

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

OPERATOR: License # 5386  
Name: Production Drilling Inc  
Address 1: 1023 Reservation Rd  
Address 2: \_\_\_\_\_  
City: Hays State: Ks Zip: 67601 + \_\_\_\_\_  
Contact Person: Aven Weaverling  
Phone: ( 785 ) 625-1189  
CONTRACTOR: License # 31548  
Name: Discovery Drilling Co., Inc  
Wellsite Geologist: Cliff Otway  
Purchaser: Coffeyville  
Designate Type of Completion:  
 New Well \_\_\_\_\_ Re-Entry \_\_\_\_\_ Workover  
 Oil \_\_\_\_\_ SWD \_\_\_\_\_ SIOW  
\_\_\_\_\_ Gas \_\_\_\_\_ ENHR \_\_\_\_\_ SIGW  
\_\_\_\_\_ CM (Coal Bed Methane) \_\_\_\_\_ Temp. Abd.  
\_\_\_\_\_ Dry \_\_\_\_\_ Other \_\_\_\_\_  
*(Core, WSW, Expl., Cathodic, 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  
\_\_\_\_\_ Plug Back: \_\_\_\_\_ Plug Back Total Depth  
\_\_\_\_\_ Commingled \_\_\_\_\_ Docket No.: \_\_\_\_\_  
\_\_\_\_\_ Dual Completion \_\_\_\_\_ Docket No.: \_\_\_\_\_  
\_\_\_\_\_ Other (SWD or Enhr.?) \_\_\_\_\_ Docket No.: \_\_\_\_\_  
4-1-2010                      4-6-2010                      4-10-2010  
Spud Date or                      Date Reached TD                      Completion Date or  
Recompletion Date                                                                Recompletion Date

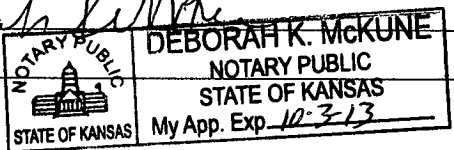
API No. 15 - 051-25,968-00-00  
Spot Description: 10' N of  
SE NE SW \_\_\_\_\_ Sec. 16 Twp. 13 S. R. 20  East  West  
1660 Feet from  North /  South Line of Section  
2310 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE  NW  SE  SW  
County: Ellis  
Lease Name: Brungardt Well #: 7  
Field Name: Rainsford E  
Producing Formation: Arbuckle  
Elevation: Ground: 2170 Kelly Bushing: 2178  
Total Depth: 3910 Plug Back Total Depth: \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at: 221.37 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: 1514 Feet  
If Alternate II completion, cement circulated from: 1514  
feet depth to: surface w/ 125SXS SMD sx cmt.

**Drilling Fluid Management Plan**  
*(Data must be collected from the Reserve Pit)*  
Chloride content: 16000 ppm Fluid volume: 320 bbls  
Dewatering method used: Evaporation  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: \_\_\_\_\_  
Lease Name: \_\_\_\_\_ License No.: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Docket No.: \_\_\_\_\_

**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.

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: Aven Weaverling  
Title: Production Foreman Date: 5-20-2010  
Subscribed and sworn to before me this 20 day of May,  
20 10.  
Notary Public: Deborah K. McKune  
Date Commission Expires: \_\_\_\_\_



**KCC Office Use ONLY**

N Letter of Confidentiality Received  
 If Denied, Yes  Date: \_\_\_\_\_ **RECEIVED**  
 Wireline Log Received **MAY 24 2010**  
\_\_\_\_\_ Geologist Report Received  
\_\_\_\_\_ UIC Distribution  
Alt 2-Dlg - 6/23/10 **KCC WICHITA**

Operator Name: Production Drilling Inc Lease Name: Brungardt Well #: 7  
 Sec. 16 Twp. 13 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 copy of all Electric Wireline 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 <i>(Submit Copy)</i>  List All E. Logs Run: <b>Dual Induction Log</b> <b>Radiation Guard Log</b>	<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>Arbuckle</td> <td>3822</td> <td>-1644</td> </tr> <tr> <td>LK-C</td> <td>3463</td> <td>-1285</td> </tr> <tr> <td>Toronto</td> <td>3444</td> <td>-1266</td> </tr> <tr> <td>Topeka</td> <td>3195</td> <td>-1017</td> </tr> <tr> <td>Anh</td> <td>1511</td> <td>+667</td> </tr> </table>	Name	Top	Datum	Arbuckle	3822	-1644	LK-C	3463	-1285	Toronto	3444	-1266	Topeka	3195	-1017	Anh	1511	+667
Name	Top	Datum																	
Arbuckle	3822	-1644																	
LK-C	3463	-1285																	
Toronto	3444	-1266																	
Topeka	3195	-1017																	
Anh	1511	+667																	

