

CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

ORIGINAL

9/27/13
Form ACO-1
October 2008
Form Must Be Typed

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 4767
Name: Ritchie Exploration, Inc.
Address 1: P.O. Box 783188
Address 2: _____
City: Wichita State: KS Zip: 67278 + 3118
Contact Person: John Niemberger
Phone: (316) 691-9500
CONTRACTOR: License # 33350
Name: Southwind Drilling Inc.
Wellsite Geologist: Dave Williams
Purchaser: _____

Designate Type of Completion:
 New Well _____ Re-Entry _____ Workover _____
_____ Oil _____ SWD _____ SLOW
_____ 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.: _____

<u>6/9/11</u>	<u>6/18/11</u>	<u>6/18/11</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 009-25562-00-00
Spot Description: 55' N & 15' E
W/2 -NW - - - Sec. 30 Twp. 18 S. R. 15 East West
1265 Feet from North / South Line of Section
675 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: Barton
Lease Name: Wissman 30AB Well #: 1
Field Name: _____
Producing Formation: _____
Elevation: Ground: 1919 Kelly Bushing: 1928
Total Depth: 3609 Plug Back Total Depth: _____
Amount of Surface Pipe Set and Cemented at: _____ 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 JAM 1051
(Data must be collected from the Reservoir)
Chloride content: 66000 ppm Fluid volume: 700 bbls
Dewatering method used: evaporation
Location of fluid disposal if hauled offsite: **RECEIVED**
Operator Name: _____ **SEP 29 2011**
Lease Name: _____ License No.: _____
Quarter _____ Sec. _____ Twp. _____ S. R. _____ **KCC WICHITA**
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: [Signature]
Title: Production Manager Date: 9/27/11
Subscribed and sworn to before me this 27th day of September,
2011.
Notary Public: [Signature]
Date Commission Expires: 5-4-2015

KCC Office Use ONLY
 Letter of Confidentiality Received 9/27/11 - 9/27/13
 If Denied, Yes No Date: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution **CONFIDENTIAL**
SEP 27 2011
KCC

DEBRA K. PHILLIPS
Notary Public - State of Kansas
My Advt. Expires 9-4-15

Operator Name: Ritchie Exploration, Inc. Lease Name: Wissman 30AB Well #: 1
 Sec. 30 Twp. 18 S. R. 15 East West County: Barton

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: Dual Induction Log Compensated Density/Neutron Log	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample Name Top Datum <p style="text-align: center;">SEE ATTACHED</p>
---	---

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	24	929	60/40 Poz & class A	250 & 175	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>
		RECEIVED SEP 29 2011 KCC WICHITA

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No	
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 <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: <hr/> <p style="text-align: center; font-weight: bold; font-size: 1.2em;">CONFIDENTIAL</p>
---	--	--



#1 Wissman 30AB

1265' FNL & 675' FWL

55' N & 15' E of W/2 NW Section 30-18S-15W

Barton County, Kansas

API# 15-009-25562-0000

Elevation: 1919' GL: 1928' KB

<u>Sample Tops</u>			Ref. Well
Anhydrite	924'	+1004	+18
B/Anhydrite	948'	+980	+13
Stotler	2638'	-710	+1
Topeka	2908'	-980	+2
Heebner	3149'	-1221	+1
Lansing	3232'	-1304	+1
Muncie Shale	3350'	-1422	+6
BKC	3432'	-1504	-2
Conglomerate	3488'	-1560	-1
Reagan Sand	3519'	-1591	+1
Granite Wash	3554'	-1626	-3
RTD	3609'	-1681	

RECEIVED

SEP 29 2011

KCC WICHITA

CONFIDENTIAL

SEP 27 2013

KCC

ALLIED CEMENTING CO., LLC. 038820

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

SERVICE POINT:
Great Bend KS

DATE <u>6-10-11</u>	SEC. <u>30</u>	TWP. <u>18</u>	RANGE <u>15</u>	CALLED OUT	ON LOCATION	JOB START <u>7:15 PM</u>	JOB FINISH <u>8:15 PM</u>
LEASE <u>30 AB</u>	WELL # <u>1</u>	LOCATION <u>Alber + 2 west north</u>			COUNTY <u>Barth</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)		ACROSS TRACKS EAST INTO			Barth		

CONTRACTOR Southwind Rig 2 OWNER Ritchie Exploration

TYPE OF JOB Driller

HOLE SIZE 12 1/4 T.D. 939 CEMENT AMOUNT ORDERED 250Sx 60/40 + 3% cc

CASING SIZE 8 3/4 DEPTH 999.933.59 + 2% Gel + 4% Release

TUBING SIZE DEPTH Tail 175 Sx Class A + 3% cc + 2% Gel + 4% Release

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM COMMON 325 @ 16.25 5.281.35

MEAS. LINE SHOE JOINT 39.54 POZMIX 100 @ 8.50 850.00

CEMENT LEFT IN CSG. 39.54 GEL 9 @ 21.25 191.25

PERFS. CHLORIDE 14 @ 58.20 814.80

DISPLACEMENT BBLS ASC @

EQUIPMENT Plus Seal 106 # @ 2.70 286.20

PUMP TRUCK CEMENTER Wayne @

366 HELPER Greg @

BULK TRUCK @

482-341 DRIVER Trent @

BULK TRUCK @

DRIVER @

HANDLING 452 @ 2.25 1017.00

MILEAGE 752 x 13 x 11 @ 2.25 646.36

TOTAL 9,086.86

REMARKS:

Run 8 3/4 casing and float Equi
circulated with Rig mud
Run 10 BBLS fresh water ahead
Mix 250 Sx 60/40 + 3% cc + 2% Gel + 4% Release
Mix 175 Sx Class A + 3% cc + 2% Gel + 4% Release
Shut Down Release Plys
Displace BBW fresh water.
Shut in Cement did circulate

SERVICE

DEPTH OF JOB 933.59

PUMP TRUCK CHARGE 0-300 1125.00

EXTRA FOOTAGE 633 @ .95 601.35

MILEAGE Trench 26 @ 7.00 182.00

MANIFOLD @

Light Trench 26 @ 4.00 104.00

@

TOTAL 2,012.35

RECEIVED
SEP 29 2011
KCC WICHITA

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

PLUG & FLOAT EQUIPMENT

1 Rubber Plug @ 112.00 112.00

1 Baffle Plate @ 112.00 112.00

2 Conduits @ 64.00 128.00

1 Basket @ 478.00 478.00

@

TOTAL 830.00

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 William Sanders

SIGNATURE William Sanders

SALES TAX (If Any) _____

TOTAL CHARGES [scribble]

DISCOUNT [scribble] IF PAID IN 30 DAYS

CONFIDENTIAL
SEP 27 2013
KCC

[Signature]

ALLIED CEMENTING CO., LLC. 038656

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

SERVICE POINT:
M.I.B.

DATE <u>6-18-11</u>	SEC <u>30913</u>	TWP. <u>20918</u>	RANGE <u>15</u>	CALLED OUT	ON LOCATION	JOB START <u>9:30 AM</u>	JOB FINISH <u>9:30 AM</u>
LEAD # <u>30913</u>				LOCATION <u>Albert Inman E/S</u>	COUNTY <u>Barton</u>	STATE <u>KS.</u>	
OLD OR NEW (Circle one)							

CONTRACTOR Southwind Rig 2

TYPE OF JOB Rotary Plug

HOLE SIZE T.D. 3609 #

CASING SIZE _____ DEPTH _____

TUBING SIZE _____ DEPTH _____

DRILL PIPE 4 1/2 DEPTH 937 #

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT _____

OWNER _____

CEMENT AMOUNT ORDERED 155 sk @ 42 #
44 # flo seal

COMMON <u>93</u>	@ <u>16.25</u>	<u>1,511.20</u>
POZMIX <u>62</u>	@ <u>8.50</u>	<u>527.00</u>
GEL <u>5</u>	@ <u>21.25</u>	<u>106.20</u>
CHLORIDE _____	@ _____	_____
ASC _____	@ _____	_____
<u>Flow seal 38</u>	@ <u>2.70</u>	<u>102.60</u>
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
HANDLING <u>162</u>	@ <u>2.25</u>	<u>364.50</u>
MILEAGE <u>162 x 13 x .11</u>		<u>231.00</u>
TOTAL		<u>2843.10</u>

REMARKS:

25 sk @ 937 #
25 sk @ 319 #
20 # @ 40 # + Plug
20 # RH
13 m #

SERVICE

DEPTH OF JOB <u>937 #</u>		
PUMP TRUCK CHARGE		<u>1250.00</u>
EXTRA FOOTAGE _____	@ _____	_____
MILEAGE <u>Touch 26</u>	@ <u>7.00</u>	<u>182.00</u>
MANIFOLD _____	@ _____	_____
<u>light touch 26</u>	@ <u>4.00</u>	<u>104.00</u>
_____	@ _____	_____
TOTAL		<u>1536.00</u>

RECEIVED
SEP 29 2011
KCC WICHITA

CHARGE TO: Ritchie E/S

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

<u>1 1/2 old Hole Plug</u>	@ <u>64.00</u>	<u>64.00</u>
_____	@ _____	_____
_____	@ _____	_____
_____	@ _____	_____
TOTAL		<u>64.00</u>

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 William Spudis

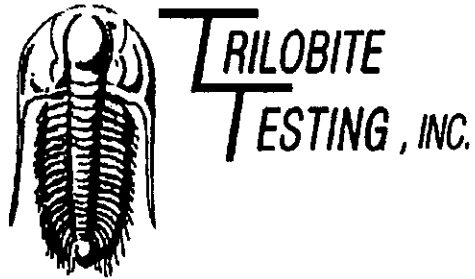
SIGNATURE William Spudis

SALES TAX (If Any) _____

TOTAL CHARGES 1536.00

DISCOUNT _____ IF PAID IN 30 DAYS

CONFIDENTIAL
SEP 27 2013
KCC



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

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

ATTN: Dave Williams

30-18-15 Barton, KS

Wissman 30 AB #1

Start Date: 2011.06.14 @ 23:31:38

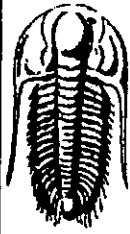
End Date: 2011.06.15 @ 04:44:08

Job Ticket #: 43407 DST #: 1

CONFIDENTIAL
SEP 27 2013
KCC

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

RECEIVED
SEP 29 2011
KCC WICHITA



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Ritchie Exploration
 8100 E 22nd St N # 700
 Box 783188
 Wichita, KS 67278
 ATTN: Dave Williams

