

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

ORIGINAL

12/29/13

Form ACO-1

June 2009

Form Must Be Typed

Form must be Signed

All blanks must be Filled

OPERATOR: License # 4767
Name: Ritchie Exploration, Inc.
Address 1: P.O. Box 783188
Address 2:
City: Wichita State: KS Zip: 67278 + 3188
Contact Person: John Niemberger
Phone: (316) 691-9500
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Jeff Christian
Purchaser:

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 #:

9/9/11 9/17/11 9/17/11
Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No. 15 - 065-23773-00-00
Spot Description: 130' S & 4' E
SW SW NE Sec. 9 Twp. 6 S. R. 21 East West
2,440 Feet from North / South Line of Section
2,306 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE NW SE SW
County: Graham
Lease Name: Beecher Unit Well #: 1
Field Name:
Producing Formation: LKC/Conglomerate
Elevation: Ground: 2159 Kelly Bushing: 2168
Total Depth: 3725 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 227 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set: 1799 Feet
If Alternate II completion, cement circulated from: 1799
feet depth to: surface w/ 310 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content: 21000 ppm Fluid volume: 800 bbls
Dewatering method used: evaporation
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Twp. S. R. East West
County: Permit #:

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DEC 29 2013 DEC 30 2011
KCC KCC WICHITA

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: Production Manager Date: 12/29/11

KCC Office Use ONLY
Letter of Confidentiality Received
Date: 12-29-11 - 12-29-13
Confidential Release Date:
Wireline Log Received
Geologist Report Received
UIC Distribution
ALT I II III Approved by: NS Date: 1-12-12

Operator Name: Ritchie Exploration, Inc. Lease Name: Beecher Unit Well #: 1

Sec. 9 Twp. 6 S. R. 21 East West County: Graham

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 Yes No
(Attach Additional Sheets)

Samples Sent to Geological Survey Yes No

Cores Taken Yes No

Electric Log Run Yes No

Electric Log Submitted Electronically Yes No
(If no, Submit Copy)

Log Formation (Top), Depth and Datum Sample

Name Top Datum

SEE ATTACHED

List All E. Logs Run:
Radiation Guard Log

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	23	227	common	160	3% cc, 2% gel
Production	7-7/8	4-1/2	10.5	3718	60/40 poz	160	10% salt, 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 (Amount and Kind of Material Used)	Depth
4	3445' - 3448' (11/28/11)	500 Gals NE (11/30/11)	
4	3646' - 3650', 3654' - 3660' (11/28/11)	500 Gals NE (11/30/11)	

TUBING RECORD:	Size: <u>2-3/8</u>	Set At: <u>3686'</u>	Packer At:	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR: <u>Waiting on tank battery</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.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

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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) (Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
---	--	--



#1 Beecher Unit
2440' FNL & 2306' FEL
130'S & 4'E of SW SW NE
Section 9-6S-21W
Graham County, Kansas
Elevation: 2159' GL: 2168' KB

Sample Tops			Ref. Well
Anhydrite	1818'	+350	-1
B/Anhydrite	1852'	+316	-3
Topeka	3168'	-1000	+7
Heebner	3373'	-1205	+7
Toronto	3398'	-1230	+6
Lansing	3415'	-1247	+7
Muncie Shale	3522'	-1354	+7
Stark Shale	3575'	-1407	+7
BKC	3604'	-1436	+6
Conglomerate	3640'	-1472	+10
Arbuckle	3671'	-1503	+5
Granite Wash	3682'	-1514	N/A
RTD	3725'	-1557	

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ALLIED CEMENTING CO., LLC. 043497

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

SERVICE POINT:
094004

DATE <u>9-12-11</u>	SEC <u>9</u>	TWP. <u>6s</u>	RANGE <u>21W</u>	CALLED OUT	ON LOCATION	JOB START <u>12:30pm</u>	JOB FINISH <u>1:00pm</u>
DEEcher LEASE Unit	WELL # <u>1</u>	LOCATION <u>Boque 12N 1E 24S</u>	COUNTY <u>Graham</u>	STATE <u>K.S</u>			
OLD OR NEW (Circle one) <u>WINTO</u>							

CONTRACTOR Southwind #2
 TYPE OF JOB Production
 HOLE SIZE 7 7/8 T.D. 3725
 CASING SIZE 4 1/2 DEPTH 3718'
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL Port collar DEPTH 1800'
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT 22'
 CEMENT LEFT IN CSG. 02
 PERFS.
 DISPLACEMENT 58.76

OWNER same
 CEMENT
 AMOUNT ORDERED 210 SKS 6% NO 1080011
290 gal 3/4 of 19600-31

EQUIPMENT
 PUMP TRUCK CEMENTER Andrew
 # 386-281 HELPER Serry
 BULK TRUCK
 # 347 DRIVER Chris Brandon
 BULK TRUCK
 # DRIVER

COMMON 126 SKS @ 16.25 2047.50
 POZMIX 84 SKS @ 8.50 714.00
 GEL 4 SKS @ 21.25 85.00
 CHLORIDE @
 ASC @
salt 19 SKS @ 23.95 455.05
CD-31 135# @ 9.35 1262.25
WFR-2 500gal @ 1.27 635.00
 HANDLING 238 SKS @ 2.25 535.50
 MILEAGE 114 SK/mile 994.84
 TOTAL 6,729.14

REMARKS:

Pump 500gal WFR-2 Plug Rat hole
Plug mouse hole mix cement
down 4 1/2 casing wash pump
and lines clean. Displace plug
600' lift 1100# lead plug.
float held.