CASING RECORD <input 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 Pipe	12 1/4	8 5/8	23	221.37	Common	150	2% gel 3% CC
Production String	7 7/8	5 1/2	15.5	3906	EA-2	125	

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	1514	SMD	125	DV tool SMD

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
4	3822-3826 Arb	none	
		<b>RECEIVED</b> <b>MAY 24 2010</b> <b>KCC WICHITA</b>	

TUBING RECORD: Size: <u>2 7/8</u> Set At: <u>3873</u> Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Date of First, Resumed Production, SWD or Enhr. <u>4-10-2010</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>30</u>	Gas Mcf _____	Water Bbls. <u>70</u> Gas-Oil Ratio <u>30%</u> Gravity <u>34</u>

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 checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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**JOB LOG**

**SWIFT Services, Inc.**

DATE 4-7-10 PAGE NO. 1

CUSTOMER

Production Data

WELL NO.

7

LEASE

Brungardt

JOB TYPE

Camout Longstring

TICKET NO.

17477

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0900					15 1/2"	5 1/2"	TD-3910'
	1130							ON location w/ Float Equip - Rig LD-DP. Start 5 1/2 casing / 15.5" PA to 3907' Insert Float Shoe w/ Auto P.I.I. Latch Down Baffle - 55. 22' Centralizers - 1-3-5-7-9-13-56-73 Camout Pockets 2 - 14-57-74 D.V #57 collar @ 1514' Drop RLL uphill - 5 ft apart Tag bottom + set collar in collar Start tie casing - Move seal tongs Start Rotating casing while tie. Fin tie. - Hook to P. Tub. Start 1st Stage - 12 BBI Mud Flush Pump 20 BBI KCL Flush Mix 1 pump 125 sks EA-2 @ 15.5 1/2 sol Fin cut - 11 wash out Pump + Lines Drop L.D. Plug - Start Displ H <sub>2</sub> O (100) Start Mud - (20 BBI) Start KCL Flush Plug Down - Hold - Release & Hold Drop D.V. opening tool / Plug RH 90 sks Open D.V. - KCL flush / Plug NH 15 sks Fin flush - fill tanks Start 155 sks SMD - 2nd Stage Tie in 13*/gal cuts - Fin cut. Drop D.V. Closing Plug Start Displ (36 BBI) Cut. tie to Pit Plug Down - Hold - Release / (Revised ok) Job complete Wash up + Rant up
	1305		12					
	1315		20					
	1325							
		8						
		10	100					
		5	80					
	1435		92 1/2					
	1445		7 1/2					
	1500							
		6						
			80					
			85					
		7						
		6	30					
	1530	5	31e					

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JUN 09 2010

CONSERVATION DIVISION  
WICHITA, KS

*Thaddeus*  
*Van, Doug & Jason F.*



PO Box 466  
Ness City, KS 67560  
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 17477

CUSTOMER *Production Drilling* WELL # *7 Brundant* DATE *4-7-10* PAGE *2* OF *2*

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY		U/M		UNIT PRICE	AMOUNT		
		LOC	ACCT	DF			QTY	U/M	QTY	U/M				
325		2				Standard Cement	EA-2	125	SKS	11750	lbs	12.00	1500.00	
276		2				Floccs		32	lbs			1.50	48.00	
283		2				Salt		625	lbs			.15	93.75	
284		2				Calsoal		588	lbs	6	SKS	30.00	180.00	
286		2				Hiload-1		60	lbs			6.00	360.00	
330		2				SMD Cement		200	SKS	19833	lbs	1.50	3000.00	
276		2				Floccs		50	lbs			1.50	75.00	
581		2				SERVICE CHARGE	Cement					1.50	300.00	
583		2				MILEAGE CHARGE	TOTAL WEIGHT	32957	LOADED MILES	30	CUBIC FEET	200 SKS	1.50	300.00
											TON MILES	494.36	1.50	494.36

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JUN 10  
CONSERVATION  
WYCH

CONTINUATION TOTAL 6051.11



CHARGE TO:  
*Production Drilling Co.*  
 ADDRESS  
 CITY, STATE, ZIP CODE

TICKET  
 17477

PAGE 1 OF 2

SERVICE LOCATIONS  
 1. *Hayes, KS*  
 2. *Ness City, KS*  
 3.  
 4.

