

KCC
MAR 13 2011
CONFIDENTIAL

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

ORIGINAL

Form ACO-1
June 2009

Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

3/9/13

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 Niernberger
Phone: (316) 691-9500
CONTRACTOR: License # 5929
Name: Duke Drilling Co., 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 #:

11/23/10 12/6/10 12/6/10
Spud Date or Date Reached TD Completion Date or Recompletion Date

API No. 15 - 069-20331-00-00

Spot Description: 10' S & 115' E

NE NE SW Sec. 30 Twp. 25 S. R. 27 East West

2,300 Feet from North / South Line of Section

2,425 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Gray

Lease Name: Herron-Abel Well #: 1

Field Name:

Producing Formation:

Elevation: Ground: 2733 Kelly Bushing: 2745

Total Depth: 5112 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

(Data must be collected from the Reserve Pit)

Chloride content: 21800 ppm Fluid volume: 1050 bbls

Dewatering method used: evaporation

Location of fluid disposal if hauled offsite:

Operator Name:

Lease Name: License #:

Quarter Sec. Twp. S. R. East West

County: Permit #:

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

AFFIDAVIT

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

Signature:

Title: Production Manager Date: 3/9/11

KCC Office Use ONLY

- Letter of Confidentiality Received Date: 3/9/11 - 3/9/13
- Confidential Release Date:
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: KCC WICHITA

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MAR 10 2011
3/10/11
KCC WICHITA



RITCHIE

EXPLORATION, INC.
Wichita, Kansas

#1 Herron-Abel

2300' FSL & 2425' FWL

10' S & 115' E of NE NE SW Section 30-25S-27W

Gray County, Kansas

API# 15-069-20331-0000

Elevation: GL: 2733', KB: 2745'

Sample Tops			Ref. Well
Anhydrite	1828'	+917	-13
B/Anhydrite	1856'	+889	-27
Stotler	3573'	-828	-8
Topeka	3768'	-1023	-7
Heebner	4142'	-1397	-5
Lansing	4229'	-1484	-5
Muncie Shale	4404'	-1659	+1
Stark Shale	4542'	-1797	flat
BKC	4631'	-1886	flat
Altamont	4693'	-1948	flat
Pawnee	4761'	-2016	+6
Myric Station	4796'	-2051	+6
Fort Scott	4813'	-2068	+6
Cherokee Shale	4838'	-2093	+3
Atoka Shale	4915'	-2170	+2
Mississippian	4942'	-2197	-3
RTD	5112'	-2367	

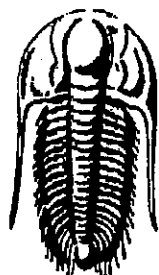
KCC
MAR 13 2011
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P.O. Box 783188
Wichita, Kansas 67278-3188

(316) 691-9500
Fax (316) 691-9550
rei@ritchie-exp.com

8100 E. 22nd St. N., Bldg. 700
Wichita, Kansas 67226-2328

RECEIVED
MAR 10 2011
KCC WICHITA



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

8100 E 22nd St N #700
Wichits KS 67278

ATTN: Jeff Christian

30 25s 27w Gray,KS

Herron-Abel #1

Start Date: 2010.12.03 @ 14:23:49

End Date: 2010.12.03 @ 21:54:58

Job Ticket #: 39499 DST #: 1

**KCC
MAR 13 2011
CONFIDENTIAL**

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

**RECEIVED
MAR 10 2011
KCC WICHITA**

Ritchie Exploration Inc

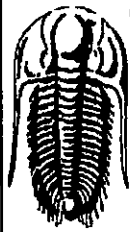
Herron-Abel #1

30 25s 27w Gray,KS

DST # 1

Altamont C

2010-12-03



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

8100 E 22nd St N #700
Wichits KS 67278

ATTN: Jeff Christian

Herron-Abel #1

30 25s 27w Gray,KS

Job Ticket: 39499

DST#: 1

Test Start: 2010.12.03 @ 14:23:49

GENERAL INFORMATION:

Formation: **Altamont C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:39:14

Time Test Ended: 21:54:58

Test Type: Conventional Bottom Hole

Tester: Esak Hadley

Unit No: 34

Interval: **4755.00 ft (KB) To 4778.00 ft (KB) (TVD)**

Total Depth: **4778.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: Fair

Reference Elevations: **2745.00 ft (KB)**

2733.00 ft (CF)

