

**CONFIDENTIAL**

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

**ORIGINAL**

Form ACO-1  
October 2008  
Form Must Be Typed

10/27/12

**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: Peter Fiorini  
Phone: ( 316 ) 691-9500  
CONTRACTOR: License # 30606  
Name: Murfin Drilling Co., Inc.  
Wellsite Geologist: Terry McLeod  
Purchaser: NCRA

**KCC**  
**OCT 27 2010**  
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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.: \_\_\_\_\_  
6/30/10                      7/10/10                      7/10/10  
Spud Date or                      Date Reached TD                      Completion Date or  
Recompletion Date                                                                Recompletion Date

API No. 15 - 109-20924-0000  
Spot Description: 15' N & 20' W of  
S/2 SE \_\_\_\_\_ Sec. 36 Twp. 13 S. R. 32  East  West  
675 Feet from  North /  South Line of Section  
1340 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE  NW  SE  SW  
County: Logan  
Lease Name: Stucky 36D Well #: 3  
Field Name: \_\_\_\_\_  
Producing Formation: Johnson  
Elevation: Ground: 2913 Kelly Bushing: 2923  
Total Depth: 4700 Plug Back Total Depth: 4646  
Amount of Surface Pipe Set and Cemented at: 212 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: 2388 Feet  
If Alternate II completion, cement circulated from: surface  
feet depth to: 2388 w/ 225 sx cmt.

**Drilling Fluid Management Plan** *AK INJ 11-4-10*  
*(Data must be collected from the Reserve Pit)*  
Chloride content: 11000 ppm Fluid volume: 680 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: [Signature]  
Title: Production Manager Date: 10/27/10  
Subscribed and sworn to before me this 27<sup>th</sup> day of October  
2010  
Notary Public: [Signature]  
Date Commission Expires: 5-4-11

**DEBRA K. PHILLIPS**  
Notary Public - State of Kansas  
My Appt. Expires 5-4-11

**KCC Office Use ONLY**  
 Letter of Confidentiality Received 90/27/10 - 10/27/12  
 If Denied, Yes  Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution

**RECEIVED**  
**OCT 29 2010**  
**KCC WICHITA**

Operator Name: Ritchie Exploration, Inc. Lease Name: Stucky 36D Well #: 3  
 Sec. 36 Twp. 13 S. R. 32  East  West County: Logan

**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>Radiation Guard Log</b>	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input checked="" type="checkbox"/> Sample Name Top Datum  SEE ATTACHED  <div style="text-align: right; font-weight: bold; font-size: 1.2em;">                     KCC                      OCT 27 2010                      CONFIDENTIAL                 </div>
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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#	212'	common	175	3%cc, 2%gel
Production	7-7/8	5-1/2	15.5#	4686'	ASC	200	10% salt, 2% gel & 3/4% CD-31

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>	Depth
4	4524' - 4528' (7/30/10)	250 GALS 15% NE	
4	4522' - 4524' (7/30/10)	800 GALS 15% NE	
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TUBING RECORD: Size: <u>2-3/8</u> Set At: <u>4639'</u> Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or Enhr. <u>8/10/10</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>32.96</u>	Gas Mcf _____ Water Bbls. <u>6</u> Gas-Oil Ratio _____ Gravity <u>32.9</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 type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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**#3 Stucky 36D**

675' FSL & 1340' FEL  
 15' N & 20' W of S/2 SE Section 36-13S-32W  
 Logan County, Kansas  
 API# 15-109-20924-0000  
 Elevation: GL: 2913', KB: 2923'

Sample Tops			Ref. Well
Anhydrite	2401'	+522	+6
B/Anhydrite	2420'	+503	+7
Heebner	3896'	-973	+9
Toronto	3913'	-990	+12
Lansing	3937'	-1014	+9
Lansing "C"	3971'	-1048	+15
Lansing "D"	3987'	-1064	+15
Lansing "E"	4013'	-1090	+20
Muncie Shale	4097'	-1174	+11
Lansing "H"	4114'	-1191	+7
Lansing "I"	4150'	-1227	+4
Lansing "J"	4178'	-1255	+1
Lansing "K"	4199'	-1276	+8
Lansing "L"	4239'	-1316	+4
BKC	4265'	-1342	+7
Altamont	4327'	-1404	+8
Pawnee	4389'	-1466	+5
Myric	4429'	-1506	+2
Fort Scott	4446'	-1523	+1
Cherokee Shale	4473'	-1550	+2
Johnson	4519'	-1596	-1
Morrow Sand	4570'	-1647	-9
Mississippian	4597'	-1674	-20
RTD	4700'	-1777	

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# ALLIED CEMENTING CO., LLC. 038942

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

SERVICE POINT:

OAKLEY

DATE <u>7-10-10</u>	SEC <u>36</u>	TWP. <u>13</u>	RANGE <u>32</u>	CALLED OUT	ON LOCATION <u>6:00AM</u>	JOB START <u>10:30</u>	JOB FINISH <u>11:30AM</u>
DATE <u>Stucky</u>	WELL <u>36-D</u>	LOCATION <u>Oakley 205-2E-4E</u>	COUNTY <u>Logan</u>	STATE <u>KS</u>			
LEASE # <u>3</u>	OLD OR NEW (Circle one)						

CONTRACTOR M. A. S. #11  
 TYPE OF JOB Production  
 HOLE SIZE 7 7/8 T.D. 4700'  
 CASING SIZE 5" 2 IS. S DEPTH 4686'  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL P. Collar \*54 DEPTH  
 PRES. MAX MINIMUM  
 MEAS. LINE SHOE JOINT 20'  
 CEMENT LEFT IN CSG. 20'  
 PERFS.  
 DISPLACEMENT 111.03

OWNER  
 CEMENT  
 AMOUNT ORDERED 250 ASC 29000  
1000 salt 54 gal / 1/8K 3/4 200 D. 31  
500 gal WFR II

EQUIPMENT  
 PUMP TRUCK CEMENTER Fuzzly  
 # 431 HELPER 12-114  
 BULK TRUCK  
 # 347 DRIVER Jerry  
 BULK TRUCK  
 # DRIVER

COMMON	@		
POZMIX	@		
GEL	<u>5</u>	@ <u>20.00</u>	<u>100.00</u>
CHLORIDE	@		
ASC	<u>250</u>	@ <u>18.50</u>	<u>4650.00</u>
	@		
<u>CD-31</u>	<u>176</u>	@ <u>9.35</u>	<u>1645.00</u>
	@		
<u>Gilsonite</u>	<u>1250</u>	@ <u>.89</u>	<u>1112.50</u>
	@		
<u>Salt</u>	<u>28</u>	@ <u>23.95</u>	<u>670.00</u>
	@		
<u>WFR II</u>		@ <u>1.27</u>	<u>635.00</u>
HANDLING	<u>311</u>	@ <u>2.40</u>	<u>746.40</u>
MILEAGE	<u>104.5</u>	@ <u>6.50</u>	<u>680.00</u>
TOTAL			<u>10248.30</u>

REMARKS:

Pump 500 gal WFR II mix costs mt  
Mix 3095 RH. Mix 20055 down center  
wash pump lines Dip plug and place  
to insert. Insert did not hold  
pressure to 500\* shot in.  
Plug down @ 11:50 am  
Good circulation through.  
Thanks Fuzzly crew

SERVICE

DEPTH OF JOB	<u>4686'</u>		
PUMP TRUCK CHARGE			<u>2011.00</u>
EXTRA FOOTAGE	@		
MILEAGE	<u>22</u>	@ <u>7.00</u>	<u>154.00</u>
MANIFOLD	@		
	@		
	@		
TOTAL			<u>2165.00</u>

CHARGE TO: Bitchie Exploration  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

S 1/2

1- AFU Insert		<u>112.00</u>
1-G-Shoe	@	<u>101.00</u>
1- Basket (LW)	@	<u>186.00</u>
8- Turbolizers	@ <u>42.00</u>	<u>336.00</u>
1- Post Collar	@	<u>1750.00</u>
3- Baskets	@ <u>161.00</u>	<u>483.00</u>
1- rubber plug		<u>87.00</u>
TOTAL		<u>3055.00</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.

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

PRINTED NAME \_\_\_\_\_  
 SIGNATURE Thomas A. A. A.

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 KCC WICHITA

ETC

# ALLIED CEMENTING CO., LLC. 035089 A

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

SERVICE POINT:  
OAKLEY

DATE <u>6-30-10</u>	SEC. <u>36</u>	TWP. <u>13S</u>	RANGE <u>32W</u>	CALLED OUT	ON LOCATION <u>5:30 PM</u>	JOB START <u>9:30 PM</u>	JOB FINISH <u>10:00 PM</u>
LEASE <u>STUCKY 360</u>	WELL# <u>3</u>	LOCATION <u>OAKLEY 205-2E-4N</u>			COUNTY <u>LOGAN</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR MURPHY DRUG #14

TYPE OF JOB SURFACE

HOLE SIZE 12 1/4" T.D. 215'

CASING SIZE 8 7/8" DEPTH 215

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 15'

PERFS.

DISPLACEMENT 12 3/4 IN

OWNER SAME

CEMENT

AMOUNT ORDERED

175 SKS COM 3800 26 GEL

EQUIPMENT

PUMP TRUCK CEMENTER TERRY

# 422 HELPER WAYNE

BULK TRUCK

# 377 DRIVER DARRIN

BULK TRUCK

# DRIVER

COMMON	<u>175 SKS</u>	@ <u>15.45</u>	<u>2703.75</u>
POZMIX		@	
GEL	<u>3 SKS</u>	@ <u>20.80</u>	<u>62.40</u>
CHLORIDE	<u>6 SKS</u>	@ <u>58.20</u>	<u>349.20</u>
ASC		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	<u>184 SKS</u>	@ <u>2.40</u>	<u>441.60</u>
MILEAGE	<u>104 PER SK / MILE</u>		<u>404.80</u>
TOTAL			<u>3961.35</u>

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REMARKS:

CEMENT did CERC.

5 BBS TO AET

THANK YOU

SERVICE

DEPTH OF JOB 215'

PUMP TRUCK CHARGE 1019

EXTRA FOOTAGE @

MILEAGE 22 MI @ 7.20 158.40

MANIFOLD @

TOTAL 1172.80

CHARGE TO: RECHIS explanation

STREET

CITY STATE ZIP

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.

PRINTED NAME Greg Church

SIGNATURE Greg Church

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS

RECEIVED  
OCT 29 2010  
KCC WICHITA

# ALLIED CEMENTING CO., LLC. 038901

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

SERVICE POINT: Dakley KS

DATE <u>7/15/10</u>	SEC <u>36</u>	TWP. <u>13</u>	RANGE <u>32</u>	CALLED OUT	ON LOCATION	JOB START <u>12:09</u>	JOB FINISH <u>1:00</u>
STACY LEASE <u>360</u>	WELL # <u>#3</u>	LOCATION <u>Dakley 205 2<del>0</del> 4N</u>	COUNTY <u>Logan</u>	STATE <u>KS</u>			
OLD OR NEW (Circle one)		<u>u into</u>					

CONTRACTOR Express Well OWNER Same

TYPE OF JOB Part Collar

HOLE SIZE \_\_\_\_\_ T.D. \_\_\_\_\_

CASING SIZE 5 1/2 DEPTH \_\_\_\_\_

TUBING SIZE 2 3/8 DEPTH \_\_\_\_\_

DRILL PIPE \_\_\_\_\_ DEPTH \_\_\_\_\_

TOOL Part Collar DEPTH 2389

PRES. MAX \_\_\_\_\_ MINIMUM \_\_\_\_\_

MEAS. LINE \_\_\_\_\_ SHOE JOINT \_\_\_\_\_

CEMENT LEFT IN CSG. \_\_\_\_\_

PERFS. \_\_\_\_\_

DISPLACEMENT 8 1/2 bbl H<sub>2</sub>O

EQUIPMENT \_\_\_\_\_

PUMP TRUCK CEMENTER Alan

# 422 HELPER Wayne

BULK TRUCK \_\_\_\_\_

# 373 DRIVER Jerry

BULK TRUCK \_\_\_\_\_

# \_\_\_\_\_ DRIVER \_\_\_\_\_

CEMENT

AMOUNT ORDERED 450 SKS ALW

1 1/4 16 FLO Seal

500 16 Hulls on side

used 225 SKS

COMMON @ \_\_\_\_\_

POZMIX @ \_\_\_\_\_

GEL @ \_\_\_\_\_

CHLORIDE @ \_\_\_\_\_

ASC @ \_\_\_\_\_

ALW - 225 SKS @ 14.05 3161.25

FLO Seal 56 16 @ 2.50 1400.00

Hulls 6 SKS @ 31.85 191.10

HANDLING 465 SKS @ 2.40 1116.00

MILEAGE 20.5 SK/mile @ \_\_\_\_\_ 1023.50

TOTAL 5631.25

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REMARKS:

Pressure tool to 1200, held, open tool, Take Rate,  
Mix 225 SKS ALW, 1 1/4 16 FLO Seal, Displace  
u 8 1/2 bbl, Close tool, Pressure to 1200,  
Held, Run 5 JTS, Reverse Clean

Cement Did Circulate.

Thank You  
Alan, Wayne, Jerry

CHARGE TO: Ritchie Exploration

STREET \_\_\_\_\_

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

SERVICE

DEPTH OF JOB 2389

PUMP TRUCK CHARGE 1185.00

EXTRA FOOTAGE @ \_\_\_\_\_

MILEAGE 22 @ 7.00 154.00

MANIFOLD @ \_\_\_\_\_

TOTAL 1339.00

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.

PRINTED NAME \_\_\_\_\_

SIGNATURE Thomas Adair

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

TOTAL CHARGES \_\_\_\_\_

DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS

RECEIVED  
OCT 29 2010  
KCC WICHITA



## DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION, INC.**

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

ATTN: Terry McCleod

**36-13S-32W LOGAN**

**STUCKY 36D #3**

Start Date: 2010.07.03 @ 02:45:00

End Date: 2010.07.03 @ 00:00:00

Job Ticket #: 15939                      DST #: 1

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.07.03 @ 21:51:25

RITCHIE EXPLORATION, INC.

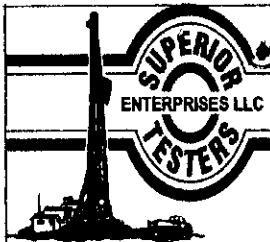
STUCKY 36D #3

36-13S-32W LOGAN

DST # 1

KANSAS CITY "A" ZO

2010.07.03



# DRILL STEM TEST REPORT

RITCHIE EXPLORATION, INC.

**STUCKY 36D #3**

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

**36-13S-32W LOGAN**

Job Ticket: 15939

**DST#: 1**

ATTN: Terry McCleod

Test Start: 2010.07.03 @ 02:45:00

## GENERAL INFORMATION:

Formation: **KANSAS CITY "A" ZO**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: DYLAN ELLIS

Unit No: 3345-59 SCOTT CITY

Interval: **3939.00 ft (KB) To 3970.00 ft (KB) (TVD)**

Reference Elevations: 2923.00 ft (KB)

Total Depth: 3970.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

## Serial #: 4143

Inside

Press@RunDepth: 1212.93 psia @ 3966.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.07.03

End Date: 2010.07.03

Last Calib.: 2010.07.03

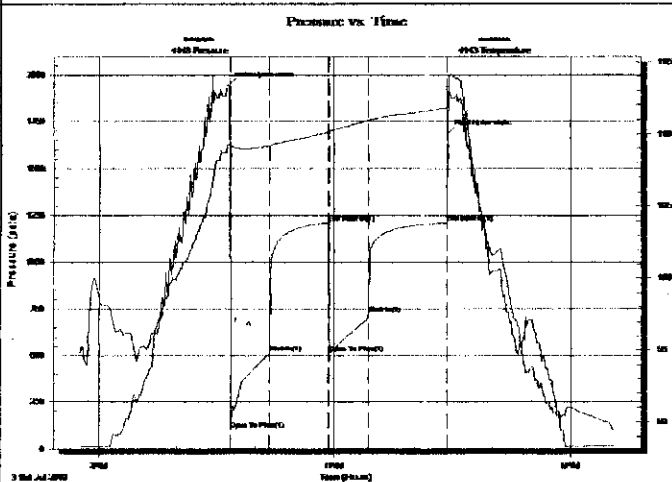
Start Time: 02:45:00

End Time: 09:33:15

Time On Btm: 2010.07.03 @ 04:39:46

Time Off Btm: 2010.07.03 @ 07:26:16

TEST COMMENT: 1ST OPENING 30 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 3 MINUTES  
1ST SHUT-IN 45 MINUTES NO BLOW BACK  
2ND OPENING 30 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 4 MINUTES  
2ND SHUT-IN 60 MINUTES NO BLOW BACK



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1942.23	109.21	Initial Hydro-static
1	101.62	109.09	Open To Flow (1)
31	511.81	109.20	Shut-In(1)
76	1213.30	110.11	End Shut-In(1)
76	515.91	110.11	Open To Flow (2)
106	728.47	110.97	Shut-In(2)
166	1212.93	111.82	End Shut-In(2)
167	1687.74	111.99	Final Hydro-static

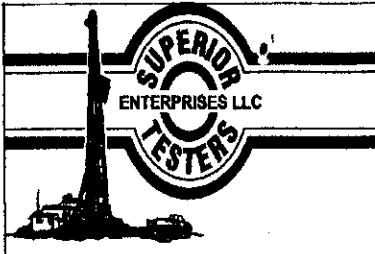
## Recovery

Length (ft)	Description	Volume (bbl)
210.00	Slightly muddy water 5% mud 95% water	1.03
1265.00	Salt water-Chlorides 49000	14.35
0.00	Resistivity .16 @ 82 degrees	0.00

## Gas Rates

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





# DRILL STEM TEST REPORT

RITCHE EXPLORATION, INC.