WELL/PROJECT NO. # *7*  
 LEASE *Brungardt*  
 COUNTY/PARISH *Ellis*  
 STATE *KS*  
 CITY  
 DATE *4-7-10*  
 OWNER

TICKET TYPE  
 SERVICE  
 SALES  
 CONTRACTOR *Discovery Drilling*  
 RIG NAME/NO. # *2*  
 SHIPPED VIA *CT*  
 DELIVERED TO *S/ELLIS, KS*  
 ORDER NO.

WELL TYPE *Oil*  
 WELL CATEGORY *infield*  
 JOB PURPOSE *Cement Longstring*  
 WELL PERMIT NO.  
 WELL LOCATION

REFERRAL LOCATION  
 INVOICE INSTRUCTIONS *TD-3910 - Pipe 3907*

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QUANTITY	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575		1			MILEAGE # <i>113</i>	30	mi			5.00	150.00
<del>579</del>		1			Pumper Charge	1	pa	3907	ft.	<del>1750</del>	<del>1750.00</del>
221		1			Liquid <i>KCL</i>	4	gal			25.00	100.00
291		1			Mud flush	500	gal			1.00	500.00
290		1			D-Air	4	gal			35.00	140.00
402		1			Centralizers	8	ea	5 1/2	in	55.00	440.00
403		1			Cement Packate	4	ea	5 1/2	in	200.00	800.00
407		1			Insert Float Shoe w/ Auto RLL	1	ea	5 1/2	in	275.00	275.00
408		1			D.V. Tool	1	ea	5 1/2	in	2100.00	2100.00
417		1			D.V. Latch Down Plug & Baffle	1	ea	5 1/2	in	200.00	200.00
419		1			Rotating Hood Bupal	1	ea	5 1/2	in	150.00	150.00

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 WICHITA KS

**LEGAL TERMS:** Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

X *[Signature]*  
 DATE SIGNED *4-7-10* TIME SIGNED  A.M.  P.M.

REMIT PAYMENT TO:  
 SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL	TAX	TOTAL
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				P.1		7105.00
WE UNDERSTOOD AND MET YOUR NEEDS?				P.2		6051.11
OUR SERVICE WAS PERFORMED WITHOUT DELAY?						13156.11
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?						
ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> YES <input type="checkbox"/> NO						
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND						

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR *[Signature]* APPROVAL

Thank You!

Quality Oilwell Cementing Inc.

740 W WICHITA  
P.O. Box 32  
Russell, KS 67665

# Invoice

Date	Invoice #
4/5/2010	2427

Bill To
PRODUCTION DRILLING 1023 RESERVATION RD HAYS KS 67601

P.O. No.	Terms	Project
	Net 30	

Quantity	Description	Rate	Amount
150	common	10.50	1,575.00T
3	GEL	17.00	51.00T
5	Calcium	42.00	210.00T
158	handling	2.00	316.00
1	MILEAGE CHARGE	300.00	300.00
1	surface pipes 0-500ft	450.00	450.00
17	pump truck mileage charge	7.00	119.00
367	discount if paid within 30 days DISCOUNT HAS ALREADY BEEN DEDUCTED	-1.00	-367.00T
237	discount if paid within 30 days DISCOUNT HAS ALREADY BEEN DEDUCTED	-1.00	-237.00
	LEASE: BRUNGARDT WELL #7 Ellis county Sales Tax	5.30%	77.86

*V-3380P*  
*71038*  
*Cement Surface*

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CONSERVATION DIVISION  
WICHITA, KS

Thank you for your business. Dave	<b>Total</b>	82,494.86
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# QUALITY OILWELL CEMENTING, INC.

