'	-1557'																				
Arbuckle	3713'	-1643'																				

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	12 1/4"	8 5/8"	20#	218'	common	150	3% cc 2% gel
production	7 7/8"	5 1/2"	14#	3797'	EA2	150	

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input checked="" type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone	1328'	SMD	175	

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4spf	3714'-18'	100 gals 15% MA	
6 spf	3540'-42'	2000 gals 15% NE	
			<div style="border: 1px solid black; padding: 5px; display: inline-block;">                         RECEIVED                          OCT 05 2010                     </div>
	Bridge plug set @ 3700'		<div style="border: 1px solid black; padding: 5px; display: inline-block;">                         KCC WICHITA                     </div>

TUBING RECORD: Size: <u>2 3/4"</u> Set At: <u>3695'</u> Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Date of First, Resumed Production, SWD or ENHR. <u>07/01/2010</u>		Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____	
Estimated Production Per 24 Hours	Oil Bbls. <u>4</u>	Gas Mcf <u>4</u>	Water Bbls. Gas-Oil Ratio Gravity <u>4</u> <u> </u> <u>38</u>

DISPOSITION OF GAS: <input checked="" 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 checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: <u>3540'-42' (Kansas City)</u>
--	---	--

**JOB LOG**

**SWIFT Services, Inc.**

DATE

10/3/10

CUSTOMER

TD101L

WELL NO.

1

LEASE

DOUG

JOB TYPE

2 STAGE

TICKET NO.

17543

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0230							ON LOCATION
								CMT: BITTEN 15DEAD, TOP 1755MD
								RTO 3800, SET P, DE 3797, ST 21.75, INSERT 3775
								5 1/2" 14 3/4" D.V. ON TOP #58, 1328FT, LIMIT CLAMP #58
								CMT 1, 3, 5, 7, 9, 11, 58, 71 BSY 2, 12, 58, 70
	0600							CALL OUT TRUCKS
	0700							START CS4 - FLUORINOL
	0855							TAG BITTEN, DROP BALL
	0900							BREAK CIRC. & ROTATE PIPE
	0930	5.0	12		✓		300	START MUD FLUSH SOUGERS
		5	20		✓		5	" WCL "
			365		✓			" EA-2 CMT
								DROP LDRUG, WASHOUT PL
	0945	5.5	0		✓		50	START DISP 1/4 HD
			60		✓		5	" " 1/4 RIGGED
			76		✓			" " 1/4 WCL FLUSH
			80		✓		500	
			85		✓		600	
			90		✓		700	
	1025		92.1		✓		1500	LAND PLUG
								RELEASE - DRY, DROP DV. OPENING DRET
	1010		7.6					PLUG RH, MH, 3050, 15500
	1020				✓		1100	OPEN DV.
	1020	4.5	0		✓		200	START SMD CMT @ 112 #/Lm
		4.5	72		✓		200	END CMT
								DROP DV. CLOSING PLUG
	1040	6.0	0		✓		200	START DOP
		5	23		✓		400	CIRC CMT TOP 7 15500 Dave
	1045		32.4		✓		1400	END. LAND PLUG, CLOSE DV.
								RELEASE
								Chris W... T... E...
								JOB COMPLETE
								THANK YOU!
								DAVE, JESSE B. ROB

RECEIVED

OCT 05 2010

KCC WICHITA

# ALLIED CEMENTING CO., LLC. 33878

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Russell KS

DATE <u>3-14-10</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START <u>6:15am</u>	JOB FINISH <u>6:45am</u>
DOUG LEASE	WELL # <u>1</u>		LOCATION <u>Antonino 1 1/2 West South</u>			COUNTY <u>Ellis</u>	STATE <u>KS</u>
OLD OR <input checked="" type="radio"/> NEW (Circle one)			into.				