SERVICE

DEPTH OF JOB 3718'
 PUMP TRUCK CHARGE 2225.00
 EXTRA FOOTAGE @
 MILEAGE 3812 @ 2.00 532.00
 MANIFOLD head @ 200.00
 Light vehicle @ 41.00 304.00

Thank you

CHARGE TO: Ritchie Exploration
 STREET
 CITY STATE ZIP

TOTAL 3,261.00

PLUG & FLOAT EQUIPMENT

4 1/2
 1 Guide shoe @ 192.00
 W1 Basket @ 220.00
 B1 Basket @ 220.00
 6 Centralizer @ 48.00 288.00
 1 AR Insert @ 299.00
 1 Rubber plug 71.00
 TOTAL 1,340.00

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
 SIGNATURE Thomas Adair

SALES TAX (If Any)
 TOTAL CHARGES
 DISCOUNT IF PAID IN 30 DAYS

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ALLIED CEMENTING CO., LLC. 035809

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

SERVICE POINT:
Russell, KS

DATE <u>9-9-11</u>	SEC <u>9</u>	TWP. <u>6</u>	RANGE <u>21W</u>	CALLED OUT	ON LOCATION	JOB START <u>9:45pm</u>	JOB FINISH <u>10:15pm</u>
LEASE <u>Beecher</u>	WELL # <u>1</u>		LOCATION <u>Boque 11 W of 24 918</u>	COUNTY <u>Graham</u>	STATE <u>KS</u>		
OLD OR NEW (Circle one) <u>NEW</u>			<u>1E 3/4S Winto</u>				

CONTRACTOR Southwind Drilling
 TYPE OF JOB Surface
 HOLE SIZE _____ T.D. 229
 CASING SIZE 8 5/8 DEPTH 231
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT _____
 CEMENT LEFT IN CSG. 15 ft
 PERFS. _____
 DISPLACEMENT 13.75

OWNER _____
 CEMENT
 AMOUNT ORDERED 160 SK COM
3% CC 2% Gel

EQUIPMENT
 PUMP TRUCK CEMENTER Heath
 # 409 HELPER Todd
 BULK TRUCK
 # 410 DRIVER Cody H
 BULK TRUCK
 # _____ DRIVER _____

COMMON	<u>160</u>	@ <u>16.25</u>	<u>2600.00</u>
POZMIX		@	
GEL	<u>3</u>	@ <u>21.25</u>	<u>63.75</u>
CHLORIDE	<u>5</u>	@ <u>58.20</u>	<u>291.00</u>
ASC		@	
HANDLING	<u>168</u>	@ <u>2.25</u>	<u>378.00</u>
MILEAGE	<u>1115/1000</u>	@ <u>38</u>	<u>702.24</u>
TOTAL			<u>4034.99</u>

REMARKS:
Ran 5 Joints of 8 5/8 23# used Pipe
Est Circulation with mud pump
Mixed 160 SK & Displaced 13.75 bbl of H2O
Cement did Circulate!!
THANKS

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 SERVICE
 DEC 25 2011

CHARGE TO: Ritchie Exploration
 STREET _____
 CITY _____ STATE _____ ZIP _____

DEPTH OF JOB	<u>KCC</u>		
PUMP TRUCK CHARGE			<u>1125.00</u>
EXTRA FOOTAGE		@	
MILEAGE	<u>76</u>	@ <u>7.00</u>	<u>532.00</u>
MANIFOLD	<u>com 76</u>	@ <u>4.00</u>	<u>304.00</u>
TOTAL			<u>1961.00</u>

PLUG & FLOAT EQUIPMENT

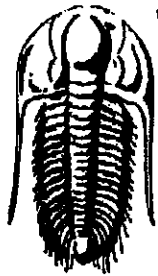
	@		
	@		
	@		
	@		
	@		
TOTAL			

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.

SALES TAX (If Any) _____
 TOTAL CHARGES 5995.99
 DISCOUNT 50/20 IF PAID IN 30 DAYS

PRINTED NAME William Sanders
 SIGNATURE William Sanders

RS



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E. 22 nd st. N.#700 Box 783188
Wichita, KS 67278

ATTN: Jeff Christian

Beecher Unit #1

9-6s-21w Graham,KS

Start Date: 2011.09.13 @ 12:30:00

End Date: 2011.09.13 @ 17:41:00

Job Ticket #: 041953 DST #: 1

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KCC WICHITA**

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

Printed: 2011.09.21 @ 08:33:39

Ritchie Exploration Inc.

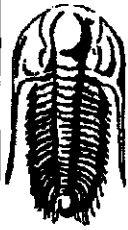
9-6s-21w Graham,KS

Beecher Unit #1

DST # 1

Toronto-LKC-A

2011.09.13



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc.

9-6s-21w Graham,KS

8100 E. 22 nd st. N.#700 Box 783188
Wchita, KS 67278

Beecher Unit #1

Job Ticket: 041953

DST#: 1

ATTN: Jeff Christian

Test Start: 2011.09.13 @ 12:30:00

GENERAL INFORMATION:

Formation: **Toronto-LKC-A**

Deviated: No Whipstock ft (KB)

Time Tool Opened: 14:13:30

Time Test Ended: 17:41:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Chuck Kreutzer Jr.

Unit No: 36

Interval: **3377.00 ft (KB) To 3430.00 ft (KB) (TVD)**

Total Depth: 3430.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2169.00 ft (KB)

2159.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6741

Outside

Press@RunDepth: 28.01 psig @ 3379.50 ft (KB)

Start Date: 2011.09.13

End Date:

2011.09.13

Capacity: 8000.00 psig

Last Calib.: 2011.09.13

Start Time: 12:30:05

End Time:

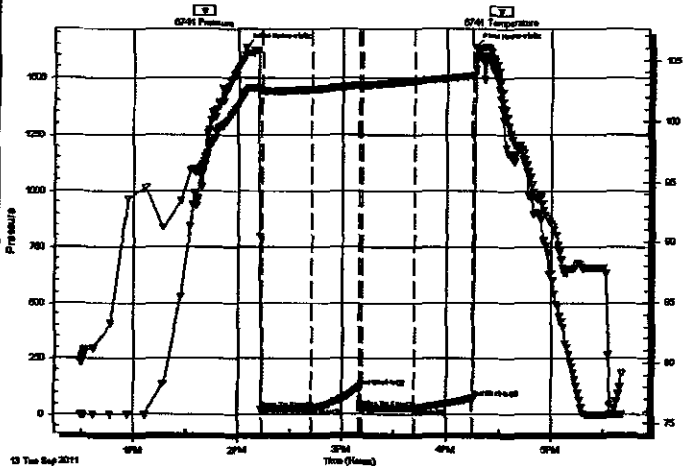
17:40:59

Time On Btrr 2011.09.13 @ 14:04:30

Time Off Btrr 2011.09.13 @ 16:16:30

TEST COMMENT: IF: Weak blow, Died in 3 mins.
IS: No blow back over 30 mins.
FF: No blow over 30 mins.
FSI: No blow back over 30 mins.