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

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

No. 3893

Date	4/1/10	Sec.	16	Twp.	13	Range	20	County	Ellis	State	KS	On Location		Finish	6:15 AM		
Lease	BRUNGARDT	Well No.	7	Location		ELLIS, E into											
Contractor	Discovery Drilling Rig #2											Owner	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.				
Type Job	Surface		Hole Size		12 1/4"		T.D.	222		Charge To						Production Halling, Inc.	
Csg.	5 1/2" 23#		Tbg. Size				Depth	221		Street							
Tool			Depth				City						State				
Cement Left in Csg.	15'		Shoe Joint				The above was done to satisfaction and supervision of owner agent or contractor.										
Meas Line			Displace		13 1/4 Bbls		Cement Amount Ordered										

**EQUIPMENT**

Pumptrk	1	No.	Cement	Helper	Paul	Common	150 @ 10.50	1575.00
Bulktrk	11	No.	Driver	Brandon	Poz. Mix			
Bulktrk	PU	No.	Driver	Dana	Gel.	3 @ 17.00	51.00	
			Driver		Calcium	5 @ 42.00	210.00	

**JOB SERVICES & REMARKS**

Remarks:		Hulls	
Rat Hole		Salt	
Mouse Hole		Flowseal	
Centralizers		Kol-Seal	
Baskets		Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	
Cement Circulated		Sand	
		Handling	190 @ 2.00 = 380.00
		Mileage	300.00

**FLOAT EQUIPMENT**

Guide Shoe			
Centralizer			
Baskets			
AFU Inserts			
Float Shoe			
Latch Down			

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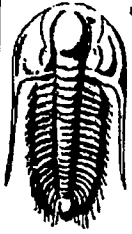
JUN 09 2010

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WICHITA, KS

Thank You!

Signature: *[Handwritten Signature]*

Pumptrk Charge	SFL	4501.00
Mileage	17 @ 7.00	119.00
	Tax	77.86
	Discount	(604.00)
	<b>Total Charge</b>	<b>2494.86</b>



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Production Drilling Inc

**Brungardt #7**

PO Box 680  
Hays KS 67601

**16 13S 20W Ellis KS**

ATTN: Marty Patterson

Job Ticket: 38221

DST#: 1

Test Start: 2010.04.05 @ 13:44:43

## GENERAL INFORMATION:

Formation: **LKC**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 15:32:08

Time Test Ended: 19:46:07

Test Type: **Conventional Bottom Hole**

Tester: **Ray Schwager**

Unit No: **42**

Interval: **3610.00 ft (KB) To 3655.00 ft (KB) (TVD)**

Total Depth: **3655.00 ft (KB) (TVD)**

Hole Diameter: **7.85 inches** Hole Condition: **Fair**

Reference Elevations: **2175.00 ft (KB)**

**2167.00 ft (CF)**

KB to GR/CF: **8.00 ft**

**Serial #: 8365**

**Inside**

Press@RunDepth: **135.24 psig @ 3619.01 ft (KB)**

Start Date: **2010.04.05**

End Date: **2010.04.05**

Capacity: **8000.00 psig**

Last Calib.: **2010.04.05**

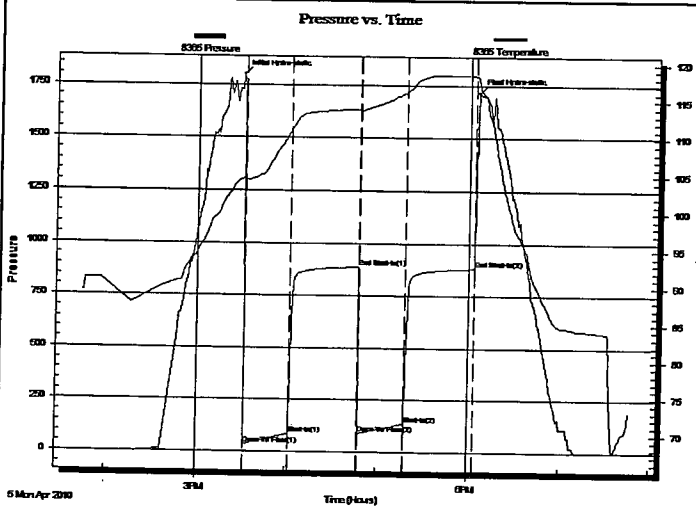
Start Time: **13:44:43**

End Time: **19:46:07**

Time On Btm: **2010.04.05 @ 15:30:08**

Time Off Btm: **2010.04.05 @ 18:05:37**

**TEST COMMENT:** IFP-w k to strg in 20 min  
FFP-w k to a gd bl 1/4" to 7" bl  
Times 30-45-30-45  
no bl on shut-in



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1795.66	104.62	Initial Hydro-static
2	35.04	104.43	Open To Flow (1)
32	84.71	111.03	Shut-In(1)
77	885.70	113.94	End Shut-In(1)
78	88.37	113.71	Open To Flow (2)
108	135.24	116.23	Shut-In(2)
154	879.78	118.41	End Shut-In(2)
156	1715.69	117.36	Final Hydro-static