CONTRACTOR <u>Shields Drilling #1</u> TYPE OF JOB <u>Surface</u> HOLE SIZE <u>12 1/4</u> T.D. <u>221'</u> CASING SIZE <u>8 5/8</u> DEPTH <u>221'</u> TUBING SIZE _____ DEPTH _____ DRILL PIPE _____ DEPTH _____ TOOL _____ DEPTH _____ PRES. MAX _____ MINIMUM _____ MEAS. LINE _____ SHOE JOINT _____ CEMENT LEFT IN CSG. <u>15'</u> PERFS. _____ DISPLACEMENT <u>13.1 Bbl</u> EQUIPMENT _____	OWNER _____ CEMENT AMOUNT ORDERED <u>150 com 3% CC 2% Gel</u> COMMON <u>150</u> @ <u>13.50</u> <u>2025.00</u> POZMIX _____ @ _____ GEL <u>3</u> @ <u>20.25</u> <u>60.75</u> CHLORIDE <u>5</u> @ <u>51.50</u> <u>257.50</u> ASC _____ @ _____ _____ @ _____ _____ @ _____ _____ @ _____ _____ @ _____ HANDLING <u>75</u> @ <u>2.21</u> <u>166.75</u> MILEAGE <u>110/18/mile</u> <u>75.00</u> TOTAL <u>2582.00</u>
---	--

REMARKS:

Est. Circulation

Mix 150 sk Cement

Displace w/ 13.1 Bbl H<sub>2</sub>O

Cement Did Circulate!  
*Thank You!*

CHARGE TO: TDI Inc.

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

SERVICE

DEPTH OF JOB _____	PUMP TRUCK CHARGE _____ <u>875.00</u>
EXTRA FOOTAGE _____ @ _____	MILEAGE <u>10</u> @ <u>7.00</u> <u>70.00</u>
MANIFOLD _____ @ _____	_____ @ _____
_____ @ _____	TOTAL <u>945.00</u>

PLUG & FLOAT EQUIPMENT

_____ @ _____	<b>RECEIVED</b>
<u>8 5/8 Wood Plug</u> @ _____	<b>OCT 05 2010</b>
_____ @ _____	<b>KCC WICHITA</b>
_____ @ _____	TOTAL _____

To Allied Cementing Co., LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

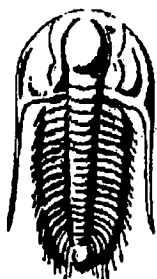
PRINTED NAME Thomas J Engel

SIGNATURE Thomas J Engel

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES 945.00

DISCOUNT 0 IF PAID IN 30 DAYS



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **TDI, Inc.**

1310 Bison Rd  
Hays KS 67601

ATTN: Herb Deines

**3 15 19 Ellis KS**

**Doug #1**

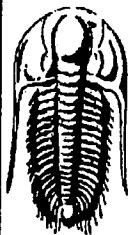
Start Date: 2010.03.19 @ 05:58:14

End Date: 2010.03.19 @ 13:18:14

Job Ticket #: 38241      DST #: 1

RECEIVED  
OCT 05 2010  
KCC WICHITA

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

TDI, Inc.  
 1310 Bison Rd  
 Hays KS 67601  
 ATTN: Herb Deines

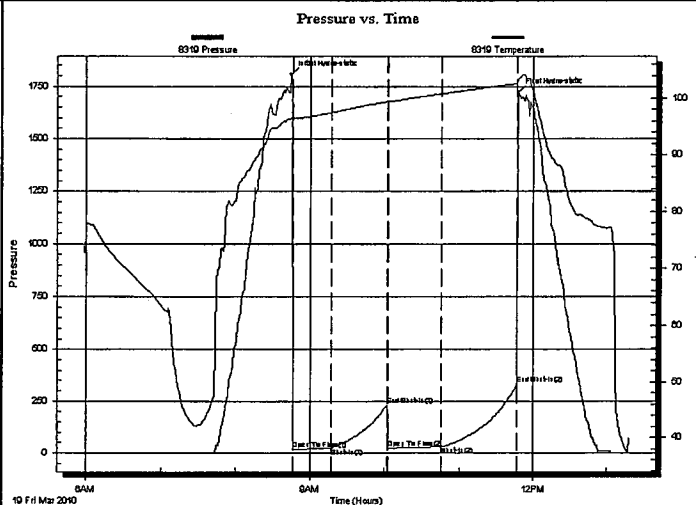
**Doug #1**  
**3 15 19 Ellis KS**  
 Job Ticket: 38241      DST#: 1  
 Test Start: 2010.03.19 @ 05:58:14