Pressure vs. Time



PRESSURE SUMMARY

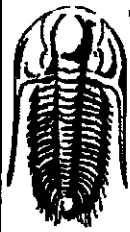
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1635.88	102.56	Initial Hydro-static
9	23.85	102.51	Open To Flow (1)
38	25.32	102.61	Shut-In(1)
66	122.88	102.95	End Shut-In(1)
67	25.44	102.93	Open To Flow (2)
97	28.01	103.29	Shut-In(2)
131	72.18	103.74	End Shut-In(2)
132	1635.68	104.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud w / oil specs	0.42

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

9-6s-21w Graham,KS

8100 E. 22 nd st. N#700 Box 783188
Wichita, KS 67278

Beecher Unit #1

Job Ticket: 041953

DST#: 1

ATTN: Jeff Christian

Test Start: 2011.09.13 @ 12:30:00

Tool Information

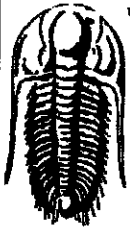
Drill Pipe:	Length: 3389.00 ft	Diameter: 3.80 inches	Volume: 47.54 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 47.54 bbl</u>	Tool Chased 10.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3377.00 ft			Final 34000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	73.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3362.00	
Hydraulic tool	5.00			3367.00	
Packer	5.00			3372.00	20.00 Bottom Of Top Packer
Packer	5.00			3377.00	
Stubb	1.00			3378.00	
Perforations	1.00			3379.00	
Change Over Sub	0.50			3379.50	
Recorder	0.00	6752	Inside	3379.50	
Recorder	0.00	6741	Outside	3379.50	
Blank Spacing	32.00			3411.50	
Change Over Sub	0.50			3412.00	
Perforations	15.00			3427.00	
Bullnose	3.00			3430.00	53.00 Bottom Packers & Anchor

Total Tool Length: 73.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.
8100 E. 22 nd st. N#700 Box 783188
Wichita, KS 67278
ATTN: Jeff Christian

9-6s-21w Graham,KS
Beecher Unit #1
Job Ticket: 041953 DST#: 1
Test Start: 2011.09.13 @ 12:30:00

Mud and Cushion Information

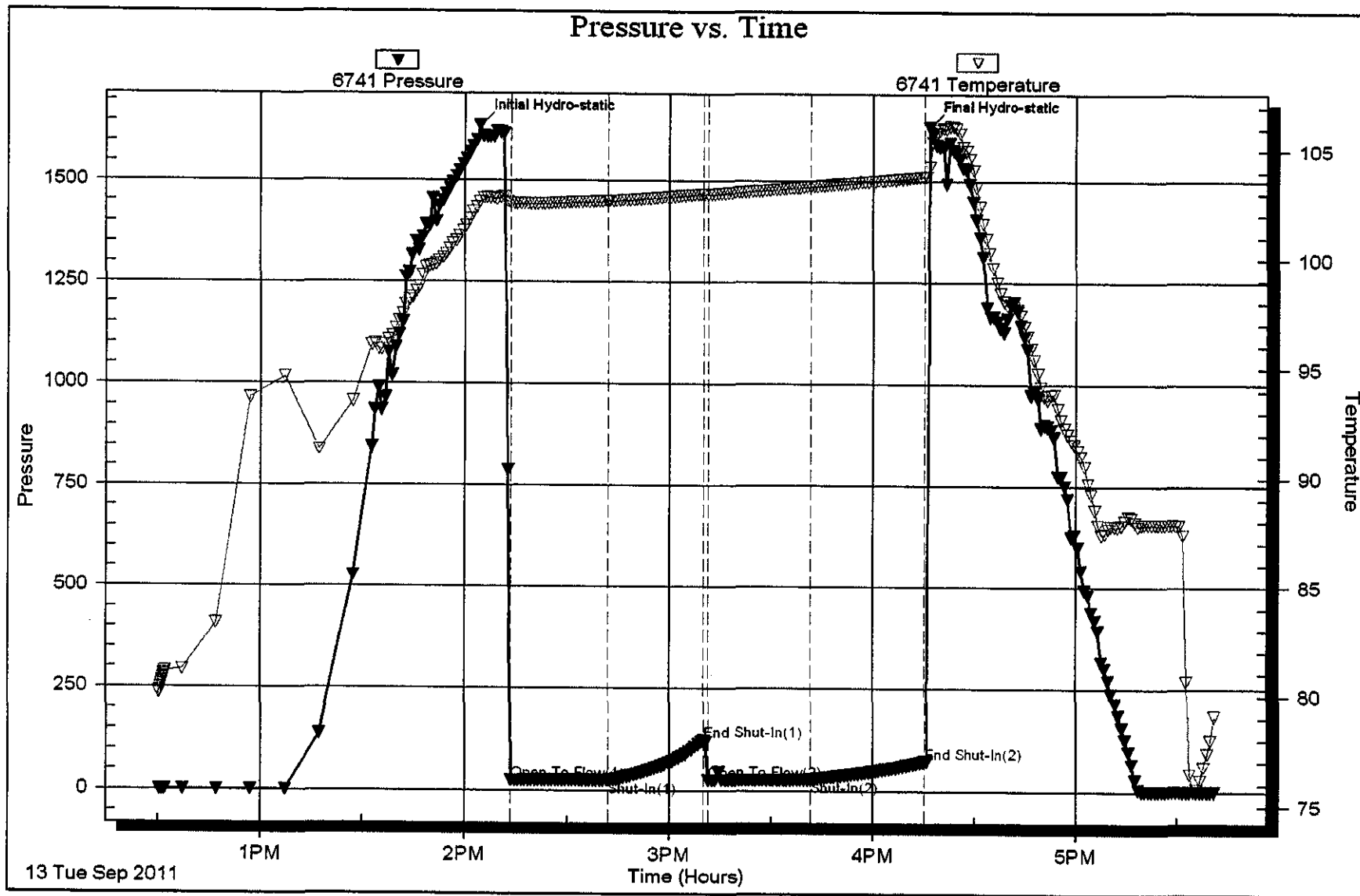
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 61.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.39 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 500.00 ppm			
Filter Cake: 2.00 inches			