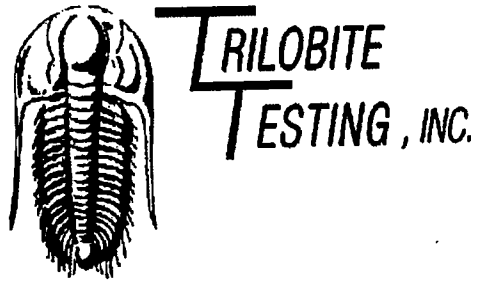
## Recovery

Length (ft)	Description	Volume (bbl)
80.00	MW 25%M75%W w/show of oil	0.85
180.00	w ater	2.52

## Gas Rates

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





## DRILL STEM TEST REPORT

Prepared For: **Production Drilling Inc**

PO Box 680  
Hays KS 67601

ATTN: Marty Patterson

**16 13S 20W Ellis KS**

**Brungardt #7**

Start Date: 2010.04.05 @ 13:44:43

End Date: 2010.04.05 @ 19:46:07

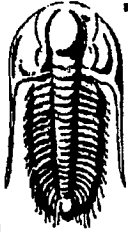
Job Ticket #: 38221                      DST #: 1

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JUN 09 2010

CONSERVATION DIVISION  
WICHITA, KS

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Production Drilling Inc

**Brungardt #7**

PO Box 680  
Hays KS 67601

**16 13S 20W Ellis KS**

Job Ticket: 38221

DST#: 1

ATTN: Marty Patterson

Test Start: 2010.04.05 @ 13:44:43

### Tool Information

Drill Pipe:	Length: 3563.00 ft	Diameter: 3.80 inches	Volume: 49.98 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: 90000.00 lb
			<u>Total Volume: 50.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3610.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	45.02 ft			
Tool Length:	66.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

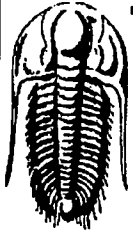
Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3590.00	
Shut In Tool	5.00			3595.00	
Hydraulic tool	5.00			3600.00	
Packer	5.00			3605.00	21.00 Bottom Of Top Packer
Packer	5.00			3610.00	
Stubb	1.00			3611.00	
Perforations	8.00			3619.00	
Recorder	0.01	8365	Inside	3619.01	
Recorder	0.01	6625	Outside	3619.02	
Blank Spacing	33.00			3652.02	
Bullnose	3.00			3655.02	45.02 Bottom Packers & Anchor

**Total Tool Length: 66.02**

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**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Production Drilling Inc

**Brungardt #7**

PO Box 680  
Hays KS 67601

**16 13S 20W Ellis KS**

ATTN: Marty Patterson

Job Ticket: 38221

DST#: 1

Test Start: 2010.04.05 @ 13:44:43

## 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:

53000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.52 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3700.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
80.00	MW 25%M75%VW w/show of oil	0.849
180.00	water	2.525