KB to GR/CF: **12.00 ft**

Serial #: 6773

Inside

Press@RunDepth: **122.65 psig @ 4756.00 ft (KB)**

Start Date: **2010.12.03**

End Date:

2010.12.03

Start Time: **14:23:49**

End Time:

21:54:58

Capacity: **8000.00 psig**

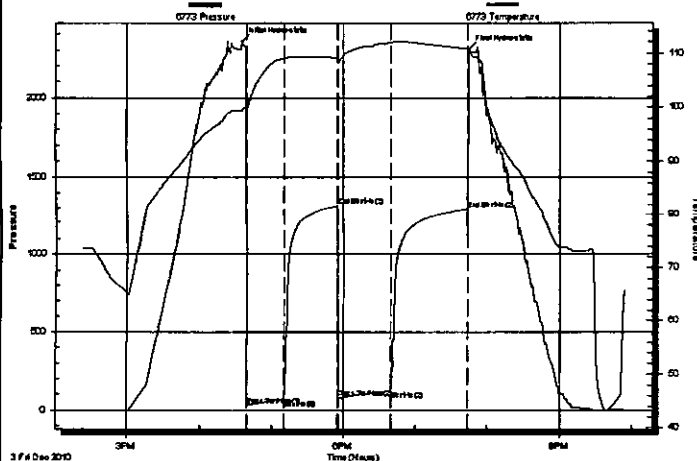
Last Calib.: **2010.12.03**

Time On Btm: **2010.12.03 @ 16:35:14**

Time Off Btm: **2010.12.03 @ 19:44:58**

TEST COMMENT: IF Weak blow . Slow increase to 5".
ISI No blow .
FF Weak blow . Slow increase to 4".
FSI No blow .

Pressure vs. Time



PRESSURE SUMMARY

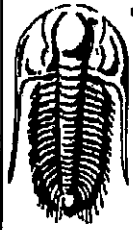
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2352.09	99.42	Initial Hydro-static
4	29.16	99.66	Open To Flow (1)
36	66.75	108.90	Shut-In(1)
81	1316.75	109.03	End Shut-In(1)
81	74.09	108.42	Open To Flow (2)
126	122.65	111.87	Shut-In(2)
189	1293.29	110.76	End Shut-In(2)
190	2302.14	110.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
76.00	MCW 20% m 80% w	1.07
62.00	MCW 10% m 90% w	0.87
62.00	MCW 5% m 95% w	0.87

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Herron-Abel #1

8100 E 22nd St N #700
Wichita KS 67278

30 25s 27w Gray,KS

Job Ticket: 39499

DST#: 1

ATTN: Jeff Christian

Test Start: 2010.12.03 @ 14:23:49

Tool Information

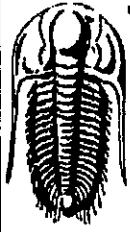
Drill Pipe:	Length: 4756.00 ft	Diameter: 3.80 inches	Volume: 66.71 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 66.71 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	4755.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4728.00	
Shut In Tool	5.00			4733.00	
Hydraulic tool	5.00			4738.00	
Jars	5.00			4743.00	
Safety Joint	2.00			4745.00	
Packer	5.00			4750.00	28.00 Bottom Of Top Packer
Packer	5.00			4755.00	
Stubb	1.00			4756.00	
Recorder	0.00	8166	Outside	4756.00	
Recorder	0.00	6773	Inside	4756.00	
Perforations	19.00			4775.00	
Bullnose	3.00			4778.00	23.00 Bottom Packers & Anchor

Total Tool Length: 51.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

Herron-Abel #1

8100 E 22nd St N #700
Wichita KS 67278

30 25s 27w Gray, KS

Job Ticket: 39499

DST#: 1

ATTN: Jeff Christian

Test Start: 2010.12.03 @ 14:23:49

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:

18000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
76.00	MCW 20% m 80% w	1.066
62.00	MCW 10% m 90% w	0.870
62.00	MCW 5% m 95% w	0.870