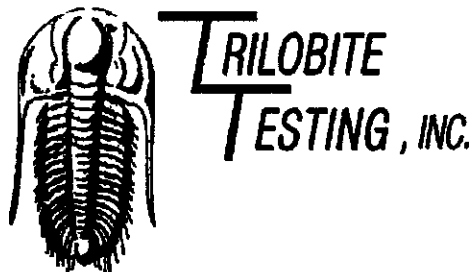
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	Mud w/ oil specs	0.421

Total Length: 30.00 ft Total Volume: 0.421 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E. 22 nd st. N.#700 Box 783188
Wichita, KS 67278

ATTN: Jeff Christian

Beecher Unit #1

9-6s-21w Graham,KS

Start Date: 2011.09.14 @ 02:15:00

End Date: 2011.09.14 @ 09:16:00

Job Ticket #: 041954 DST #: 2

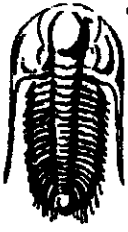
Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.09.21 @ 08:33:56

Ritchie Exploration Inc. 9-6s-21w Graham,KS Beecher Unit #1 DST # 2 LKC-C-D 2011.09.14



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc.
8100 E. 22 nd st. N#700 Box 783188
Wchita, KS 67278
ATTN: Jeff Christian

9-6s-21w Graham,KS
Beecher Unit #1
Job Ticket: 041954 **DST#: 2**
Test Start: 2011.09.14 @ 02:15:00

GENERAL INFORMATION:

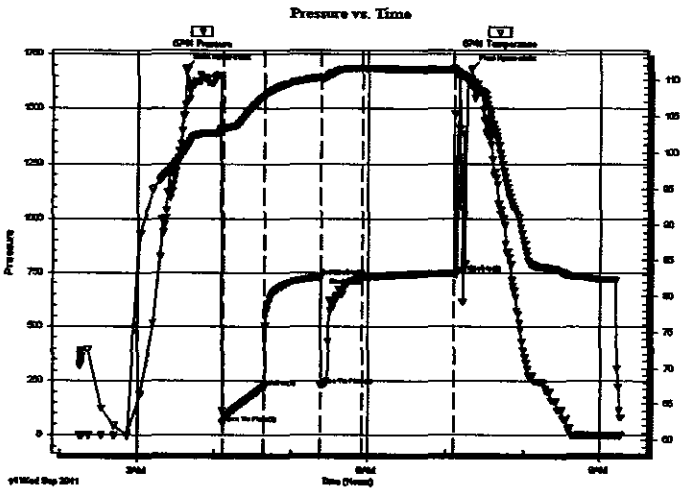
Formation: **LKC-C-D**
Deviated: **No** Whipstock: **ft (KB)**
Time Tool Opened: **04:06:00**
Time Test Ended: **09:16:00**
Interval: **3430.00 ft (KB) To 3470.00 ft (KB) (TVD)**
Total Depth: **3470.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole (Reset)**
Tester: **Chuck Kreutzer Jr.**
Unit No: **36**
Reference Elevations: **2169.00 ft (KB)**
2159.00 ft (CF)
KB to GR/CF: **10.00 ft**

Serial #: 6741

Outside

Press@RunDepth: **725.46 psig @ 3434.50 ft (KB)**
Start Date: **2011.09.14** End Date: **2011.09.14**
Start Time: **02:15:05** End Time: **09:15:59**
Capacity: **8000.00 psig**
Last Calib.: **2011.09.14**
Time On Btm: **2011.09.14 @ 03:37:30**
Time Off Btm: **2011.09.14 @ 07:19:30**

TEST COMMENT: IF: Strong blow, Built to B.O.B in 4 mins.
IS: No blow back over 45 mins.
FF: Fair blow, Built to B.O.B in 16 mins.
FSI: No blow back over 60 mins.



PRESSURE SUMMARY

Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1686.00	100.55	Initial Hydro-static
29	52.68	103.31	Open To Flow (1)
61	222.01	107.76	Shut-In(1)
105	730.14	110.30	End Shut-In(1)
105	229.24	110.04	Open To Flow (2)
138	725.46	111.61	Shut-In(2)
209	747.48	111.30	End Shut-In(2)
222	1681.74	109.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
434.00	so&gcmw -5%g5%o20%m70%w	6.09
124.00	so&gcmw -10%g10%o30%m50%w	1.74
10.00	oil-100%	0.14
0.00	30 ft. gas in pipe	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.
8100 E 22 nd st. N#700 Box 783188
Wichita, KS 67278
ATTN: Jeff Christian

9-6s-21w Graham,KS
Beecher Unit #1
Job Ticket: 041954 DST#: 2
Test Start: 2011.09.14 @ 02:15:00