**STUCKY 36D #3**

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

**36-13S-32W LOGAN**

Job Ticket: 15939

**DST#: 1**

ATTN: Terry McCleod

Test Start: 2010.07.03 @ 02:45:00

## GENERAL INFORMATION:

Formation: **KANSAS CITY "A" ZO**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: DYLAN ELLIS

Unit No: 3345-59 SCOTT CITY

Interval: **3939.00 ft (KB) To 3970.00 ft (KB) (TVD)**

Reference Elevations: 2923.00 ft (KB)

Total Depth: 3970.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8400**

**Outside**

Press@RunDepth: 1210.47 psia @ 3967.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.07.03

End Date:

2010.07.03

Last Calib.: 2010.07.03

Start Time: 02:45:00

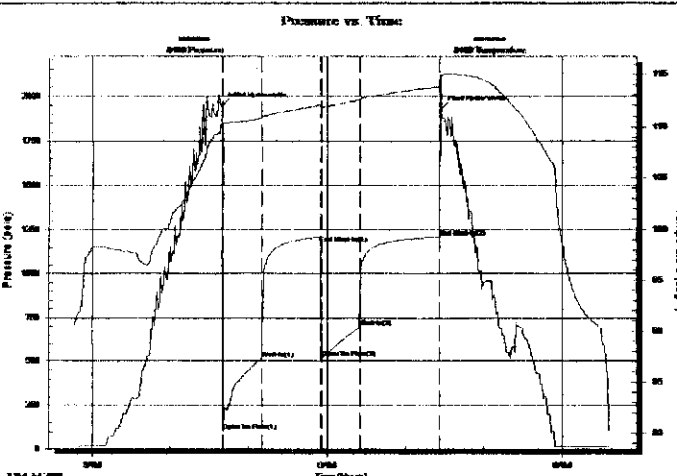
End Time:

09:37:00

Time On Btm: 2010.07.03 @ 04:40:00

Time Off Btm: 2010.07.03 @ 07:27:00

**TEST COMMENT:** 1ST OPENING 30 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 3 MINUTES  
1ST SHUT-IN 45 MINUTES NO BLOW BACK  
2ND OPENING 30 MINUTES FAIR BLOW BUILT TO THE BOTTOM OF A 5 GALLON BUCKET IN 4 MINUTES  
2ND SHUT-IN 60 MINUTES NO BLOW BACK



## PRESSURE SUMMARY

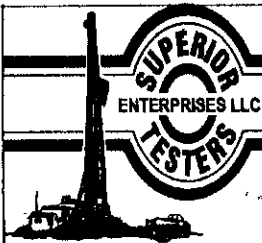
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1946.39	110.60	Initial Hydro-static
1	103.82	110.15	Open To Flow (1)
30	513.35	110.78	Shut-In(1)
75	1172.06	112.05	End Shut-In(1)
76	517.97	111.87	Open To Flow(2)
105	697.73	112.54	Shut-In(2)
166	1210.47	113.81	End Shut-In(2)
167	1926.76	114.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
210.00	Slightly muddy water 5% mud 95% water	1.03
1265.00	Salt water-Chlorides	49000
0.00	Resistivity .16 @ 82 degrees	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET #700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15939

DST#: 1

ATTN: Terry McCleod

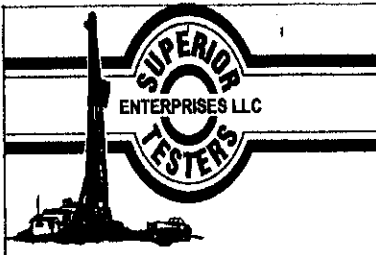
Test Start: 2010.07.03 @ 02:45:00

## Tool Information

Drill Pipe:	Length: 3349.07 ft	Diameter: 3.80 inches	Volume: 46.98 bbl	Tool Weight: 2000.00 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: 582.93 ft	Diameter: 2.25 inches	Volume: 2.87 bbl	Weight to Pull Loose: 85000.00 lb
			<u>Total Volume: 49.85 bbl</u>	Tool Chased: 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	3939.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	54.00 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			3917.00	
Shut-In Tool	5.00			3922.00	
Hydroic Tool	5.00			3927.00	
Safety Joint	2.00			3929.00	
Packer	5.00			3934.00	23.00 Bottom Of Top Packer
Packer	5.00			3939.00	
Perforations	26.00			3965.00	
Recorder	1.00	4143	Inside	3966.00	
Recorder	1.00	8400	Outside	3967.00	
Bullnose	3.00			3970.00	31.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>54.00</b>				



**DRILL STEM TEST REPORT** **FLUID SUMMARY**

RITCHE EXPLORATION, INC. 8100 E 22ND STREET#700 WICHITA KANSAS 67278 ATTN: Terry McCleod	<b>STUCKY 36D #3</b> <b>36-13S-32W LOGAN</b> Job Ticket: 15939 <b>DST#: 1</b> Test Start: 2010.07.03 @ 02:45:00
---	--

**Mud and Cushion Information**

Mud Type: Gel Chem Mud Weight: 9.00 lb/gal Viscosity: 51.00 sec/qt Water Loss: 7.60 in <sup>3</sup> Resistivity: 0.15 ohm.m Salinity: 2800.00 ppm Filter Cake: 1.00 inches	Cushion Type: Cushion Length: ft Cushion Volume: bbl Gas Cushion Type: Gas Cushion Pressure: psia	Oil API:                      deg API Water Salinity: 49000 ppm
--	---	--

**Recovery Information**

Recovery Table

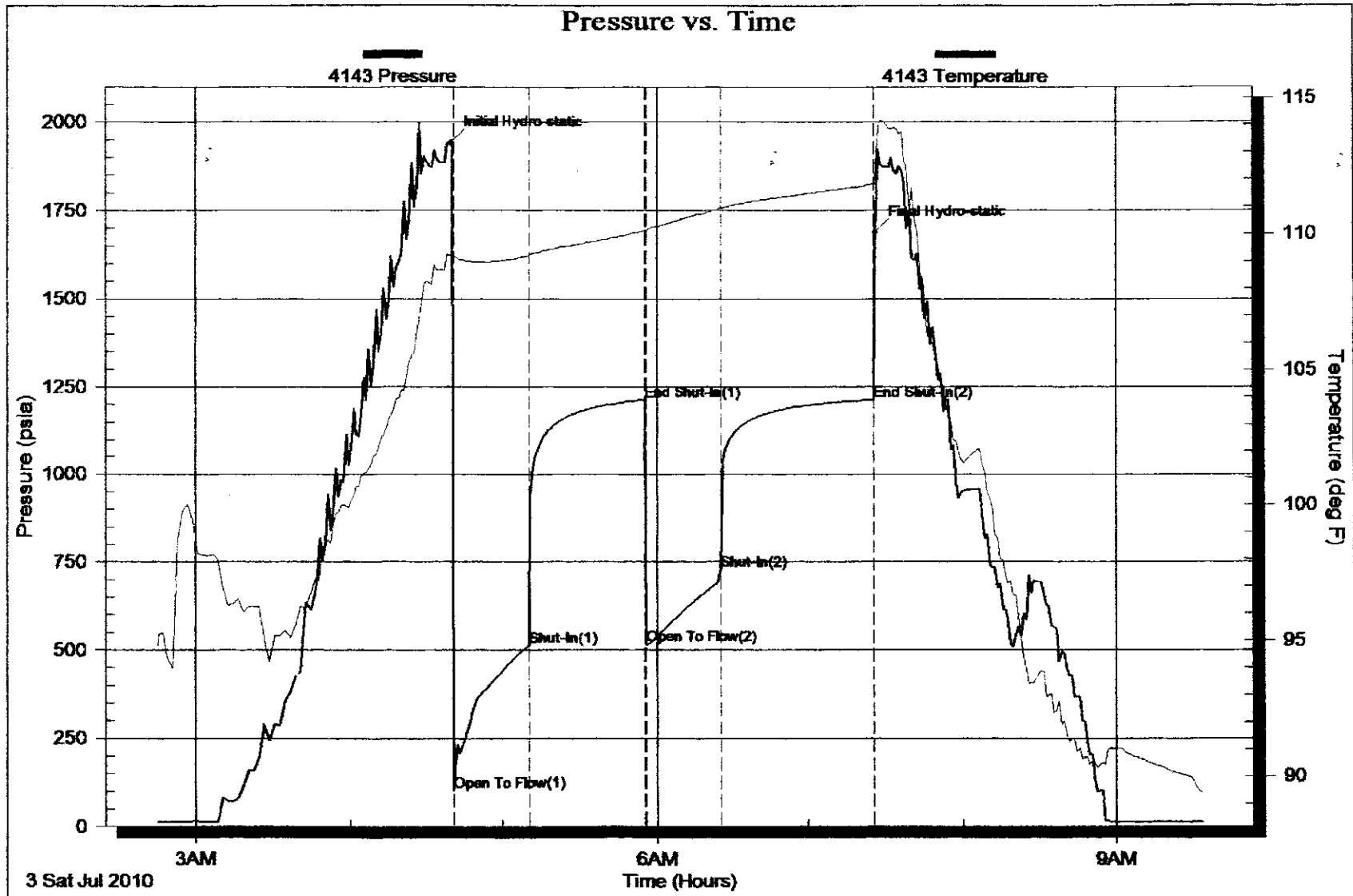
Length ft	Description	Volume bbl
210.00	Slightly muddy water 5% mud 95% water	1.033
1265.00	Salt water-Chlorides 49000	14.347
0.00	Resistivity .16 @ 82 degrees	0.000

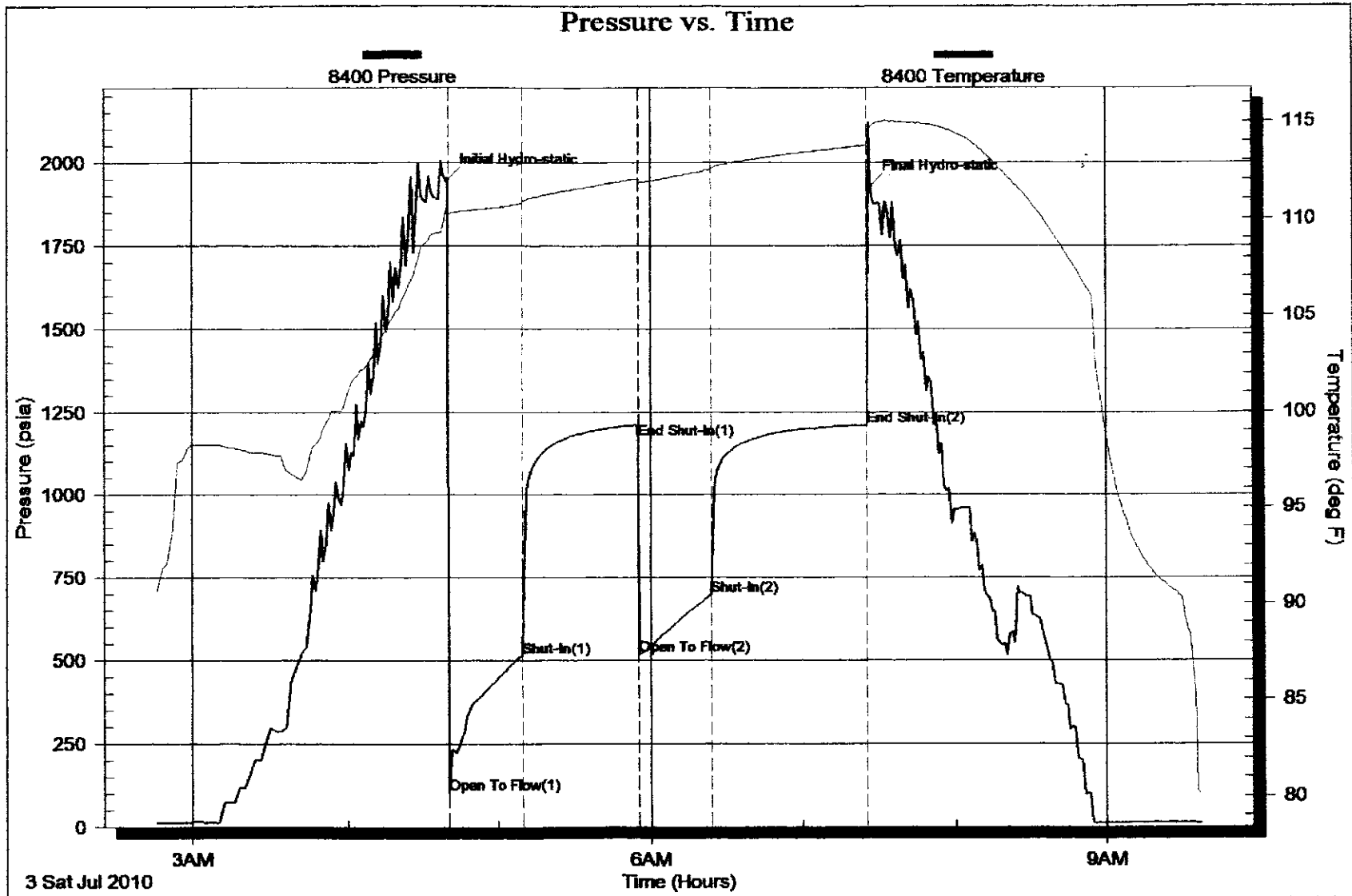
Total Length: 1475.00 ft      Total Volume: 15.380 bbl

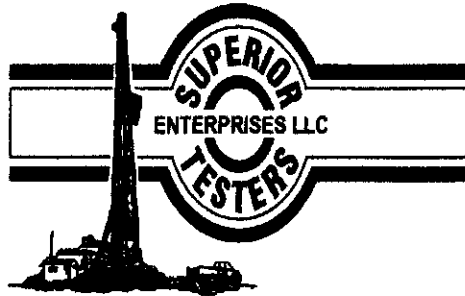
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION, INC.**

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

ATTN: Terry McLeod

**36-13S-32W LOGAN**

**STUCKY 36D #3**

Start Date: 2010.07.04 @ 03:17:00

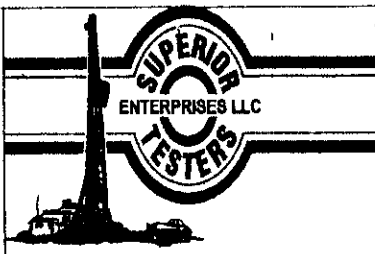
End Date: 2010.07.04 @ 00:00:00

Job Ticket #: 15940                      DST #: 2

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.07.04 @ 08:51:09

RITCHIE EXPLORATION, INC.      STUCKY 36D #3      36-13S-32W LOGAN      DST # 2      Kansas City "C" Z      2010.07.04



# DRILL STEM TEST REPORT

RITCHIE EXPLORATION, INC.