## GENERAL INFORMATION:

Formation: **KC "H,I,J"**  
 Deviated: **No** Whipstock: **ft (KB)** Test Type: **Conventional Bottom Hole**  
 Time Tool Opened: **08:45:44** Tester: **Brett Dickinson**  
 Time Test Ended: **13:18:14** Unit No: **47**  
 Interval: **3500.00 ft (KB) To 3580.00 ft (KB) (TVD)** Reference Elevations: **2075.00 ft (KB)**  
 Total Depth: **3580.00 ft (KB) (TVD)** **2070.00 ft (CF)**  
 Hole Diameter: **7.88 inches** Hole Condition: **KB to GR/CF: 5.00 ft**

**Serial #: 8319**      **Inside**  
 Press@RunDepth: **31.10 psig @ 3506.00 ft (KB)** Capacity: **8000.00 psig**  
 Start Date: **2010.03.19** End Date: **2010.03.19** Last Calib.: **2010.03.19**  
 Start Time: **05:58:19** End Time: **13:18:13** Time On Btm: **2010.03.19 @ 08:44:14**  
 Time Off Btm: **2010.03.19 @ 11:47:43**

**TEST COMMENT:** IF-1.25in blow  
 IS- No blow  
 FF-5.25in blow  
 FS- No blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1804.64	96.45	Initial Hydro-static
2	17.15	96.13	Open To Flow (1)
33	23.71	97.42	Shut-In(1)
78	231.66	99.40	End Shut-In(1)
79	22.91	99.37	Open To Flow (2)
122	31.10	100.79	Shut-In(2)
183	331.46	102.59	End Shut-In(2)
184	1720.57	103.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	SOCM 10%O 90%M	0.35
0.00	70ft GIP	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

TDI, Inc.  
1310 Bison Rd  
Hays KS 67601

**Doug #1**  
**3 15 19 Ellis KS**  
Job Ticket: 38241      **DST#: 1**  
Test Start: 2010.03.19 @ 05:58:14

ATTN: Herb Deines

**Tool Information**

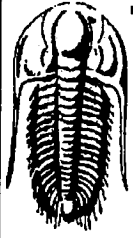
Drill Pipe:	Length: 3082.00 ft	Diameter: 3.80 inches	Volume: 43.23 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 420.00 ft	Diameter: 2.70 inches	Volume: 2.97 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: lb
			<b>Total Volume: 46.20 bbl</b>	Tool Chased: ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3500.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	80.00 ft			
Tool Length:	100.00 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			3481.00	
Shut In Tool	5.00			3486.00	
Hydraulic tool	5.00			3491.00	
Packer	4.00			3495.00	20.00      Bottom Of Top Packer
Packer	5.00			3500.00	
Stubb	1.00			3501.00	
Perforations	5.00			3506.00	
Recorder	0.00	8319	Inside	3506.00	
Recorder	0.00	8369	Inside	3506.00	
Change Over Sub	1.00			3507.00	
Blank Spacing	62.00			3569.00	
Change Over Sub	1.00			3570.00	
Perforations	7.00			3577.00	
Bullnose	3.00			3580.00	80.00      Bottom Packers & Anchor

**Total Tool Length: 100.00**

RECEIVED  
OCT 05 2010  
KCC WICHITA



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

TDI, Inc.  
1310 Bison Rd  
Hays KS 67601

Doug #1  
**3 15 19 Ellis KS**  
Job Ticket: 38241      DST#: 1  
Test Start: 2010.03.19 @ 05:58:14

ATTN: Herb Deines

## 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: 7.79 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5900.00 ppm			
Filter Cake: inches			