Total Length: 200.00 ft Total Volume: 2.806 bbl

Num Fluid Samples: 0

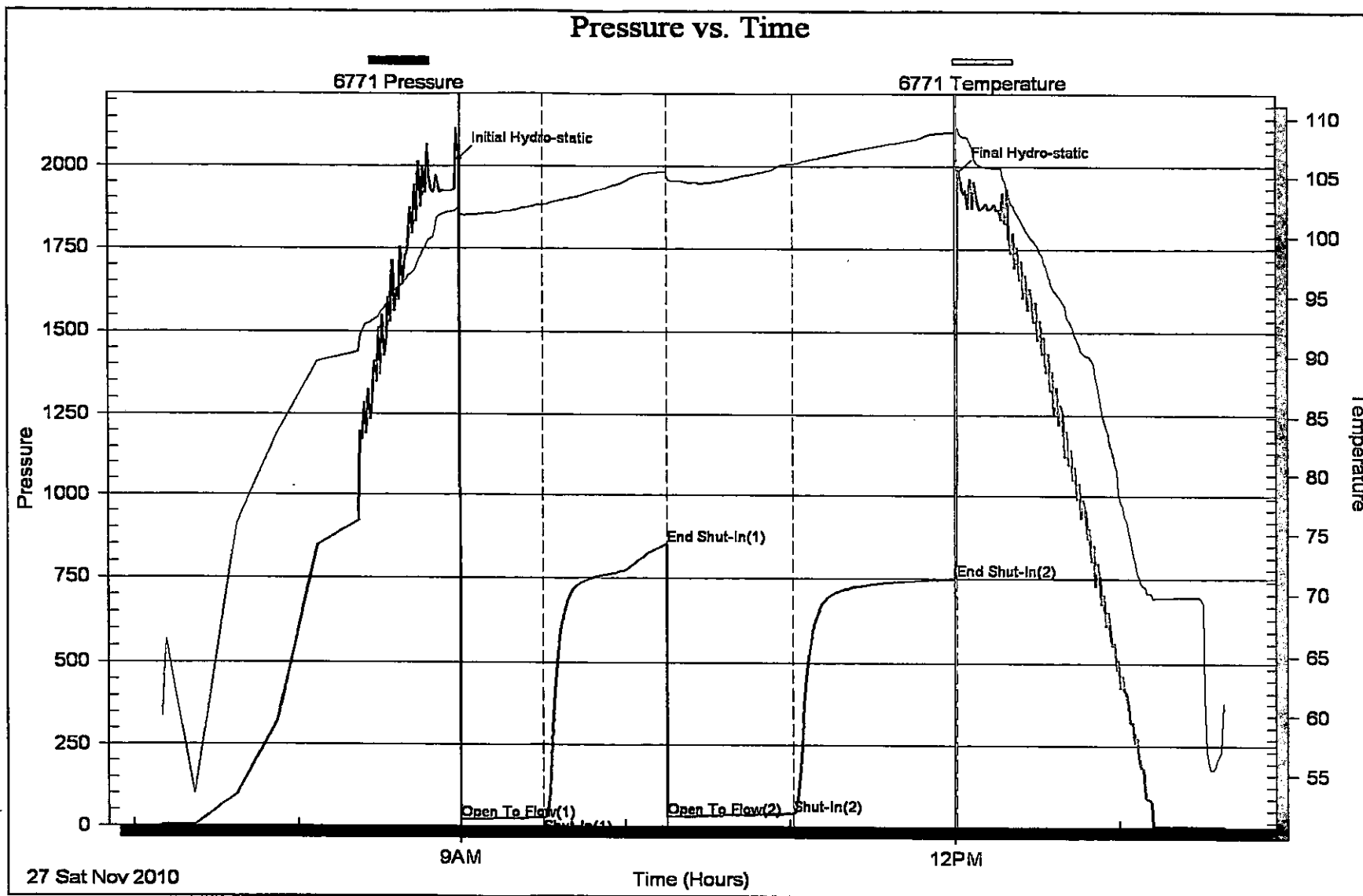
Num Gas Bombs: 0

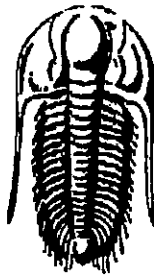
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .55 @ 49F = 18000 chlorides





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

8100 E 22nd St N #700
Wichits KS 67278

ATTN: Jeff Christian

30 25s 27w Gray,KS

Herron-Abel #1

Start Date: 2010.12.04 @ 20:15:29

End Date: 2010.12.05 @ 05:08:29

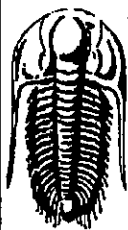
Job Ticket #: 39500 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Ritchie Exploration Inc
Herron-Abel #1
30 25s 27w Gray,KS
DST # 2
Cherokee-Morrow
2010.12.04