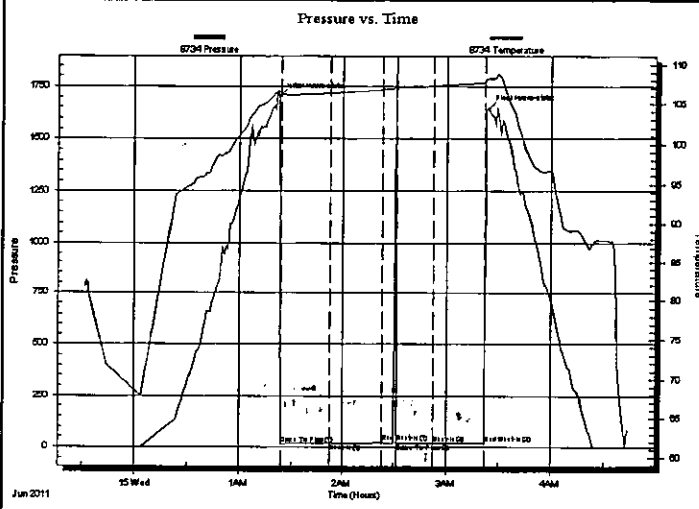
Wissman 30 AB #1
30-18-15 Barton, KS
 Job Ticket: 43407 DST#: 1
 Test Start: 2011.06.14 @ 23:31:38

GENERAL INFORMATION:

Formation: **LKC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:24:08
 Time Test Ended: 04:44:08
 Interval: **3372.00 ft (KB) To 3404.00 ft (KB) (TVD)**
 Total Depth: **3403.00 ft (KB) (TVD)**
 Hole Diameter: **7.88 inches** Hole Condition: **Good**
 Test Type: Conventional Bottom Hole
 Tester: Brian Fairbank
 Unit No: 41
 Reference Elevations: 1930.00 ft (KB)
 1919.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8734 Outside
 Press@RunDepth: 18.43 psig @ 3376.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.06.14 End Date: 2011.06.15 Last Calib.: 2011.06.15
 Start Time: 23:31:39 End Time: 04:44:08 Time On Btm: 2011.06.15 @ 01:23:08
 Time Off Btm: 2011.06.15 @ 03:24:08

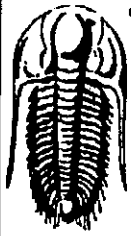
TEST COMMENT: IFP - sur blow - died 7 min
 ISI - no blow back
 FFP - no blow - flush tool - no blow
 FSI - no blow back



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1700.25	106.63	Initial Hydro-static
1	15.58	106.15	Open To Flow (1)
30	17.74	106.37	Shut-In(1)
60	22.15	106.81	End Shut-In(1)
69	18.27	106.94	Open To Flow (2)
90	18.43	107.36	Shut-In(2)
119	20.86	107.76	End Shut-In(2)
121	1640.82	108.17	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
1.00	drl mud 100%	0.01

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration
8100 E 22nd St N# 700
Box 783188
Wichita, KS 67278
ATTN: Dave Williams

Wissman 30 AB #1
30-18-15 Barton, KS
Job Ticket: 43407 DST#: 1
Test Start: 2011.06.14 @ 23:31:38

Tool Information

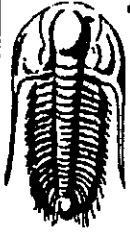
Drill Pipe:	Length: 3354.00 ft	Diameter: 3.80 inches	Volume: 47.05 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 47.05 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 32000.00 lb
Depth to Top Packer:	3372.00 ft			Final 32000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	32.00 ft			
Tool Length:	59.00 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			3350.00	
Hydraulic tool	5.00			3355.00	
Jars	5.00			3360.00	
Safety Joint	2.00			3362.00	
Packer	5.00			3367.00	27.00 Bottom Of Top Packer
Packer	5.00			3372.00	
Stubb	1.00			3373.00	
Perforations	3.00			3376.00	
Recorder	0.00	8372	Inside	3376.00	
Recorder	0.00	8734	Outside	3376.00	
Perforations	25.00			3401.00	
Bullnose	3.00			3404.00	32.00 Bottom Packers & Anchor

Total Tool Length: 59.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration
8100 E 22nd St N# 700
Box 783188
Wichita, KS 67278
ATTN: Dave Williams

Wissman 30 AB #1
30-18-15 Barton, KS
Job Ticket: 43407 DST#: 1
Test Start: 2011.06.14 @ 23:31:38

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: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 8.78 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