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

ATTN: Terry McLeod

**STUCKY 36D #3**

**36-13S-32W LOGAN**

Job Ticket: 15940

**DST#: 2**

Test Start: 2010.07.04 @ 03:17:00

## GENERAL INFORMATION:

Formation: **Kansas City " C" Z**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E. Ellis

Unit No: 3345-59-Scott City

Interval: **3973.00 ft (KB) To 3984.00 ft (KB) (TVD)**

Total Depth: 3084.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2923.00 ft (KB)

2913.00 ft (CF)

KB to GR/CF: 10.00 ft

**Serial #: 4142**

**Inside**

Press@RunDepth: 388.64 psia @ 3974.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.07.04

End Date:

2010.07.04

Last Calib.:

2010.07.04

Start Time: 03:17:00

End Time:

08:33:15

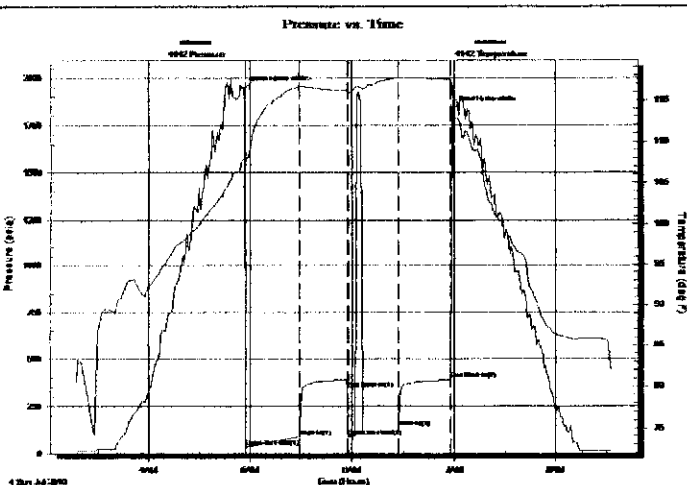
Time On Btm:

2010.07.04 @ 04:56:46

Time Off Btm:

2010.07.04 @ 06:58:46

**TEST COMMENT:** 1ST Opening 30 Minutes very weak surface blow for 13 minutes and died  
1ST Shut-in 30 Minutes no blow back  
2ND Opening 30 Minutes no blow flushed tool good surge and died  
2ND Shut-in 30 Minutes no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1942.71	107.91	Initial Hydro-static
1	31.58	107.89	Open To Flow (1)
33	87.44	116.66	Shut-in(1)
61	338.35	116.06	End Shut-in(1)
61	89.64	115.80	Open To Flow (2)
91	137.33	117.67	Shut-in(2)
121	388.64	117.51	End Shut-in(2)
122	1833.24	116.43	Final Hydro-static

## Recovery

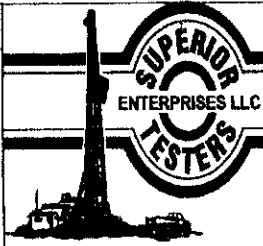
Length (ft)	Description	Volume (bbl)
3.00	Clean Oil	0.01
7.00	Slightly muddy water	0.03
0.00	1% Oil 20% Mud 79% water	0.00
90.00	Very slightly oil cut muddy water	0.44
0.00	1% Oil 20% Mud 79% Water	0.00
90.00	Slightly oil cut muddy water	0.44

## Gas Rates

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







# DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION, INC.  
 8100 E 22ND STREET N #700  
 WICHITA KANSAS 67278  
 ATTN: Terry McLeod

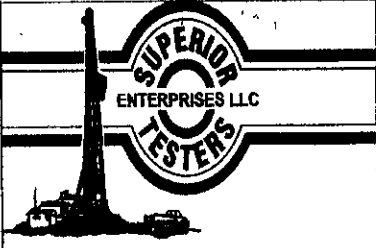
**STUCKY 36D #3**  
**36-13S-32W LOGAN**  
 Job Ticket: 15940      **DST#: 2**  
 Test Start: 2010.07.04 @ 03:17:00

### Tool Information

Drill Pipe:	Length: 3379.00 ft	Diameter: 3.80 inches	Volume: 47.40 bbl	Tool Weight: 2000.00 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: 583.00 ft	Diameter: 2.25 inches	Volume: 2.87 bbl	Weight to Pull Loose: lb
			<b>Total Volume: 50.27 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3973.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	5.00 ft			
Tool Length:	28.00 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			3951.00	
Shut-in Tool	5.00			3956.00	
Hydroic Tool	5.00			3961.00	
Safety Joint	2.00			3963.00	
Packer	5.00			3968.00	23.00      Bottom Of Top Packer
Packer	5.00			3973.00	
Perforations	0.00			3973.00	
Recorder	1.00	4142	Inside	3974.00	
Recorder	1.00	8400	Outside	3975.00	
Bullnose	3.00			3978.00	5.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>28.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

RITCHE EXPLORATION, INC.  
 8100 E 22ND STREET N#700  
 WICHITA KANSAS 67278  
 ATTN: Terry McLeod

**STUCKY 36D #3**  
**36-13S-32W LOGAN**  
 Job Ticket: 15940      **DST#: 2**  
 Test Start: 2010.07.04 @ 03:17:00

### Mud and Cushion Information

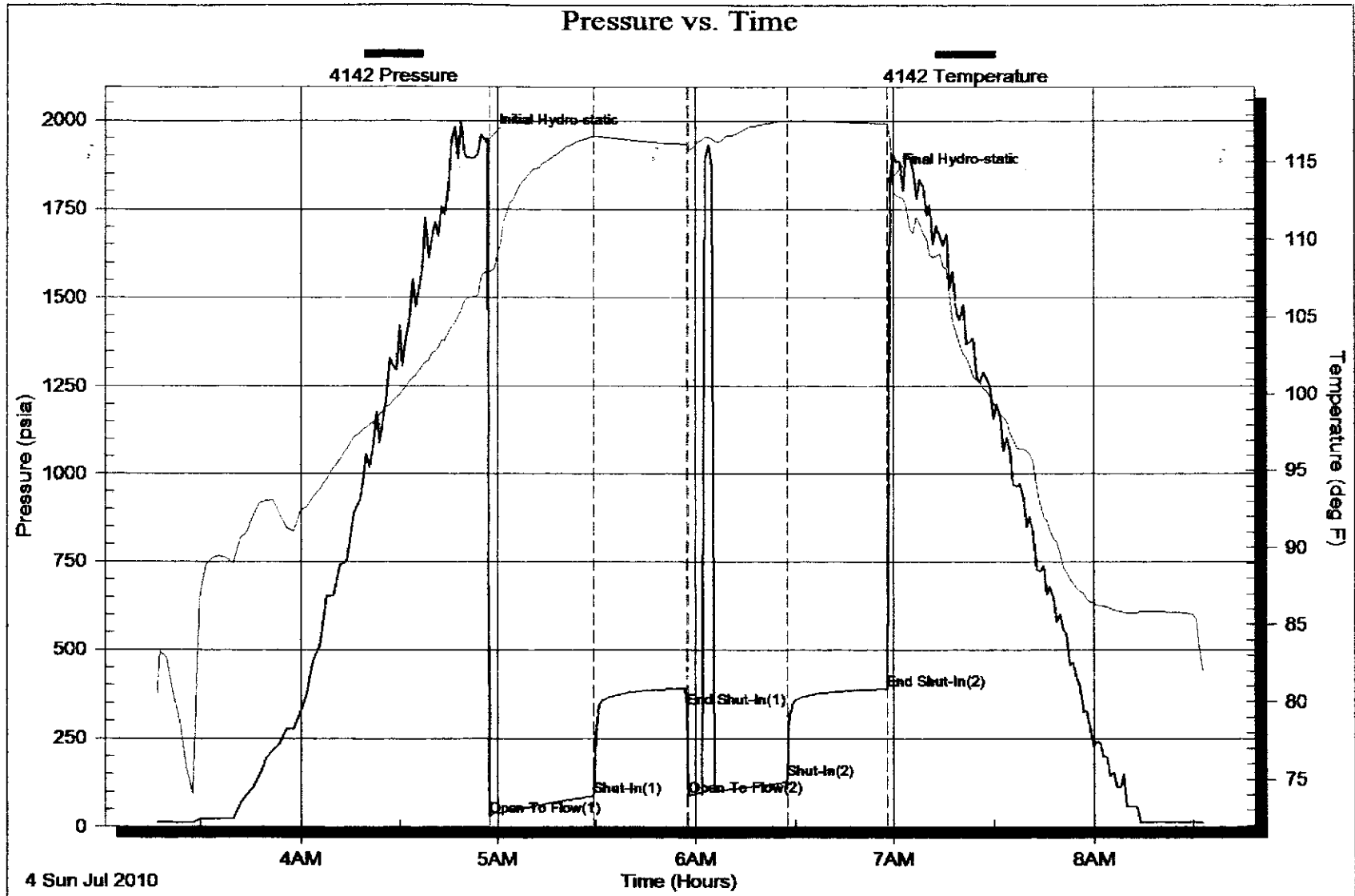
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	39000 ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.60 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.24 ohm.m	Gas Cushion Pressure: psia		
Salinity: 2800.00 ppm			
Filter Cake: inches			

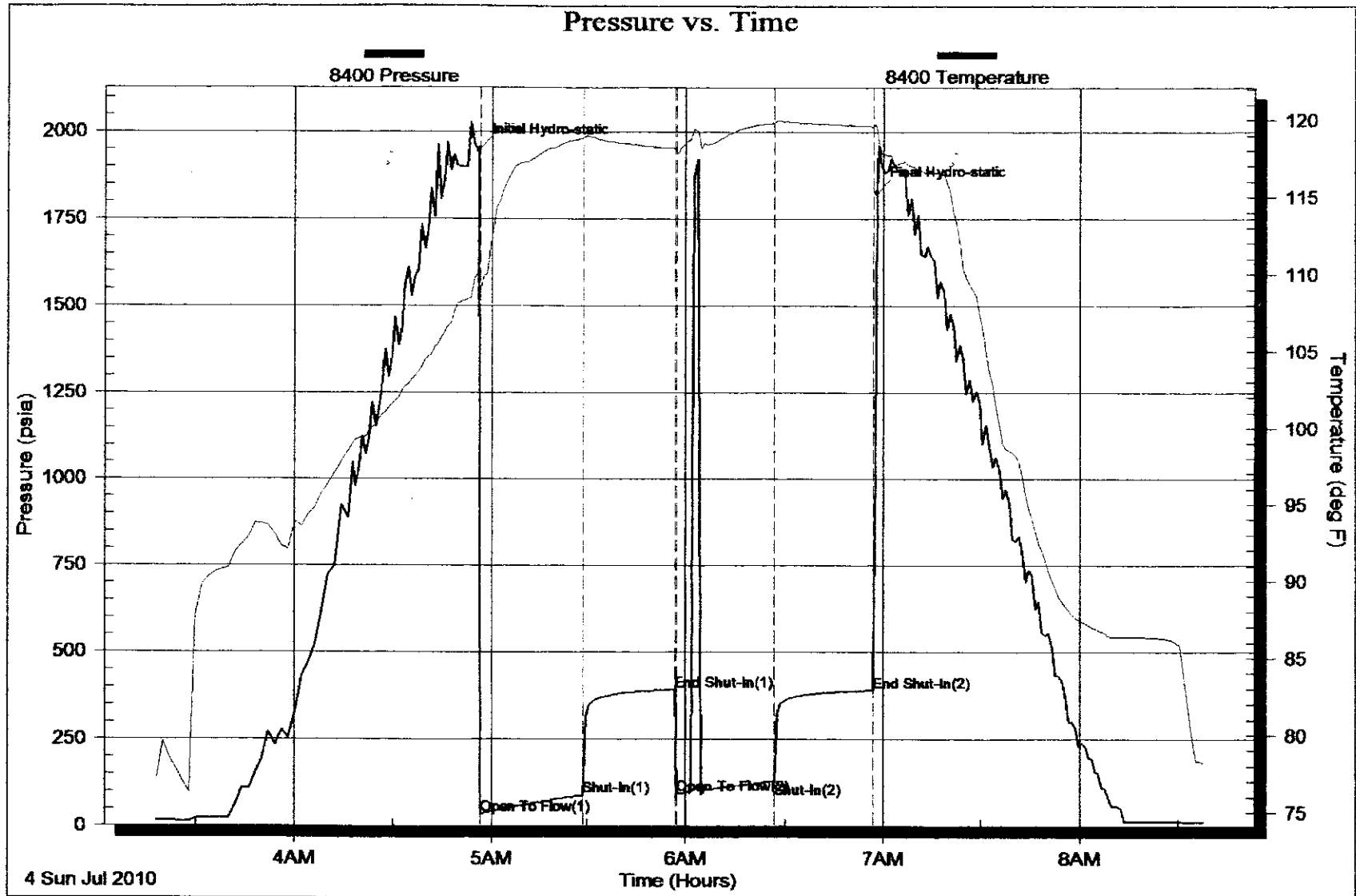
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Clean Oil	0.015
7.00	Slightly muddy w ater	0.034
0.00	1% Oil 20% Mud 79% w ater	0.000
90.00	Very slightly oil cut muddy w ater	0.443
0.00	1% Oil 20% Mud 79% Water	0.000
90.00	Slightlhy oil cut muddy w ater	0.443
0.00	4% Oil 30% mud 66% Water	0.000
0.00	Chlorides 39000 Resistivity .24 @ 76 Deg	0.000

Total Length: 190.00 ft      Total Volume: 0.935 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 22ND STREET#700  
WICHITA KANSAS 67278

ATTN: Terry McLeod

**36-13S-32W LOGAN**

**STUCKY 36D #3**

Start Date: 2010.07.04 @ 02:29:00

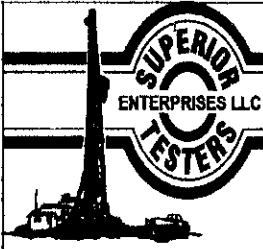
End Date: 2010.07.04 @ 00:00:00

Job Ticket #: 15941                      DST #: 3

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.07.04 @ 20:07:57

RITCHIE EXPLORATION, INC.    STUCKY 36D #3    36-13S-32W LOGAN    DST # 3    Kansas City "D" Zo    2010.07.04



# DRILL STEM TEST REPORT

RITCHE EXPLORATION, INC.

**STUCKY 36D #3**

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

**36-13S-32W LOGAN**

Job Ticket: 15941

DST#: 3

ATTN: Terry McLeod

Test Start: 2010.07.04 @ 02:29:00

## GENERAL INFORMATION:

Formation: **Kansas City "D" Zo**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E. Ellis

Unit No: 3345-59-Scott City

Interval: **3989.00 ft (KB) To 4000.00 ft (KB) (TVD)**

Reference Elevations: 2923.00 ft (KB)

Total Depth: 4000.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8400 Outside**

Press@RunDepth: 646.13 psia @ 3997.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.07.04

End Date: 2010.07.04

Last Calib.: 2010.07.04

Start Time: 02:30:00

End Time: 07:58:30

Time On Btm: 2010.07.04 @ 03:58:30

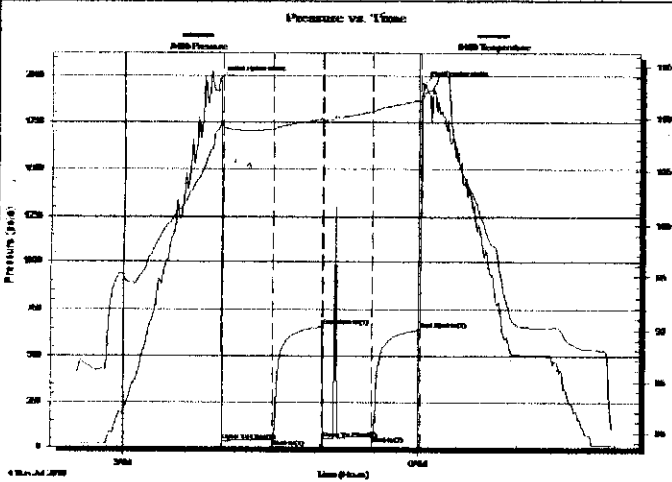
Time Off Btm: 2010.07.04 @ 06:02:30

TEST COMMENT: 1ST Opening 30 Minutes very weak surface blow through out

1ST Shut-in 30 Minutes no blow back

2ND Opening 30 Minutes no blow flushed tool good surge very weak intermittant blow thorough out

2ND Shut-in 30 Minutes no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1977.52	109.13	Initial Hydro-static
2	33.36	109.15	Open To Flow (1)
33	45.95	109.00	Shut-in(1)
63	662.03	110.03	End Shut-in(1)
64	49.27	109.84	Open To Flow (2)
94	62.73	110.70	Shut-in(2)
123	646.13	111.80	End Shut-in(2)
124	1956.83	112.20	Final Hydro-static

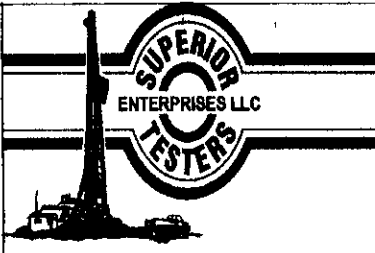
## Recovery

Length (ft)	Description	Volume (bbl)
30.00	Muddy water 40% M 60% Water	0.15
0.00	Chlorides 24000 resistivity .3 @ 82 Degr	0.00

## Gas Rates

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





# DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15941

DST#: 3

ATTN: Terry McLeod

Test Start: 2010.07.04 @ 02:29:00

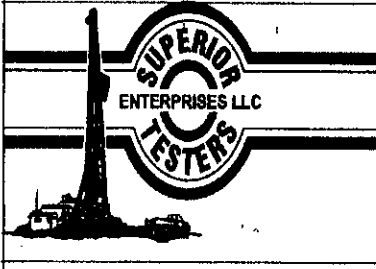
## Tool Information

Drill Pipe:	Length: 3410.00 ft	Diameter: 3.80 inches	Volume: 47.83 bbl	Tool Weight: 2000.00 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: 583.00 ft	Diameter: 2.25 inches	Volume: 2.87 bbl	Weight to Pull Loose: 75000.00 lb
		Total Volume:	50.70 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3989.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	34.00 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			3967.00	
Shut-in Tool	5.00			3972.00	
Hydroic Tool	5.00			3977.00	
Safety Joint	2.00			3979.00	
Packer	5.00			3984.00	23.00 Bottom Of Top Packer
Packer	5.00			3989.00	
Perforations	6.00			3995.00	
Recorder	1.00	4143	Inside	3996.00	
Recorder	1.00	8400	Outside	3997.00	
Bullnose	3.00			4000.00	11.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>34.00</b>				





# DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHIE EXPLORATION, INC.  
 8100 E 22ND STREET#700  
 WICHITA KANSAS 67278  
 ATTN: Terry McLeod

**STUCKY 36D #3**  
**36-13S-32W LOGAN**  
 Job Ticket: 15941      **DST#: 3**  
 Test Start: 2010.07.04 @ 02:29:00

## Mud and Cushion Information

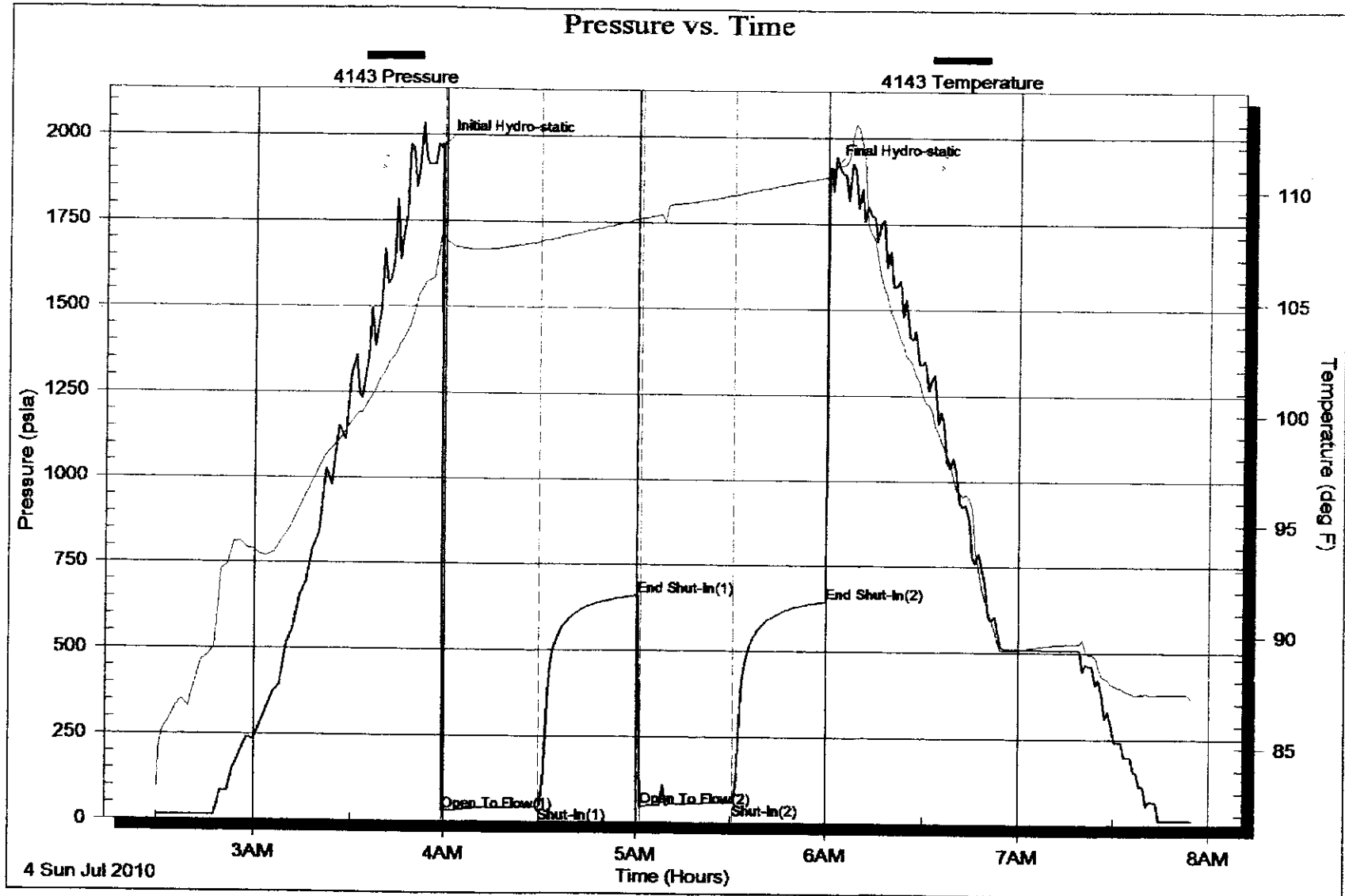
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	24000 ppm
Viscosity: 52.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.60 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.30 ohm.m	Gas Cushion Pressure: psia		
Salinity: 3000.00 ppm			
Filter Cake: 1.00 inches			

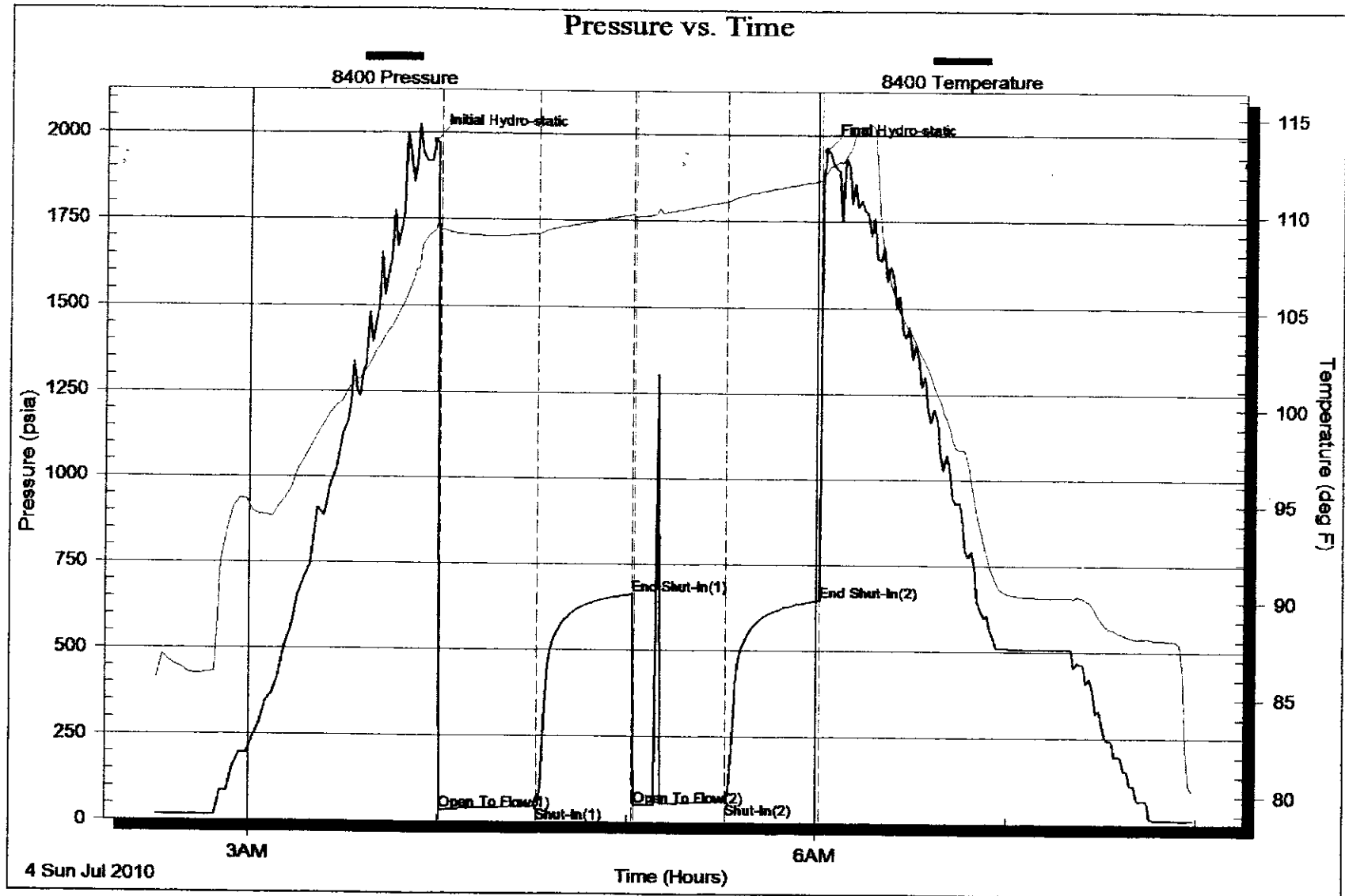
## Recovery Information

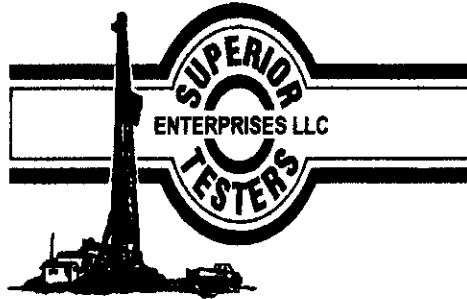
Recovery Table

Length ft	Description	Volume bbl
30.00	Muddy water 40% M 60% Water	0.148
0.00	Chlorides 24000 resistivity .3 @ 82 Degr	0.000

Total Length: 30.00 ft      Total Volume: 0.148 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 22ND STREET TN#700  
WICHITA KANSAS 67278

ATTN: Terry McLeod

**36-13S-32W LOGAN**

**STUCKY 36D #3**

Start Date: 2010.07.05 @ 02:02:00

End Date: 2010.07.05 @ 00:00:00

Job Ticket #: 15942                      DST #: 4

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.07.05 @ 08:53:24

RITCHIE EXPLORATION, INC.    STUCKY 36D #3    36-13S-32W LOGAN    DST # 4    Kansas City "E" Zo    2010.07.05



# DRILL STEM TEST REPORT

RITCHE EXPLORATION, INC.

**STUCKY 36D #3**

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

**36-13S-32W LOGAN**

Job Ticket: 15942

**DST#: 4**

ATTN: Terry McLeod

Test Start: 2010.07.05 @ 02:02:00

## GENERAL INFORMATION:

Formation: **Kansas City "E" Zo**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345-59- Scott City

Interval: **4005.00 ft (KB) To 4026.00 ft (KB) (TVD)**

Reference Elevations: 2923.00 ft (KB)

Total Depth: 4026.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8400**

**Outside**

Press@RunDepth: 498.74 psia @ 4023.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.07.05

End Date:

2010.07.05

Last Calib.: 2010.07.05

Start Time: 02:00:00

End Time:

08:40:00

Time On Btm: 2010.07.05 @ 03:54:00

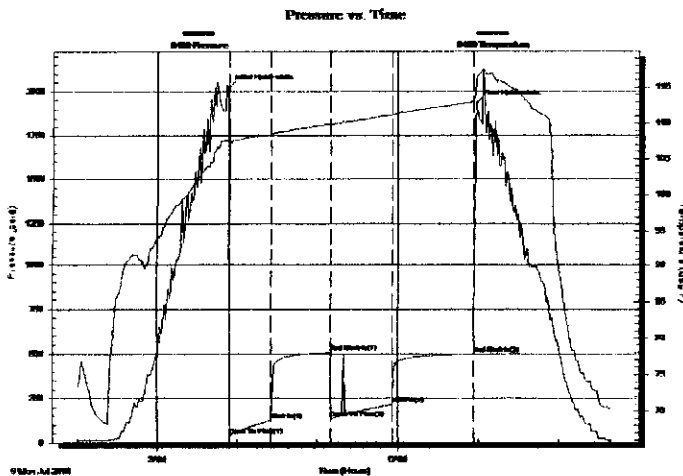
Time Off Btm: 2010.07.05 @ 06:58:30

TEST COMMENT: 1ST Opening 30 Minutes weak building blow built to 7 inches into the water

1ST Shut-in 45 Minutes no blow back

2ND Opening 45 Minutes no blow flushed tool good surge weak building blow built to 6 inches into the of water

2ND Shut-in 60 Minutes no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2020.08	107.84	Initial Hydro-static
1	41.20	107.02	Open To Flow (1)
32	126.84	108.54	Shut-in(1)
76	506.62	109.99	End Shut-in(1)
76	133.70	109.89	Open To Flow (2)
122	215.16	111.23	Shut-in(2)
183	498.74	112.95	End Shut-in(2)
185	1933.68	116.09	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	Very slightly oil and mud cut water	0.44
90.00	Very slightly oil cut muddy water	0.44
90.00	Slightly oil cut muddy water	0.44
90.00	Slightly oil cut muddy water	0.44
7.00	Slightly oil cut mud	0.03
3.00	Clean oil	0.01

## Gas Rates

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



# DRILL STEM TEST REPORT

RITCHEE EXPLORATION, INC.

**STUCKY 36D #3**

8100 E 22ND STREET N#700  
WICHITA KANSAS 67278

**36-13S-32W LOGAN**

Job Ticket: 15942

**DST#: 4**

ATTN: Terry McLeod

Test Start: 2010.07.05 @ 02:02:00

## GENERAL INFORMATION:

Formation: **Kansas City "E" Zo**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E Ellis

Unit No: 3345-59- Scott City

Interval: **4005.00 ft (KB) To 4026.00 ft (KB) (TVD)**

Reference Elevations: 2923.00 ft (KB)

Total Depth: 4026.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 4143**

Inside

Press@RunDepth: 496.25 psia @ 4022.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.07.05

End Date:

2010.07.05

Last Calib.: 2010.07.05

Start Time: 02:00:00

End Time:

08:40:15

Time On Btm: 2010.07.05 @ 03:53:16

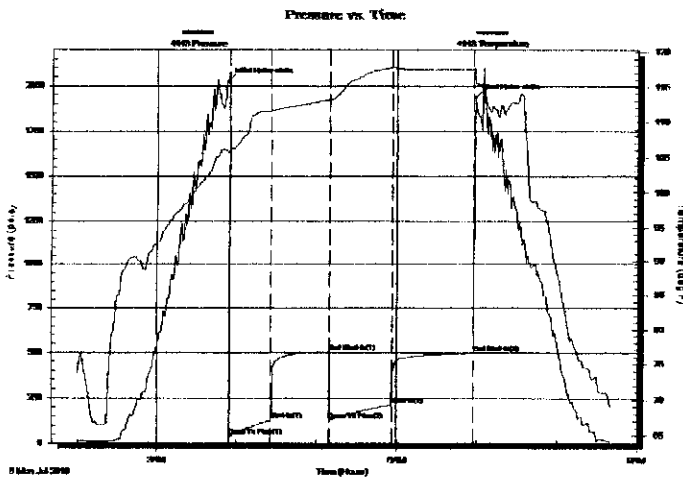
Time Off Btm: 2010.07.05 @ 06:58:16

TEST COMMENT: 1ST Opening 30 Minutes weak building blow built to 7 inches into the water

1ST Shut-in 45 Minutes no blow back

2ND Opening 45 Minutes no blow flushed tool good surge weak building blow built to 6 inches into the of water

2ND Shut-in 60 Minutes no blow back



## PRESSURE SUMMARY

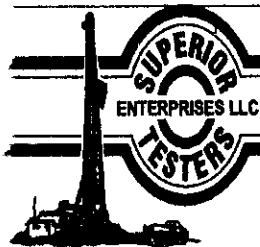
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2024.02	105.83	Initial Hydro-static
2	38.75	106.25	Open To Flow (1)
33	126.41	111.57	Shut-in(1)
76	503.47	113.19	End Shut-in(1)
77	130.49	113.18	Open To Flow (2)
123	214.24	117.78	Shut-in(2)
184	496.25	117.56	End Shut-in(2)
185	1934.89	115.84	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	Very slightly oil and mud cut w ater	0.44
90.00	Very slightly oil cut muddy water	0.44
90.00	Slightly oil cut muddy w ater	0.44
90.00	Slightly oil cut muddy watel	0.44
7.00	Slightly oil cut mud	0.03
3.00	Clean oil	0.01

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET #700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15942

DST#: 4

ATTN: Terry McLeod

Test Start: 2010.07.05 @ 02:02:00

## Tool Information

Drill Pipe:	Length: 3413.00 ft	Diameter: 3.80 inches	Volume: 47.88 bbl	Tool Weight: 2000.00 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: 583.00 ft	Diameter: 2.25 inches	Volume: 2.87 bbl	Weight to Pull Loose: lb
			<u>Total Volume: 50.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4005.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	44.00 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			3983.00		
Shut-In Tool	5.00			3988.00		
Hydroic Tool	5.00			3993.00		
Safety Joint	2.00			3995.00		
Packer	5.00			4000.00	23.00	Bottom Of Top Packer
Packer	5.00			4005.00		
Perforations	16.00			4021.00		
Recorder	1.00	4143	Inside	4022.00		
Recorder	1.00	8400	Outside	4023.00		
Bullnose	3.00			4026.00	21.00	Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>44.00</b>					



# DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET N#700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15942

DST#: 4

ATTN: Terry McLeod

Test Start: 2010.07.05 @ 02:02:00

## Mud and Cushion Information

Mud Type: Gel Chem  
 Mud Weight: 9.00 lb/gal  
 Viscosity: 52.00 sec/qt  
 Water Loss: 7.60 in<sup>3</sup>  
 Resistivity: ohm.m  
 Salinity: 3000.00 ppm  
 Filter Cake: 1.00 inches