Tool Information

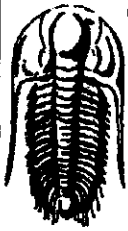
Drill Pipe:	Length: 3418.00 ft	Diameter: 3.80 inches	Volume: 47.95 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 250000.0 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 130000.0 lb
		Total Volume:	47.95 bbl	Tool Chased 2.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3430.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	60.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3415.00	
Hydraulic tool	5.00			3420.00	
Packer	5.00			3425.00	20.00 Bottom Of Top Packer
Packer	5.00			3430.00	
Stubb	1.00			3431.00	
Perforations	3.00			3434.00	
Change Over Sub	0.50			3434.50	
Recorder	0.00	6752	Inside	3434.50	
Recorder	0.00	6741	Outside	3434.50	
Blank Spacing	32.00			3466.50	
Change Over Sub	0.50			3467.00	
Bullnose	3.00			3470.00	40.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.
8100 E. 22 nd st. N.#700 Box 783188
Wchita, KS 67278
ATTN: Jeff Christian

9-6s-21w Graham,KS
Beecher Unit #1
Job Ticket: 041954 **DST#: 2**
Test Start: 2011.09.14 @ 02:15:00

Mud and Cushion Information

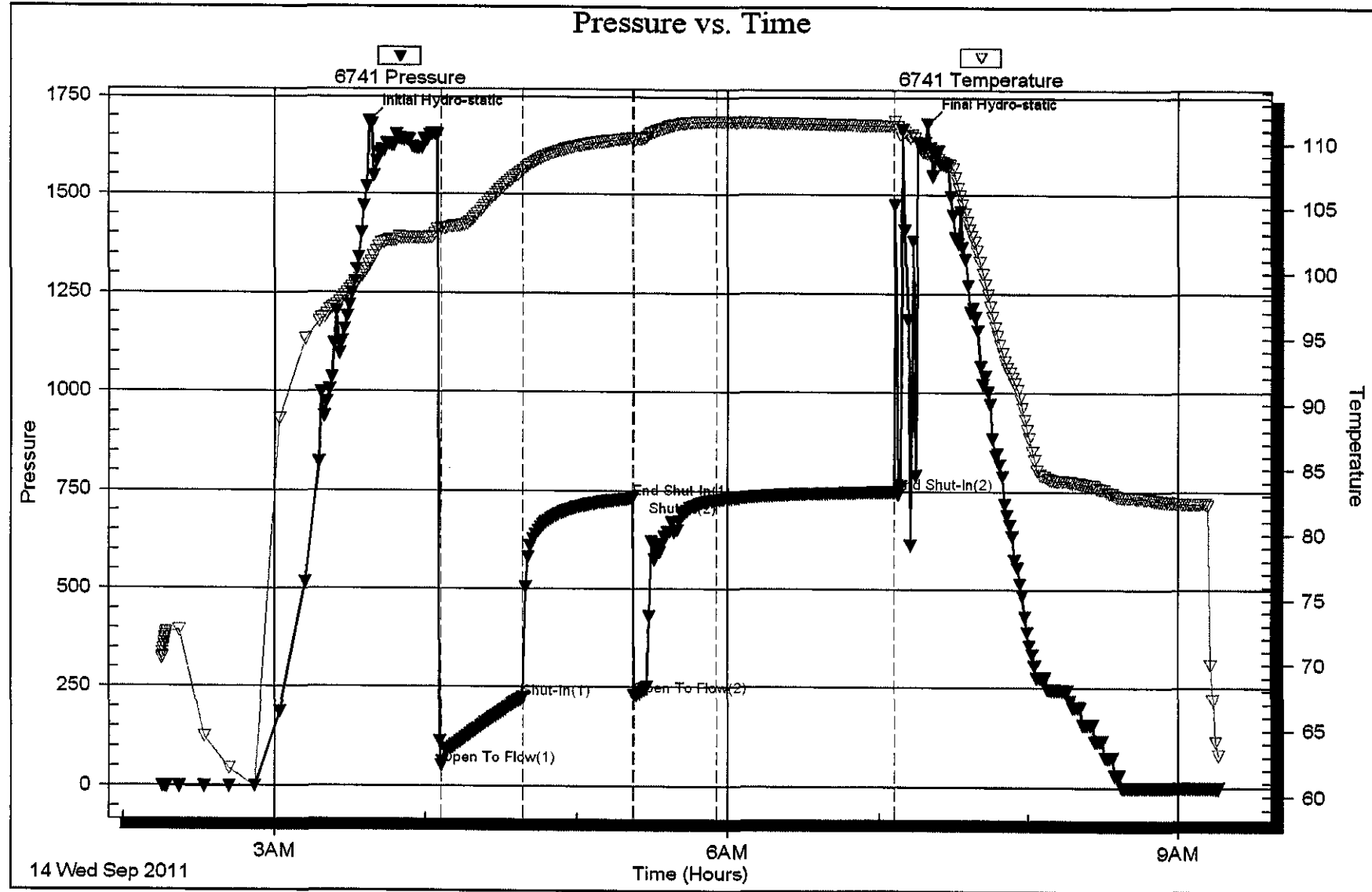
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 61.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.38 in ³	Gas Cushion Type:		
Resistivity: ohmm	Gas Cushion Pressure: psig		
Salinity: 500.00 ppm			
Filter Cake: 2.00 inches			

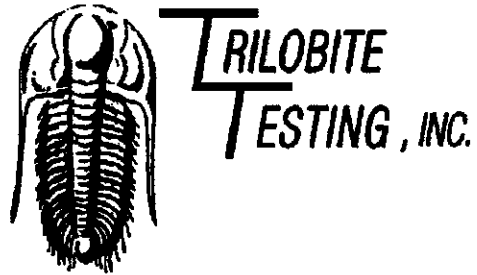
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
434.00	so&gcmw -5%g5%o20%m70%w	6.088
124.00	so&gmcw -10%g10%o30%m50%w	1.739
10.00	oil-100%	0.140
0.00	30 ft. gas in pipe	0.000

Total Length: 568.00 ft Total Volume: 7.967 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E. 22 nd st. N.#700 Box 783188
Wichita, KS 67278

ATTN: Jeff Christian

Beecher Unit #1

9-6s-21w Graham,KS

Start Date: 2011.09.14 @ 17:15:00

End Date: 2011.09.15 @ 00:26:30

Job Ticket #: 041955 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.09.21 @ 08:34:17



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.