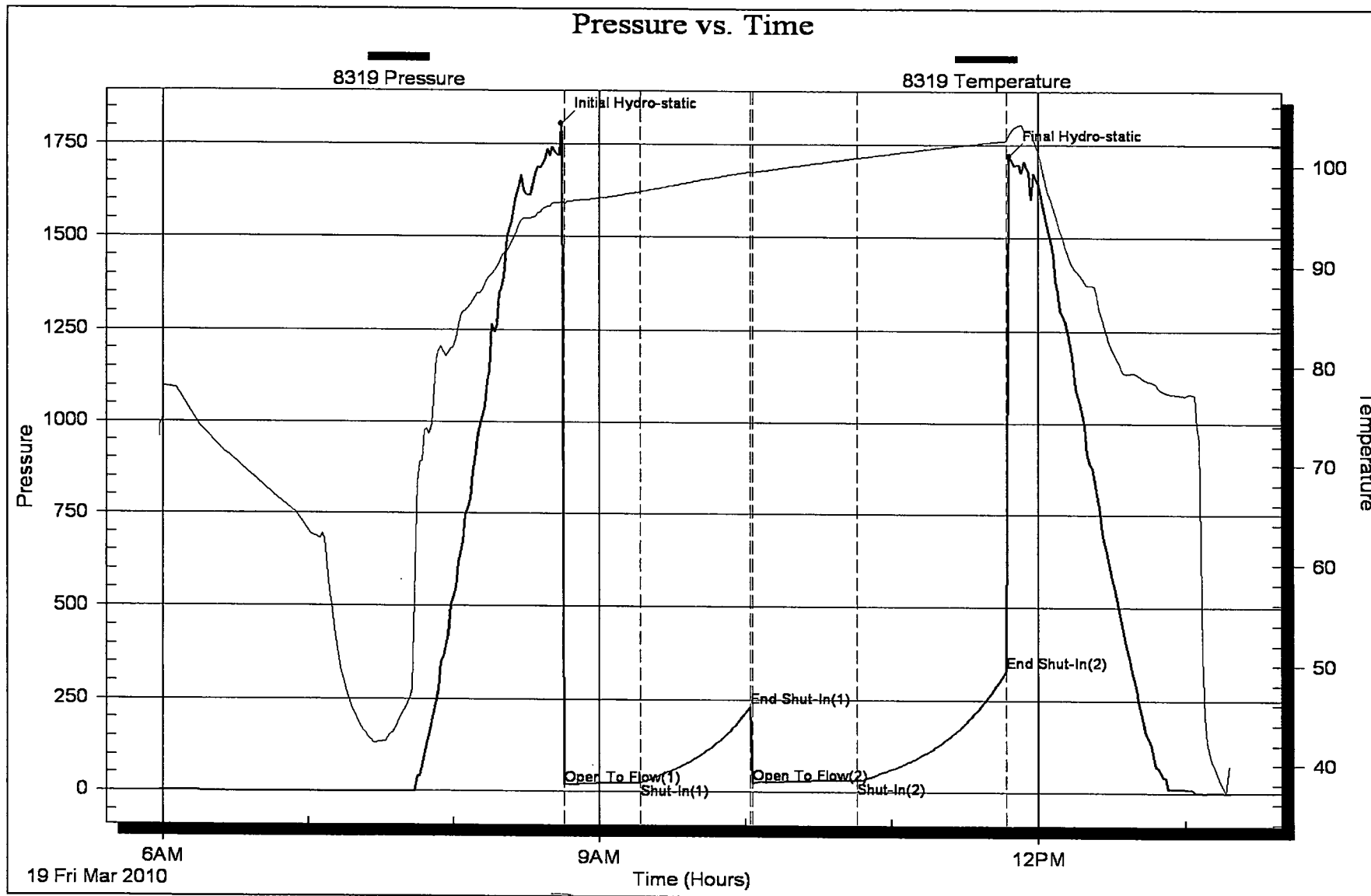
## Recovery Information

Recovery Table

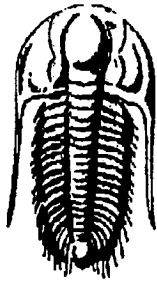
Length ft	Description	Volume bbl
50.00	SOCM 10%O 90%M	0.354
0.00	70ft GIP	0.000

Total Length: 50.00 ft      Total Volume: 0.354 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:





RECEIVED  
OCT 05 2010  
KCC WICHITA



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **TDI, Inc.**

1310 Bison Rd  
Hays KS 67601

ATTN: Herb Deines

**3 15 19 Ellis KS**

**Doug #1**

Start Date: 2010.03.20 @ 03:15:56

End Date: 2010.03.20 @ 10:44:26

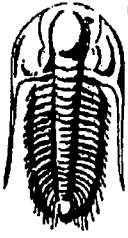
Job Ticket #: 38242                      DST #: 2