Cushion Type:  
 Cushion Length: ft  
 Cushion Volume: bbl  
 Gas Cushion Type:  
 Gas Cushion Pressure: psia

Oil API: deg API  
 Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	Very slightly oil and mud cut water	0.443
90.00	Very slightly oil cut muddy water	0.443
90.00	Slightly oil cut muddy water	0.443
90.00	Slightly oil cut muddy water	0.443
7.00	Slightly oil cut mud	0.034
3.00	Clean oil	0.015

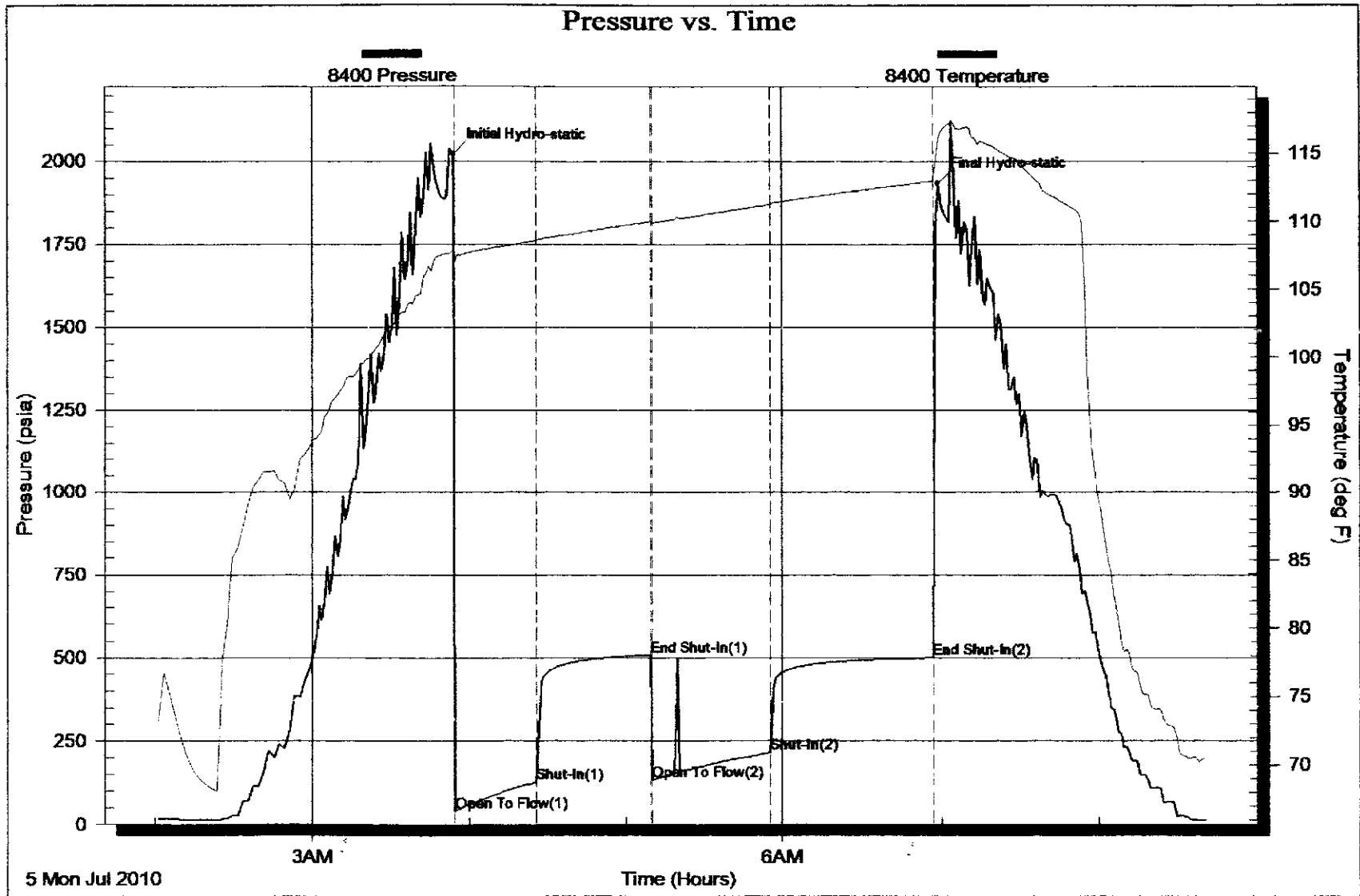
Total Length: 370.00 ft      Total Volume: 1.821 bbl

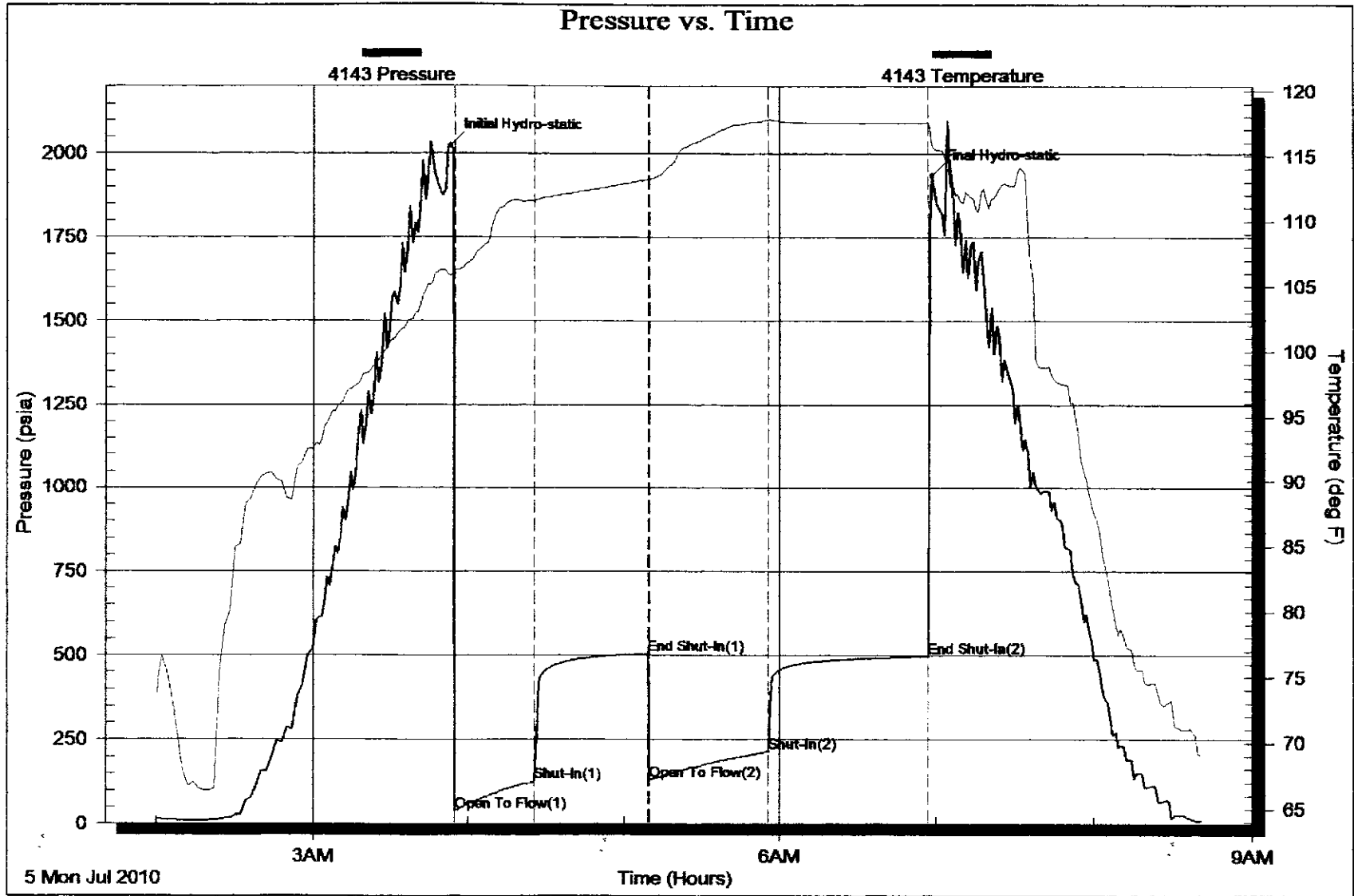
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

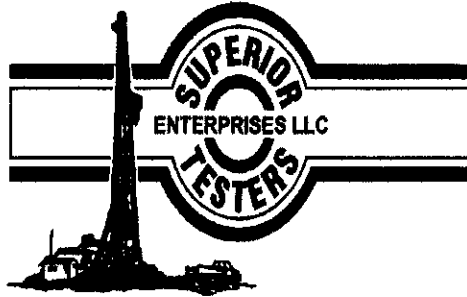
Laboratory Name:      Laboratory Location:

Recovery Comments:









## DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION, INC.**

8100 E 22ND STREET TN#700  
WICHITA KANSAS 67278

ATTN: Terry McLeod

**36-13S-32W LOGAN**

**STUCKY 36D #3**

Start Date: 2010.07.05 @ 08:08:00

End Date: 2010.07.05 @ 00:00:00

Job Ticket #: 15943                      DST #: 5

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.07.06 @ 03:24:51

RITCHIE EXPLORATION, INC.    STUCKY 36D #3    36-13S-32W LOGAN    DST # 5    Kansas City "H" Zo    2010.07.05



# DRILL STEM TEST REPORT

RITCHE EXPLORATION, INC.

**STUCKY 36D #3**

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

**36-13S-32W LOGAN**

Job Ticket: 15943

**DST#: 5**

ATTN: Terry McLeod

Test Start: 2010.07.05 @ 08:08:00

## GENERAL INFORMATION:

Formation: **Kansas City "H" Zo**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E. Ellis

Unit No: 3345-59-Scott City

Interval: **4086.00 ft (KB) To 4122.00 ft (KB) (TVD)**

Reference Elevations: 2923.00 ft (KB)

Total Depth: 4122.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 4143** Inside

Press@RunDepth: 750.12 psia @ 4118.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.07.06

End Date:

2010.07.06

Last Calb.: 2010.07.06

Start Time: 03:00:20

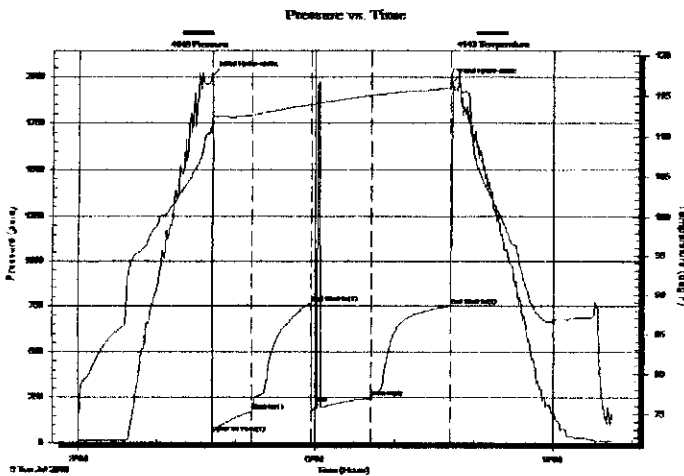
End Time:

09:44:36

Time On Btm: 2010.07.06 @ 04:42:06

Time Off Btm: 2010.07.06 @ 07:43:36

TEST COMMENT: 1ST Opening 30 Minutes steady blow bottom of the bucket in 26 minutes  
 1ST Shut-in 45 Minutes no blow  
 2ND Opening 45 Minutes weak blow built to 4 inches  
 2ND Shut-in 60 Minutes no blow back



## PRESSURE SUMMARY

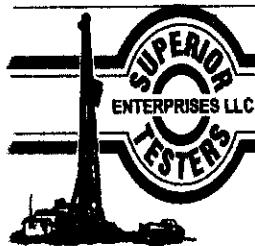
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2009.97	112.19	Initial Hydro-static
1	52.35	112.26	Open To Flow (1)
31	173.67	112.59	Shut-in(1)
75	765.20	113.91	End Shut-in(1)
76	179.97	113.94	00
121	249.23	115.01	Shut-in(2)
181	750.12	116.40	End Shut-in(2)
182	1972.39	118.33	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	muddy water with a trace of oil	0.44
0.00	75% Mud 25% Water	0.00
90.00	Muddy water with a trace of oil	0.44
0.00	68% Mud 32% Water	0.00
90.00	Muddy water with a very slight trace of	0.44
0.00	58% Mud 42% Water	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15943

DST#: 5

ATTN: Terry McLeod

Test Start: 2010.07.05 @ 08:08:00

## GENERAL INFORMATION:

Formation: **Kansas City "H" Zo**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:00:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E. Ellis

Unit No: 3345-59-Scott City

Interval: **4086.00 ft (KB) To 4122.00 ft (KB) (TVD)**

Total Depth: 4122.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2923.00 ft (KB)

2913.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8400

Outside

Press@RunDepth: 749.78 psia @ 4119.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.07.06

End Date:

2010.07.06

Last Calib.: 2010.07.06

Start Time: 08:10:00

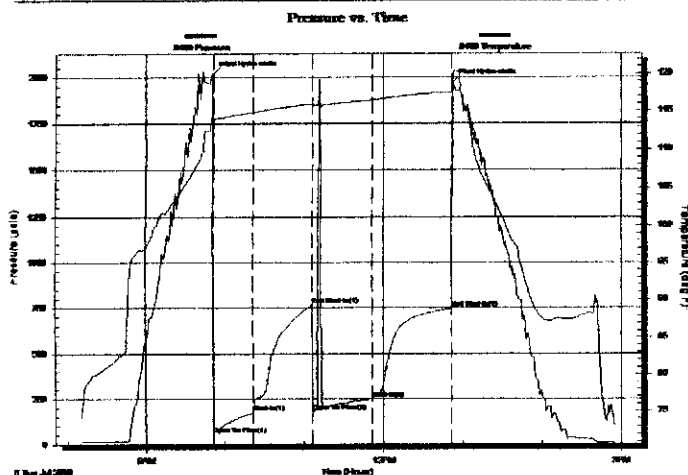
End Time:

14:55:30

Time On Btm: 2010.07.06 @ 09:51:00

Time Off Btm: 2010.07.06 @ 12:52:30

TEST COMMENT: 1ST Opening 30 Minutes steady blow bottom of the bucket in 26 minutes  
 1ST Shut-in 45 Minutes no blow  
 2ND Opening 45 Minutes weak blow built to 4 inches  
 2ND Shut-in 60 Minutes no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2012.97	114.39	Initial Hydro-static
1	52.88	113.67	Open To Flow (1)
31	172.97	114.86	Shut-in(1)
76	766.27	115.96	End Shut-in(1)
76	181.08	115.77	Open To Flow (2)
121	249.45	116.48	Shut-in(2)
181	749.78	117.55	End Shut-in(2)
182	1968.81	120.03	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	muddy water with a trace of oil	0.44
0.00	75% Mud 25% Water	0.00
90.00	Muddy water with a trace of oil	0.44
0.00	68% Mud 32% Water	0.00
90.00	Muddy water with a very slight trace of oil	0.44
0.00	58% Mud 42% Water	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15943

DST#: 5

ATTN: Terry McLeod

Test Start: 2010.07.05 @ 08:08:00

## Tool Information

Drill Pipe:	Length: 3506.00 ft	Diameter: 3.80 inches	Volume: 49.18 bbl	Tool Weight: 2000.00 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: 583.00 ft	Diameter: 2.25 inches	Volume: 2.87 bbl	Weight to Pull Loose: lb
			<u>Total Volume: 52.05 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4086.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	59.00 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			4064.00	
Shut-In Tool	5.00			4069.00	
Hydroic Tool	5.00			4074.00	
Safety Joint	2.00			4076.00	
Packer	5.00			4081.00	23.00 Bottom Of Top Packer
Packer	5.00			4086.00	
Perforations	31.00			4117.00	
Recorder	1.00	4143	Inside	4118.00	
Recorder	1.00	8400	Outside	4119.00	
Bullnose	3.00			4122.00	36.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>59.00</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHEE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET N#700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15943

DST#: 5

ATTN: Terry McLeod

Test Start: 2010.07.05 @ 08:08:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 55.00 sec/qt  
Water Loss: 11.20 in<sup>3</sup>  
Resistivity: 0.31 ohm.m  
Salinity: 3900.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psia