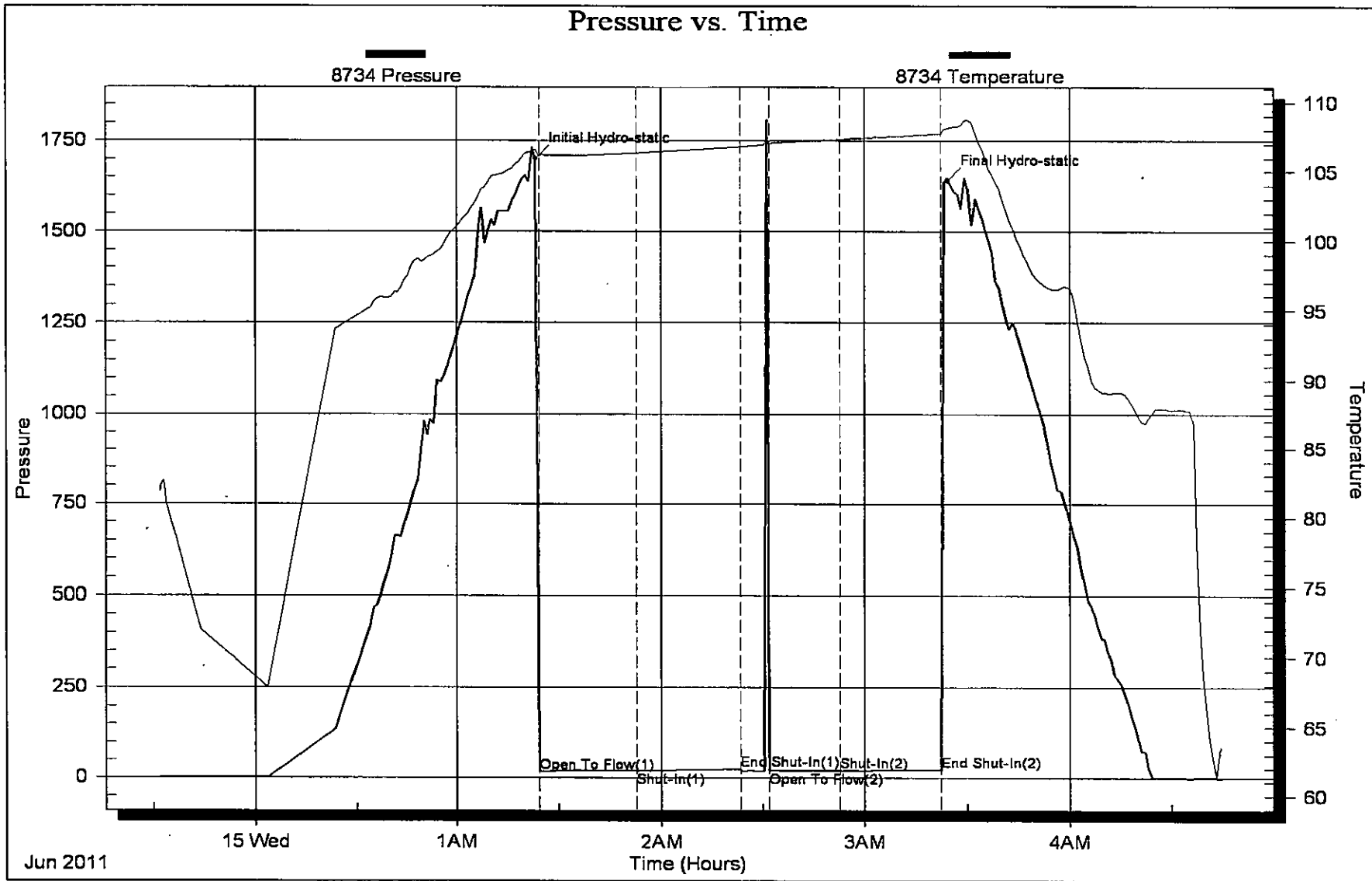
Length ft	Description	Volume bbl
1.00	drl mud 100%	0.014

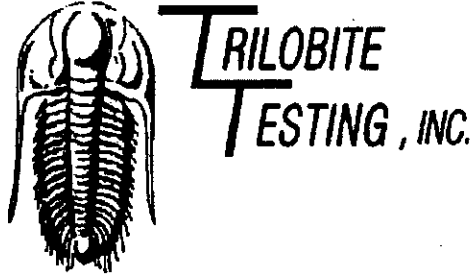
Total Length: 1.00 ft Total Volume: 0.014 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration**

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

ATTN: Dave Williams

30-18-15 Barton, KS

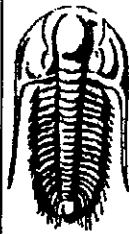
Wissman 30 AB #1

Start Date: 2011.06.15 @ 16:26:34

End Date: 2011.06.15 @ 21:29:34

Job Ticket #: 43408 DST #: 2

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration
8100 E22nd St N# 700
Box 783188
Wichita, KS 67278
ATTN: Dave Williams

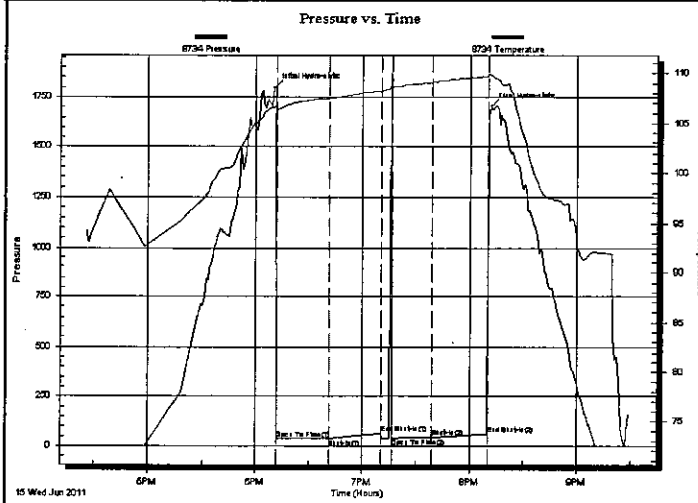
Wissman 30 AB #1
30-18-15 Barton, KS
Job Ticket: 43408 DST#: 2
Test Start: 2011.06.15 @ 16:26:34