Total Length: 260.00 ft      Total Volume: 3.374 bbl

Num Fluid Samples: 0

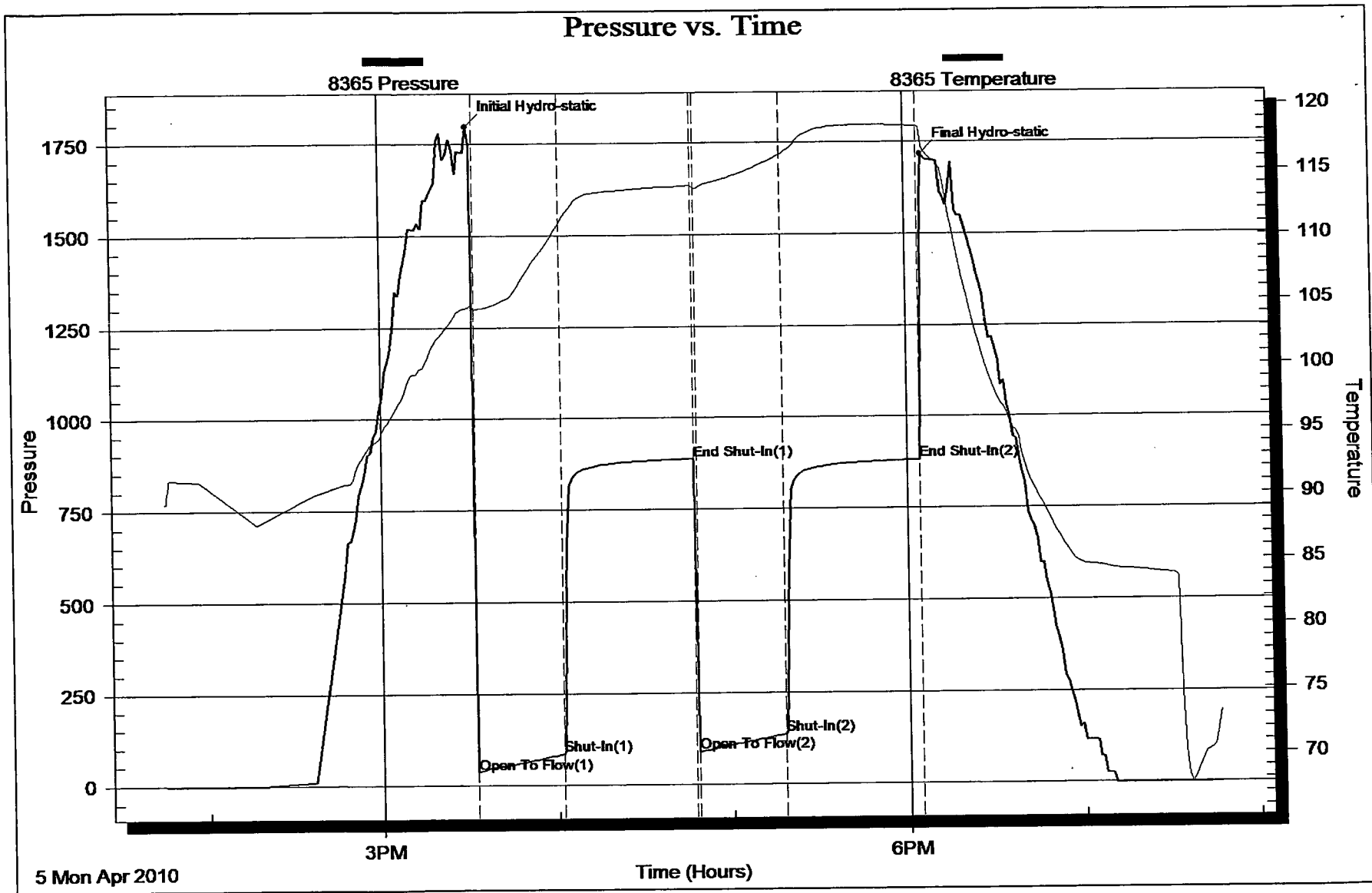
Num Gas Bombs: 0

Serial #:

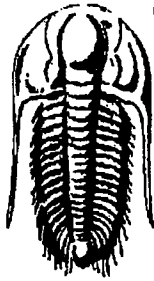
Laboratory Name:

Laboratory Location:

Recovery Comments: RW .13@78F



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WICHITA, KS



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Production Drilling Inc**

PO Box 680  
Hays KS 67601

ATTN: Marty Patterson

**16 13S 20W Ellis KS**

**Brungardt #7**

Start Date: 2010.04.06 @ 08:41:28

End Date: 2010.04.06 @ 15:47:22

Job Ticket #: 38222                      DST #: 2

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WICHITA, KS

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Production Drilling Inc

**Brungardt #7**

PO Box 680  
Hays KS 67601

**16 13S 20W Ellis KS**

Job Ticket: 38222

DST#: 2

ATTN: Marty Patterson

Test Start: 2010.04.06 @ 08:41:28

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:23:53

Time Test Ended: 15:47:22

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 42

Interval: **3801.00 ft (KB) To 3834.00 ft (KB) (TVD)**

Total Depth: 3834.00 ft (KB) (TVD)

Hole Diameter: 7.85 inches Hole Condition: Fair

Reference Elevations: 2175.00 ft (KB)

