



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1093249
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

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
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

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.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1093249

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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#1 Smith-Rebein Unit
2010' FSL & 2620' FEL
30' S & 20' E N/2 S/2 Section 3-25S-24W
Ford County, Kansas
API# 15-057-20809-00-00
Elevation: 2377' GL, 2388' KB

DRILLING REPORT

<u>Sample Tops</u>		<u>Ref.</u>
		<u>Well</u>
Anhydrite		
B/Anhydrite		
Heebner	3940'	-1552 +2
Lansing	4039'	-1651 +3
Muncie Shale	4214'	-1826 Flat
Stark	4325'	-1937 -1
Hush	4377'	-1989 +3
BKC	4414'	-2026 -1
Marmaton	4437'	-2049 -1
Pawnee	4510'	-2122 +3
Fort Scott	4590'	-2202 -4
Cherokee Shale	4605'	-2217 -7
Atoka Shale	4689'	-2301 +9
Mississippian	4722'	-2334 +28
Viola	5324'	-2936 N/A
Granite Wash	5399'	-3011 N/A
RTD	5460'	-3072

ALLIED OIL & GAS SERVICES, LLC 053421

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:
Liberal KS

DATE <u>5-26-12</u>	SEC <u>3</u>	TWP. <u>25S</u>	RANGE <u>24W</u>	CALLED OUT	ON LOCATION	JOB START 12:00pm	JOB FINISH 1:00pm
LEASE <u>Smith</u> <u>Rebein</u> Well # <u>1</u>				LOCATION <u>North of Dodge City KS</u>		COUNTY <u>Ford</u>	STATE <u>KS</u>
OLD OR NEW (Circle one)							

CONTRACTOR Duke Rig # 10 OWNER _____

TYPE OF JOB Surface
HOLE SIZE 12 1/4 I.D. 355
CASING SIZE 8 5/8 21" DEPTH 337
TUBING SIZE _____ DEPTH _____
DRILL PIPE _____ DEPTH _____
TOOL _____ DEPTH _____

PREV. MAX _____ MINIMUM _____
MEAS. LINE _____ SHOE JOINT _____
CEMENT LEFT IN CSG. 40 FT
PERFS. _____
DISPLACEMENT 18.92 bbl

EQUIPMENT
PUMP TRUCK Cementer Jessels / Ruben C.
531-541 HELPER Cesar P.
BULK TRUCK _____
530-554 DRIVER Daniel P.
BULK TRUCK _____
_____ DRIVER _____

REMARKS:
Rumped 230 sk and circulated cement to surface.
Thank you!

CHARGE TO: Bitchie Explorations
STREET _____ STATE _____ ZIP _____
CITY _____

TOTAL 1910.15

DEPTH OF JOB _____ SERVICE _____
PUMP TRUCK CHARGE 337
EXTRA FOOTAGE _____
MILEAGE Heavy V-50 @ 7.00 - 350.00
MANIFOLD Head 1 @ 200.00 - 200.00
Light V 50 @ 4.00 - 200.00
TOTAL 1910.15

PLUG & FLOAT EQUIPMENT
8 5/8
1 basket @ 478.00 - 478.00
Exp. Neck Plug 1 @ 112.00 - 112.00
baffle plate 1 @ 112.00 - 112.00
TOTAL 702.00

To: Allied Oil & Gas Services, 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 Scott Edwards
SIGNATURE Scott Edwards

SALES TAX (if Any) _____
TOTAL CHARGES 8775.75
DISCOUNT _____ IF PAID IN 30 DAYS _____



Cement Report

Customer: <u>Active Exploration</u>		Lease No.:		Date: <u>6-7-11</u>				
Lease: <u>Synthetic Reinforced</u>		Well #:		Service Receipt: <u>03508</u>				
Casing: <u>5 7/8" 5093'</u>		County: <u>Ford</u>		State: <u>KS</u>				
Job Type: <u>242-5/8" ART Packer</u>		Formation:		Legal Description: <u>3-25-21</u>				
Pipe Data			Perforating Data			Cement Data		
Casing size	Tubing Size		Shots/Ft			Lead <u>175'</u>		
Depth	From	To	From	From	To	Tail in		
Volume	From	To	From	From	To			
Max Press	From	To	From	From	To			
Well Connection	Annulus Vol.		From	From	To			
Plug Depth	Packer Depth		From	From	To			
Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log			
11:00					On 100' - wire assessment (apple bag)			
11:10					200' - checks - rig up			
2:00					Start CIP @ 12			
4:30					CSA on beam break cure log			
11:45					Contact, washing / CSA			
5:30					Pressure Test 2:00M #			
11:30	100				Packed above main @ 900'			
5:30	200		5	3	Annup 5 hrs 11:20 - 200' CIP			
5:30	100		12	3	bump 10 hrs 2:00 - 200' CIP			
5:37	200		5	3	200' 5 hrs 11:00 - 200' CIP			
5:10	100		13	3	Plug set + mouse tank w/ 200'			
6:00	200		47	5	1 120/10 207 @ 12.5 ADA			
6:15					Mix down 175 sk ADA @ 11.5 ADA			
6:20	0		0	0	1 SI disk - 661 gal/yr			
6:55	600		105	2	wash lines			
7:00	100		116	0	drum down 4:50 CIP			
					slow rate last 10 hrs of dip			
					load into down pipe			
					job complete			
Service Units	21706	27705	33001	19883				
Driver Names		1. Sullivan	S. Burdick					

Customer Representative: [Signature] Station Manager: [Signature] Cementer: [Signature]



Cement Report

Customer: State Production Lease No. 6012-12
 Lease: State Production Well # 03571
 Casing: 2 1/2" Depth: 1150' County: KS State: KS
 Job Type: 50' by 80' well Formation: For Legal Description: 3-35-211

Pipe Data			Perforating Data		Cement Data	
Casing size	Tubing Size	Shots/Ft	Lead	From	To	Tail in
5 1/2" 15.5"	3 1/2"		750 SL			60/40 3oz
Depth	Depth			From	To	
	1152'			From	To	
Volume	Volume			From	To	
	40.4 bbl			From	To	
Max Press	Max Press			From	To	
	1500#			From	To	
Well Connection	Annulus Vol.			From	To	
	845 bbl			From	To	
Plug Depth	Packer Depth			From	To	
	207' 10" - 1152'			From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1:10					On 100' line assessments (on 10' h/c)
1:15					500' tracks - on 10'
3:00					20' rate machine / 9' sit
3:30					massive lost to burning loss
3:35	1200				Drill pipe lost port collar
3:40			5	2	found no c/c
3:45	900		74.9	4	mix + dump 280 at 100' h/c 0
4:10					12.5 gal - 150 gals. 7.35 gal/h
4:15					c/c on surface w/ 5 bbl
4:20			8	4	also w/ 4 bbl h/c on port
4:25	1200				lost port collar bit 100'
4:30	100		30	4	run 5 hrs clean tubing,
					ced with clean
					job complete

Service Units	3176	2788.1655	1202-1453
Driver Names	NOVA	OLAS	T. Bennett

Customer Representative: Ca. Smith Station Manager: T. Bennett
 Cementer: A. Johnson
 Taylor Printing, Inc.

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

September 11, 2012

John Niernberger
Ritchie Exploration, Inc.
8100 E 22ND ST N # 700
BOX 783188
WICHITA, KS 67278-3188

Re: ACO1
API 15-057-20809-00-00
Smith-Rebein Unit 1
SE/4 Sec.03-25S-24W
Ford County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
John Niernberger



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Justin Clegg/ Terry

Smith-Rebein Unit #1

3-25s-24w Ford,KS

Start Date: 2012.06.02 @ 11:20:51

End Date: 2012.06.02 @ 18:27:06

Job Ticket #: 47552 DST #: 1

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

Printed: 2012.06.12 @ 12:09:17



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

3-25s-24w Ford,KS

PO Box 783188
Wichita KS 67278

Smith-Rebein Unit #1

ATTN: Justin Clegg/ Terry

Job Ticket: 47552

DST#: 1

Test Start: 2012.06.02 @ 11:20:51

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:02:06

Time Test Ended: 18:27:06

Test Type: Conventional Bottom Hole (Initial)

Tester: Chris Staats

Unit No: 47

Interval: 4632.00 ft (KB) To 4705.00 ft (KB) (TVD)

Total Depth: 4705.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2393.00 ft (KB)

2382.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6773 Outside

Press @ Run Depth: 55.99 psig @ 4633.00 ft (KB)

Start Date: 2012.06.02

End Date:

2012.06.02

Start Time: 11:20:56

End Time:

18:27:05

Capacity: 8000.00 psig

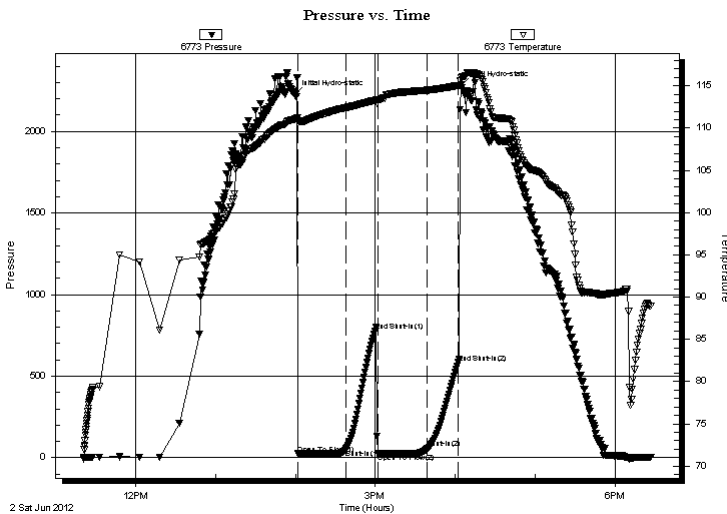
Last Calib.: 2012.06.02

Time On Btm: 2012.06.02 @ 13:59:51

Time Off Btm: 2012.06.02 @ 16:04:36

TEST COMMENT: IF: Weak surface blow
IS: No blow back
FF: No blow Flushed tool
FS: No blow back

PRESSURE SUMMARY



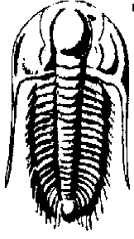
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2225.33	111.06	Initial Hydro-static
3	23.62	110.86	Open To Flow (1)
38	52.19	112.41	Shut-In(1)
60	778.11	113.29	End Shut-In(1)
63	26.20	113.31	Open To Flow (2)
100	55.99	114.49	Shut-In(2)
123	582.25	115.04	End Shut-In(2)
125	2280.87	115.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud	0.21

Gas Rates

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



TRILLOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc
 PO Box 783188
 Wichita KS 67278

 ATTN: Justin Clegg/ Terry

3-25s-24w Ford,KS
Smith-Rebein Unit #1
 Job Ticket: 47552 **DST#: 1**
 Test Start: 2012.06.02 @ 11:20:51

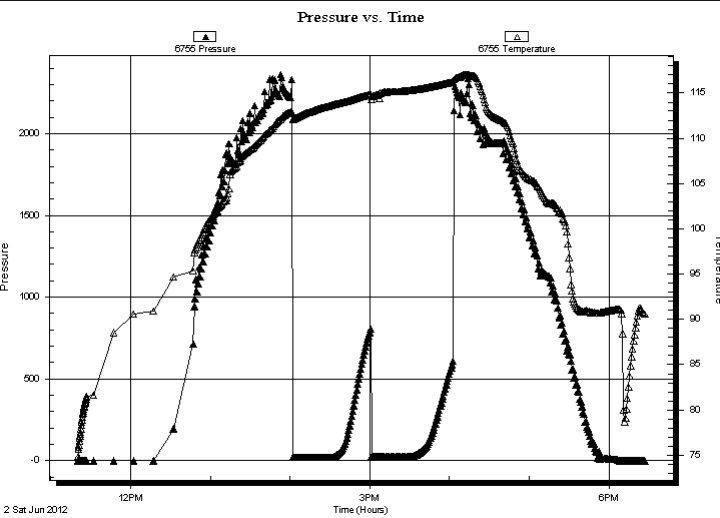
GENERAL INFORMATION:

Formation: **Cherokee**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 14:02:06 Tester: Chris Staats
 Time Test Ended: 18:27:06 Unit No: 47

 Interval: **4632.00 ft (KB) To 4705.00 ft (KB) (TVD)** Reference Elevations: 2393.00 ft (KB)
 Total Depth: 4705.00 ft (KB) (TVD) 2382.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

Serial #: 6755 Inside
 Press @ Run Depth: psig @ 4633.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.06.02 End Date: 2012.06.02 Last Calib.: 2012.06.02
 Start Time: 11:20:11 End Time: 18:27:05 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Weak surface blow
 IS: No blow back
 FF: No blow Flushed tool
 FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

3-25s-24w Ford,KS

PO Box 783188
Wichita KS 67278

Smith-Rebein Unit #1

Job Ticket: 47552

DST#: 1

ATTN: Justin Clegg/ Terry

Test Start: 2012.06.02 @ 11:20:51

Tool Information

Drill Pipe:	Length: 4610.00 ft	Diameter: 3.80 inches	Volume: 64.67 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 64.67 bbl</u>	Tool Chased 1.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4632.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	73.00 ft			
Tool Length:	102.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4604.00	
Shut In Tool	5.00			4609.00	
Hydraulic tool	5.00			4614.00	
Jars	5.00			4619.00	
Safety Joint	3.00			4622.00	
Packer	5.00			4627.00	29.00 Bottom Of Top Packer
Packer	5.00			4632.00	
Stubb	1.00			4633.00	
Recorder	0.00	6773	Outside	4633.00	
Recorder	0.00	6755	Inside	4633.00	
Change Over Sub	0.50			4633.50	
Drill Pipe	62.00			4695.50	
Change Over Sub	0.50			4696.00	
Perforations	6.00			4702.00	
Bullnose	3.00			4705.00	73.00 Bottom Packers & Anchor

Total Tool Length: 102.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

3-25s-24w Ford,KS

PO Box 783188
Wichita KS 67278

Smith-Rebein Unit #1

Job Ticket: 47552

DST#: 1

ATTN: Justin Clegg/ Terry

Test Start: 2012.06.02 @ 11:20:51

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.68 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	mud	0.210

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0

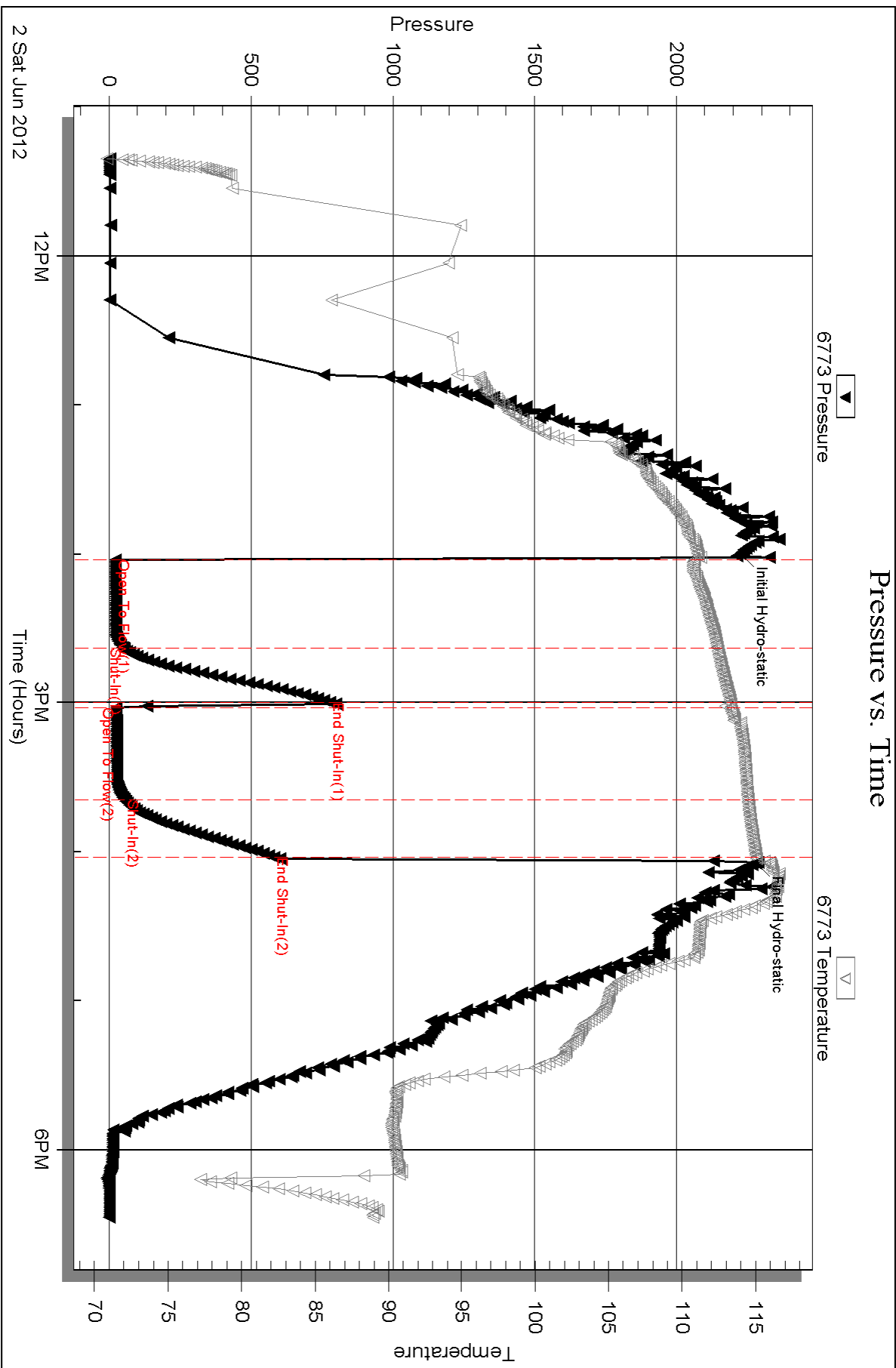
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



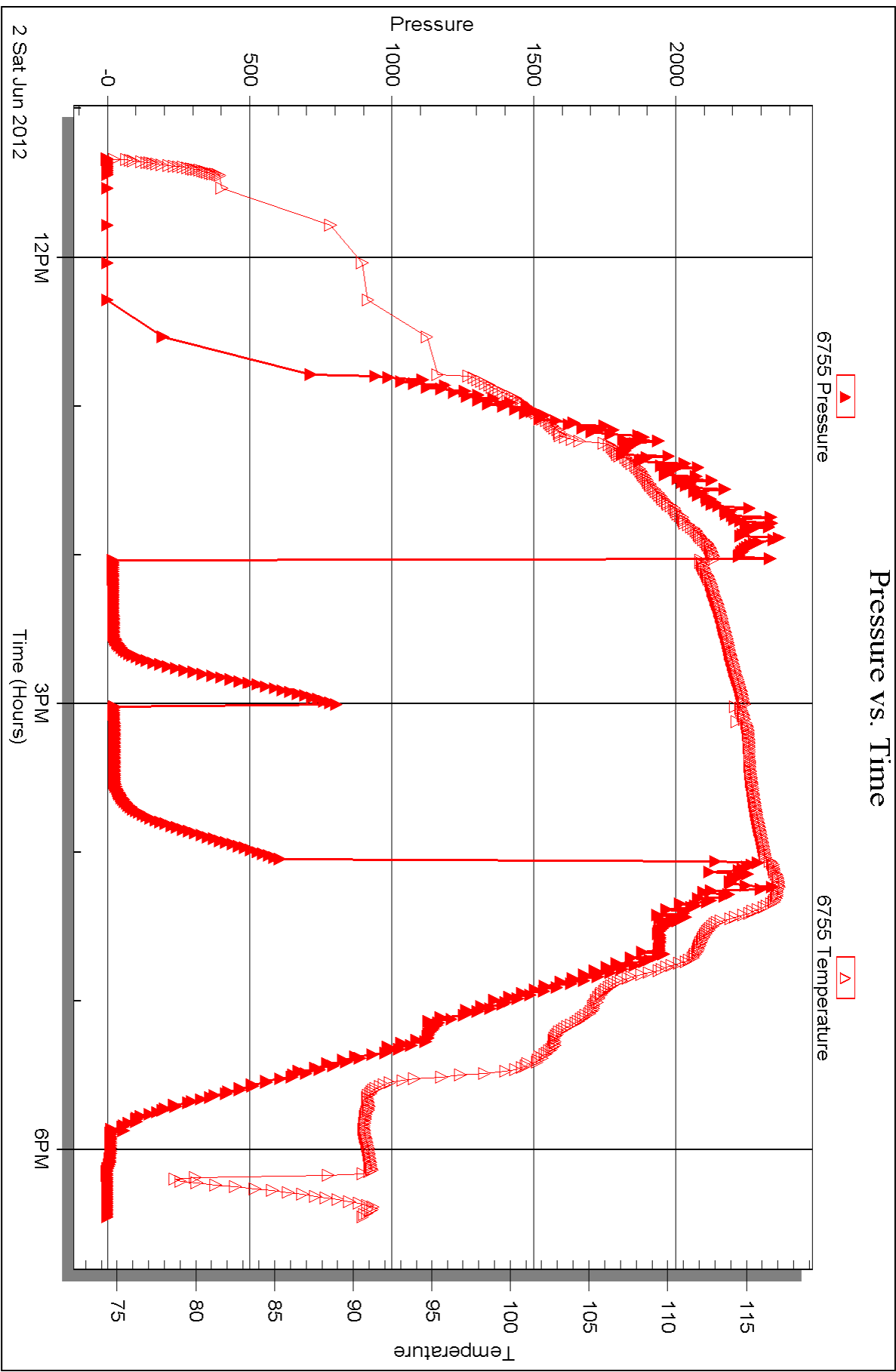
Serial #: 6755

Inside

Richie Exploration Inc

Smith-Rebein Unit #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Justin Clegg/ Terry

Smith-Rebein Unit #1

3-25s-24w Ford,KS

Start Date: 2012.06.03 @ 05:49:17

End Date: 2012.06.03 @ 09:53:02

Job Ticket #: 47553 DST #: 2

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

Printed: 2012.06.12 @ 12:08:17



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

3-25s-24w Ford,KS

PO Box 783188
Wichita KS 67278

Smith-Rebein Unit #1

ATTN: Justin Clegg/ Terry

Job Ticket: 47553

DST#: 2

Test Start: 2012.06.03 @ 05:49:17

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 09:53:02

Interval: 4687.00 ft (KB) To 4755.00 ft (KB) (TVD)

Total Depth: 4755.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Chris Staats

Unit No: 47

Reference Elevations: 2393.00 ft (KB)

2382.00 ft (CF)

KB to GR/CF: 11.00 ft

Serial #: 6773 Outside

Press @ Run Depth: psig @ 4688.00 ft (KB)

Start Date: 2012.06.03

End Date:

2012.06.03

Start Time: 05:49:22

End Time:

09:53:02

Capacity: 8000.00 psig

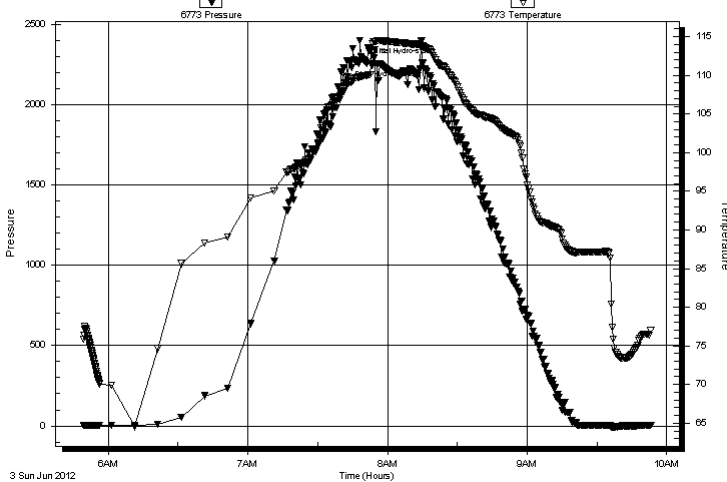
Last Calib.: 2012.06.03

Time On Btm: 2012.06.03 @ 07:50:32

Time Off Btm: 2012.06.03 @ 08:14:47

TEST COMMENT: MISS RUN PACKER FAILED

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2263.40	109.97	Initial Hydro-static
25	2263.45	113.85	Final Hydro-static

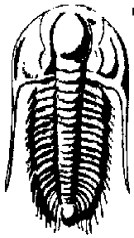
Recovery

Length (ft)	Description	Volume (bbl)
220.00	MUD	3.09

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc

3-25s-24w Ford,KS

PO Box 783188
Wichita KS 67278

Smith-Rebein Unit #1

ATTN: Justin Clegg/ Terry

Job Ticket: 47553

DST#: 2

Test Start: 2012.06.03 @ 05:49:17

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened:
 Time Test Ended: 09:53:02
 Interval: **4687.00 ft (KB) To 4755.00 ft (KB) (TVD)**
 Total Depth: 4755.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Chris Staats
 Unit No: 47
 Reference Elevations: 2393.00 ft (KB)
 2382.00 ft (CF)
 KB to GR/CF: 11.00 ft

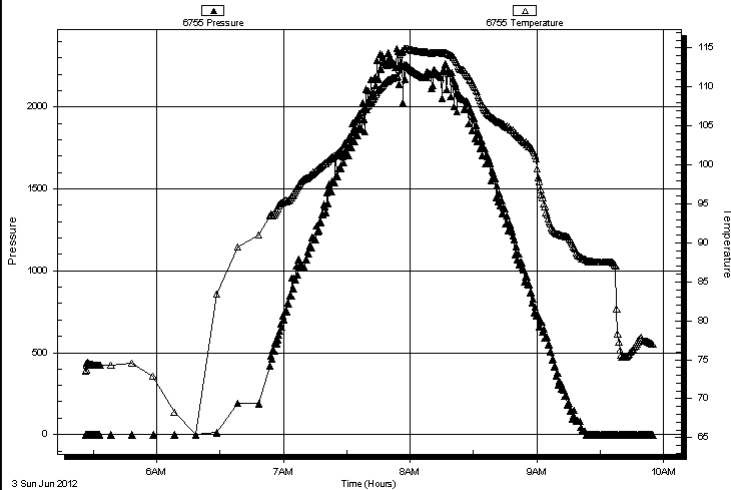
Serial #: 6755

Inside

Press@RunDepth: psig @ 4688.00 ft (KB)
 Capacity: 8000.00 psig
 Start Date: 2012.06.03 End Date: 2012.06.03 Last Calib.: 2012.06.03
 Start Time: 05:26:30 End Time: 09:54:39 Time On Btm:
 Time Off Btm:

TEST COMMENT: MISS RUN PACKER FAILED

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
220.00	MUD	3.09

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

3-25s-24w Ford,KS

PO Box 783188
Wichita KS 67278

Smith-Rebein Unit #1

ATTN: Justin Clegg/ Terry

Job Ticket: 47553

DST#: 2

Test Start: 2012.06.03 @ 05:49:17

Tool Information

Drill Pipe:	Length: 4668.00 ft	Diameter: 3.80 inches	Volume: 65.48 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 65.48 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	4687.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	68.00 ft			
Tool Length:	97.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4659.00	
Shut In Tool	5.00			4664.00	
Hydraulic tool	5.00			4669.00	
Jars	5.00			4674.00	
Safety Joint	3.00			4677.00	
Packer	5.00			4682.00	29.00 Bottom Of Top Packer
Packer	5.00			4687.00	
Stubb	1.00			4688.00	
Recorder	0.00	6773	Outside	4688.00	
Recorder	0.00	6755	Inside	4688.00	
Change Over Sub	0.50			4688.50	
Drill Pipe	31.00			4719.50	
Change Over Sub	0.50			4720.00	
Perforations	32.00			4752.00	
Bullnose	3.00			4755.00	68.00 Bottom Packers & Anchor

Total Tool Length: 97.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

3-25s-24w Ford,KS

PO Box 783188
Wichita KS 67278

Smith-Rebein Unit #1

Job Ticket: 47553

DST#: 2

ATTN: Justin Clegg/ Terry

Test Start: 2012.06.03 @ 05:49:17

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.68 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
220.00	MUD	3.086

Total Length: 220.00 ft Total Volume: 3.086 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

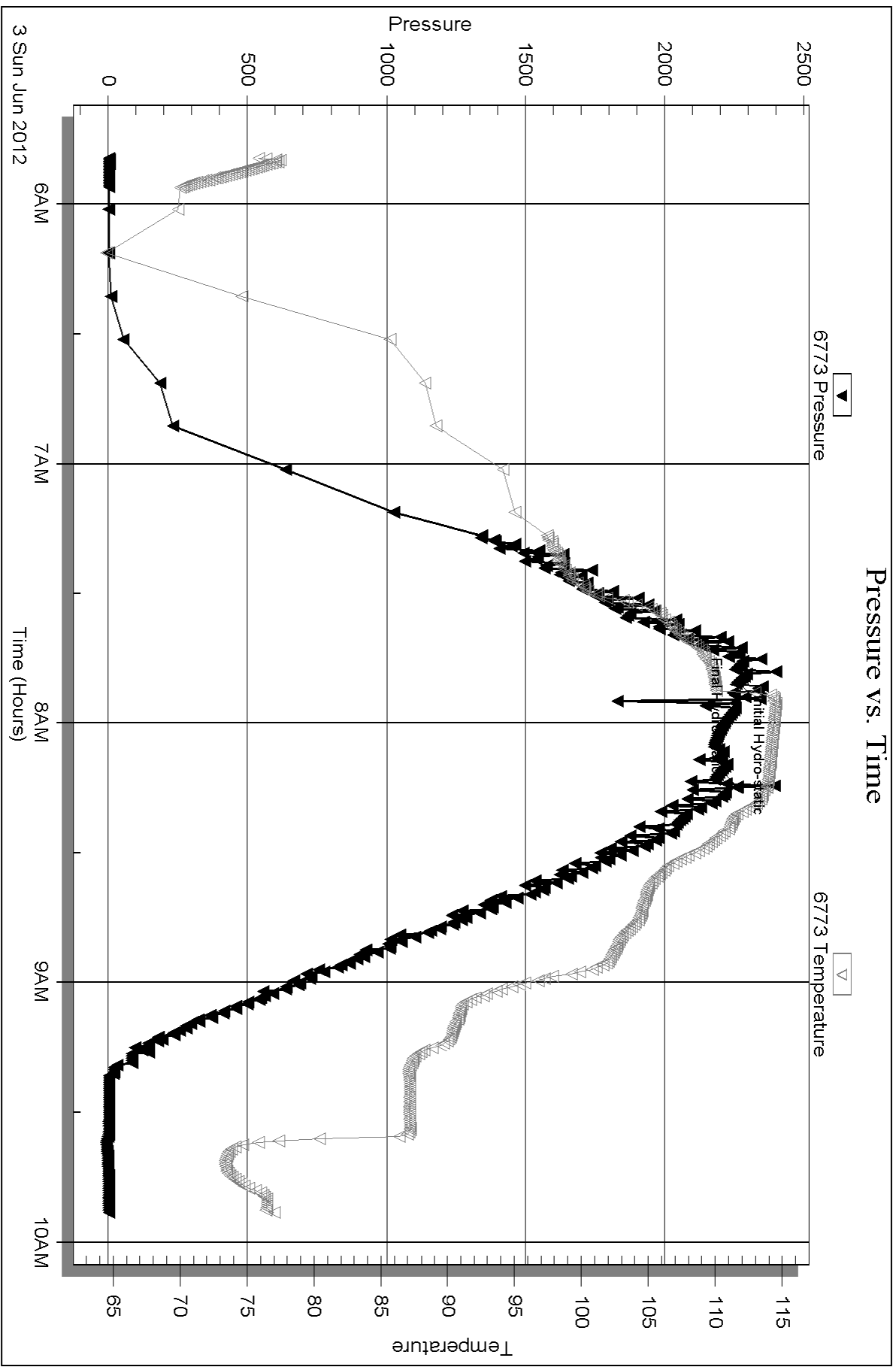
Recovery Comments:

Serial #: 6773

Outside Ritchie Exploration Inc

Smith-Rebein Unit #1

DST Test Number: 2



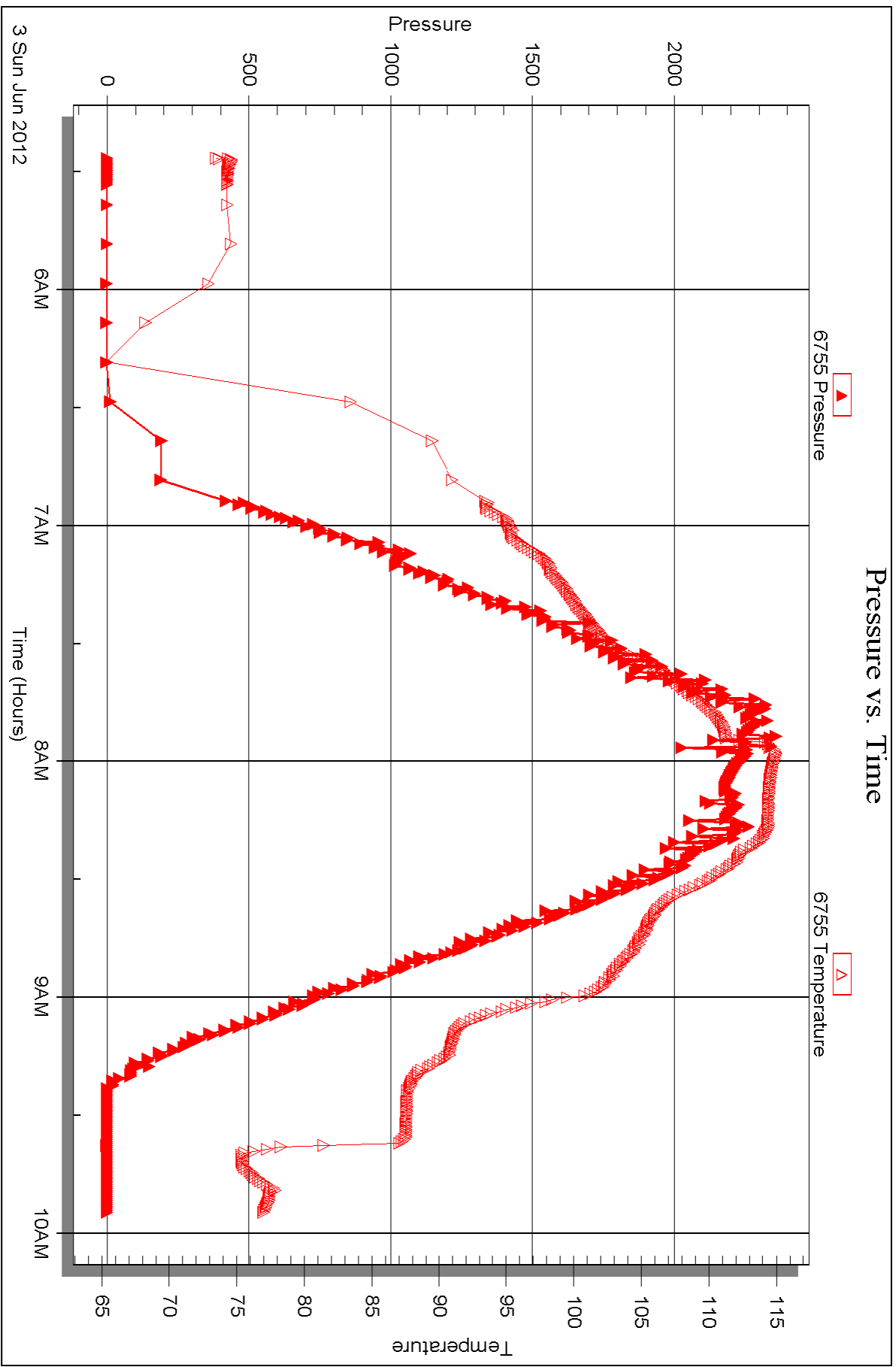
Serial #: 6755

Inside

Ritchie Exploration Inc

Smith-Rebein Unit #1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 47553

Printed: 2012.06.12 @ 12:08:20



DRILL STEM TEST REPORT

Prepared For: **Ritchie Exploration Inc**

PO Box 783188
Wichita KS 67278

ATTN: Justin Clegg/ Terry

Smith-Rebein Unit #1

3-25s-24w Ford,KS

Start Date: 2012.06.03 @ 10:28:37

End Date: 2012.06.03 @ 18:49:52

Job Ticket #: 47554 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.06.12 @ 12:07:33

Ritchie Exploration Inc

3-25s-24w Ford,KS

Smith-Rebein Unit #1

DST # 3

Mississippi

2012.06.03



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ritchie Exploration Inc

3-25s-24w Ford,KS

PO Box 783188
Wichita KS 67278

Smith-Rebein Unit #1

ATTN: Justin Clegg/ Terry

Job Ticket: 47554

DST#: 3

Test Start: 2012.06.03 @ 10:28:37

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:03:07

Time Test Ended: 18:49:52

Test Type: Conventional Bottom Hole (Reset)

Tester: Chris Staats

Unit No: 47

Interval: 4724.00 ft (KB) To 4755.00 ft (KB) (TVD)

Reference Elevations: 2393.00 ft (KB)

Total Depth: 4755.00 ft (KB) (TVD)

2382.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6755

Inside

Press @ Run Depth: 81.44 psig @ 4725.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.06.03

End Date:

2012.06.03

Last Calib.:

2012.06.03

Start Time:

10:28:42

End Time:

18:49:51

Time On Btm:

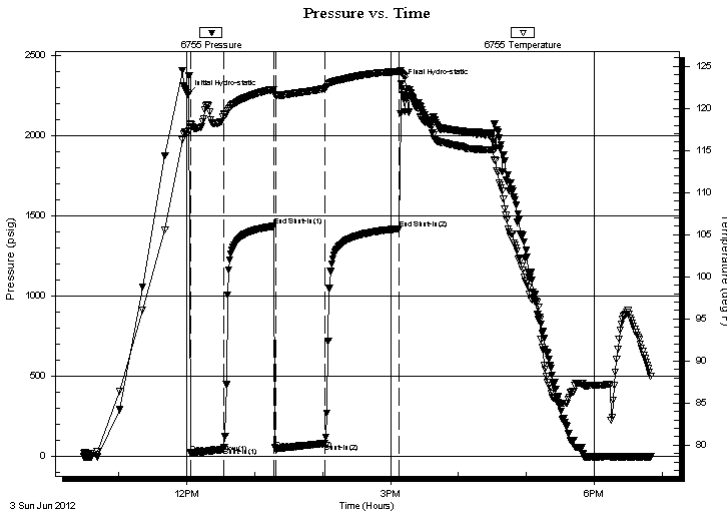
2012.06.03 @ 12:00:52

Time Off Btm:

2012.06.03 @ 15:09:22

TEST COMMENT: IF: Strong blow BOB 26 min
IS: Weak surface blow back
FF: Strong blow BOB 21 min
FS: Weak blow back 1"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2257.44	117.24	Initial Hydro-static
3	23.04	118.20	Open To Flow (1)
32	57.95	119.36	Shut-In(1)
76	1436.12	122.27	End Shut-In(1)
78	45.47	121.57	Open To Flow (2)
121	81.44	122.40	Shut-In(2)
187	1420.28	124.39	End Shut-In(2)
189	2322.02	124.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	OIL	1.40
90.00	O,W,M 5%oil 45%w ater 50% mud	1.26

Gas Rates

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

* Recovery from multiple tests



TRILLOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Ritchie Exploration Inc

3-25s-24w Ford,KS

PO Box 783188
Wichita KS 67278

Smith-Rebein Unit #1

ATTN: Justin Clegg/ Terry

Job Ticket: 47554

DST#: 3

Test Start: 2012.06.03 @ 10:28:37

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:03:07

Time Test Ended: 18:49:52

Test Type: Conventional Bottom Hole (Reset)

Tester: Chris Staats

Unit No: 47

Interval: **4724.00 ft (KB) To 4755.00 ft (KB) (TVD)**

Reference Elevations: 2393.00 ft (KB)

Total Depth: 4755.00 ft (KB) (TVD)

2382.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 6773 Outside

Press @ Run Depth: psig @ 4725.00 ft (KB)

Start Date: 2012.06.03

End Date:

2012.06.03

Start Time: 10:34:27

End Time:

18:49:51

Capacity: 8000.00 psig

Last Calib.:

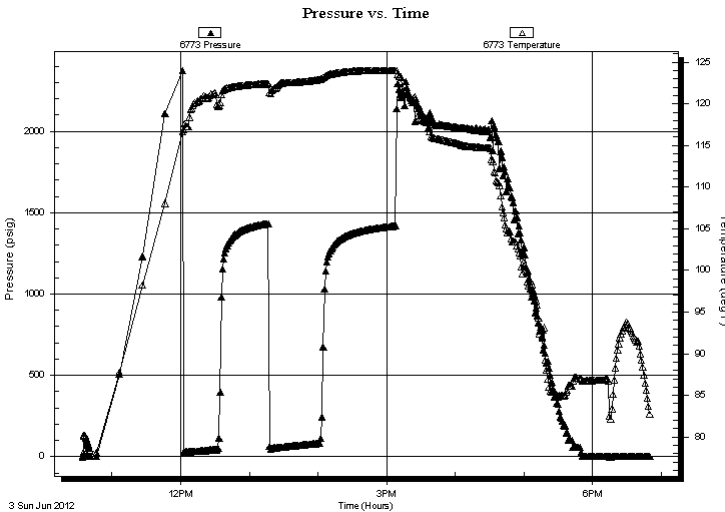
2012.06.03

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Strong blow BOB 26 min
IS: Weak surface blow back
FF: Strong blow BOB 21 min
FS: Weak blow back 1"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
100.00	OIL	1.40
90.00	O,W,M 5%oil 45%water 50% mud	1.26

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ritchie Exploration Inc

3-25s-24w Ford,KS

PO Box 783188
Wichita KS 67278

Smith-Rebein Unit #1

Job Ticket: 47554

DST#: 3

ATTN: Justin Clegg/ Terry

Test Start: 2012.06.03 @ 10:28:37

Tool Information

Drill Pipe:	Length: 4699.00 ft	Diameter: 3.80 inches	Volume: 65.91 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 65.91 bbl</u>	Tool Chased 1.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	4724.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	60.00 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			4696.00	
Shut In Tool	5.00			4701.00	
Hydraulic tool	5.00			4706.00	
Jars	5.00			4711.00	
Safety Joint	3.00			4714.00	
Packer	5.00			4719.00	29.00 Bottom Of Top Packer
Packer	5.00			4724.00	
Stubb	1.00			4725.00	
Recorder	0.00	6773	Outside	4725.00	
Recorder	0.00	6755	Inside	4725.00	
Perforations	27.00			4752.00	
Bullnose	3.00			4755.00	31.00 Bottom Packers & Anchor

Total Tool Length: 60.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ritchie Exploration Inc

3-25s-24w Ford,KS

PO Box 783188
Wichita KS 67278

Smith-Rebein Unit #1

Job Ticket: 47554

DST#: 3

ATTN: Justin Clegg/ Terry

Test Start: 2012.06.03 @ 10:28:37

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4900.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	OIL	1.403
90.00	O,W,M 5%oil 45%w ater 50% mud	1.262

Total Length: 190.00 ft

Total Volume: 2.665 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

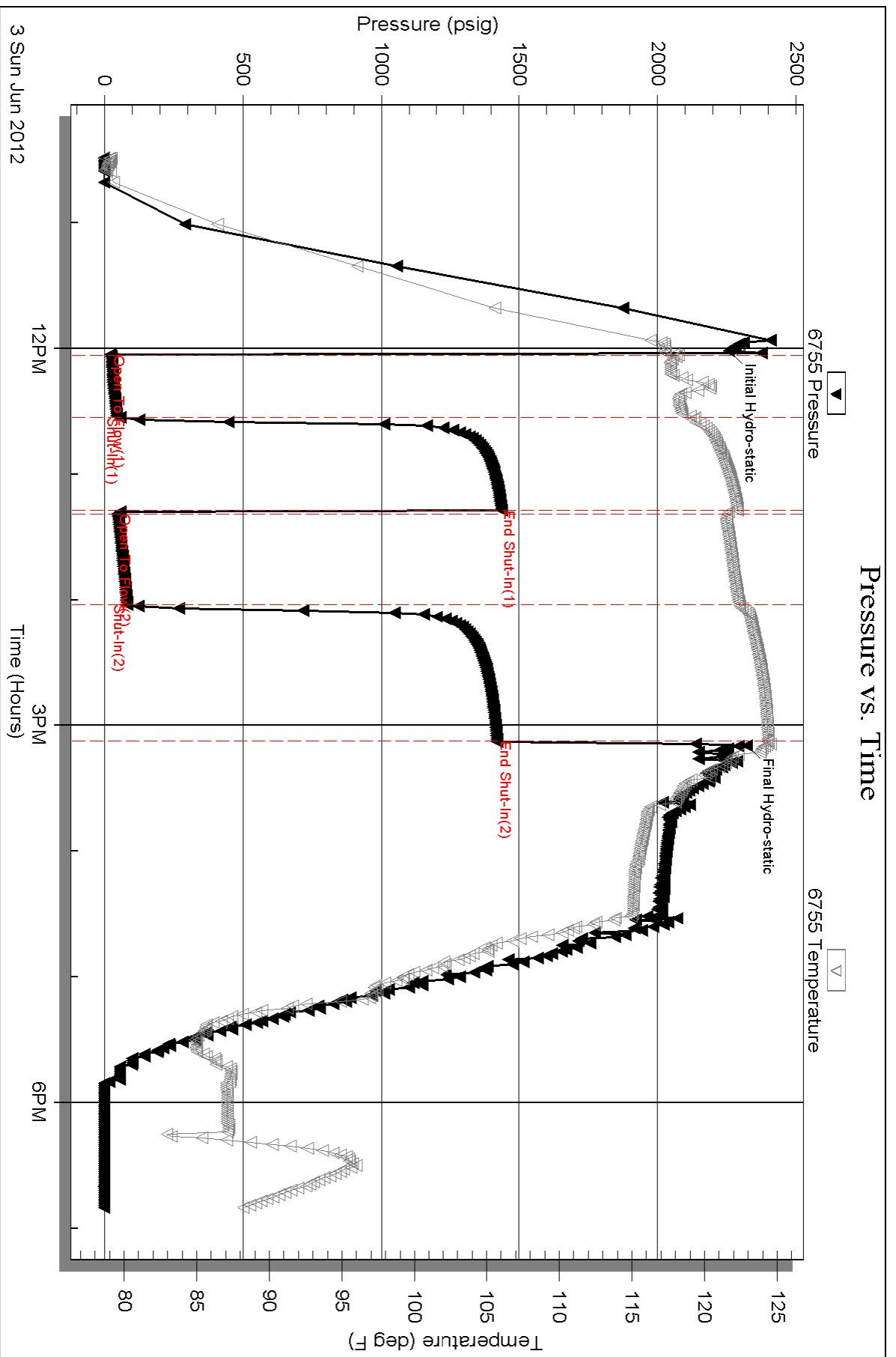
Serial #: 6755

Inside

Richie Exploration Inc

Smith-Rebein Unit #1

DST Test Number: 3

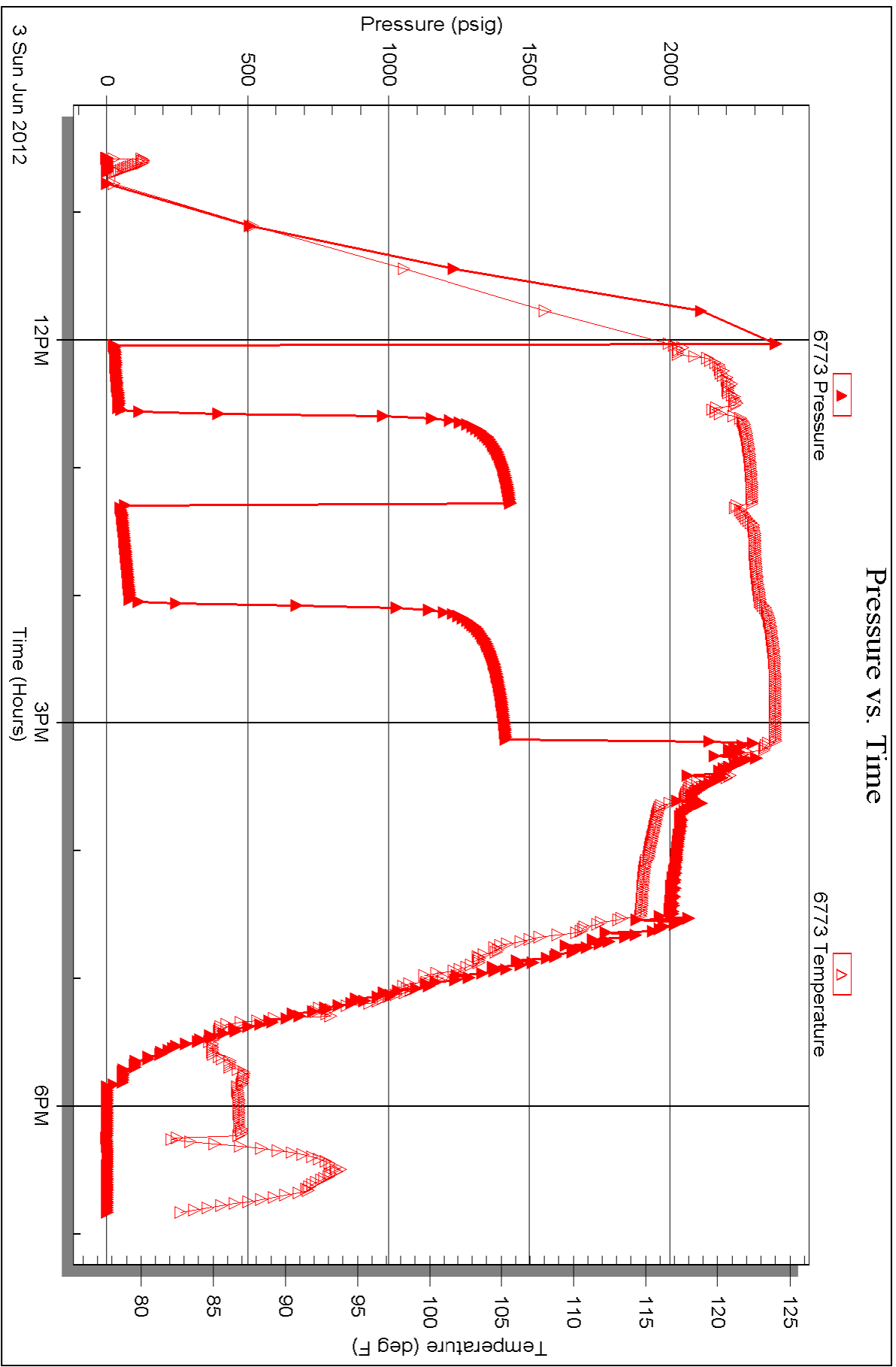


Serial #: 6773

Outside Ritchie Exploration Inc

Smith-Rebein Unit #1

DST Test Number: 3





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47552

Well Name & No. Smith-Rebein Unit #1 Test No. 1 Date 6-2-12
 Company Ritchie exploration INC Elevation 2393 KB 2382 GL
 Address 8100 E 22ND ST N 700 PO BOX 783188 WICHITA KS 67278
 Co. Rep / Geo. Justin Clegg / Terry McClead Rig Duke #10
 Location: Sec. 3 Twp. 25S Rge. 24W Co. Ford State KS

Interval Tested 4632 - 4705 Zone Tested Cherokee
 Anchor Length 73' Drill Pipe Run 4605 Mud Wt. 9.2
 Top Packer Depth 4627 Drill Collars Run 0 Vis 52
 Bottom Packer Depth 4632 Wt. Pipe Run 0 WL 10.7
 Total Depth 4705 Chlorides 4800 ppm System LCM 3#

Blow Description IF: weak surface blow
LSI: NO blow back
FF: NO blow Flushed tool
FSL: NO blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>15'</u>	<u>MUD</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15' BHT 110 Gravity - API RW - @ - °F Chlorides 4800 ppm

(A) Initial Hydrostatic <u>2225</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>11:00</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>11:20</u>
(C) First Final Flow <u>52</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>14:02</u>
(D) Initial Shut-In <u>778</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>16:00</u>
(E) Second Initial Flow <u>26</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>18:20</u>
(F) Second Final Flow <u>55</u>	<input checked="" type="checkbox"/> Mileage <u>180 miles</u> 279	Comments
(G) Final Shut-In <u>582</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2280</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>2104</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>2104</u>	

Approved By Justin Clegg Our Representative Chris

TriLOBite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47553

4/10

Well Name & No. Smith - Bebein Unit #1 Test No. 2 Date 6-3-12
 Company Ritchie Exploration Inc Elevation 2393 KB 2382 GL
 Address 8100 E 22ND STN 700 Pobox 783188 Wichita KS 67278
 Co. Rep / Geo. Justin Clegg / Terry McLeod Rig Duke #10
 Location: Sec. 3 Twp. 25S Rge. 24W Co. Ford State KS

Interval Tested 4687 - 4755 Zone Tested MISS
 Anchor Length 68' Drill Pipe Run 4668 Mud Wt. 9.2
 Top Packer Depth 4682 Drill Collars Run 0 Vis 52
 Bottom Packer Depth 4687 Wt. Pipe Run 0 WL 10.7
 Total Depth 4755 Chlorides 4800 ppm System LCM 3#
 Blow Description IF: MISS RUN PACKER FAIL
FSI:
FF:
FSI

Rec	Feet of	%gas	%oil	%water	%mud
<u>220'</u>	<u>MUDD</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total _____ BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 2263 Test 1050 T-On Location 5:30
 (B) First Initial Flow _____ Jars 250 T-Started _____
 (C) First Final Flow _____ Safety Joint 75 T-Open _____
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled 9:00
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out 10:10
 (F) Second Final Flow _____ Mileage 180 miles 279 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 2263 Shale Packer 250 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1904

Approved By Terry McLeod Our Representative Ch. [Signature]
 TriLOBITE TESTING INC. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47554

Well Name & No. Smith - Rebein Unit #1 Test No. 3 Date 6-3-12
 Company Ritchie Exploration INC Elevation 2393 KB 2382 GL
 Address 8100 E 22ND ST N700 Pobox 783188 Wichita KS 67278
 Co. Rep / Geo. Justin Clegg / Terry McLeod Rig Duke #10
 Location: Sec. 3 Twp. 25S Rge. 24W Co. Ford State KS

Interval Tested 4724 - 4755 Zone Tested MIS
 Anchor Length 31' Drill Pipe Run 4699 Mud Wt. 9.3
 Top Packer Depth 4719 Drill Collars Run 0 Vis 60
 Bottom Packer Depth 4724 Wt. Pipe Run 0 WL 8.0
 Total Depth 4755 Chlorides 4900 ppm System LCM 2#

Blow Description IF: STRONG blow BOB 26 min
ISI: weak surface blow back
FF: STRONG blow BOB 21 min
FSD: weak blow back 1"

Rec	Feet of	%gas	%oil	%water	%mud
90'	oil	100			
90'	oil	5	45	50	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 190' BHT 125 Gravity 46 API RW .05 @ 90 °F Chlorides 125,000 ppm

(A) Initial Hydrostatic <u>2257</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>5:30</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars 250	T-Started <u>10:28</u>
(C) First Final Flow <u>57</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>12:03</u>
(D) Initial Shut-In <u>1436</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>15:05</u>
(E) Second Initial Flow <u>45</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>18:15</u>
(F) Second Final Flow <u>81</u>	<input checked="" type="checkbox"/> Mileage	Comments
(G) Final Shut-In <u>1420</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2322</u>	<input type="checkbox"/> Straddle	
	<input checked="" type="checkbox"/> Shale Packer 250	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>1825</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1825</u>	

Approved By Justin Clegg Our Representative Chris St...

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

Terry McLeod

Consulting Geologist
 P.O. Box 503
 Wichita, Kansas 67201
 316-265-6431

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

OPERATOR RITCHIE EXPLORATION, INC.
 LEASE Smith-Rebein WELL NO. 1
 FIELD WILDCAT
 LOCATION 2010' ESL & 2620' FEL
 SEC. 3 TWP. 25S RGE. 24W
 COUNTY FORD STATE Kansas

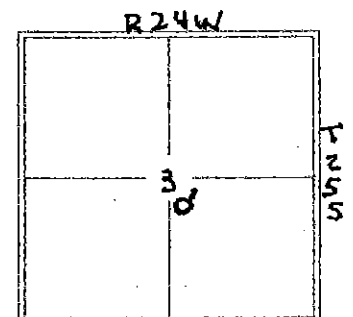
ELEVATION
 KB. 2388'
 DF _____
 GL. 2377'
 Measurements Are All
 From KB.

CONTRACTOR Duke Drilling Co. Rio 10
 COMM. 5-25-12 COMP. 6-6-12
 RTD. 5460' LOG TO 5463
 SAMPLES SAVED FROM 3600' TO RTD
 DRILLING TIME KEPT FROM 3500' TO RTD
 SAMPLES EXAMINED FROM 3600' TO RTD
 GEOLOGICAL SUPERVISION FROM 3890' TO RTD
 MUD UP 3600' TYPE MUD chemical

CASING RECORD
 SURFACE 8 5/8" @ 380' w/
230 SX
 PRODUCTION 5 1/2" @ 4863'

ELECTRICAL SURVEYS
 Superior Well Service
 dual induction - one-wire

FORMATION	LOG		SAMPLE		STRUCT. COMP.
	TOP	DATUM	TOP	DATUM	
STOTLER	3843	-955	N/A		+10
Hebner	3842	-1554	3840	-1552	flat
Lansing	4040	-1652	4039	-1651	+2
BKC	4411	-2023	4414	-2026	+2
Marmaton	4425	-2037	4437	-2049	+11
PAWNEE	4498	-2111	4497	-2109	+14
Cherokee sh.	4586	-2198	4584	-2196	+12
HUCK ZONE	4668	-2280	4669	-2281	+18
Morrow	4680	-2292	4679	-2291	+22
Mississippi	4704	-2316	4701	-2413	+46
Vicks	5302	-2914	5308	-2915	N/A
NO Simp or Arb.					
Granite Wash	5394	-3006	5399	-3011	N/A



REFERENCE WELL FOR STRUCTURAL COMPARISON Kenneth Rupp No. 1 Boyce
Sw Sw Se 34-24S-24W, 2470' KB.

DATE	DEPTH	NO	SIZE	NAME	TYPE	DEPTH OUT	FEET	HOURS
5-25-12	MIRT	A	12 1/4	Varel	RR	355	355	3 1/4
5-26-12	272 set surface	1	7 1/8	JZ	QX20	4755	4400	
5-27-12	870 drlg	2	7 1/8	JZ		5401	1001'	
5-28-12	2305 drlg	3	7 1/8	JZ	RR	5460	59'	
5-29-12	2975 drlg							
5-30-12	3605 drlg on loc							
5-31-12	4120 drlg							
6-1-12	4452 drlg	3)		Surveys	355'	3/4		
6-2-12	4705 drlg	4)			1224'	1/4		
6-3-12	4755 drlg 2-3	5)			1695'	1/2	Board	4731. 46
6-4-12	4840 drlg	6)			3856'	1/2	strap	4730. 48
6-5-12	5255 drlg	7)			4354'	1/2	diff	985.
6-6-12	5460 Elev. run pipe	8)			4705'	1 1/4		

FORMATION	INTERVAL	DESCRIPTION OF SHOW	LOG ANALYSIS C SW
Cher. Muck Zn	4678-86	Limestone, tan, tan-Wh, with 8 pieces w dead oil stain on edges. No free oil faint odor, No flour, No gas kick	dar 1
Marrow Corr.	4691-4700	Shales - varicolored, cherts varicolored fr. weath. 3 pieces w / dark stain greasy. No free oil, No odor. 10+ U.K.	dst 1
Mississippi	4724-4730	dal. wh, SUC, w/ 3-4 pc's with partial str + VSSFO in poor suc-φ. faint odor	dst 2-3
MISSISSIPPI	4740-4743	1st dal 15. Com. suc. str. tight Rk. 2 pc's w/ partial str, pass from above	dst 2-3
(NO OTHER SHOWS)			

DRILL STEM TESTS							
No.	Interval	FFP/Time	FSP/Time	FFP/Time	FSP/Time	FPH-FHH	RECOVERY
1	4632-4705	23-52 30"	778 30"	26-56 30"	582 30"	2225 2280	15' mud
2	4687-4755	-	-	-	-	-	Packer failure
3	4724-4755	23-57 30"	1436 45"	45-81 45"	1420 60"	2257 2322	100' C.O 46° 90' 0+ w.c.m. 5% oil - 48% w 190' 50% m. chl 125K

REMARKS AND RECOMMENDATIONS *with the success of dst NO 3, production will be set to further evaluate.*

Repeat fully

Jorge M. Lopez
6-6-12

LEGEND

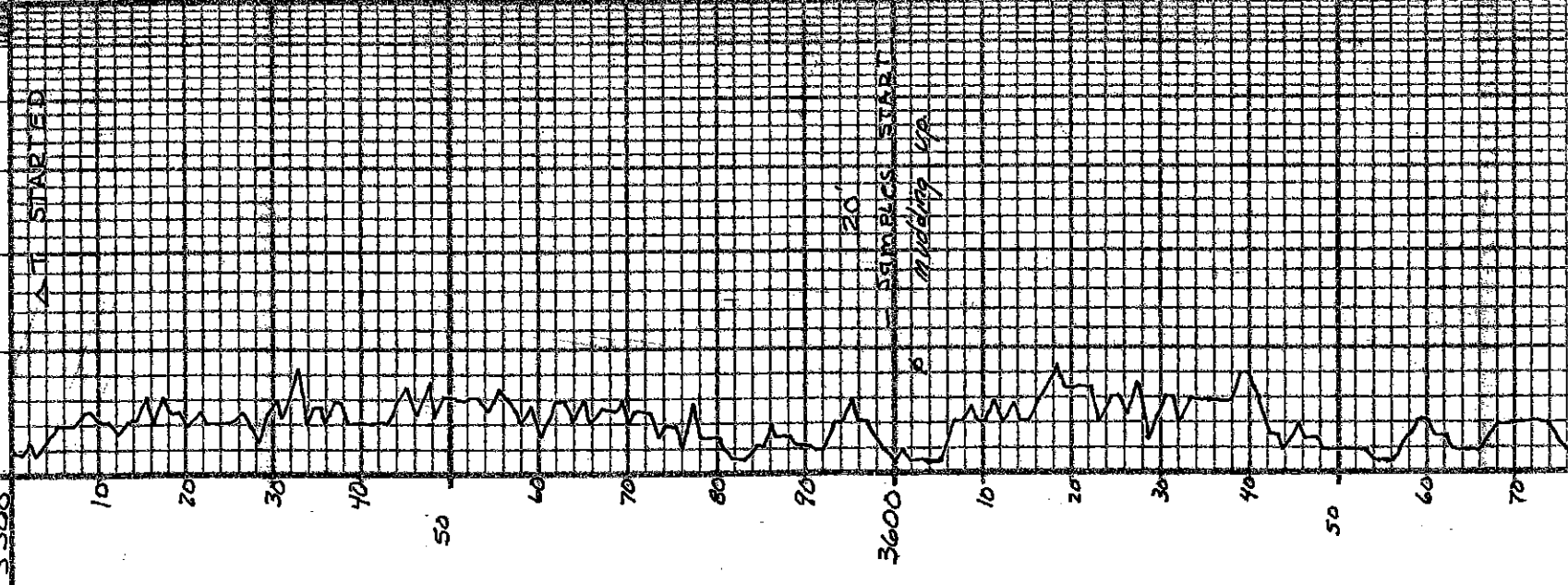
-  Anhydrite
-  Salt
-  Sandstone
-  Shale
-  Carb sh
-  Limestone
-  Ool-Lime
-  Chert
-  Dolomite

SCALE 1" = 100'

DRILLING TIME IN MINUTES
PER FOOT

Rate of Penetration increases

DEPTH 3500 10 20 30 40 50 60 70 80 90 3600 10 20 30 40 50 60 70



SAMPLE DESCRIPTIONS

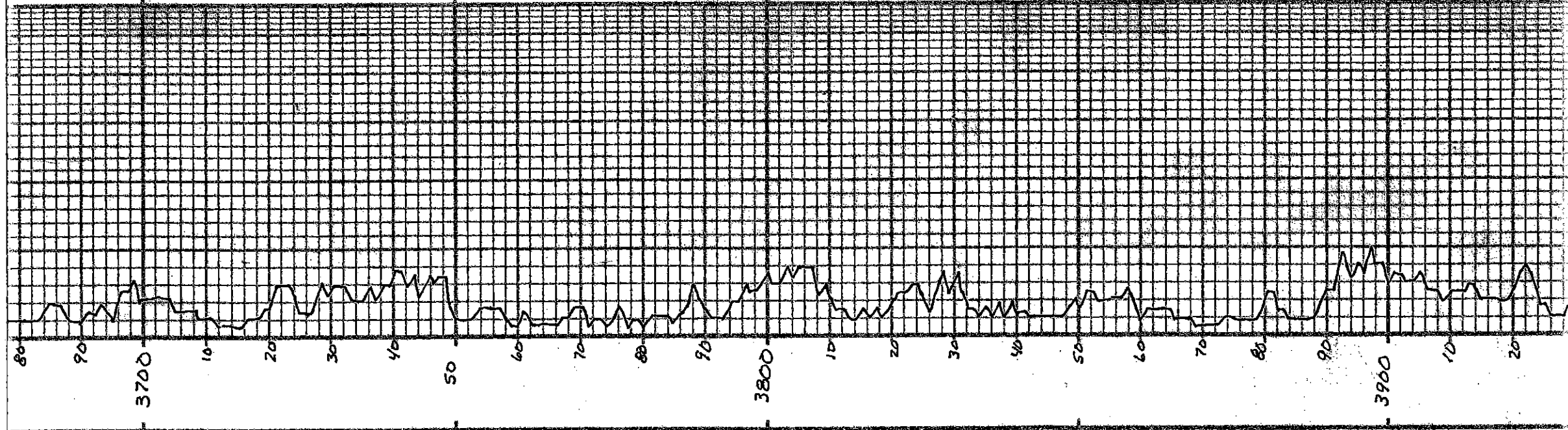
15. Carb. H. Tan. sh. 12. 100
 14. Carb. H. Tan. sh. 12. 100
 13. Carb. H. Tan. sh. 12. 100
 12. Carb. H. Tan. sh. 12. 100
 11. sh
 10. Carb. H. Tan. sh. 12. 100
 9. Carb. H. Tan. sh. 12. 100
 8. Carb. H. Tan. sh. 12. 100
 7. Carb. H. Tan. sh. 12. 100
 6. Carb. H. Tan. sh. 12. 100
 5. Carb. H. Tan. sh. 12. 100
 4. Carb. H. Tan. sh. 12. 100
 3. Carb. H. Tan. sh. 12. 100
 2. Carb. H. Tan. sh. 12. 100
 1. Carb. H. Tan. sh. 12. 100

LITHOLOGY



REMARKS

No. kicks
 3600 - 3700
 poor sample shales
 grey red mud
 15. Carb. H. Tan. sh. 12. 100
 14. Carb. H. Tan. sh. 12. 100
 13. Carb. H. Tan. sh. 12. 100
 12. Carb. H. Tan. sh. 12. 100
 11. sh
 10. Carb. H. Tan. sh. 12. 100
 9. Carb. H. Tan. sh. 12. 100
 8. Carb. H. Tan. sh. 12. 100
 7. Carb. H. Tan. sh. 12. 100
 6. Carb. H. Tan. sh. 12. 100
 5. Carb. H. Tan. sh. 12. 100
 4. Carb. H. Tan. sh. 12. 100
 3. Carb. H. Tan. sh. 12. 100
 2. Carb. H. Tan. sh. 12. 100
 1. Carb. H. Tan. sh. 12. 100



Ls. top - H. box - fa-xln +
 fass. w/ st. - gd. p. N.S.

Ls. Com. fa-xln + fass w/
 fass. b. lgs. w/ do. wtm
 fass. edge. NFB No. adar
 No. kick

Ls. 9/8. gd. fass. b. N.S.
 Sh. G.V.

Ls. Com. H. box - fa-xln. st.
 fass. - light N.S. sh.

Ls. Com. w/ fa-xln + fass
 w/ fass. fass. of Chky. N.S.

Ls. Com. w/ fa-xln + fass
 gd. fass. of shky. N.S.

Ls. Com. d. top - fa-xln + fass

Ls. Com. H. box - fa-xln - fass
 sh. fass. w/ N.S. Chky.

Ls. Com. fa-xln. fass. w/
 fass. of shky. N.S.

Sh. gray mar. - black

Ls. fa-xln - fass + sh. gray
 - mar. N.S. sh. blk.

Ls. Com. H. box - fa-xln -
 fass. w/ fass. of shky
 sh. blk. fass. w/ do. wtm
 fass. of N.S. - No. kick
 No. kick

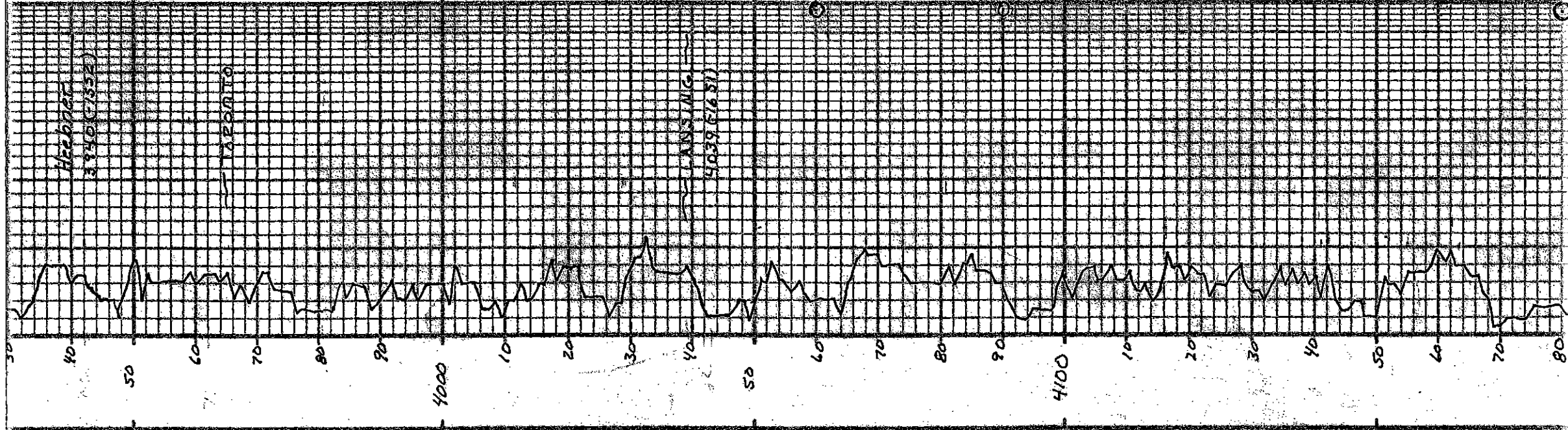
Ls. Com. fa-xln - fass. fass.
 N.S. f. p.

Sh. blk.

Ls. Com. H. box - fa-xln - fass
 w/ fass. of shky. N.S.

Ls. shky

Ls. Com. fa-xln - fass w/
 gd. fass. of N.S. shky



Hezbollah
3150 (1552)

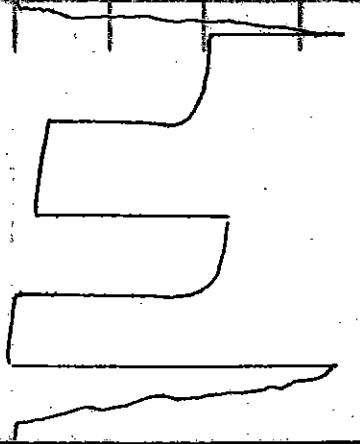
ARABIA

ANSING
4039 (1631)

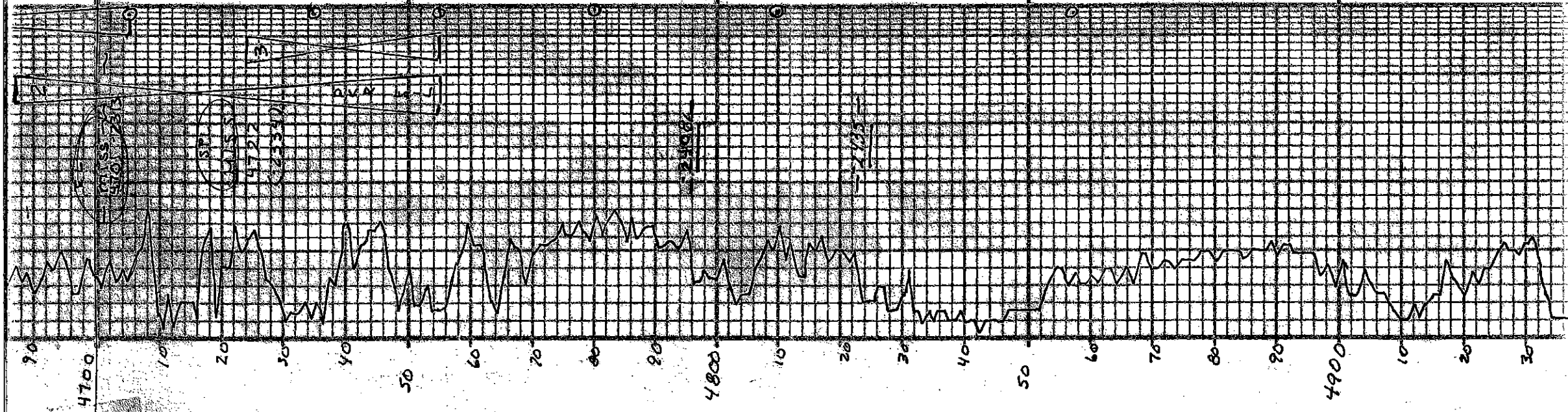
<p>10 UNIT KICK</p>	<p>SH BIL Cork. ls. tan. fr. xld. fass. N.S. SH. GRY-MAR</p>	<p>[REDACTED]</p>
	<p>ls. tan. fr. xld. fass. w/ some thin fass. pl. GRY-MAR</p>	<p>[REDACTED]</p>
	<p>SH. GRY-MAR SH. TAN. XLD. + LS. YL. N.S.</p>	<p>[REDACTED]</p>
	<p>SH. GRY-MAR ls. tan. fr. xld. fass. N.S. p-p</p>	<p>[REDACTED]</p>
	<p>SH. GRY-MAR ls. tan. fr. xld. fass. N.S. p-p</p>	<p>[REDACTED]</p>
	<p>SH. GRY-MAR ls. tan. fr. xld. fass. N.S. p-p</p>	<p>[REDACTED]</p>
	<p>SH. GRY-MAR ls. tan. fr. xld. fass. N.S. p-p</p>	<p>[REDACTED]</p>
	<p>SH. GRY-MAR ls. tan. fr. xld. fass. N.S. p-p</p>	<p>[REDACTED]</p>
	<p>SH. GRY-MAR ls. tan. fr. xld. fass. N.S. p-p</p>	<p>[REDACTED]</p>

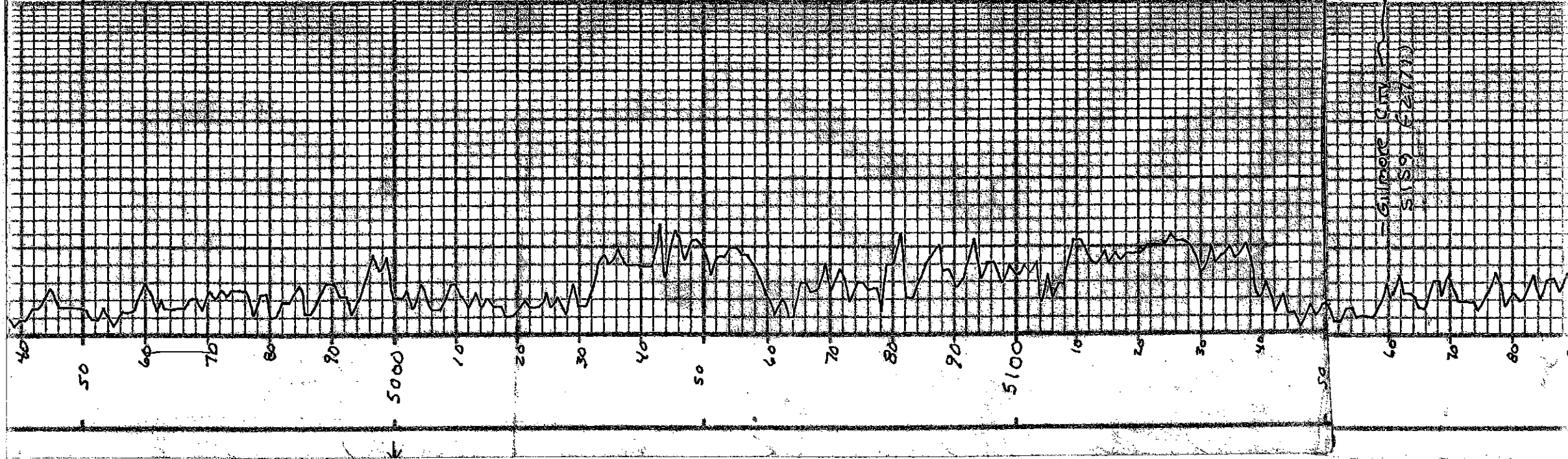
SIP: 1436-1920
FP: 2357* + 48* 81
MP: 22574-2322*

Chart dist 3



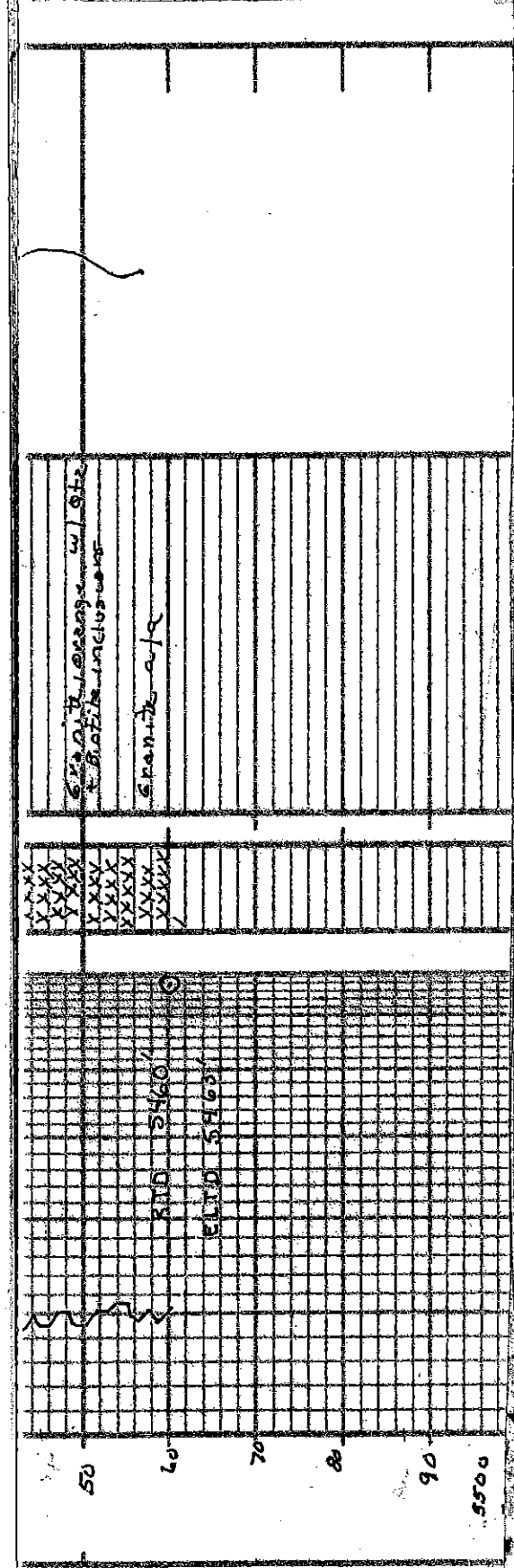
0.6m-1.0m - red clay
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100.0m - red clay





sl. shaly	Ls. tan - grey, 10-12' + fossils w/ fr. fossils. N.S., sil. shaly
	Ls. tan - grey, 10-12' + fossils w/ small fossils. N.S.
	Ls. tan - 14' tan, 10-12' fossils. shaly + sil. clay. N.S.
	Ls. tan - 17' tan, 10-12' + fossils. shaly + clay. N.S.
	Ls. 1/2' with ss. sil. and fossils. shaly + sil. clay. N.S.
	SS. sub-cl. sil. clay. clusters + small fossils w/ calc. con. N.S. shaly + sil. clay. N.S.
	SS. 1/2' + 1/2' clay. clusters w/ calc. con. + g. fauna.
	sh. + SS. 1/2' 10-12' fossils. N.S. + SS. 1/2' g. fauna. N.S.
	SS. cl. clusters, 12' good w/ g. fauna. calc. con. N.S.
	SS. clay sil. shaly. clusters. 10-12' good. calc. con. N.S. shaly + sil. clay. N.S.
	Ls. tan, 10-12' + fossils. N.S. shaly + sil. clay. N.S.
	Ls. + sh. tan. 10-12' + fossils. shaly + sil. clay. N.S.
	Red clay. sil. shaly. N.S. shaly + sil. clay. N.S.
	Red. clay. sh. tan. sil. shaly. N.S. shaly + sil. clay. N.S.
	Red. clay. sh. tan. sil. shaly. N.S. shaly + sil. clay. N.S.

No shows or kicks



DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	REMARKS
50	XXXX	Granite with quartz	
55	XXXX		
60	XXXX		
65	XXXX		
70	XXXX		
75	XXXX		
80	XXXX		
85	XXXX		
90	XXXX		
95			
100			

COMPANY RECOMS EXPLORATION, INC. ELEVATION: 2388 K.B.
 LEASE Smith - Babin Unit No 1
 LOCATION T20° 31' N R10° 00' W SEC 3 TWP 25S R10E 24W
 COUNTY Ford STATE Kansas