GENERAL INFORMATION:

Formation: **Cong. Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:11:34
Time Test Ended: 21:29:34
Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41
Interval: **3460.00 ft (KB) To 3510.00 ft (KB) (TVD)**
Reference Elevations: 1930.00 ft (KB)
Total Depth: 3510.00 ft (KB) (TVD) 1919.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 11.00 ft

Serial #: 8734 Outside
Press@RunDepth: 41.94 psig @ 3464.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.06.15 End Date: 2011.06.15 Last Calib.: 2011.06.15
Start Time: 16:26:35 End Time: 21:29:34 Time On Btm: 2011.06.15 @ 18:10:34
Time Off Btm: 2011.06.15 @ 20:12:04

TEST COMMENT: IFFP - sur blow - died 8 min
ISI - no blow back
FFP - no blow - flush - no blow
FSI - no blow back



PRESSURE SUMMARY

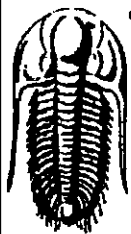
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1795.92	106.68	Initial Hydro-static
1	36.06	106.30	Open To Flow (1)
31	36.45	107.43	Shut-In(1)
60	63.33	108.25	End Shut-In(1)
66	40.90	108.52	Open To Flow (2)
89	41.94	109.13	Shut-In(2)
120	58.97	109.66	End Shut-In(2)
122	1703.05	109.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	drl mud 100%	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration

Wissman 30 AB #1

8100 E 22nd St N# 700
Box 783188
Wichita, KS 67278
ATTN: Dave Williams

30-18-15 Barton, KS
Job Ticket: 43408 DST#: 2
Test Start: 2011.06.15 @ 16:26:34

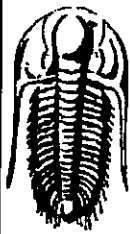
Tool Information

Drill Pipe:	Length: 3447.00 ft	Diameter: 3.80 inches	Volume: 48.35 bbl	Tool Weight: 2500.00 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: 42000.00 lb
			Total Volume: 48.35 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 33000.00 lb
Depth to Top Packer:	3460.00 ft			Final 33000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	50.00 ft			
Tool Length:	77.00 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			3438.00	
Hydraulic tool	5.00			3443.00	
Jars	5.00			3448.00	
Safety Joint	2.00			3450.00	
Packer	5.00			3455.00	27.00 Bottom Of Top Packer
Packer	5.00			3460.00	
Stubb	1.00			3461.00	
Perforations	3.00			3464.00	
Recorder	0.00	8372	Inside	3464.00	
Recorder	0.00	8734	Outside	3464.00	
Change Over Sub	1.00			3465.00	
Blank Spacing	31.00			3496.00	
Change Over Sub	1.00			3497.00	
Perforations	10.00			3507.00	
Bullnose	3.00			3510.00	50.00 Bottom Packers & Anchor

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration
8100 E 22nd St N# 700
Box 783188
Wichita, KS 67278
ATTN: Dave Williams

Wissman 30 AB #1
30-18-15 Barton, KS
Job Ticket: 43408 DST#: 2
Test Start: 2011.06.15 @ 16:26:34

Mud and Cushion Information

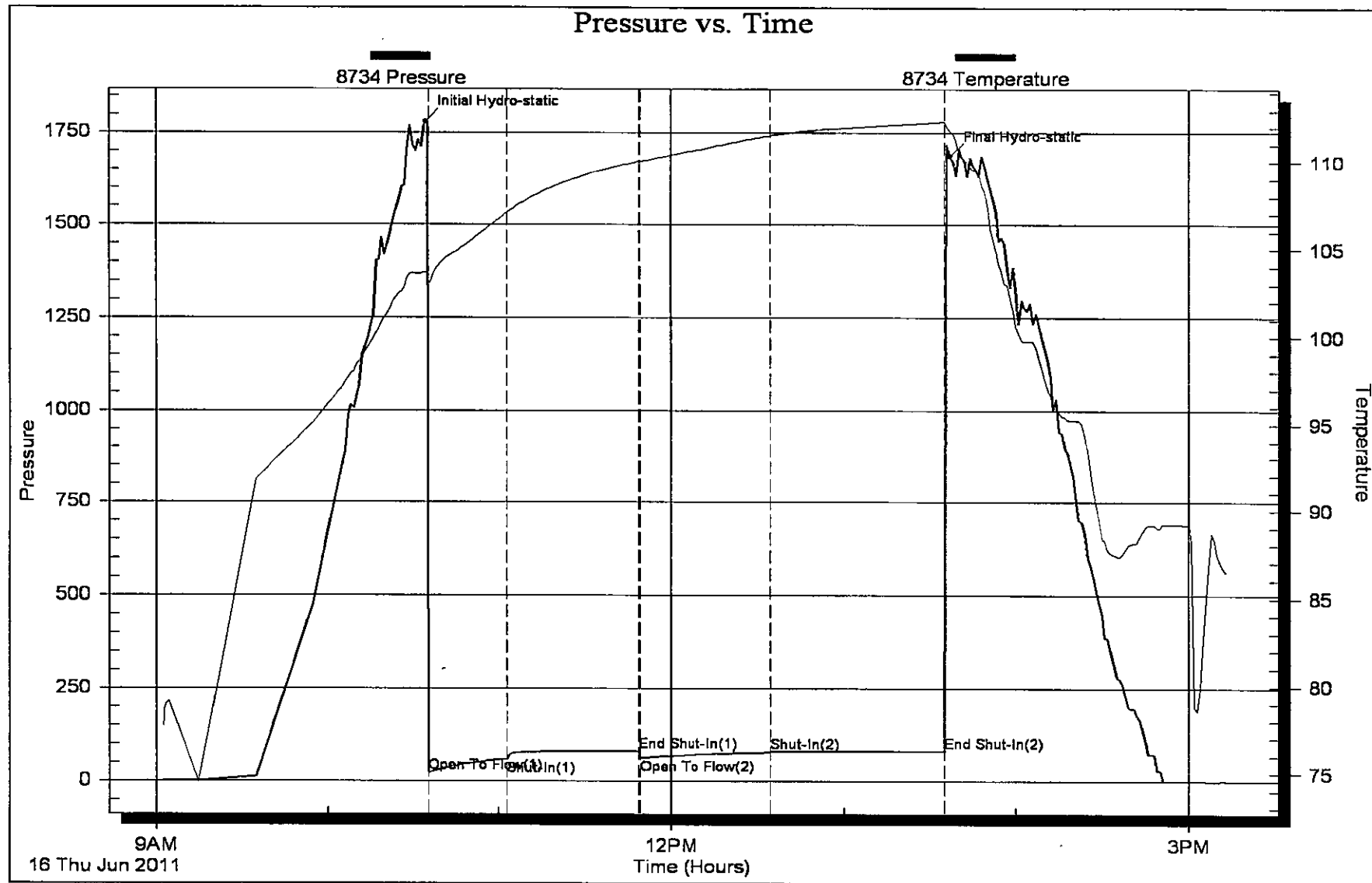
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.18 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: inches			