RECEIVED

OCT 05 2010

KCC WICHITA

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

TDI, Inc.  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

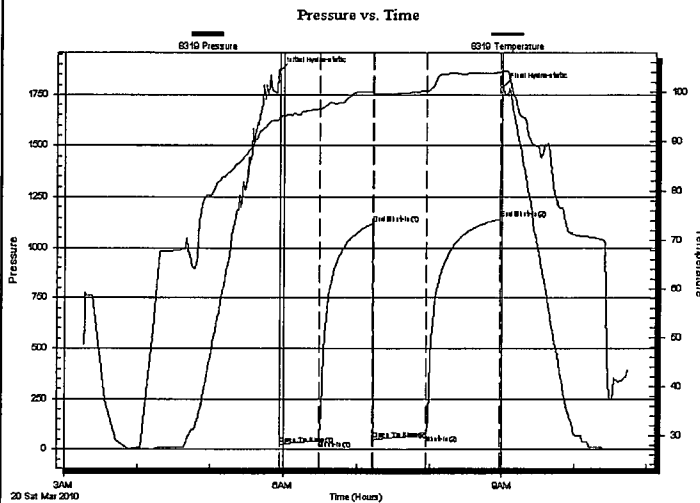
**Doug #1**  
**3 15 19 Ellis KS**  
Job Ticket: 38242      **DST#: 2**  
Test Start: 2010.03.20 @ 03:15:56

## GENERAL INFORMATION:

Formation: \_\_\_\_\_  
 Deviated:      No      Whipstock:      ft (KB)      Test Type:      Conventional Bottom Hole  
 Time Tool Opened: 05:56:56      Tester:      Brett Dickinson  
 Time Test Ended: 10:44:26      Unit No:      47  
 Interval:      3610.00 ft (KB) To      3730.00 ft (KB) (TVD)      Reference Elevations:      2075.00 ft (KB)  
 Total Depth:      3730.00 ft (KB) (TVD)      2070.00 ft (CF)  
 Hole Diameter:      7.88 inches Hole Condition:      KB to GR/CF:      5.00 ft

**Serial #: 8319      Inside**  
 Press@RunDepth:      75.23 psig @      3616.00 ft (KB)      Capacity:      8000.00 psig  
 Start Date:      2010.03.20      End Date:      2010.03.20      Last Calib.:      2010.03.20  
 Start Time:      03:16:01      End Time:      10:44:25      Time On Btm:      2010.03.20 @ 05:55:56  
 Time Off Btm:      2010.03.20 @ 08:59:55

**TEST COMMENT:** IF-5in blow  
 IS-Weak surface blow died in 5min  
 FF-1in blow  
 FS-No blow



## PRESSURE SUMMARY

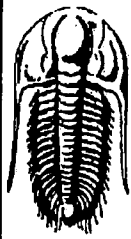
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1866.25	94.69	Initial Hydro-static
1	23.14	94.65	Open To Flow (1)
33	43.45	96.57	Shut-In(1)
77	1118.84	100.01	End Shut-In(1)
78	50.46	99.68	Open To Flow (2)
122	75.23	100.27	Shut-In(2)
183	1141.59	104.00	End Shut-In(2)
184	1786.60	104.23	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	MCO 65%O 35%M	0.21
60.00	SOCM 10%O 90%M	0.42
50.00	OCM 40%O 60%M	0.35

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

TDI, Inc.  
1310 Bison Rd  
Hays KS 67601

**Doug #1**  
**3 15 19 Ellis KS**  
Job Ticket: 38242      **DST#: 2**  
Test Start: 2010.03.20 @ 03:15:56

ATTN: Herb Deines

**Tool Information**

Drill Pipe:	Length: 3177.00 ft	Diameter: 3.80 inches	Volume: 44.56 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 420.00 ft	Diameter: 2.70 inches	Volume: 2.97 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 47.53 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3610.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	120.00 ft			
Tool Length:	140.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3591.00	
Shut In Tool	5.00			3596.00	
Hydraulic tool	5.00			3601.00	
Packer	4.00			3605.00	20.00      Bottom Of Top Packer
Packer	5.00			3610.00	
Stubb	1.00			3611.00	
Perforations	5.00			3616.00	
Recorder	0.00	8319	Inside	3616.00	
Recorder	0.00	8369	Inside	3616.00	
Change Over Sub	1.00			3617.00	
Blank Spacing	93.00			3710.00	
Change Over Sub	1.00			3711.00	
Perforations	16.00			3727.00	
Bullnose	3.00			3730.00	120.00      Bottom Packers & Anchor