2167.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8365**

Inside

Press@RunDepth: 790.38 psig @ 3808.01 ft (KB)

Start Date: 2010.04.06

End Date:

2010.04.06

Start Time: 08:41:28

End Time:

15:47:22

Capacity: 8000.00 psig

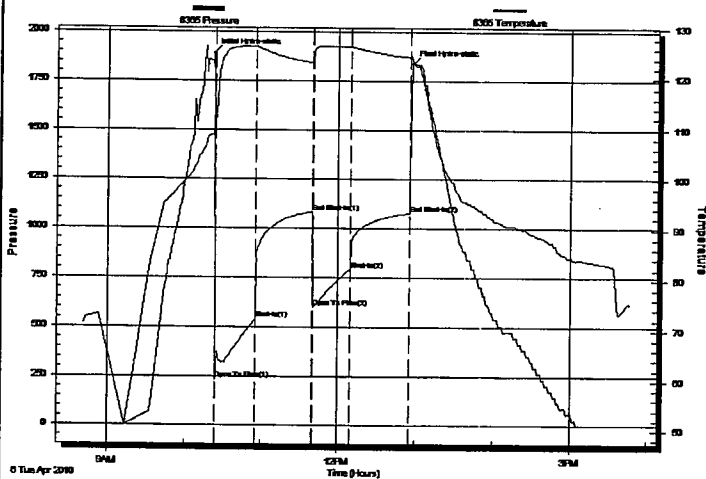
Last Calib.: 2010.04.06

Time On Btm: 2010.04.06 @ 10:22:23

Time Off Btm: 2010.04.06 @ 12:56:53

**TEST COMMENT:** IFP-strg bl thru-out  
FFP-strg bl in 1min 30 sec  
Times 30-45-30-45  
ISIP-surface bl bk,FSIP-1"bl bk

Pressure vs. Time



## PRESSURE SUMMARY

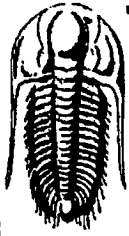
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1891.45	109.11	Initial Hydro-static
2	236.78	110.91	Open To Flow (1)
33	538.65	126.55	Shut-In(1)
77	1081.68	123.34	End Shut-In(1)
78	601.66	123.45	Open To Flow (2)
107	790.38	126.49	Shut-In(2)
153	1076.61	124.45	End Shut-In(2)
155	1837.35	124.07	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	240'Gip	0.00
190.00	CO	2.39
186.00	MGO 20%G70%O10%M	2.61
186.00	GM&WCO 20%G40%O25%W15%M	2.61
186.00	HO&GCMW 20%G35%O40%W5%M	2.61
1050.00	Water	14.73

## Gas Rates

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



**TRILOBITE  
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**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Production Drilling Inc

**Brungardt #7**

PO Box 680  
Hays KS 67601

**16 13S 20W Ellis KS**

Job Ticket: 38222

**DST#: 2**

ATTN: Marty Patterson

Test Start: 2010.04.06 @ 08:41:28

**Tool Information**

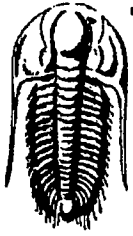
Drill Pipe:	Length: 3755.00 ft	Diameter: 3.80 inches	Volume: 52.67 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 52.82 bbl</u>	Tool Chased:	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	59000.00 lb
Depth to Top Packer:	3801.00 ft			Final	69000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	33.02 ft				
Tool Length:	54.02 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			3781.00	
Shut In Tool	5.00			3786.00	
Hydraulic tool	5.00			3791.00	
Packer	5.00			3796.00	21.00 Bottom Of Top Packer
Packer	5.00			3801.00	
Stubb	1.00			3802.00	
Perforations	6.00			3808.00	
Recorder	0.01	8365	Inside	3808.01	
Recorder	0.01	6625	Outside	3808.02	
Perforations	23.00			3831.02	
Bullnose	3.00			3834.02	33.02 Bottom Packers & Anchor

**Total Tool Length: 54.02**

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# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Production Drilling Inc