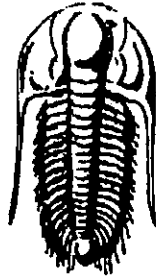
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	drl mud 100%	0.210

Total Length: 15.00 ft Total Volume: 0.210 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**

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

ATTN: Dave Williams

30-18-15 Barton, KS

Wissman 30 AB #1

Start Date: 2011.06.16 @ 09:02:20

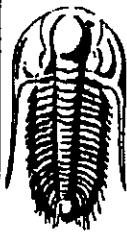
End Date: 2011.06.16 @ 15:12:50

Job Ticket #: 43409 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration
8100 E 22nd St N# 700
Box 783188
Wichita, KS 67278
ATTN: Dave Williams

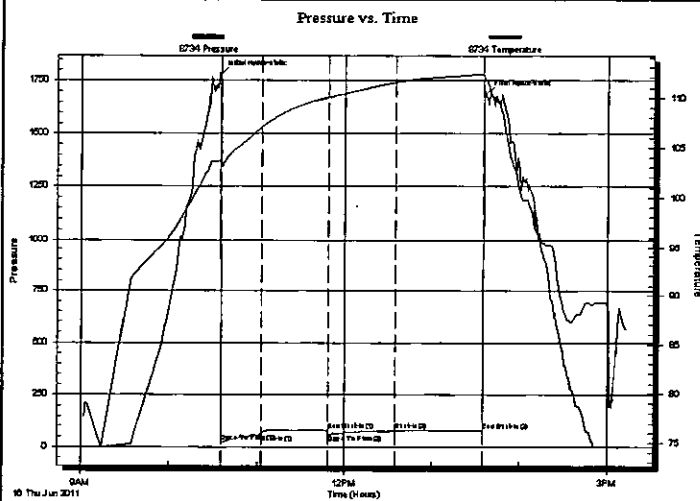
Wissman 30 AB #1
30-18-15 Barton, KS
Job Ticket: 43409 DST#: 3
Test Start: 2011.06.16 @ 09:02:20

GENERAL INFORMATION:

Formation: Reagan Sand
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:35:20
Time Test Ended: 15:12:50
Interval: 3514.00 ft (KB) To 3537.00 ft (KB) (TVD)
Total Depth: 3537.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole
Tester: Brian Fairbank
Unit No: 41
Reference Elevations: 1930.00 ft (KB)
1919.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8734 **Outside**
Press@RunDepth: 79.19 psig @ 3519.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.06.16 End Date: 2011.06.16 Last Calib.: 2011.06.16
Start Time: 09:02:21 End Time: 15:12:50 Time On Btm: 2011.06.16 @ 10:34:20
Time Off Btm: 2011.06.16 @ 13:36:50

TEST COMMENT: IFP - weak to strong blow 1/2" - 9 1/2"
ISI - no blow back
FFP - no blow 4 min - 1 1/2"
FSI - no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1779.50	103.66	Initial Hydro-static
1	23.97	103.09	Open To Flow (1)
29	59.00	107.10	Shut-In(1)
75	80.21	110.04	End Shut-In(1)
75	61.12	110.04	Open To Flow (2)
121	79.19	111.55	Shut-In(2)
181	80.08	112.34	End Shut-In(2)
183	1686.39	111.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	MUD 100%	0.07
135.00	MW w / O on top M 50%, W50%	1.89