9-6s-21w Graham,KS

8100 E. 22 nd st. N.#700 Box 783188
Wichita, KS 67278

Beecher Unit #1

Job Ticket: 041955

DST#: 3

ATTN: Jeff Christian

Test Start: 2011.09.14 @ 17:15:00

Tool Information

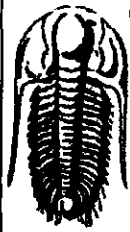
Drill Pipe:	Length: 3449.00 ft	Diameter: 3.80 inches	Volume: 48.38 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			Total Volume: 48.38 bbl	Tool Chased 2.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3468.00 ft			Final 36000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3445.00	
Hydraulic tool	5.00			3450.00	
Jars	5.00			3455.00	
Safety Joint	3.00			3458.00	
Packer	5.00			3463.00	28.00 Bottom Of Top Packer
Packer	5.00			3468.00	
Stubb	1.00			3469.00	
Recorder	0.00	6752	Inside	3469.00	
Recorder	0.00	6741	Outside	3469.00	
Perforations	17.00			3486.00	
Bullnose	3.00			3489.00	21.00 Bottom Packers & Anchor

Total Tool Length: 49.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.

9-6s-21w Graham,KS

8100 E. 22 nd st. N#700 Box 783188
Wichita, KS 67278

Beecher Unit #1

Job Ticket: 041955

DST#: 3

ATTN: Jeff Christian

Test Start: 2011.09.14 @ 17:15:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	water with oil specs.	3.479

Total Length: 248.00 ft

Total Volume: 3.479 bbl

Num Fluid Samples: 0

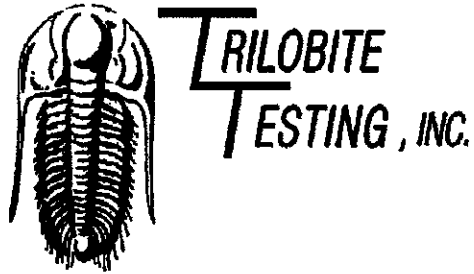
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc.**

8100 E. 22 nd st. N.#700 Box 783188
Wichita, KS 67278

ATTN: Jeff Christian

Beecher Unit #1

9-6s-21w Graham,KS

Start Date: 2011.09.15 @ 12:00:00

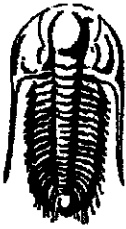
End Date: 2011.09.15 @ 17:29:00

Job Ticket #: 041956 DST #: 4

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

Printed: 2011.09.21 @ 08:34:36

Ritchie Exploration Inc. 9-6s-21w Graham,KS Beecher Unit #1 DST # 4 LKCHJJ 2011.09.15



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc.
8100 E 22 nd st. N.#700 Box 783188
Wichita, KS 67278
ATTN: Jeff Christian

9-6s-21w Graham,KS
Beecher Unit #1
Job Ticket: 041956 **DST#: 4**
Test Start: 2011.09.15 @ 12:00:00

GENERAL INFORMATION:

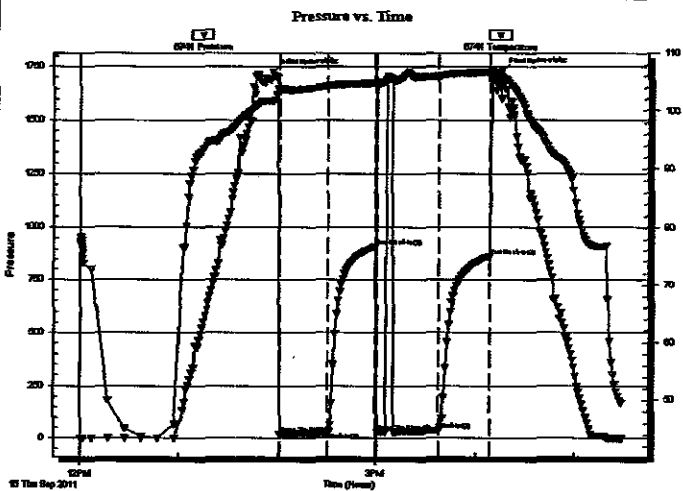
Formation: **LKC-H,I,J**
Deviated: **No Whipstock** ft (KB)
Time Tool Opened: 14:00:30
Time Test Ended: 17:29:00
Interval: **3520.00 ft (KB) To 3576.00 ft (KB) (TVD)**
Total Depth: **3576.00 ft (KB) (TVD)**
Hole Diameter: **7.88 inches** Hole Condition: **Fair**
Test Type: **Conventional Bottom Hole (Reset)**
Tester: **Chuck Kreutzer Jr.**
Unit No: **36**
Reference Elevations: **2169.00 ft (KB)**
2159.00 ft (CF)
KB to GR/CF: **10.00 ft**

Serial #: 6741

Outside

Press@RunDepth: **37.18 psig @ 3525.50 ft (KB)** Capacity: **8000.00 psig**
Start Date: **2011.09.15** End Date: **2011.09.15** Last Calib.: **2011.09.15**
Start Time: **12:00:05** End Time: **17:28:59** Time On Btm: **2011.09.15 @ 13:56:30**
Time Off Btm: **2011.09.15 @ 16:16:00**

TEST COMMENT: IF: Weak b/w, Died in 9 mins.
IS: No blow back over 30 mins.
FF: No blow over 30 mins.
FSI: No blow back over 30 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1723.63	101.74	Initial Hydro-static
4	18.82	103.42	Open To Flow (1)
34	26.62	104.27	Shut-In(1)
63	912.29	104.82	End Shut-In(1)
64	27.08	104.65	Open To Flow (2)
101	37.18	106.02	Shut-In(2)
132	861.78	106.70	End Shut-In(2)
140	1729.42	105.93	Final Hydro-static

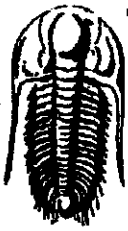
Recovery

Length (ft)	Description	Volume (bbl)
35.00	mud-100%	0.49

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.
8100 E 22 nd st. N.#700 Box 783188
Wichita, KS 67278