Oil API: deg API  
Water Salinity: 4500031 ppm

## Recovery Information

Recovery Table

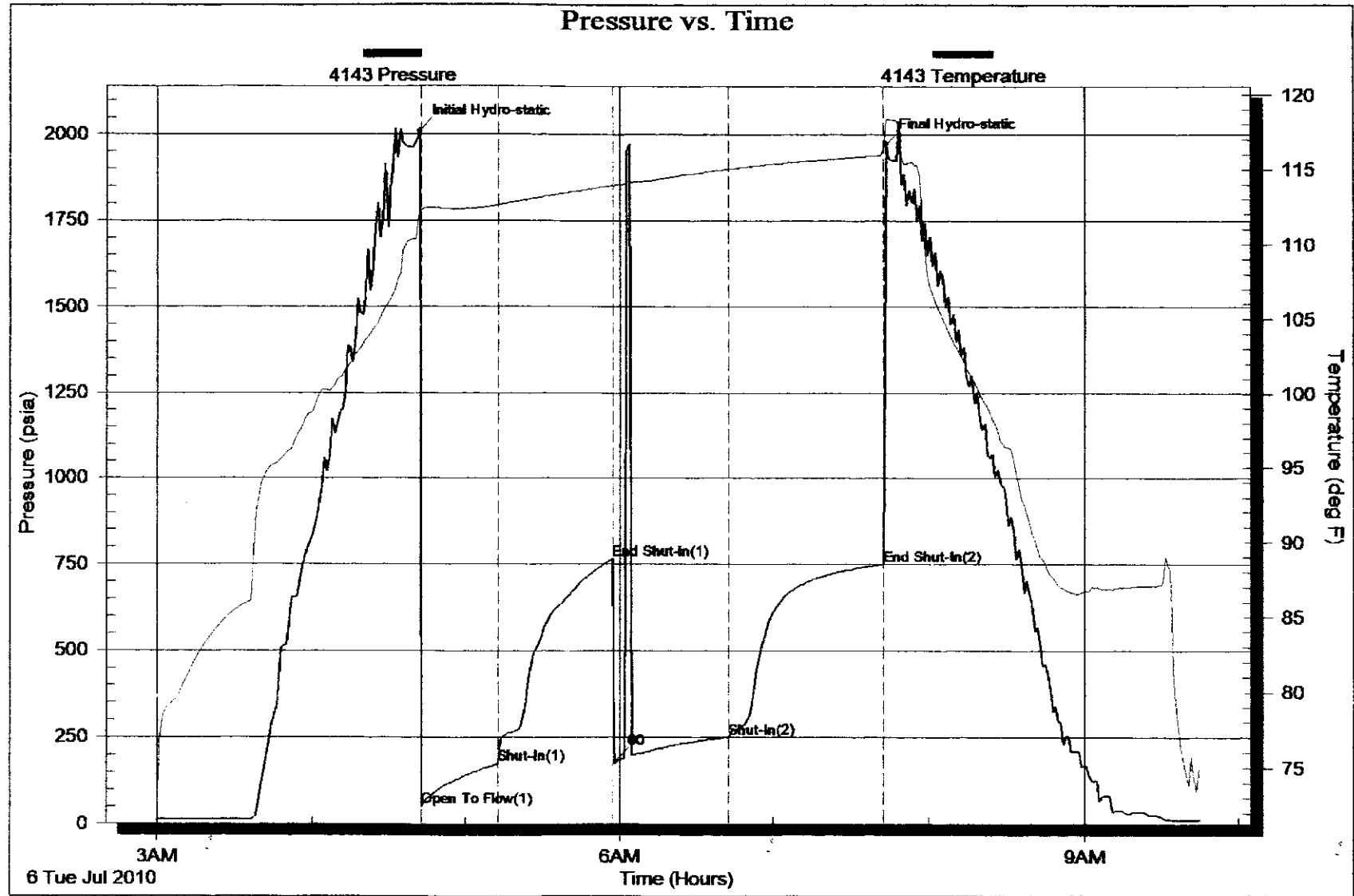
Length ft	Description	Volume bbl
90.00	muddy water with a trace of oil	0.443
0.00	75% Mud 25% Water	0.000
90.00	Muddy water with a trace of oil	0.443
0.00	68% Mud 32% Water	0.000
90.00	Muddy water with a very slight trace oil	0.443
0.00	58% Mud 42% Water	0.000
90.00	Muddy water 40% Mud 60% Water	0.443
90.00	Muddy water 20% Mud 80% Water	0.443
0.00	Chlorides 45000 Resistivity .31@ 70 Deg	0.000

Total Length: 450.00 ft      Total Volume: 2.215 bbl

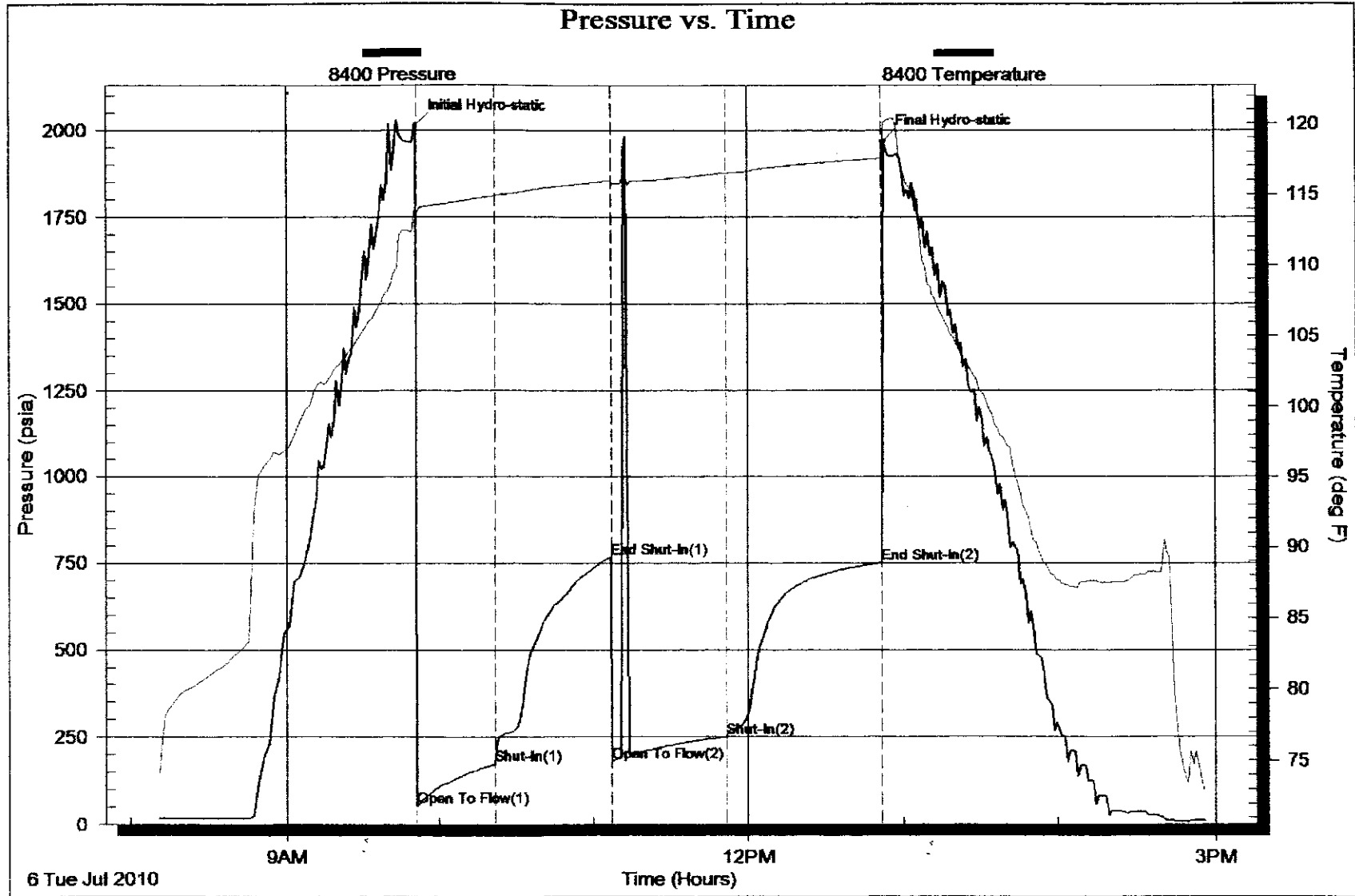
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

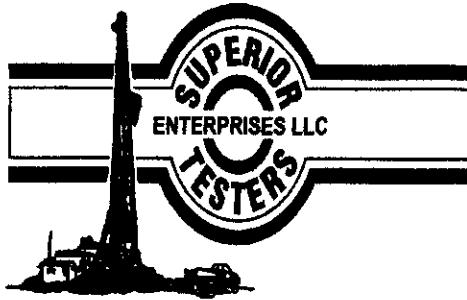
Laboratory Name:      Laboratory Location:

Recovery Comments:









## DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION, INC.**

8100 E 22ND STREET TN#700  
WICHITA KANSAS 67278

ATTN: Terry McLeod

**36-13S-32W LOGAN**

**STUCKY 36D #3**

Start Date: 2010.07.07 @ 04:20:36

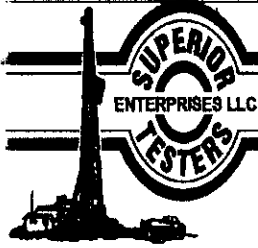
End Date: 2010.07.07 @ 11:12:36

Job Ticket #: 15945                      DST #: 7

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.07.07 @ 10:09:43

RITCHIE EXPLORATION, INC.  
STUCKY 36D #3  
36-13S-32W LOGAN  
DST # 7  
Kansas City "J" Zo  
2010.07.07



# DRILL STEM TEST REPORT

RITCHE EXPLORATION, INC.

**STUCKY 36D #3**

8100 E 22ND STREET #700  
WICHITA KANSAS 67278

**36-13S-32W LOGAN**

Job Ticket: 15945

**DST#: 7**

ATTN: Terry McLeod

Test Start: 2010.07.07 @ 04:20:36

## GENERAL INFORMATION:

Formation: **Kansas City "J" Zo**

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

Time Tool Opened: 06:16:06

Time Test Ended: 11:12:36

Test Type: **Conventional Bottom Hole (Initial)**

Tester: **Dylan E. Ellis**

Unit No: **3345-59-Scott City**

Interval: **4165.00 ft (KB) To 4186.00 ft (KB) (TVD)**

Total Depth: **4186.00 ft (KB) (TVD)**

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

Reference Elevations: **2923.00 ft (KB)**

**2913.00 ft (CF)**

KB to GR/CF: **10.00 ft**

**Serial #: 4143**

**Inside**

Press@RunDepth: **691.59 psia @ 4182.00 ft (KB)**

Start Date: **2010.07.07**

Start Time: **04:21:00**

End Date: **2010.07.07**

End Time: **12:17:14**

Capacity: **5000.00 psia**

Last Calib.: **2010.07.07**

Time On Btm: **2010.07.07 @ 06:25:44**

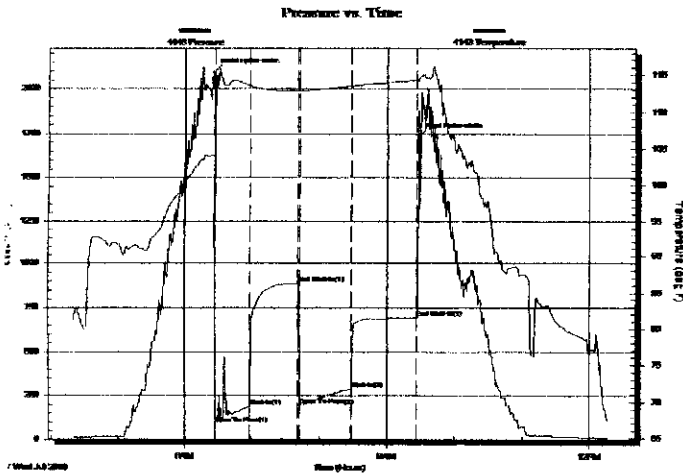
Time Off Btm: **2010.07.07 @ 09:27:14**

TEST COMMENT: 1ST Opening 30 Minutes bottom of bucket of water in 29 minutes

1ST Shut-In 45 Minutes no blow back

2ND Opening 45 Minutes blew 9 inches into bucket of water

2ND Shut-In 60 Minutes no blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2093.48	104.10	Initial Hydro-static
1	87.81	110.44	Open To Flow (1)
33	190.74	113.55	Shut-In(1)
76	886.37	112.92	End Shut-In(1)
77	194.30	112.92	Open To Flow (2)
123	287.46	113.52	Shut-In(2)
180	691.59	114.27	End Shut-In(2)
182	1732.54	114.35	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
180.00	Mud %100	0.89
90.00	Muddy water mud%50 water%50	0.44
90.00	Muddy water mud%40 water%60	0.44
90.00	Muddy water mud%44 water%56	0.44
90.00	Muddy water mud%30 water%70	0.44
0.00	Chlorideds 32000	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

RITCHEE EXPLORATION, INC.

**STUCKY 36D #3**

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

**36-13S-32W LOGAN**

Job Ticket: 15945

**DST#: 7**

ATTN: Terry McLeod

Test Start: 2010.07.07 @ 04:20:36

## GENERAL INFORMATION:

Formation: **Kansas City "J" Zo**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:16:06

Time Test Ended: 11:12:36

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E. Ellis

Unit No: 3345-59-Scott City

Interval: **4165.00 ft (KB) To 4186.00 ft (KB) (TVD)**

Reference Elevations: 2923.00 ft (KB)

Total Depth: 4186.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 8400**

**Outside**

Press@RunDepth: 692.08 psia @ 4183.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.07.07

End Date:

2010.07.07

Last Calib.: 2010.07.07

Start Time: 04:21:00

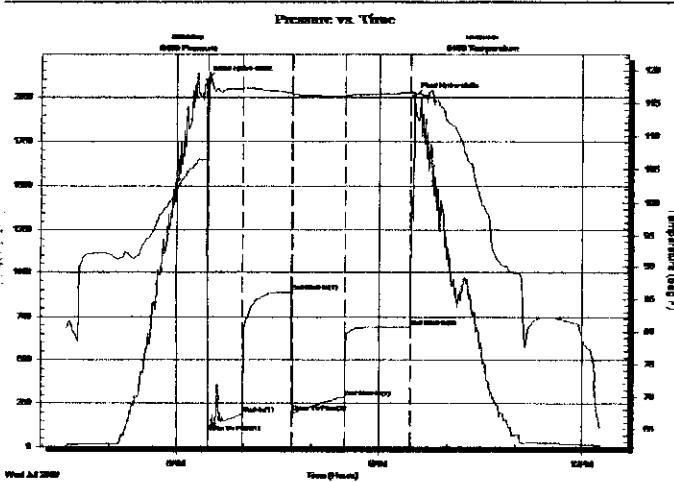
End Time:

12:17:00

Time On Btm: 2010.07.07 @ 06:26:30

Time Off Btm: 2010.07.07 @ 09:30:30

**TEST COMMENT:** 1ST Opening 30 Minutes bottom of bucket of water in 29 minutes  
1ST Shut-in 45 Minutes no blow back  
2ND Opening 45 Minutes blew 9 inches into bucket of water  
2ND Shut-in 60 Minutes no blow back



## PRESSURE SUMMARY

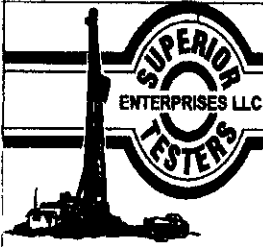
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2097.61	106.55	Initial Hydro-static
1	86.23	109.54	Open To Flow (1)
32	191.16	117.12	Shut-in(1)
76	887.45	116.53	End Shut-in(1)
77	197.65	116.19	Open To Flow (2)
123	287.55	116.04	End Shut-in(2)
181	692.08	116.55	End Shut-in(3)
184	2004.07	116.53	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
180.00	Mud %100	0.89
90.00	Muddy w ater mud%50 w ater%50	0.44
90.00	Muddy w ater mud%40 w ater%60	0.44
90.00	Muddy w ater mud%44 w ater%56	0.44
90.00	Muddy w ater mud%30 w ater%70	0.44
0.00	Chlorideds 32000	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET #700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15945

DST#: 7

ATTN: Terry McLeod

Test Start: 2010.07.07 @ 04:20:36

## Tool Information

Drill Pipe:	Length: 3571.00 ft	Diameter: 3.80 inches	Volume: 50.09 bbl	Tool Weight: 2000.00 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: 583.00 ft	Diameter: 2.25 inches	Volume: 2.87 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 52.96 bbl</u>	Tool Chased: 0.00 ft
Drill Pipe Above KB:	12.00 ft			String Weight: Initial 74000.00 lb
Depth to Top Packer:	4165.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	44.00 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			4143.00	
Shut-In Tool	5.00			4148.00	
Hydroic Tool	5.00			4153.00	
Safety Joint	2.00			4155.00	
Packer	5.00			4160.00	23.00 Bottom Of Top Packer
Packer	5.00			4165.00	
Perforations	16.00			4181.00	
Recorder	1.00	4143	Inside	4182.00	
Recorder	1.00	8400	Outside	4183.00	
Bullnose	3.00			4186.00	21.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>44.00</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15945

DST#: 7

ATTN: Terry McLeod

Test Start: 2010.07.07 @ 04:20:36

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 57.00 sec/qt  
Water Loss: 10.39 in<sup>3</sup>  
Resistivity: 0.58 ohm.m  
Salinity: 4200.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psia