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration
8100 E 22nd St N# 700
Box 783188
Wichita, KS 67278
ATTN: Dave Williams

Wissman 30 AB #1
30-18-15 Barton, KS
Job Ticket: 43409 DST#: 3
Test Start: 2011.06.16 @ 09:02:20

Tool Information

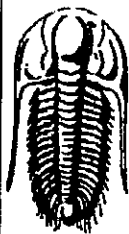
Drill Pipe:	Length: 3508.00 ft	Diameter: 3.80 inches	Volume: 49.21 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 45000.00 lb
			<u>Total Volume: 49.21 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3514.00 ft			Final 35000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	50.00 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			3492.00	
Hydraulic tool	5.00			3497.00	
Jars	5.00			3502.00	
Safety Joint	2.00			3504.00	
Packer	5.00			3509.00	27.00 Bottom Of Top Packer
Packer	5.00			3514.00	
Stubb	1.00			3515.00	
Perforations	4.00			3519.00	
Recorder	0.00	8372	Inside	3519.00	
Recorder	0.00	8734	Outside	3519.00	
Perforations	15.00			3534.00	
Bullnose	3.00			3537.00	23.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration
8100 E 22nd St N# 700
Box 783188
Wichita, KS 67278
ATTN: Dave Williams

Wissman 30 AB #1
30-18-15 Barton, KS
Job Ticket: 43409 DST#: 3
Test Start: 2011.06.16 @ 09:02:20

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:	17000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.18 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 5000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

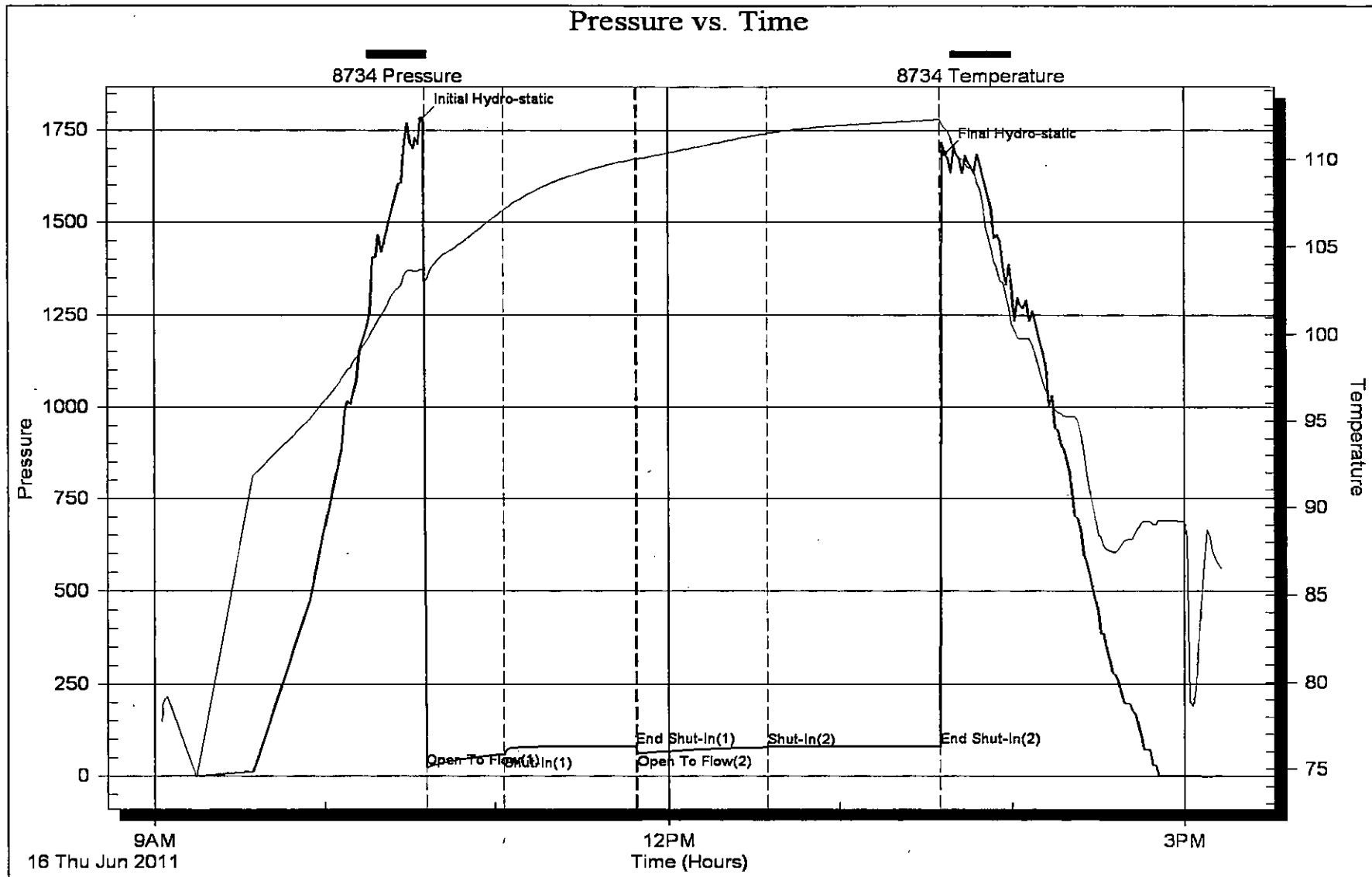
Length ft	Description	Volume bbl
5.00	MUD 100%	0.070
135.00	MW w / O on top M 50%, W50%	1.894