ATTN: Jeff Christian

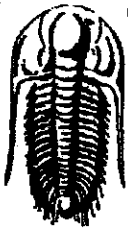
9-6s-21w Graham,KS
Beecher Unit #1
Job Ticket: 041956 **DST#: 4**
Test Start: 2011.09.15 @ 12:00:00

Tool Information

Drill Pipe:	Length: 3520.00 ft	Diameter: 3.80 inches	Volume: 49.38 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			Total Volume: 49.38 bbl	Tool Chased 2.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3520.00 ft			Final 34000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	84.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3497.00	
Hydraulic tool	5.00			3502.00	
Jars	5.00			3507.00	
Safety Joint	3.00			3510.00	
Packer	5.00			3515.00	28.00 Bottom Of Top Packer
Packer	5.00			3520.00	
Stubb	1.00			3521.00	
Perforations	4.00			3525.00	
Change Over Sub	0.50			3525.50	
Recorder	0.00	6752	Inside	3525.50	
Recorder	0.00	6741	Outside	3525.50	
Blank Spacing	32.00			3557.50	
Change Over Sub	0.50			3558.00	
Perforations	15.00			3573.00	
Bullnose	3.00			3576.00	56.00 Bottom Packers & Anchor

Total Tool Length: 84.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.
8100 E. 22 nd st. N.#700 Box 783188
Wchita, KS 67278
ATTN: Jeff Christian

9-6s-21w Graham,KS
Beecher Unit #1
Job Ticket: 041956 **DST#: 4**
Test Start: 2011.09.15 @ 12:00:00

Mud and Cushion Information

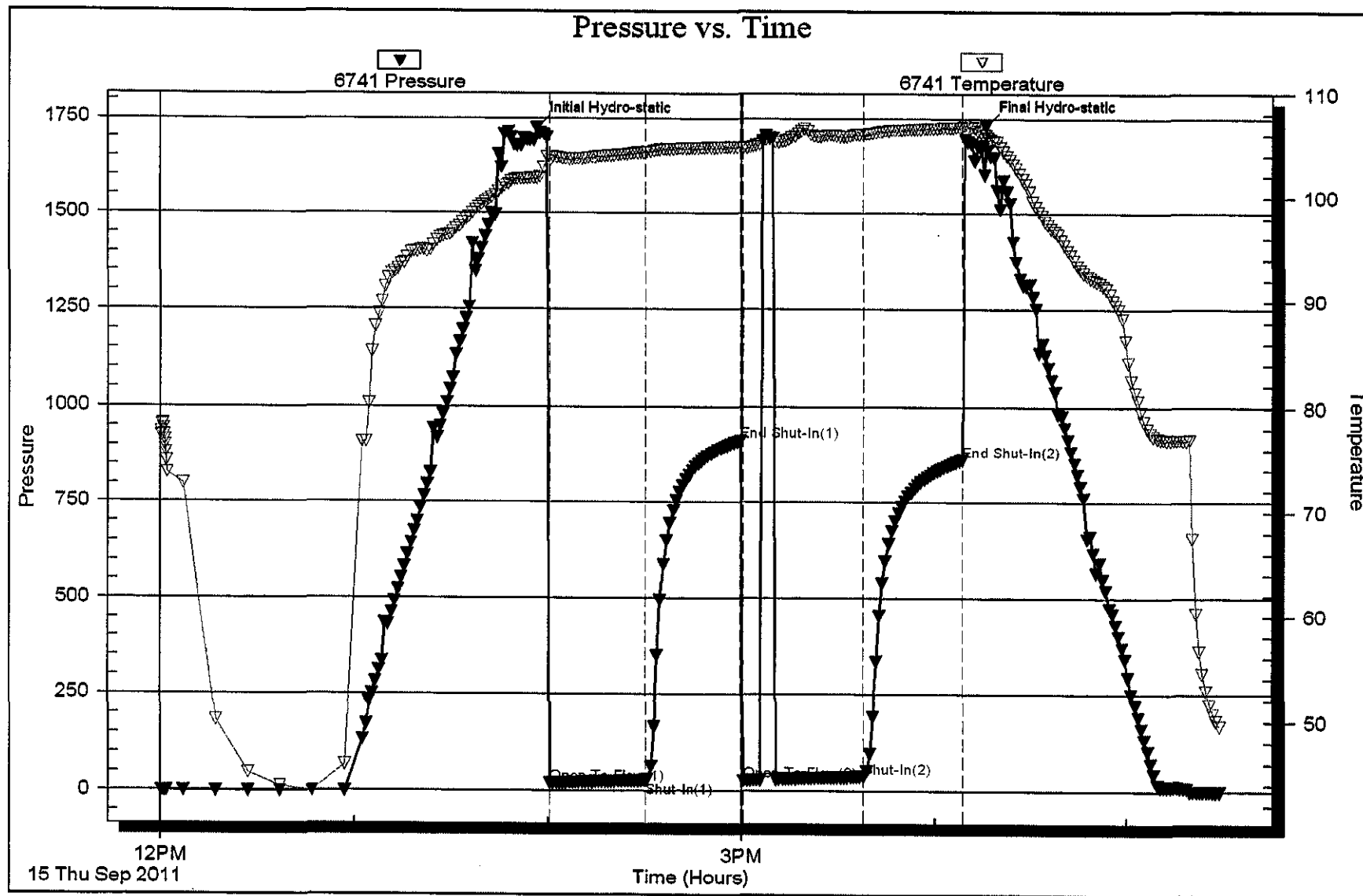
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 53.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in ³	Gas Cushion Type:		
Resistivity: ohmm	Gas Cushion Pressure: psig		
Salinity: 1900.00 ppm			
Filter Cake: 2.00 inches			

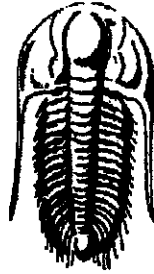
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
35.00	mud-100%	0.491