Oil API: deg API  
Water Salinity: 32000 ppm

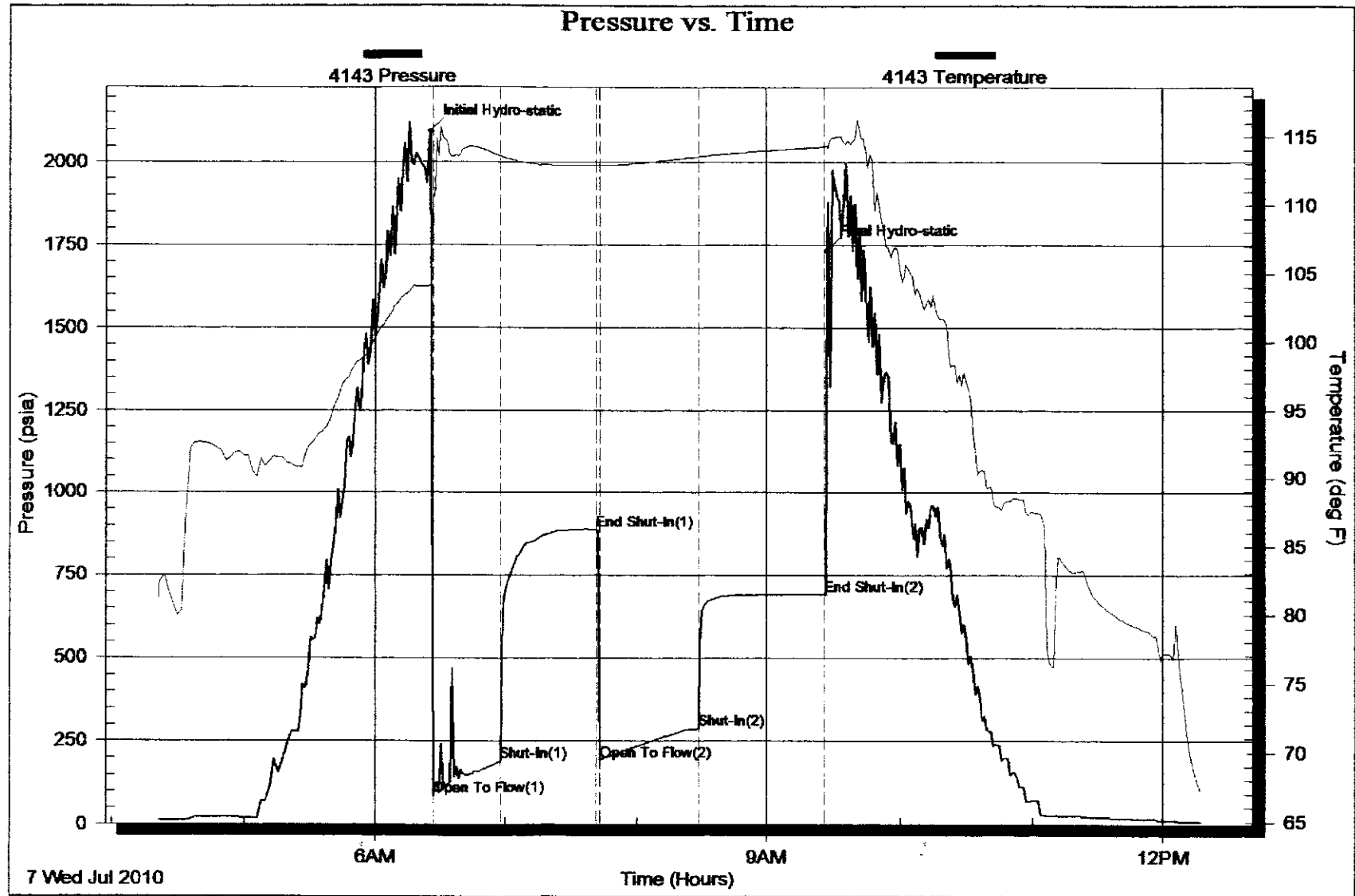
## Recovery Information

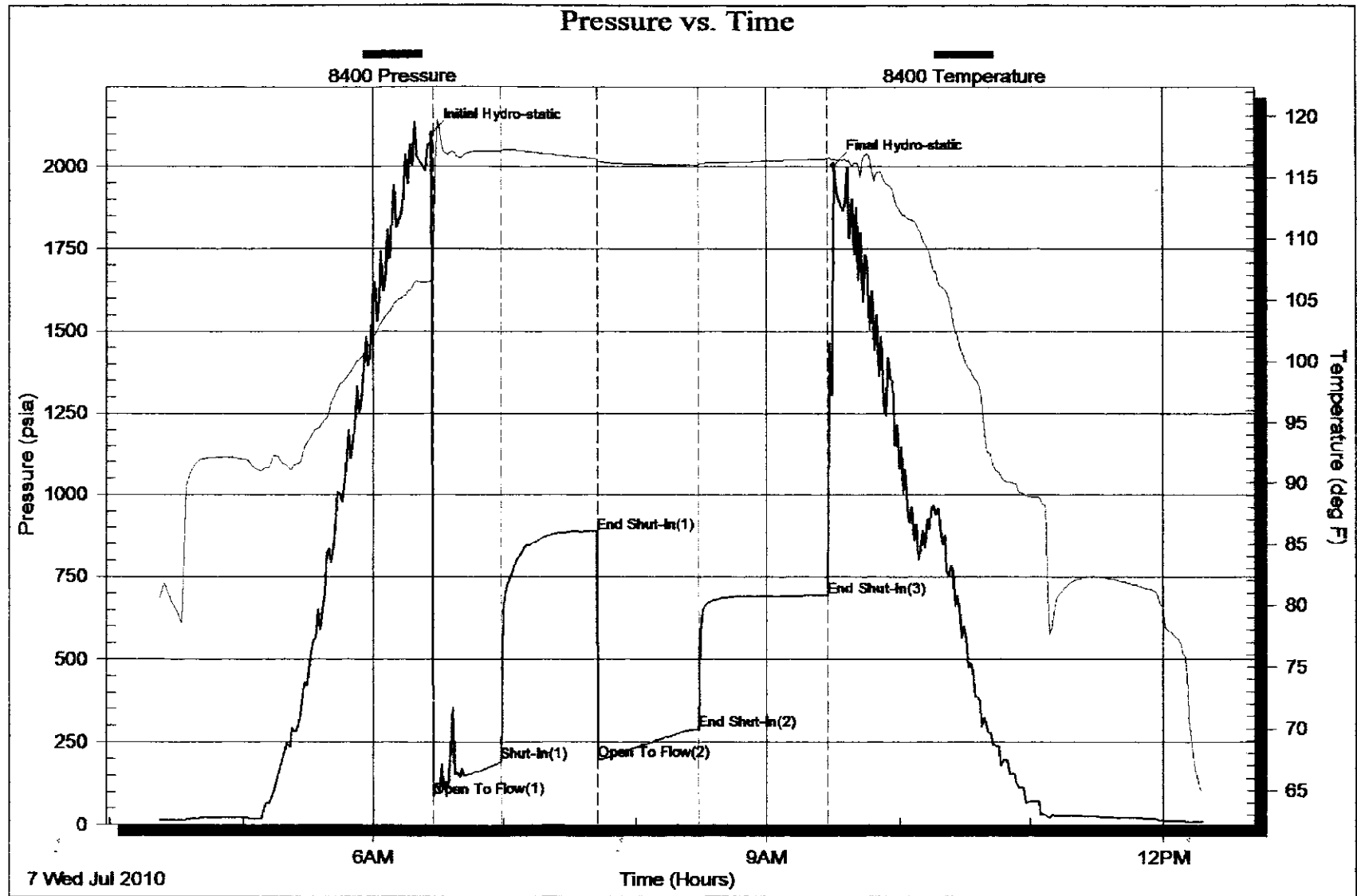
Recovery Table

Length ft	Description	Volume bbl
180.00	Mud %100	0.885
90.00	Muddy water mud%50 water%50	0.443
90.00	Muddy water mud%40 water%60	0.443
90.00	Muddy water mud%44 water%56	0.443
90.00	Muddy water mud%30 water%70	0.443
0.00	Chlorides 32000	0.000
0.00	Resistivity .58@72 Degees	0.000

Total Length: 540.00 ft      Total Volume: 2.657 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 22ND STREET N#700  
WICHITA KANSAS 67278

ATTN: Terry McLeod

**36-13S-32W LOGAN**

**STUCKY 36D #3**

Start Date: 2010.07.08 @ 04:30:00

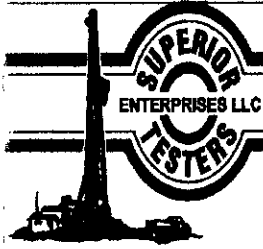
End Date: 2010.07.08 @ 10:27:30

Job Ticket #: 15946                      DST #: 8

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.07.08 @ 10:55:57

RITCHIE EXPLORATION, INC.    STUCKY 36D #3    36-13S-32W LOGAN    DST # 8    Myrtle Station    2010.07.08



# DRILL STEM TEST REPORT

RITCHE EXPLORATION, INC.

**STUCKY 36D #3**

8100 E 22ND STREET #700  
WICHITA KANSAS 67278

**36-13S-32W LOGAN**

Job Ticket: 15946

DST#: 8

ATTN: Terry McLeod

Test Start: 2010.07.08 @ 04:30:00

## GENERAL INFORMATION:

Formation: **Myrit Station**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:40:30

Time Test Ended: 10:27:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E. Ellis

Unit No: 3345-59-Scott City

Interval: **4411.00 ft (KB) To 4436.00 ft (KB) (TVD)**

Reference Elevations: 2923.00 ft (KB)

Total Depth: 4436.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

**Serial #: 18466 Outside**

Press@RunDepth: 402.82 psia @ 4433.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.07.08 End Date: 2010.07.08

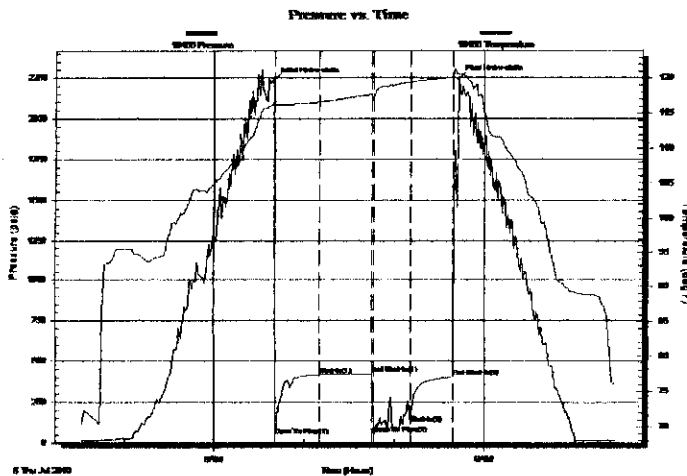
Last Calib.: 2010.07.08

Start Time: 04:31:00 End Time: 10:27:30

Time On Btm: 2010.07.08 @ 06:40:00

Time Off Btm: 2010.07.08 @ 08:42:30

**TEST COMMENT:** 1ST Opening 30 Minutes weak surface blow blow died in 19 minutes  
 1ST Shut-in 30 Minutes no blow back  
 2ND Opening 30 Minutes weakno blow flushed tool surface blow died in 7 minutes  
 2ND Shut-in 30 Minutes no blow back



## PRESSURE SUMMARY

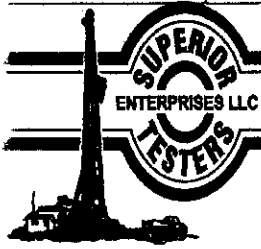
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2236.82	116.60	Initial Hydro-static
1	45.72	115.96	Open To Flow (1)
30	416.67	116.60	Shut-in(1)
65	422.35	117.66	End Shut-in(1)
66	56.96	117.57	Open To Flow (2)
91	119.26	119.38	Shut-in(2)
119	402.82	120.10	End Shut-in(2)
123	2243.16	120.65	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	very thick heavy mud	0.44

## Gas Rates

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



# DRILL STEM TEST REPORT

RITCHE EXPLORATION, INC.

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

ATTN: Terry McLeod

**STUCKY 36D #3**

**36-13S-32W LOGAN**

Job Ticket: 15946

DST#: 8

Test Start: 2010.07.08 @ 04:30:00

## GENERAL INFORMATION:

Formation: **Myrit Station**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:40:30

Time Test Ended: 10:27:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Dylan E. Ellis

Unit No: 3345-59-Scott City

Interval: **4411.00 ft (KB) To 4436.00 ft (KB) (TVD)**

Total Depth: 4436.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2923.00 ft (KB)

2913.00 ft (CF)

KB to GR/CF: 10.00 ft

**Serial #: 4134**

**Inside**

Press@RunDepth: 1569.52 psia @ 4432.00 ft (KB)

Capacity: 5000.00 psia

Start Date: 2010.07.08

End Date:

2010.07.08

Last Calib.: 2010.07.08

Start Time: 04:30:01

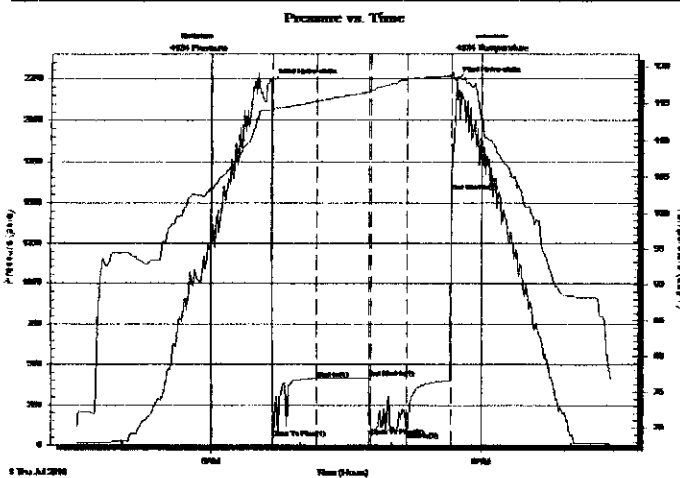
End Time:

10:26:16

Time On Btrr: 2010.07.08 @ 06:40:16

Time Off Btrr: 2010.07.08 @ 08:42:46

**TEST COMMENT:** 1ST Opening 30 Minutes weak surface blow blow died in 19 minutes  
 1ST Shut-in 30 Minutes no blow back  
 2ND Opening 30 Minutes weakno blow flushed tool surface blow died in 7 minutes  
 2ND Shut-in 30 Minutes no blow back



## PRESSURE SUMMARY

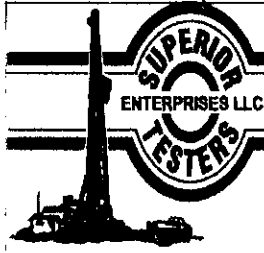
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2229.94	114.32	Initial Hydro-static
1	43.86	114.20	Open To Flow (1)
30	415.09	115.30	Shut-in(1)
65	420.28	116.60	End Shut-in(1)
66	54.65	116.68	Open To Flow (2)
90	85.46	118.37	Shut-in(2)
120	1569.52	119.17	End Shut-in(2)
123	2243.01	118.55	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	very thick heavy mud	0.44

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15946

DST#: 8

ATTN: Terry McLeod

Test Start: 2010.07.08 @ 04:30:00

## Tool Information

Drill Pipe:	Length: 3823.00 ft	Diameter: 3.80 inches	Volume: 53.63 bbl	Tool Weight:	2000.00 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: 583.00 ft	Diameter: 2.25 inches	Volume: 2.87 bbl	Weight to Pull Loose:	lb
			Total Volume: 56.50 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	78000.00 lb
Depth to Top Packer:	4411.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	25.00 ft				
Tool Length:	48.00 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			4389.00	
Shut-in Tool	5.00			4394.00	
Hydroic Tool	5.00			4399.00	
Safety Joint	2.00			4401.00	
Packer	5.00			4406.00	23.00 Bottom Of Top Packer
Packer	5.00			4411.00	
Perforations	20.00			4431.00	
Recorder	1.00	4134	Inside	4432.00	
Recorder	1.00	84002	Outside	4433.00	
Bullnose	3.00			4436.00	25.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>48.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15946

DST#: 8

ATTN: Terry McLeod

Test Start: 2010.07.08 @ 04:30:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 41.00 sec/qt  
Water Loss: 9.59 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 2700.00 ppm  
Filter Cake: inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psia