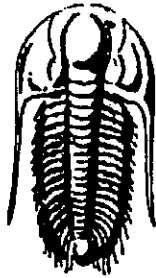
Total Length: 140.00 ft Total Volume: 1.964 bbl

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**

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

ATTN: Dave Williams

30-18-15 Barton, KS

Wissman 30 AB #1

Start Date: 2011.06.17 @ 02:25:45

End Date: 2011.06.17 @ 08:31:15

Job Ticket #: 43410 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Ritchie Exploration
 8100 E 22nd St N# 700
 Box 783188
 Wichita, KS 67278
 ATTN: Dave Williams

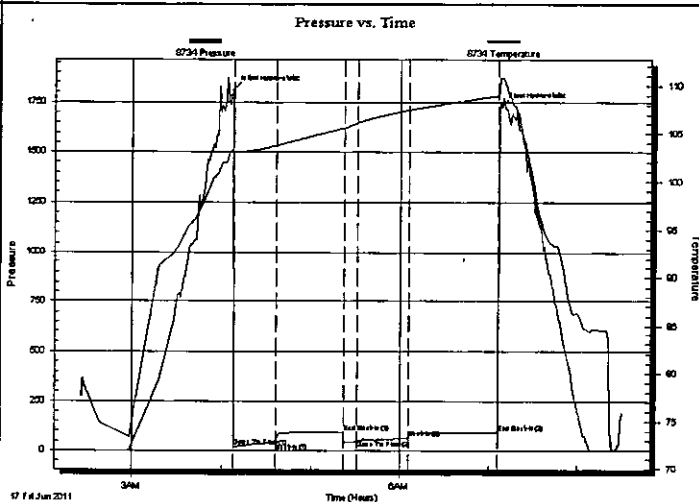
Wissman 30 AB #1
30-18-15 Barton, KS
 Job Ticket: 43410 DST#: 4
 Test Start: 2011.06.17 @ 02:25:45

GENERAL INFORMATION:

Formation: Reagan Sand (2)
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:07:45
 Time Test Ended: 08:31:15
 Interval: 3542.00 ft (KB) To 3570.00 ft (KB) (TVD)
 Total Depth: 3570.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole
 Tester: Brian Fairbank
 Unit No: 41
 Reference Elevations: 1930.00 ft (KB)
 1919.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8734 **Outside**
 Press@RunDepth: 63.26 psig @ 3547.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.06.17 End Date: 2011.06.17 Last Calib.: 2011.06.17
 Start Time: 02:25:46 End Time: 08:31:15 Time On Btm: 2011.06.17 @ 04:06:45
 Time Off Btm: 2011.06.17 @ 07:07:45

TEST COMMENT: IFF - weak to fair blow sur - 4 1/2"
 ISI - no blow back
 FFP - no blow - flush - weak blow throughout sur - 3"
 FSI - no blow back



PRESSURE SUMMARY

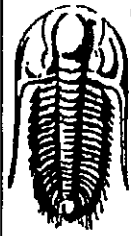
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1809.53	103.33	Initial Hydro-static
1	19.33	103.00	Open To Flow (1)
29	39.13	103.77	Shut-In(1)
75	92.80	105.59	End Shut-In(1)
85	52.54	106.14	Open To Flow (2)
119	63.26	107.44	Shut-In(2)
179	92.21	108.95	End Shut-In(2)
181	1729.56	110.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	MUD 100%	0.14
70.00	MWV 70%W, 30%M	0.98

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration
8100 E22nd St N# 700
Box 783188
Wichita, KS 67278
ATTN: Dave Williams

Wissman 30 AB #1
30-18-15 Barton, KS
Job Ticket: 43410 **DST#: 4**
Test Start: 2011.06.17 @ 02:25:45

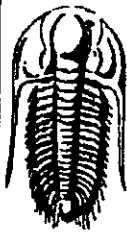
Tool Information

Drill Pipe:	Length: 3540.00 ft	Diameter: 3.80 inches	Volume: 49.66 bbl	Tool Weight: 2500.00 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: 70000.00 lb
			<u>Total Volume: 49.66 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3542.00 ft			Final 37000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	55.00 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			3520.00	
Hydraulic tool	5.00			3525.00	
Jars	5.00			3530.00	
Safety Joint	2.00			3532.00	
Packer	5.00			3537.00	27.00 Bottom Of Top Packer
Packer	5.00			3542.00	
Stubb	1.00			3543.00	
Perforations	4.00			3547.00	
Recorder	0.00	8372	Inside	3547.00	
Recorder	0.00	8734	Outside	3547.00	
Perforations	20.00			3567.00	
Bullnose	3.00			3570.00	28.00 Bottom Packers & Anchor

Total Tool Length: 55.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration

Wissman 30 AB #1

8100 E 22nd St N# 700

30-18-15 Barton, KS

Box 783188

Job Ticket: 43410

DST#: 4

Wichita, KS 67278

ATTN: Dave Williams

Test Start: 2011.06.17 @ 02:25:45

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:

40000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	MUD 100%	0.140
70.00	MMV 70%VW, 30%M	0.982

Total Length: 80.00 ft Total Volume: 1.122 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