**Brungardt #7**

PO Box 680  
Hays KS 67601

**16 13S 20W Ellis KS**

ATTN: Marty Patterson

Job Ticket: 38222

DST#: 2

Test Start: 2010.04.06 @ 08:41:28

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

35000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.96 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4100.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	240'Gip	0.000
190.00	CO	2.392
186.00	MGO 20%G70%O10%M	2.609
186.00	GM&WCO 20%G40%O25%W15%M	2.609
186.00	HO&GCMW 20%G35%O40%W5%M	2.609
1050.00	Water	14.729

Total Length: 1798.00 ft      Total Volume: 24.948 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

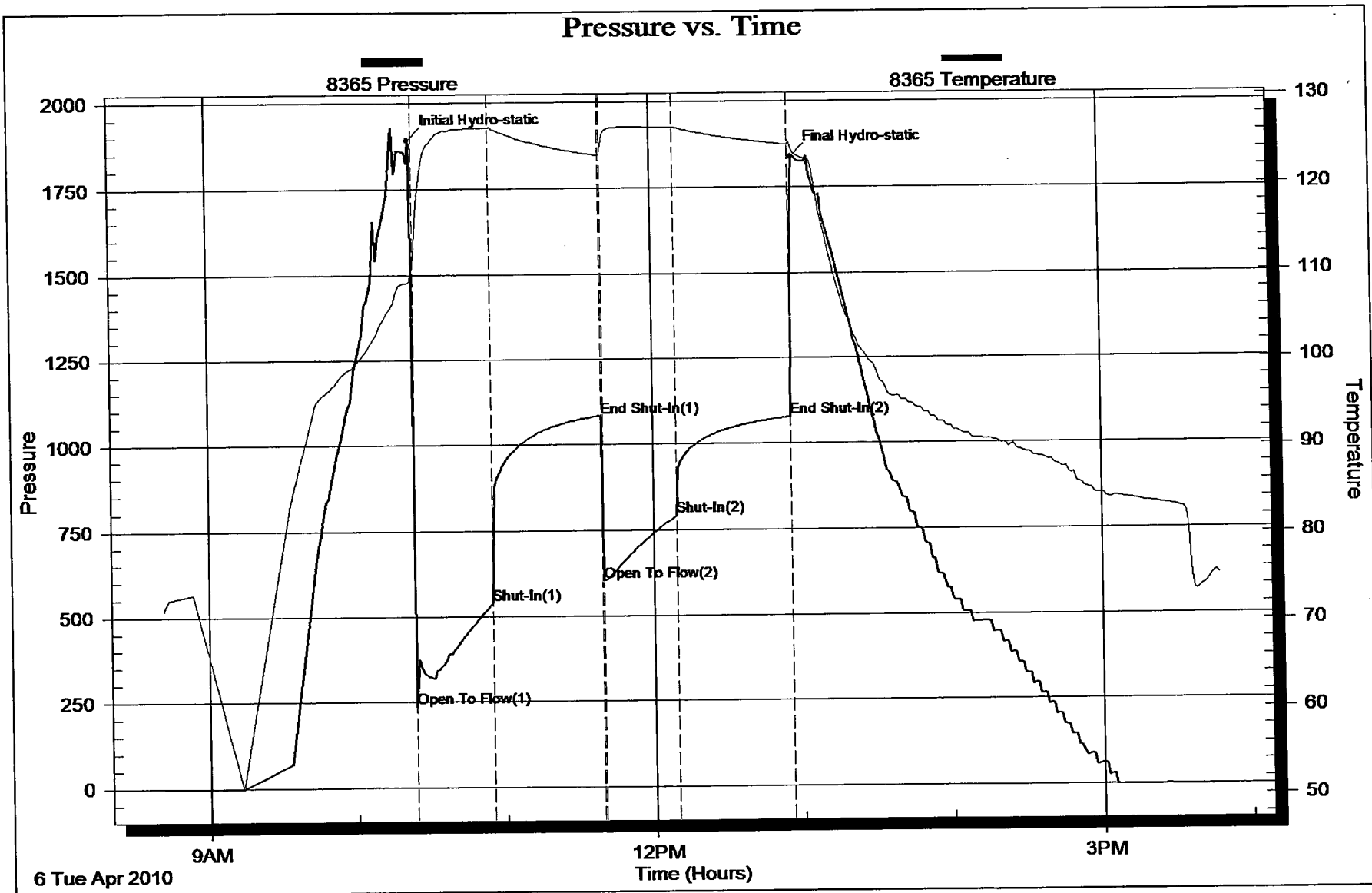
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .18 @ 74F





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