**Total Tool Length: 140.00**

**RECEIVED  
OCT 05 2010  
KCC WICHITA**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

TDI, Inc.  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

**Doug #1**  
**3 15 19 Ellis KS**  
Job Ticket: 38242      **DST#: 2**  
Test Start: 2010.03.20 @ 03:15:56

**Mud and Cushion Information**

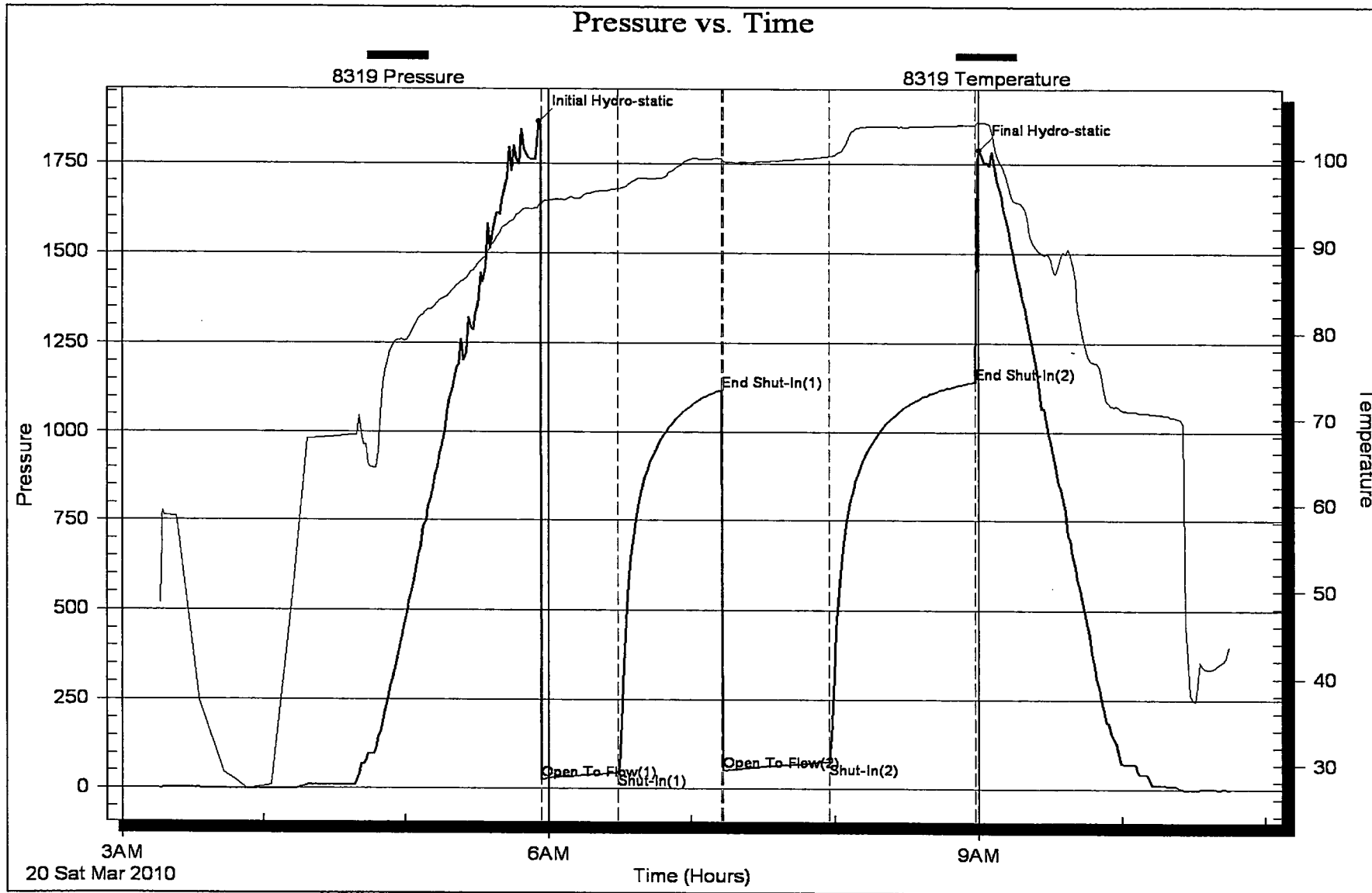
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
30.00	MCO 65%O 35%M	0.212
60.00	SOCM 10%O 90%M	0.425
50.00	OCM 40%O 60%M	0.354

Total Length: 140.00 ft      Total Volume: 0.991 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:



RECEIVED  
 OCT 05 2010  
 KCC WICHITA