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Ritchie Exploration Inc
8100 E 22nd St N#700
Wichits KS 67278
ATTN: Jeff Christian

Herron-Abel #1
30 25s 27w Gray,KS
Job Ticket: 39500 DST#: 2
Test Start: 2010.12.04 @ 20:15:29

GENERAL INFORMATION:

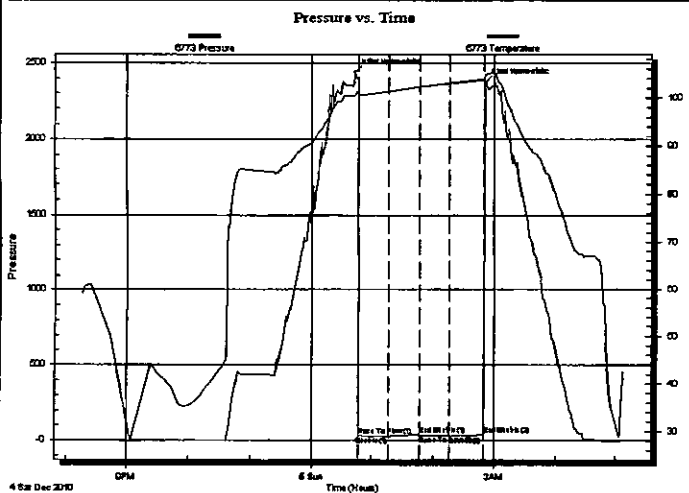
Formation: **Cherokee-Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 00:46:29
Time Test Ended: 05:08:29
Interval: **4865.00 ft (KB) To 4940.00 ft (KB) (TVD)**
Total Depth: 4940.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Esak Hadley
Unit No: 34
Reference Elevations: 2745.00 ft (KB)
2733.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 6773

Inside

Press@RunDepth: 28.86 psig @ 4866.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2010.12.04 End Date: 2010.12.05 Last Calib.: 2010.12.05
Start Time: 20:15:34 End Time: 05:08:29 Time On Btm: 2010.12.05 @ 00:42:58
Time Off Btm: 2010.12.05 @ 02:50:59

TEST COMMENT: IF Weak surface blow. No more than 1/4".
ISI No blow.
FF No blow.
FSI No blow.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2437.36	100.46	Initial Hydro-static
4	31.06	100.82	Open To Flow (1)
34	28.37	101.35	Shut-In(1)
64	39.22	102.28	End Shut-In(1)
64	29.36	102.29	Open To Flow (2)
94	28.86	103.10	Shut-In(2)
127	35.85	103.90	End Shut-In(2)
129	2371.18	104.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	drilg mud	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

Herron-Abel #1

8100 E 22nd St N #700
Wichita KS 67278

30 25s 27w Gray, KS

Job Ticket: 39500

DST#: 2

ATTN: Jeff Christian

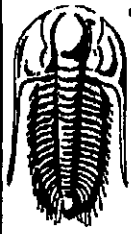
Test Start: 2010.12.04 @ 20:15:29

Tool Information

Drill Pipe:	Length: 4849.00 ft	Diameter: 3.80 inches	Volume: 68.02 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			Total Volume: 68.02 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4865.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	75.00 ft			
Tool Length:	103.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4839.00	
Shut In Tool	5.00			4843.00	
Hydraulic tool	5.00			4848.00	
Jars	5.00			4853.00	
Safety Joint	2.00			4855.00	
Packer	5.00			4860.00	28.00 Bottom Of Top Packer
Packer	5.00			4865.00	
Stubb	1.00			4866.00	
Recorder	0.00	8166	Outside	4866.00	
Recorder	0.00	6773	Inside	4866.00	
Perforations	9.00			4875.00	
Change Over Sub	1.00			4876.00	
Blank Spacing	32.00			4908.00	
Change Over Sub	1.00			4909.00	
Perforations	28.00			4937.00	
Bullnose	3.00			4940.00	75.00 Bottom Packers & Anchor
Total Tool Length:	103.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc
8100 E 22nd St N #700
Wichits KS 67278

ATTN: Jeff Christian

Herron-Abel #1
30 25s 27w Gray,KS
Job Ticket: 39500 DST#: 2
Test Start: 2010.12.04 @ 20:15:29

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: 8.79 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3800.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	drlg mud	0.070

Total Length: 5.00 ft Total Volume: 0.070 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