Total Length: 35.00 ft Total Volume: 0.491 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: **Ritchie Exploration Inc.**

8100 E. 22 nd st. N.#700 Box 783188
Wichita, KS 67278

ATTN: Jeff Christian

Beecher Unit #1

9-6s-21w Graham,KS

Start Date: 2011.09.16 @ 06:00:00

End Date: 2011.09.16 @ 12:19:30

Job Ticket #: 041957 DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.09.21 @ 08:34:55

Ritchie Exploration Inc. 9-6s-21w Graham,KS Beecher Unit #1 DST # 5 Conglomerate Sand 2011.09.16



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Ritchie Exploration Inc.
 8100 E. 22 nd st. N#700 Box 783188
 Wichita, KS 67278
 ATTN: Jeff Christian

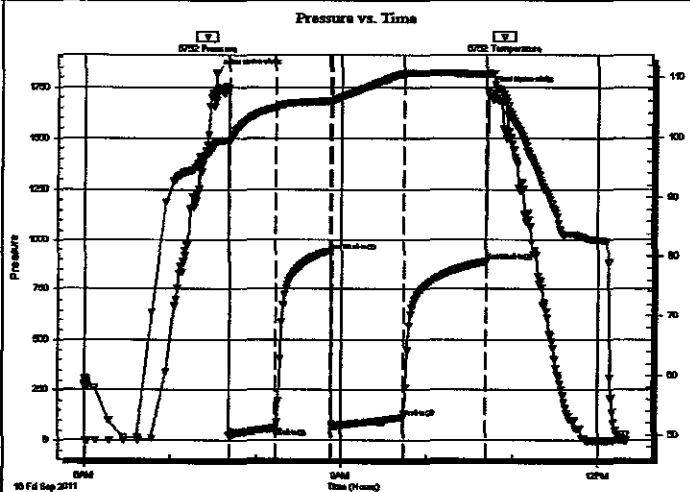
9-6s-21w Graham,KS
Beecher Unit #1
 Job Ticket: 041957 **DST#: 5**
 Test Start: 2011.09.16 @ 06:00:00

GENERAL INFORMATION:

Formation: **Conglomerate Sand**
 Deviated: No Whipstock ft (KB)
 Time Tool Opened: 07:41:30
 Time Test Ended: 12:19:30
 Interval: **3602.00 ft (KB) To 3667.00 ft (KB) (TVD)**
 Total Depth: **3667.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chuck Kreutzer Jr.
 Unit No: 36
 Reference Elevations: 2169.00 ft (KB)
 2159.00 ft (CF)
 KB to GRVCF: 10.00 ft

Serial #: 6752 **Inside**
 Press@RunDepth: 111.85 psig @ 3604.50 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.09.16 End Date: 2011.09.16 Last Calib.: 2011.09.16
 Start Time: 06:00:05 End Time: 12:19:29 Time On Btm: 2011.09.16 @ 07:32:00
 Time Off Btm: 2011.09.16 @ 10:42:30

TEST COMMENT: IF: Weak blow, Built to 4 in. over 30 mins.
 IS: No blow back over 45 mins.
 FF: Weak blow, Built to 4 in. over 45 mins.
 FS: No blow back over 60 mins.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1820.33	99.14	Initial Hydro-static
10	22.94	99.31	Open To Flow (1)
42	59.47	104.90	Shut-In(1)
81	941.35	106.04	End Shut-In(1)
82	63.85	105.98	Open To Flow (2)
132	111.85	110.56	Shut-In(2)
190	888.33	110.57	End Shut-In(2)
191	1735.80	110.47	Final Hydro-static

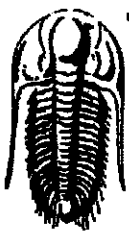
Recovery

Length (ft)	Description	Volume (bbl)
62.00	vsocmw-10%o40%m50%w	0.87
62.00	vsocm10%o90%m	0.87
62.00	vsocm-4%o96%m	0.87
62.00	socm-20%o80%m	0.87
10.00	oil-100%	0.14

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc.
8100 E. 22 nd st. N.#700 Box 783188
Wichita, KS 67278

ATTN: Jeff Christian

9-6s-21w Graham,KS
Beecher Unit #1
Job Ticket: 041957 **DST#: 5**
Test Start: 2011.09.16 @ 06:00:00

Tool Information

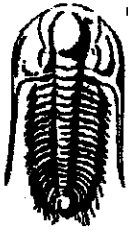
Drill Pipe:	Length: 3594.00 ft	Diameter: 3.80 inches	Volume: 50.41 bbl	Tool Weight: 20000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			Total Volume: 50.41 bbl	Tool Chased 2.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3602.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	65.00 ft			
Tool Length:	93.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3579.00	
Hydraulic tool	5.00			3584.00	
Jars	5.00			3589.00	
Safety Joint	3.00			3592.00	
Packer	5.00			3597.00	28.00 Bottom Of Top Packer
Packer	5.00			3602.00	
Stubb	1.00			3603.00	
Perforations	1.00			3604.00	
Change Over Sub	0.50			3604.50	
Recorder	0.00	6752	Inside	3604.50	
Recorder	0.00	6741	Outside	3604.50	
Blank Spacing	31.00			3635.50	
Change Over Sub	0.50			3636.00	
Perforations	28.00			3664.00	
Bullnose	3.00			3667.00	65.00 Bottom Packers & Anchor

Total Tool Length: 93.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc.
8100 E. 22 nd st. N#700 Box 783188
Wichita, KS 67278
ATTN: Jeff Christian

9-6s-21w Graham,KS
Beecher Unit #1
Job Ticket: 041957 DST#: 5
Test Start: 2011.09.16 @ 06:00:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.79 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1800.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	vsocmw-10%o40%m50%w	0.870
62.00	vsocm10%o90%m	0.870
62.00	vsocm-4%o96%m	0.870
62.00	socm-20%o80%m	0.870
10.00	oil-100%	0.140

Total Length: 258.00ft Total Volume: 3.620 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