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

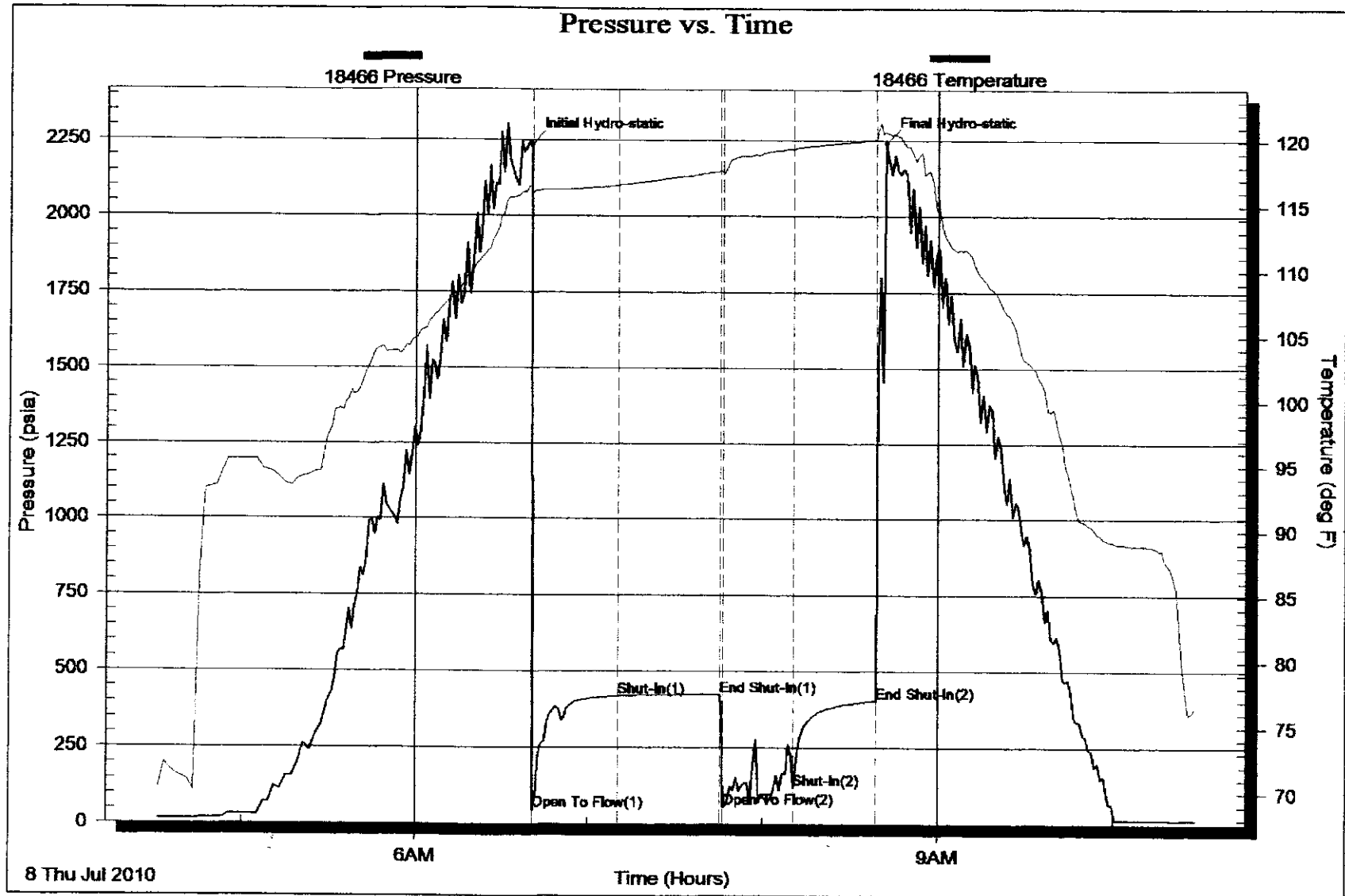
Length ft	Description	Volume bbl
90.00	very thick heavy mud	0.443

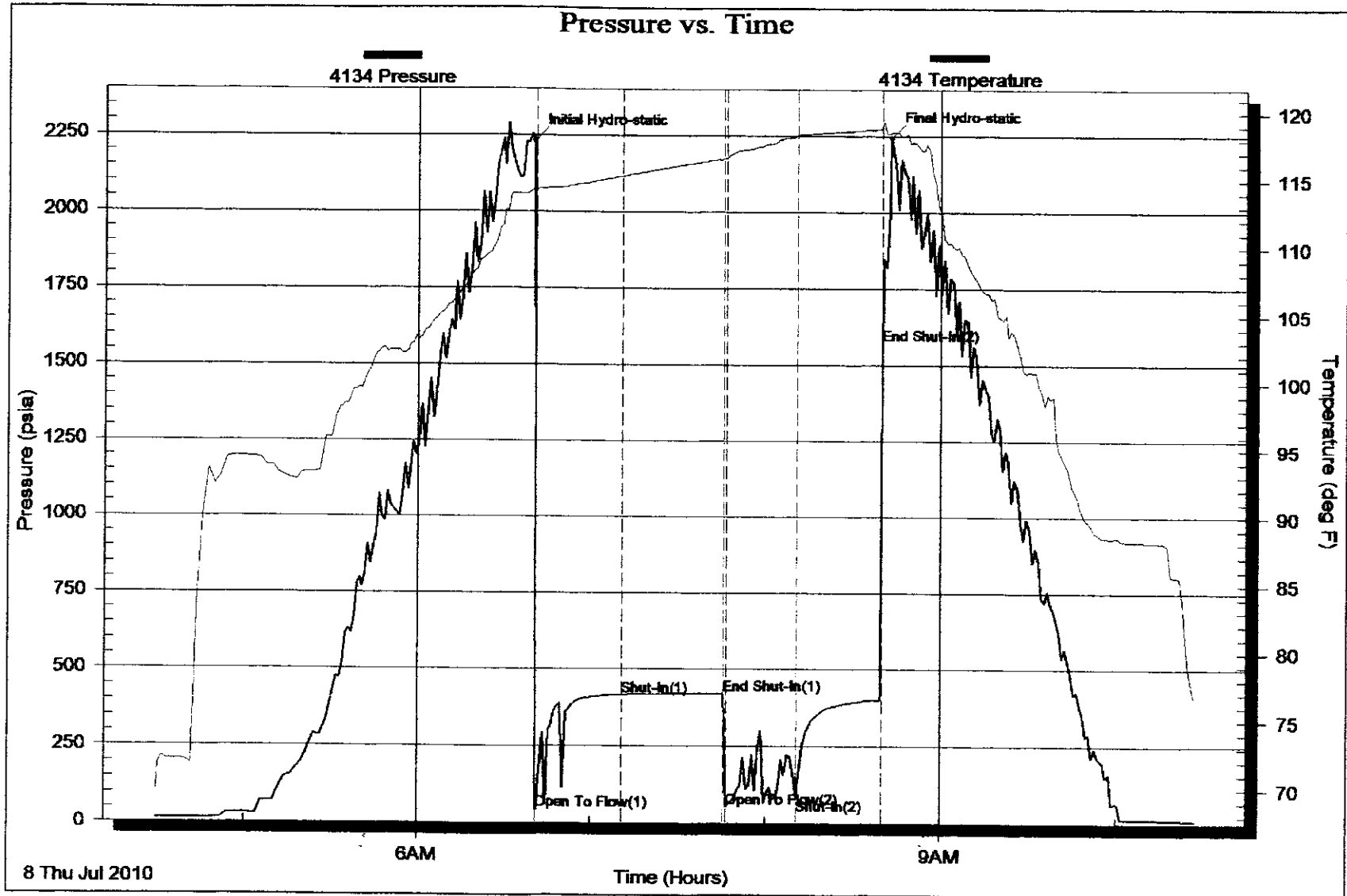
Total Length: 90.00 ft      Total Volume: 0.443 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: slid tool 3-4 feet to bottom  
severe plugging in the first flow







## DRILL STEM TEST REPORT

Prepared For: **RITCHIE EXPLORATION, INC.**

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

ATTN: Terry McLeod

**36-13S-32W LOGAN**

**STUCKY 36D #3**

Start Date: 2010.07.09 @ 09:00:00

End Date: 2010.07.09 @ 16:07:30

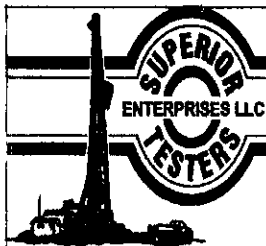
Job Ticket #: 15947                      DST #: 9

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

Printed: 2010.07.09 @ 04:53:52

RITCHIE EXPLORATION, INC.      STUCKY 36D #3      36-13S-32W LOGAN      DST # 9      Johnson Zone      2010.07.09





# DRILL STEM TEST REPORT

RITCHE EXPLORATION, INC.

**STUCKY 36D #3**

8100 E 22ND STREET#700  
WCHITA KANSAS 67278

**36-13S-32W LOGAN**

Job Ticket: 15947

**DST#: 9**

ATTN: Terry McLeod

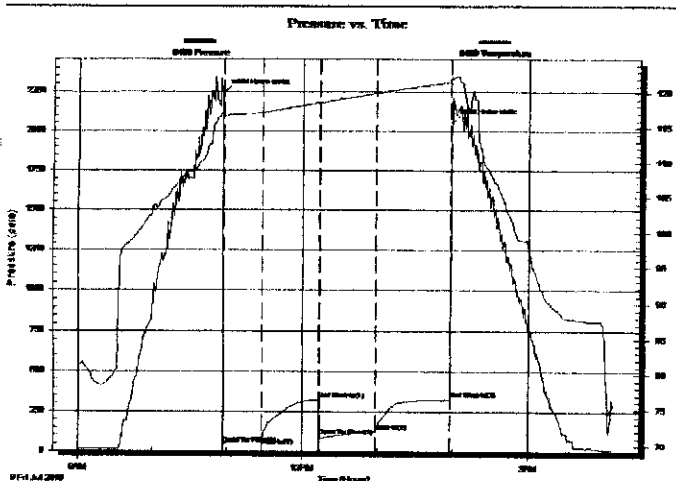
Test Start: 2010.07.09 @ 09:00:00

## GENERAL INFORMATION:

Formation: **Johnson Zone**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:57:00  
 Time Test Ended: 16:07:30  
 Interval: **4510.00 ft (KB) To 4527.00 ft (KB) (TVD)**  
 Total Depth: 4527.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dylan E. Ellis  
 Unit No: 3345-59-Scott City  
 Reference Elevations: 2923.00 ft (KB)  
 2913.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8400 Outside**  
 Press@RunDepth: 126.67 psia @ 4524.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2010.07.09 End Date: 2010.07.09 Last Calib.: 2010.07.09  
 Start Time: 09:00:00 End Time: 16:07:30 Time On Btm: 2010.07.09 @ 10:56:30  
 Time Off Btm: 2010.07.09 @ 13:59:00

**TEST COMMENT:** 1ST Opening 30 Minutes fair blow bottom of bucket into water in 6 minutes  
 1ST Shut-In 45 Minutes no blow back  
 2ND Opening 45 Minutes strong blow bottom of bucket of water in 2 minutes  
 2ND Shut-In 60 Minutes no blow back



## PRESSURE SUMMARY

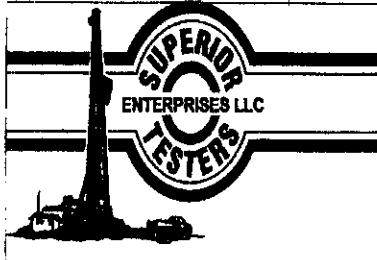
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2244.21	117.27	Initial Hydro-static
1	43.19	116.35	Open To Flow (1)
31	86.32	117.14	Shut-In(1)
77	325.53	118.62	End Shut-In(1)
77	96.49	118.52	Open To Flow (2)
122	126.67	119.92	Shut-In(2)
181	327.27	121.56	End Shut-In(2)
183	2056.11	122.03	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	Mud cut oil	0.44
0.00	5%gas 70%oil 25% mud	0.00
90.00	Very slightly oil cut mud	0.44
0.00	10%gas 85% oil 5% mud	0.00
20.00	clean oil Gravity 29corrected	0.10
2350.00	Gas in pipe	29.48

## Gas Rates

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



# DRILL STEM TEST REPORT

RITCHE EXPLORATION, INC.

**STUCKY 36D #3**

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

**36-13S-32W LOGAN**

ATTN: Terry McLeod

Job Ticket: 15947

**DST#: 9**

Test Start: 2010.07.09 @ 09:00:00

## GENERAL INFORMATION:

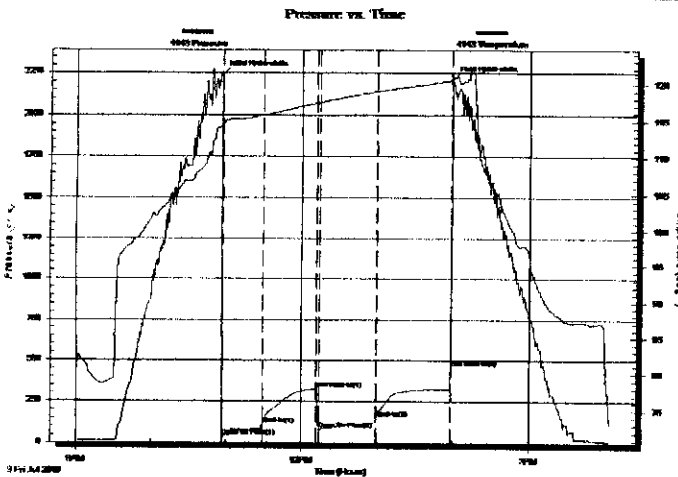
Formation: **Johnson Zone**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 10:57:00  
 Time Test Ended: 16:07:30  
 Interval: **4510.00 ft (KB) To 4527.00 ft (KB) (TVD)**  
 Total Depth: 4527.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dylan E Ellis  
 Unit No: 3345-59-Scott City  
 Reference Elevations: 2923.00 ft (KB)  
 2913.00 ft (CF)  
 KB to GR/CF: 10.00 ft

## Serial #: 4143

Inside

Press@RunDepth: 456.61 psia @ 4523.00 ft (KB) Capacity: 5000.00 psia  
 Start Date: 2010.07.09 End Date: 2010.07.09 Last Calib.: 2010.07.09  
 Start Time: 09:00:00 End Time: 16:04:15 Time On Btm: 2010.07.09 @ 10:56:16  
 Time Off Btm: 2010.07.09 @ 13:59:16

TEST COMMENT: 1ST Opening 30 Minutes fair blow bottom of bucket into water in 6 minutes  
 1ST Shut-In 45 Minutes no blow back  
 2ND Opening 45 Minutes strong blow bottom of bucket of water in 2 minutes  
 2ND Shut-In 60 Minutes no blow back



## PRESSURE SUMMARY

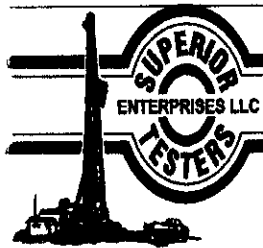
Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2240.86	114.52	Initial Hydro-static
1	38.13	114.05	Open To Flow (1)
33	112.63	115.79	Shut-In(1)
76	324.61	117.46	End Shut-In(1)
78	84.89	117.54	Open To Flow (2)
123	149.82	118.99	Shut-In(2)
182	456.61	120.96	End Shut-In(2)
183	2214.49	120.98	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
90.00	Mud cut oil	0.44
0.00	5%gas 70%oil 25% mud	0.00
90.00	Very slightly oil cut mud	0.44
0.00	10%gas 85% oil 5% mud	0.00
20.00	clean oil Gravity 29corrected	0.10
2350.00	Gas in pipe	29.48

## Gas Rates

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



# DRILL STEM TEST REPORT

TOOL DIAGRAM

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15947

DST#: 9

ATTN: Terry McLeod

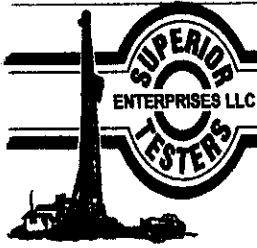
Test Start: 2010.07.09 @ 09:00:00

## Tool Information

Drill Pipe:	Length: 3918.00 ft	Diameter: 3.80 inches	Volume: 54.96 bbl	Tool Weight: 2000.00 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: 583.00 ft	Diameter: 2.25 inches	Volume: 2.87 bbl	Weight to Pull Loose: 85000.00 lb
			Total Volume: 57.83 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 75000.00 lb
Depth to Top Packer:	4510.00 ft			Final 76000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	17.00 ft			
Tool Length:	40.00 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			4488.00	
Shut-In Tool	5.00			4493.00	
Hydroic Tool	5.00			4498.00	
Safety Joint	2.00			4500.00	
Packer	5.00			4505.00	23.00 Bottom Of Top Packer
Packer	5.00			4510.00	
Perforations	12.00			4522.00	
Recorder	1.00	4143	Inside	4523.00	
Recorder	1.00	8400	Outside	4524.00	
Buttnose	3.00			4527.00	17.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>40.00</b>				



# DRILL STEM TEST REPORT

FLUID SUMMARY

RITCHE EXPLORATION, INC.

STUCKY 36D #3

8100 E 22ND STREET#700  
WICHITA KANSAS 67278

36-13S-32W LOGAN

Job Ticket: 15947

DST#: 9

ATTN: Terry McLeod

Test Start: 2010.07.09 @ 09:00:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 66.00 sec/qt  
Water Loss: 10.40 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 3500.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psia

Oil API: 29 deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	Mud cut oil	0.443
0.00	5%gas 70%oil 25% mud	0.000
90.00	Very slightly oil cut mud	0.443
0.00	10%gas 85% oil 5%mud	0.000
20.00	clean oil Gravity 29corrected	0.098
2350.00	Gas in pipe	29.475

Total Length: 2550.00 ft      Total Volume: 30.459 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:

