



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1146190
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: _____



1146190

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: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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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

June 07, 2013

Scott Hampel
McCoy Petroleum Corporation
8080 E CENTRAL STE 300
WICHITA, KS 67206-2366

Re: ACO1
API 15-077-21915-00-00
HALBOWER 'A' #2-3
NW/4 Sec.03-34S-08W
Harper 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,
Scott Hampel

ACO-1 Supplemental Information

SAMPLE TOPS

McCoy Petroleum Corporation
Halbower 'A' GU #2-3
1980'FNL & 1980'FWL
Sec 3-34s-8w
Harper County, KS
KB: 1379'

Heebner	3416	-2039
Stalnaker Sd	3766	-2389
Kansas City	4039	-2666
Stark	4189	-2812
BKC	4278	-2901
Ft Scott	4449	-3072
Cherokee	4460	-3083
Miss. Spergen	4605	-3228
Spergen 'B'	4630	-3253
Warsaw	4683	-3306
RTD	4740	-3361

LOG TOPS

McCoy Petroleum Corporation
Halbower 'A' GU #2-3
1980'FNL & 1980'FWL
Sec 3-34s-8w
Harper County, KS
KB: 1379'

Heebner	3416	-2039
Stalnaker Sd	3754	-2377
Kansas City	4039	-2666
Stark	4184	-2807
BKC	4270	-2893
Ft Scott	4449	-3072
Cherokee	4458	-3081
Miss. Spergen	4607	-3230
Spergen 'B'	4630	-3253
Warsaw	4664	-3287
LTD	4739	-3362

.



DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corp.**

8080 E. Central Ste. 300
Wichita, KS 67206-2366

ATTN: Dave Williams

Halbower "A" 2-3

3-34s-8w Harper,KS

Start Date: 2013.04.01 @ 10:50:17

End Date: 2013.04.01 @ 21:28:32

Job Ticket #: 50870 DST #: 1

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

Printed: 2013.04.09 @ 09:17:59



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

McCoy Petroleum Corp.
8080 E. Central Ste. 300
Wichita, KS 67206-2366
ATTN: Dave Williams

3-34s-8w Harper, KS
Halbower "A" 2-3
Job Ticket: 50870 **DST#: 1**
Test Start: 2013.04.01 @ 10:50:17

GENERAL INFORMATION:

Formation: **Miss. (Salem)**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:17:32
Time Test Ended: 21:28:32
Interval: **4616.00 ft (KB) To 4642.00 ft (KB) (TVD)**
Total Depth: 4642.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Ryan Reynolds
Unit No: 48
Reference Elevations: 1377.00 ft (KB)
1368.00 ft (CF)
KB to GR/CF: 9.00 ft

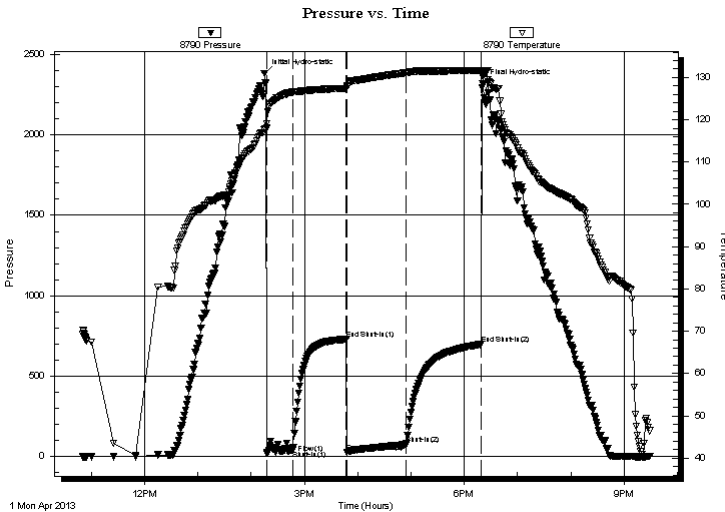
Serial #: 8790

Inside

Press @ Run Depth: 74.58 psig @ 4617.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.04.01 End Date: 2013.04.01 Last Calib.: 2013.04.01
Start Time: 10:50:22 End Time: 21:28:32 Time On Btm: 2013.04.01 @ 14:14:47
Time Off Btm: 2013.04.01 @ 18:20:32

TEST COMMENT: IF: Strong blow . BOB 1 1/2 min. No GTS.
IS: No blow
FF: Strong blow . BOB immed. NO GTS.
FS: No blow

PRESSURE SUMMARY



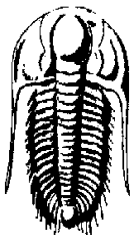
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2379.73	117.62	Initial Hydro-static
3	20.80	119.12	Open To Flow (1)
32	38.69	126.54	Shut-In(1)
93	729.98	127.44	End Shut-In(1)
94	27.41	127.69	Open To Flow (2)
160	74.58	131.12	Shut-In(2)
244	697.82	131.67	End Shut-In(2)
246	2316.47	130.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	SW 100%w tr	0.05
125.00	WCM 20%w tr, 80%mud	0.61
0.00	1400' GIP	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

McCoy Petroleum Corp.

8080 E. Central Ste. 300
Wichita, KS 67206-2366

ATTN: Dave Williams

3-34s-8w Harper,KS

Halbower "A" 2-3

Job Ticket: 50870

DST#: 1

Test Start: 2013.04.01 @ 10:50:17

GENERAL INFORMATION:

Formation: **Miss. (Salem)**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:17:32

Time Test Ended: 21:28:32

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Reynolds

Unit No: 48

Interval: **4616.00 ft (KB) To 4642.00 ft (KB) (TVD)**

Total Depth: 4642.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1377.00 ft (KB)

1368.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: **8792**

Outside

Press @ Run Depth: psig @ 4617.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.04.01

End Date: 2013.04.01

Last Calib.: 2013.04.01

Start Time: 10:42:51

End Time: 21:32:46

Time On Btm:

Time Off Btm:

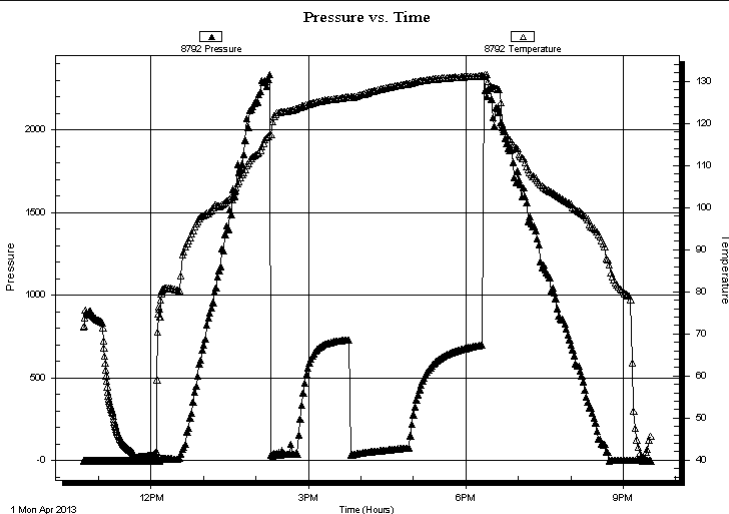
TEST COMMENT: IF: Strong blow . BOB 1 1/2 min. No GTS.

IS: No blow

FF: Strong blow . BOB immed. NO GTS.

FS: No blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	SW 100%w tr	0.05
125.00	WCM 20%w tr, 80%mud	0.61
0.00	1400' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

McCoy Petroleum Corp.

3-34s-8w Harper, KS

8080 E. Central Ste. 300
Wichita, KS 67206-2366

Halbower "A" 2-3

Job Ticket: 50870

DST#: 1

ATTN: Dave Williams

Test Start: 2013.04.01 @ 10:50:17

Tool Information

Drill Pipe:	Length: 4429.00 ft	Diameter: 3.80 inches	Volume: 62.13 bbl	Tool Weight: 2400.00 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: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 87000.00 lb
			<u>Total Volume: 63.01 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4616.00 ft			Final 82000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	26.00 ft			
Tool Length:	52.00 ft			
Number of Packers:	2	Diameter: 6.50 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4595.00	
Hydraulic tool	5.00			4600.00	
Jars	5.00			4605.00	
Safety Joint	2.00			4607.00	
Packer	5.00			4612.00	26.00 Bottom Of Top Packer
Packer	4.00			4616.00	
Stubb	1.00			4617.00	
Recorder	0.00	8790	Inside	4617.00	
Recorder	0.00	8792	Outside	4617.00	
Perforations	22.00			4639.00	
Bullnose	3.00			4642.00	26.00 Bottom Packers & Anchor

Total Tool Length: 52.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

McCoy Petroleum Corp.

3-34s-8w Harper, KS

8080 E. Central Ste. 300
Wichita, KS 67206-2366

Halbower "A" 2-3

Job Ticket: 50870

DST#: 1

ATTN: Dave Williams

Test Start: 2013.04.01 @ 10:50:17

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
10.00	SW 100%w tr	0.049
125.00	WCM 20%w tr, 80%mud	0.615
0.00	1400' GIP	0.000

Total Length: 135.00 ft

Total Volume: 0.664 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

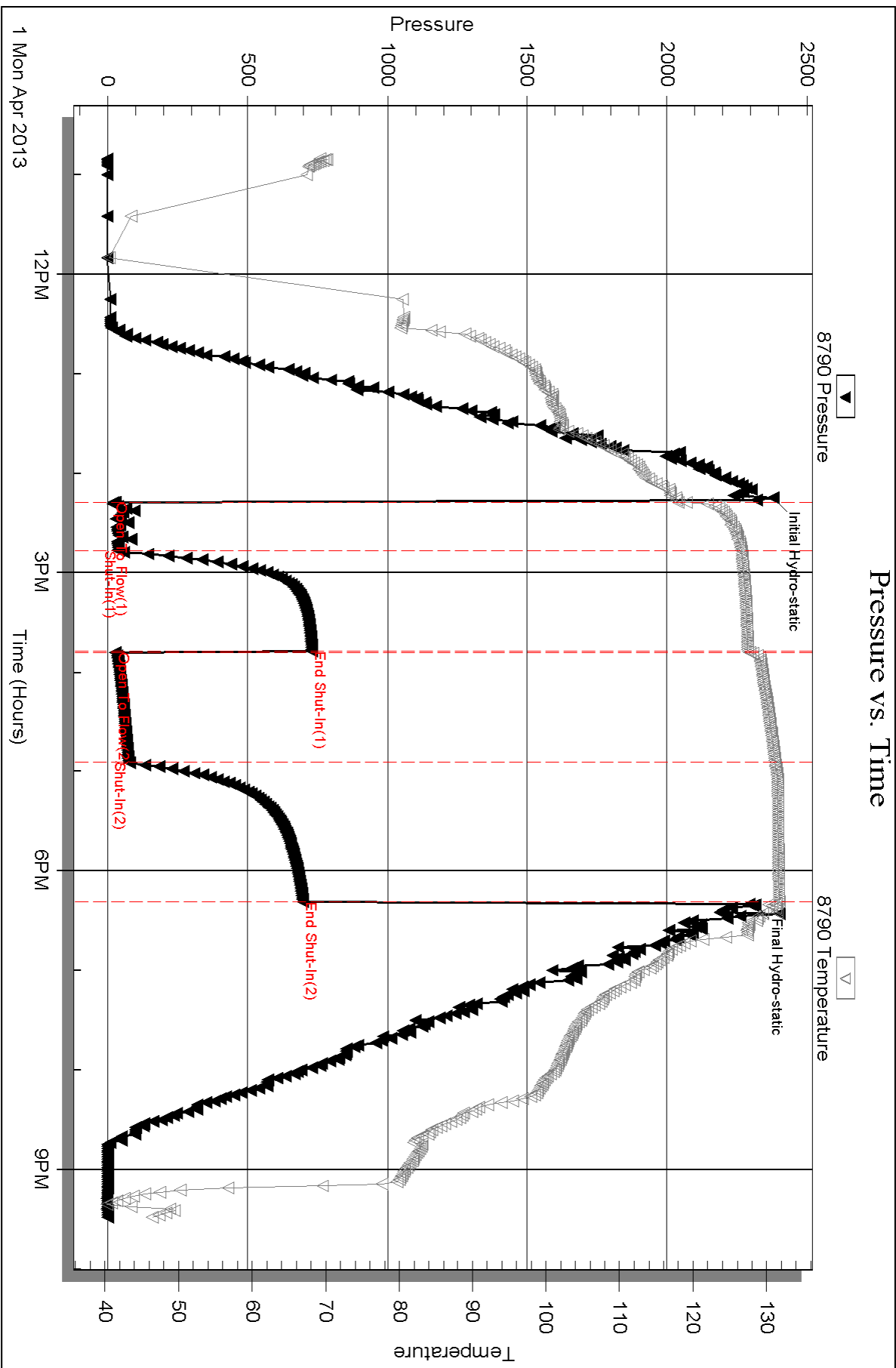
Serial #: 8790

Inside

McCoy Petroleum Corp.

Halbower "A" 2-3

DST Test Number: 1

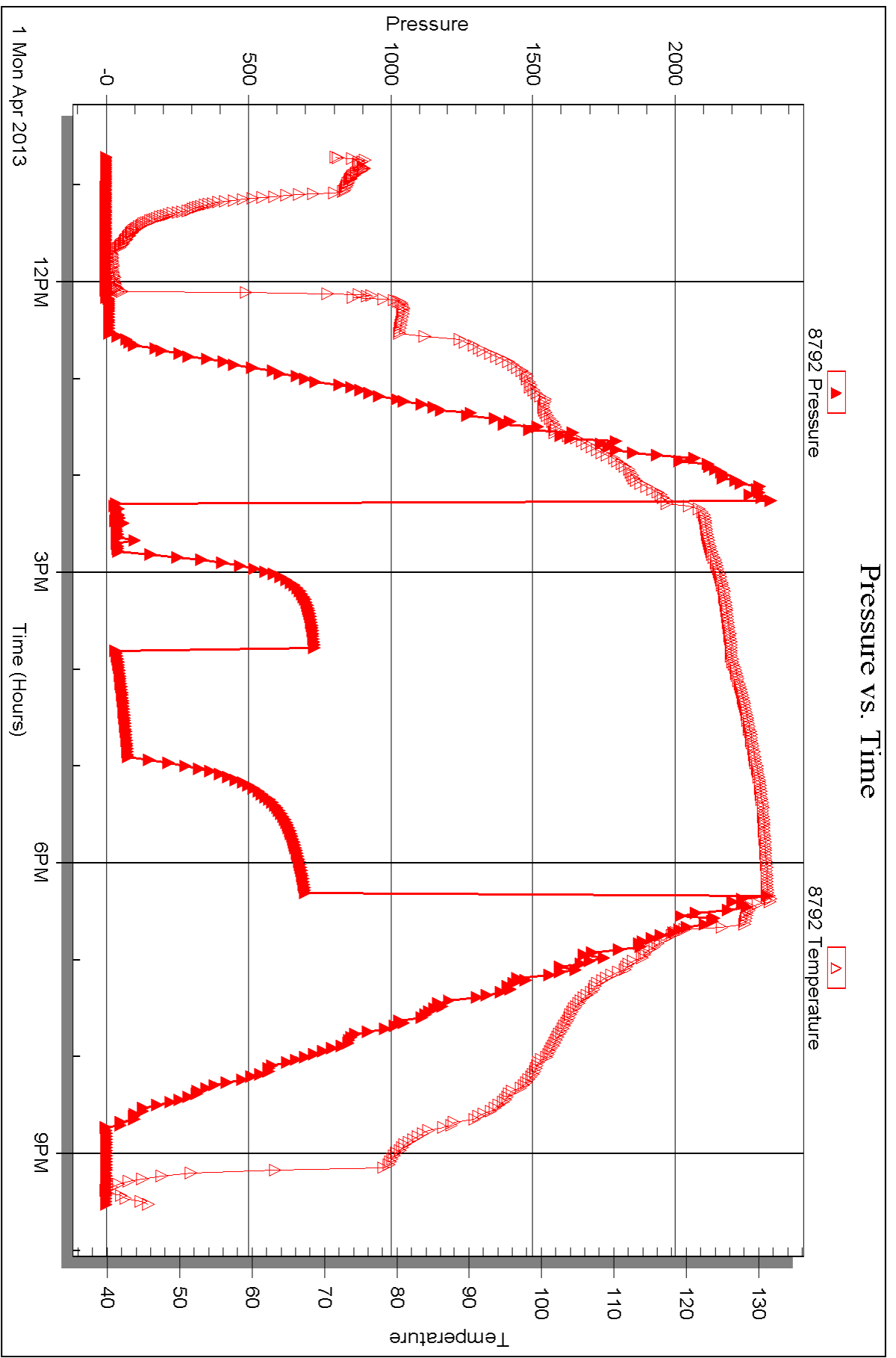


Serial #: 8792

Outside McCoy Petroleum Corp.

Halbower "A" 2-3

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corp.**

8080 E. Central Ste. 300
Wichita, KS 67206-2366

ATTN: Dave Williams

Halbower "A" 2-3

3-34s-8w Harper,KS

Start Date: 2013.04.02 @ 07:40:28

End Date: 2013.04.02 @ 16:20:43

Job Ticket #: 50871 DST #: 2

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

Printed: 2013.04.09 @ 09:16:39



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

McCoy Petroleum Corp.
 8080 E. Central Ste. 300
 Wichita, KS 67206-2366
 ATTN: Dave Williams

3-34s-8w Harper, KS
Halbower "A" 2-3
 Job Ticket: 50871 **DST#: 2**
 Test Start: 2013.04.02 @ 07:40:28

GENERAL INFORMATION:

Formation: **Miss.**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:57:58
 Time Test Ended: 16:20:43
 Interval: **4642.00 ft (KB) To 4662.00 ft (KB) (TVD)**
 Total Depth: 4662.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Reynolds
 Unit No: 48
 Reference Elevations: 1377.00 ft (KB)
 1368.00 ft (CF)
 KB to GR/CF: 9.00 ft

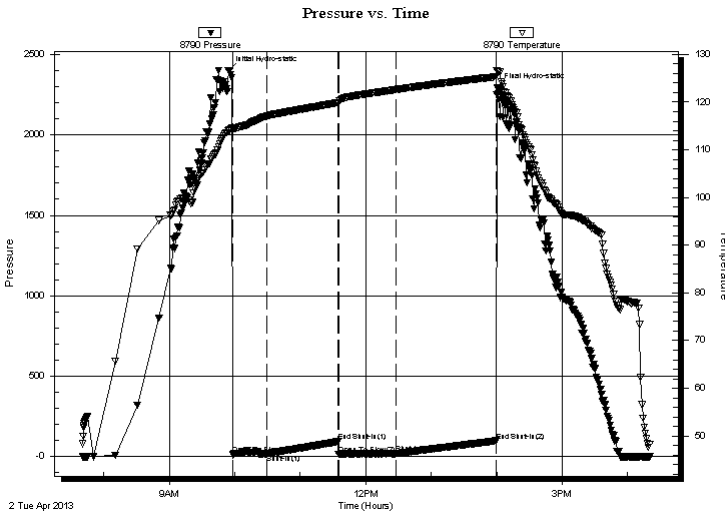
Serial #: 8790

Inside

Press @ Run Depth: 17.92 psig @ 4643.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.02 End Date: 2013.04.02 Last Calib.: 2013.04.02
 Start Time: 07:40:33 End Time: 16:20:43 Time On Btm: 2013.04.02 @ 09:53:58
 Time Off Btm: 2013.04.02 @ 14:00:13

TEST COMMENT: IF: Weak blow . 1/2" - surf.
 IS: No blow
 FF: Weak blow . 1" throughout
 FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2401.73	113.91	Initial Hydro-static
4	11.82	114.22	Open To Flow (1)
35	17.27	117.08	Shut-In(1)
101	92.93	119.88	End Shut-In(1)
101	13.30	119.92	Open To Flow (2)
154	17.92	122.61	Shut-In(2)
246	98.37	125.32	End Shut-In(2)
247	2292.13	126.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Drig mud 100% mud	0.02
0.00	60 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

McCoy Petroleum Corp.
 8080 E. Central Ste. 300
 Wichita, KS 67206-2366
 ATTN: Dave Williams

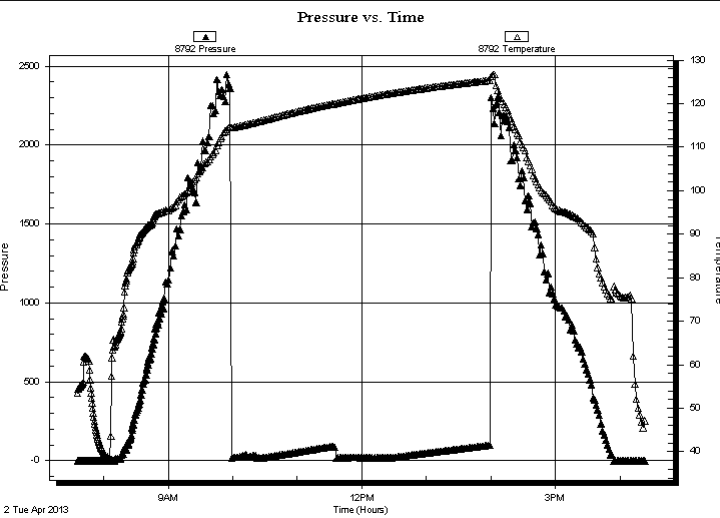
3-34s-8w Harper, KS
Halbower "A" 2-3
 Job Ticket: 50871 **DST#: 2**
 Test Start: 2013.04.02 @ 07:40:28

GENERAL INFORMATION:

Formation: **Miss.**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 09:57:58
 Tester: Ryan Reynolds
 Time Test Ended: 16:20:43
 Unit No: 48
Interval: 4642.00 ft (KB) To 4662.00 ft (KB) (TVD)
 Reference Elevations: 1377.00 ft (KB)
 Total Depth: 4662.00 ft (KB) (TVD) 1368.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 KB to GR/CF: 9.00 ft

Serial #: 8792 Outside
 Press @ Run Depth: psig @ 4643.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.02 End Date: 2013.04.02 Last Calib.: 2013.04.02
 Start Time: 07:35:46 End Time: 16:23:56 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Weak blow . 1/2" - surf.
 IS: No blow
 FF: Weak blow . 1" throughout
 FS: No blow



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

Recovery		
Length (ft)	Description	Volume (bbl)
5.00	Drig mud 100%mud	0.02
0.00	60 GIP	0.00

* Recovery from multiple tests

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

McCoy Petroleum Corp.

3-34s-8w Harper, KS

8080 E. Central Ste. 300
Wichita, KS 67206-2366

Halbower "A" 2-3

Job Ticket: 50871

DST#: 2

ATTN: Dave Williams

Test Start: 2013.04.02 @ 07:40:28

Tool Information

Drill Pipe:	Length: 4461.00 ft	Diameter: 3.80 inches	Volume: 62.58 bbl	Tool Weight: 2400.00 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: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 63.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 81000.00 lb
Depth to Top Packer:	4642.00 ft			Final 81000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	46.00 ft			
Number of Packers:	2	Diameter: 6.50 inches		

Tool Comments:

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

Shut In Tool	5.00			4621.00	
Hydraulic tool	5.00			4626.00	
Jars	5.00			4631.00	
Safety Joint	2.00			4633.00	
Packer	5.00			4638.00	26.00 Bottom Of Top Packer
Packer	4.00			4642.00	
Stubb	1.00			4643.00	
Recorder	0.00	8790	Inside	4643.00	
Recorder	0.00	8792	Outside	4643.00	
Perforations	16.00			4659.00	
Bullnose	3.00			4662.00	20.00 Bottom Packers & Anchor

Total Tool Length: 46.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

McCoy Petroleum Corp.
8080 E. Central Ste. 300
Wichita, KS 67206-2366
ATTN: Dave Williams

3-34s-8w Harper,KS
Halbower "A" 2-3
Job Ticket: 50871 **DST#: 2**
Test Start: 2013.04.02 @ 07:40:28

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	4000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.18 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 0.20 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Drig mud 100%mud	0.025
0.00	60 GIP	0.000

Total Length: 5.00 ft Total Volume: 0.025 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #: none
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 8790

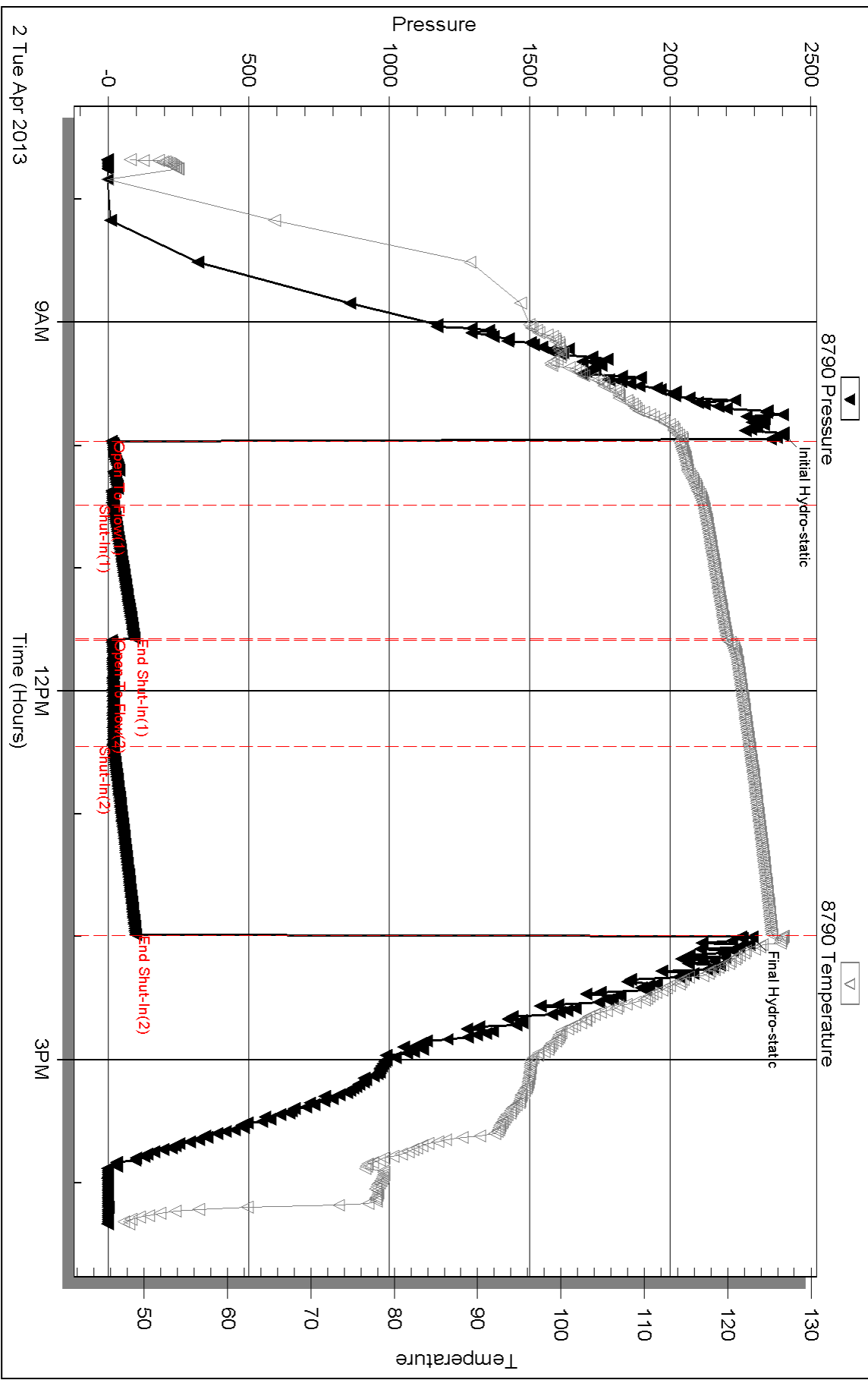
Inside

McCoy Petroleum Corp.

Halbower "A" 2-3

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 50871

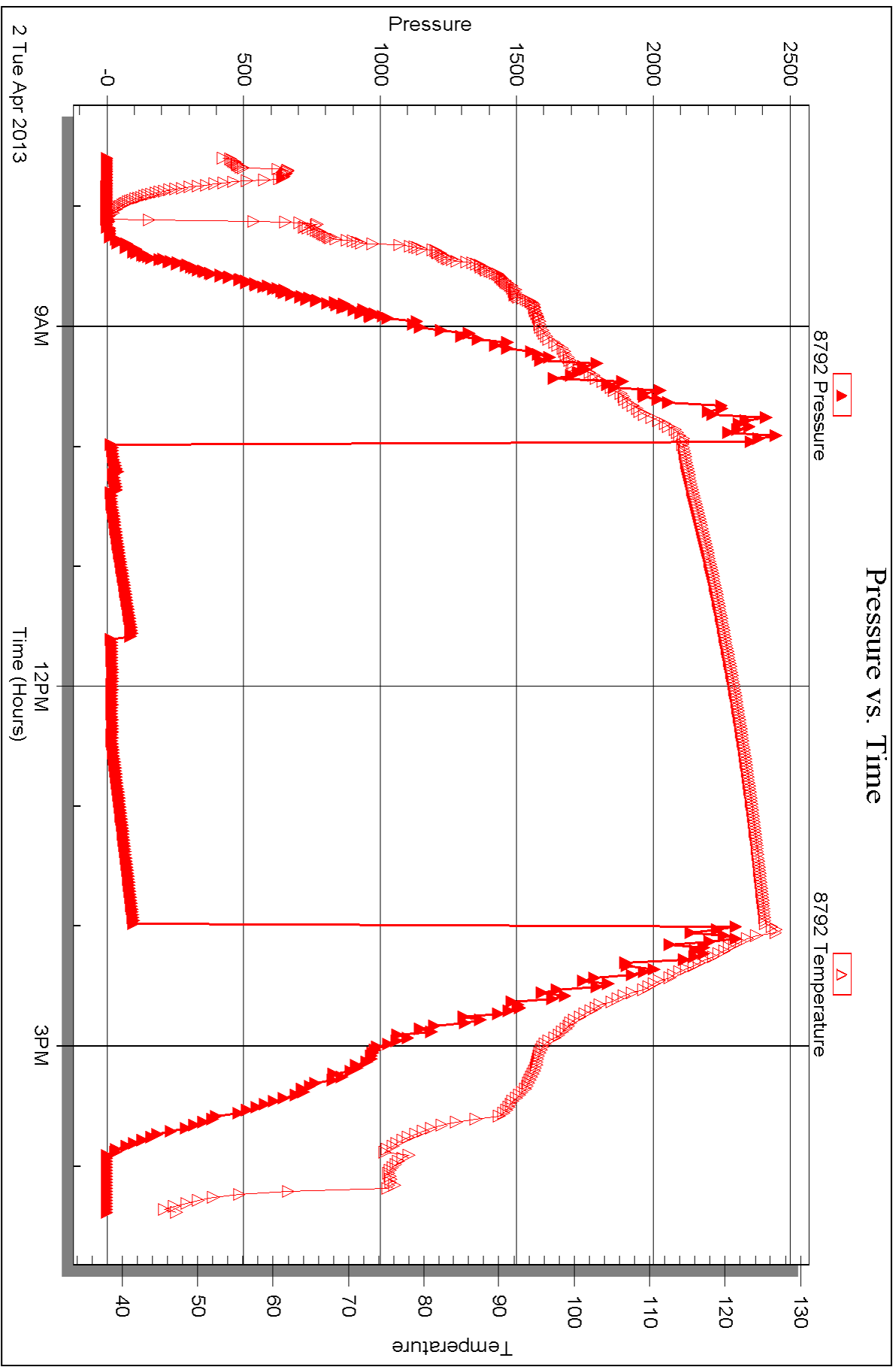
Printed: 2013.04.09 @ 09:16:42

Serial #: 8792

Outside McCoy Petroleum Corp.

Halbower "A" 2-3

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corp.**

8080 E. Central Ste. 300
Wichita, KS 67206-2366

ATTN: Dave Williams

Halbower "A" 2-3

3-34s-8w Harper,KS

Start Date: 2013.04.03 @ 03:14:30

End Date: 2013.04.03 @ 12:00:30

Job Ticket #: 50872 DST #: 3

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

Printed: 2013.04.09 @ 09:15:52



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

McCoy Petroleum Corp.
 8080 E. Central Ste. 300
 Wichita, KS 67206-2366
 ATTN: Dave Williams

3-34s-8w Harper, KS
Halbower "A" 2-3
 Job Ticket: 50872 **DST#: 3**
 Test Start: 2013.04.03 @ 03:14:30

GENERAL INFORMATION:

Formation: **Miss. (Warsaw)**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 05:48:45
 Time Test Ended: 12:00:30
Interval: 4662.00 ft (KB) To 4685.00 ft (KB) (TVD)
 Total Depth: 4685.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Reynolds
 Unit No: 48
 Reference Elevations: 1377.00 ft (KB)
 1368.00 ft (CF)
 KB to GR/CF: 9.00 ft

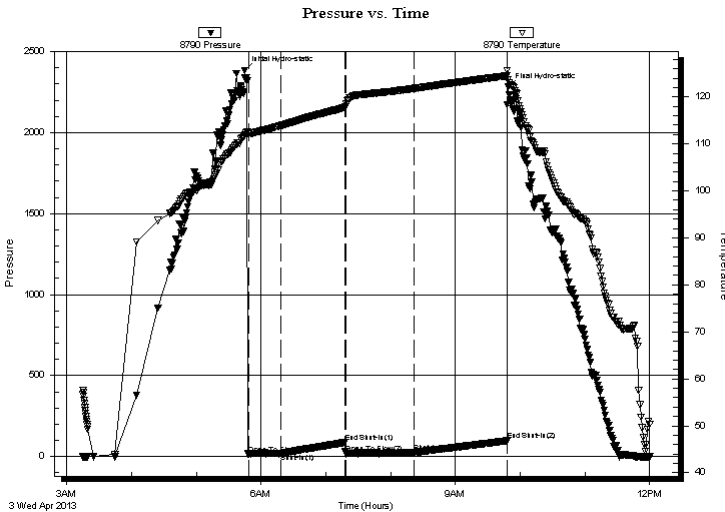
Serial #: 8790

Inside

Press @ Run Depth: 25.43 psig @ 4663.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.03 End Date: 2013.04.03 Last Calib.: 2013.04.03
 Start Time: 03:14:35 End Time: 12:00:30 Time On Btm: 2013.04.03 @ 05:44:45
 Time Off Btm: 2013.04.03 @ 09:49:00

TEST COMMENT: IF: Weak blow . 1/4 - 3/4"
 IS: no blow
 FF: Weak blow . 1" throughout
 FS: no blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2383.97	111.76	Initial Hydro-static
4	15.65	112.36	Open To Flow (1)
34	19.30	113.88	Shut-In(1)
93	87.41	117.76	End Shut-In(1)
94	17.44	117.91	Open To Flow (2)
158	25.43	121.81	Shut-In(2)
243	97.55	124.50	End Shut-In(2)
245	2280.01	123.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Drig mud 100% mud	0.05
0.00	70' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

McCoy Petroleum Corp.

3-34s-8w Harper, KS

8080 E. Central Ste. 300
Wichita, KS 67206-2366

Halbower "A" 2-3

Job Ticket: 50872

DST#: 3

ATTN: Dave Williams

Test Start: 2013.04.03 @ 03:14:30

Tool Information

Drill Pipe:	Length: 4461.00 ft	Diameter: 3.80 inches	Volume: 62.58 bbl	Tool Weight: 2400.00 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: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 91000.00 lb
			<u>Total Volume: 63.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 81000.00 lb
Depth to Top Packer:	4662.00 ft			Final 81000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.50 inches		

Tool Comments:

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

Shut In Tool	5.00			4641.00	
Hydraulic tool	5.00			4646.00	
Jars	5.00			4651.00	
Safety Joint	2.00			4653.00	
Packer	5.00			4658.00	26.00 Bottom Of Top Packer
Packer	4.00			4662.00	
Stubb	1.00			4663.00	
Recorder	0.00	8790	Inside	4663.00	
Recorder	0.00	8792	Outside	4663.00	
Perforations	19.00			4682.00	
Bullnose	3.00			4685.00	23.00 Bottom Packers & Anchor

Total Tool Length: 49.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

McCoy Petroleum Corp.

3-34s-8w Harper, KS

8080 E. Central Ste. 300
Wichita, KS 67206-2366

Halbower "A" 2-3

Job Ticket: 50872

DST#: 3

ATTN: Dave Williams

Test Start: 2013.04.03 @ 03:14:30

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

5000 ppm

Viscosity: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Drig mud 100%mud	0.049
0.00	70' GIP	0.000

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

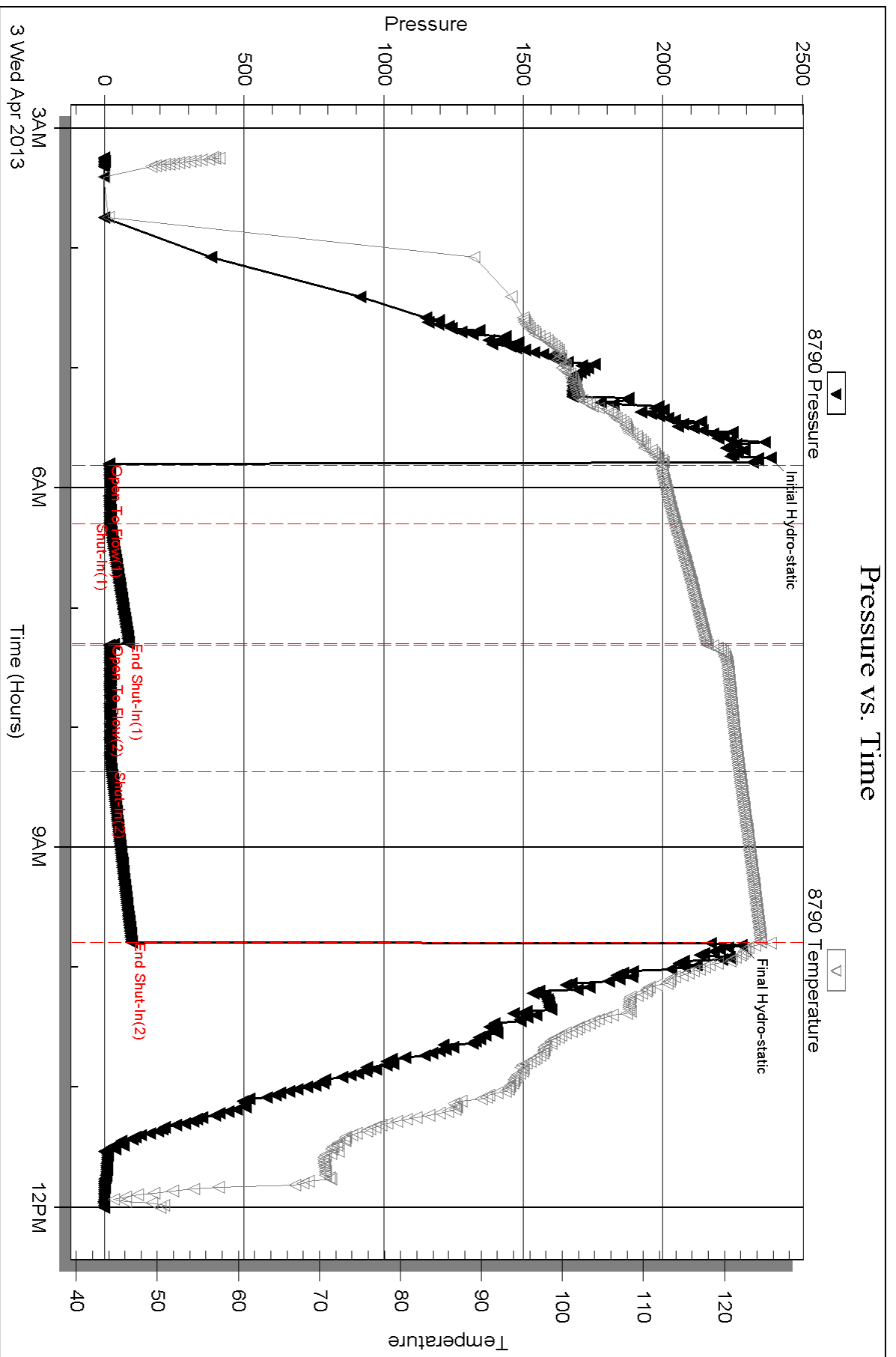
Serial #: 8790

Inside

McCoy Petroleum Corp.

Halbower "A" 2-3

DST Test Number: 3

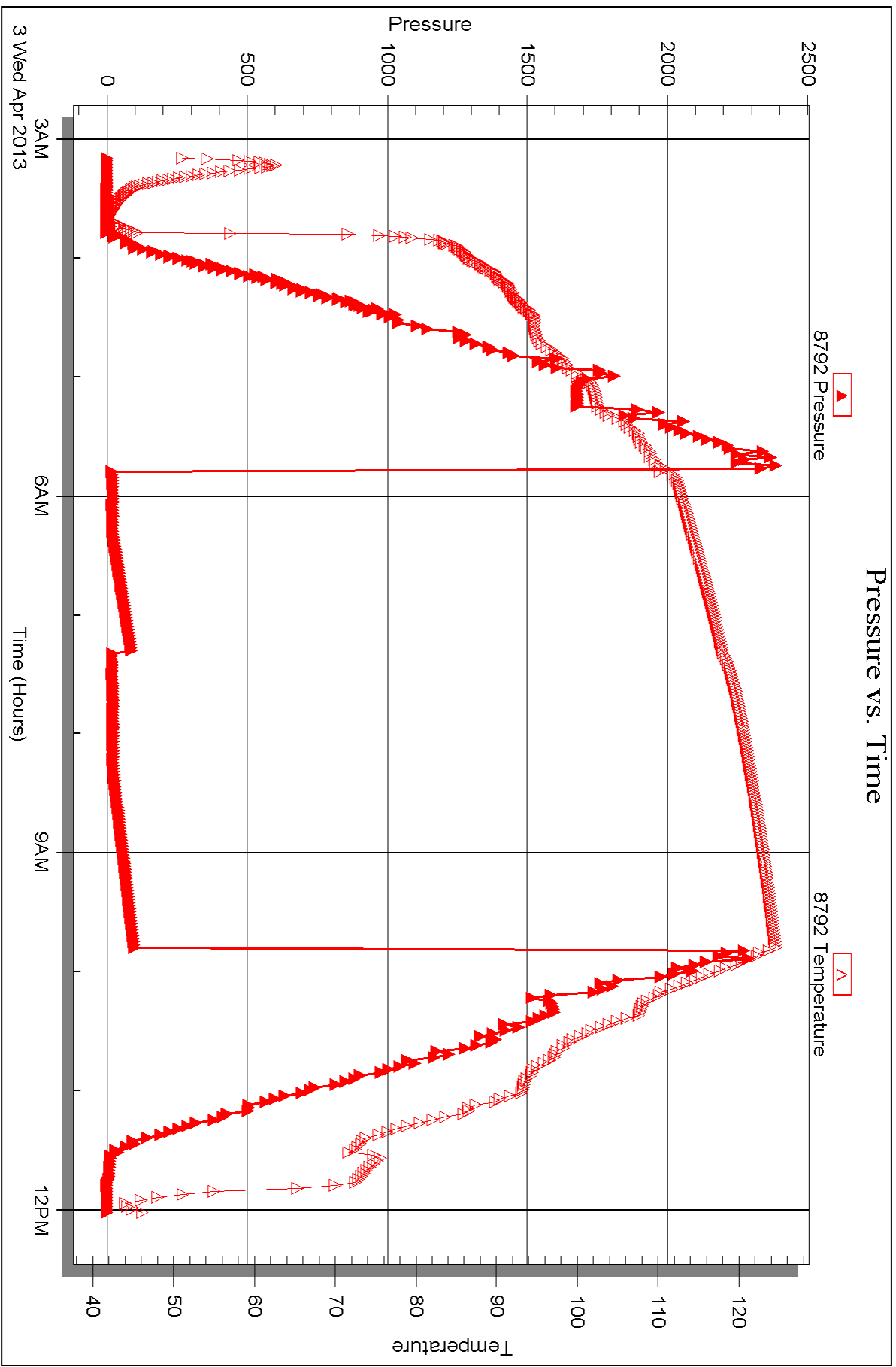


Serial #: 8792

Outside McCoy Petroleum Corp.

Halbower "A" 2-3

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corp.**

8080 E. Central Ste. 300
Wichita, KS 67206-2366

ATTN: Dave Williams

Halbower "A" 2-3

3-34s-8w Harper,KS

Start Date: 2013.04.04 @ 07:26:22

End Date: 2013.04.04 @ 16:05:52

Job Ticket #: 50873 DST #: 4

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

Printed: 2013.04.09 @ 09:15:12

McCoy Petroleum Corp.
3-34s-8w Harper,KS
Halbower "A" 2-3
DST # 4
Miss. "Warsaw"
2013.04.04



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

McCoy Petroleum Corp.
 8080 E. Central Ste. 300
 Wichita, KS 67206-2366
 ATTN: Dave Williams

3-34s-8w Harper, KS
Halbower "A" 2-3
 Job Ticket: 50873 **DST#: 4**
 Test Start: 2013.04.04 @ 07:26:22

GENERAL INFORMATION:

Formation: **Miss. "Warsaw"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:35:07
 Time Test Ended: 16:05:52
 Interval: **4700.00 ft (KB) To 4740.00 ft (KB) (TVD)**
 Total Depth: 4740.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Reynolds
 Unit No: 48
 Reference Elevations: 1377.00 ft (KB)
 1368.00 ft (CF)
 KB to GR/CF: 9.00 ft

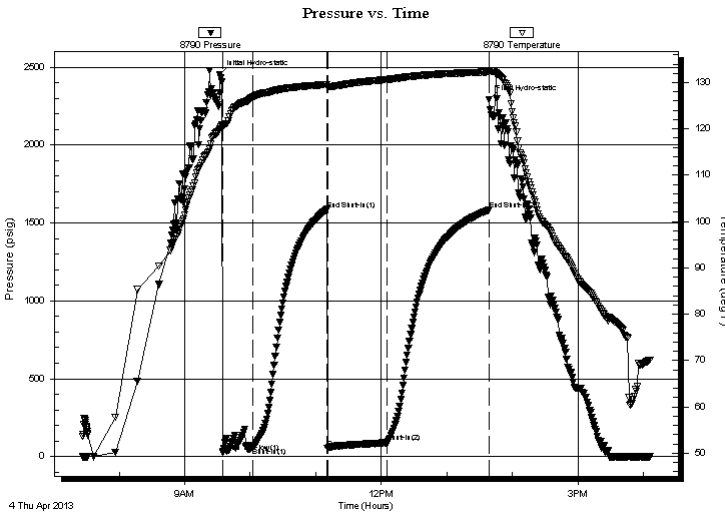
Serial #: 8790

Inside

Press @ Run Depth: 90.45 psig @ 4701.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.04 End Date: 2013.04.04 Last Calib.: 2013.04.04
 Start Time: 07:26:27 End Time: 16:05:52 Time On Btm: 2013.04.04 @ 09:32:07
 Time Off Btm: 2013.04.04 @ 13:38:52

TEST COMMENT: IF: Good blow . 1/4" - 10"
 IS: No blow
 FF: Strong blow . 1/4" - BOB @ 57min.
 FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2454.79	120.10	Initial Hydro-static
3	29.56	120.59	Open To Flow (1)
30	58.15	126.84	Shut-In(1)
99	1587.02	129.61	End Shut-In(1)
99	52.31	129.13	Open To Flow (2)
154	90.45	130.65	Shut-In(2)
247	1583.32	132.33	End Shut-In(2)
247	2291.80	132.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OGWCM 5%oil, 7%gas, 8%w tr, 80%mc0.30	
60.00	SLI WOGCM 1%w tr, 4%oil, 5%gas, 90%0.30	
30.00	Drig mud 100%mud	0.15
0.00	285' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

McCoy Petroleum Corp.

3-34s-8w Harper, KS

8080 E. Central Ste. 300
Wichita, KS 67206-2366

Halbower "A" 2-3

Job Ticket: 50873

DST#: 4

ATTN: Dave Williams

Test Start: 2013.04.04 @ 07:26:22

Tool Information

Drill Pipe:	Length: 4524.00 ft	Diameter: 3.80 inches	Volume: 63.46 bbl	Tool Weight: 2400.00 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: 179.00 ft	Diameter: 2.25 inches	Volume: 0.88 bbl	Weight to Pull Loose: 91000.00 lb
			<u>Total Volume: 64.34 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 82000.00 lb
Depth to Top Packer:	4700.00 ft			Final 83000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	66.00 ft			
Number of Packers:	2	Diameter: 6.50 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4679.00	
Hydraulic tool	5.00			4684.00	
Jars	5.00			4689.00	
Safety Joint	2.00			4691.00	
Packer	5.00			4696.00	26.00 Bottom Of Top Packer
Packer	4.00			4700.00	
Stubb	1.00			4701.00	
Recorder	0.00	8790	Inside	4701.00	
Recorder	0.00	8792	Outside	4701.00	
Perforations	2.00			4703.00	
Change Over Sub	0.50			4703.50	
Drill Pipe	31.50			4735.00	
Change Over Sub	1.00			4736.00	
Perforations	1.00			4737.00	
Bullnose	3.00			4740.00	40.00 Bottom Packers & Anchor

Total Tool Length: 66.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

McCoy Petroleum Corp.

3-34s-8w Harper,KS

8080 E. Central Ste. 300
Wichita, KS 67206-2366

Halbower "A" 2-3

Job Ticket: 50873

DST#: 4

ATTN: Dave Williams

Test Start: 2013.04.04 @ 07:26:22

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

4000 ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	OGWCM 5%oil, 7%gas, 8%w tr, 80%mud	0.295
60.00	SLI WOGCM 1%w tr, 4%oil, 5%gas, 90%mud	0.295
30.00	Drig mud 100%mud	0.148
0.00	285' GIP	0.000

Total Length: 150.00 ft

Total Volume: 0.738 bbl

Num Fluid Samples: 0

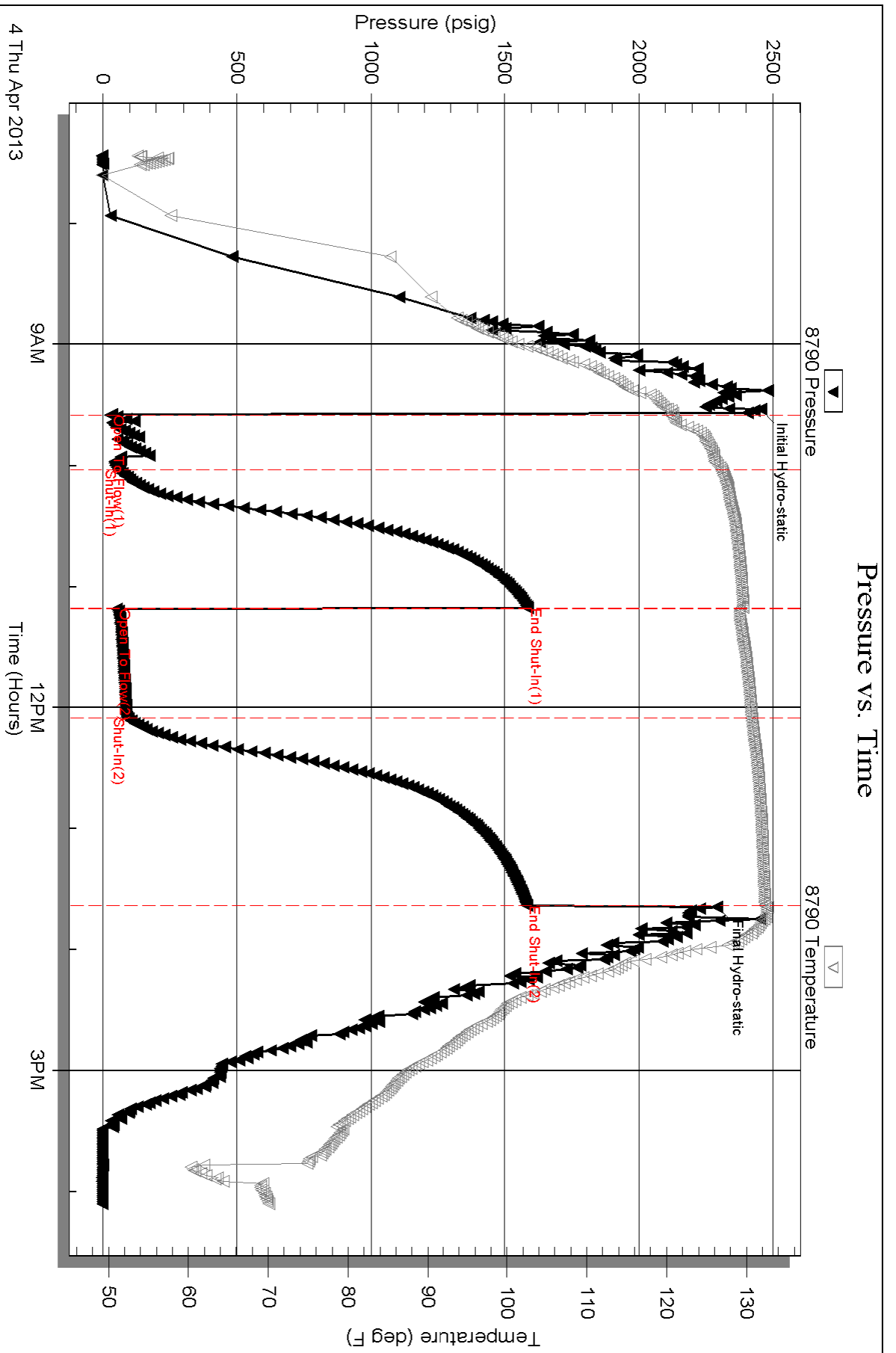
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

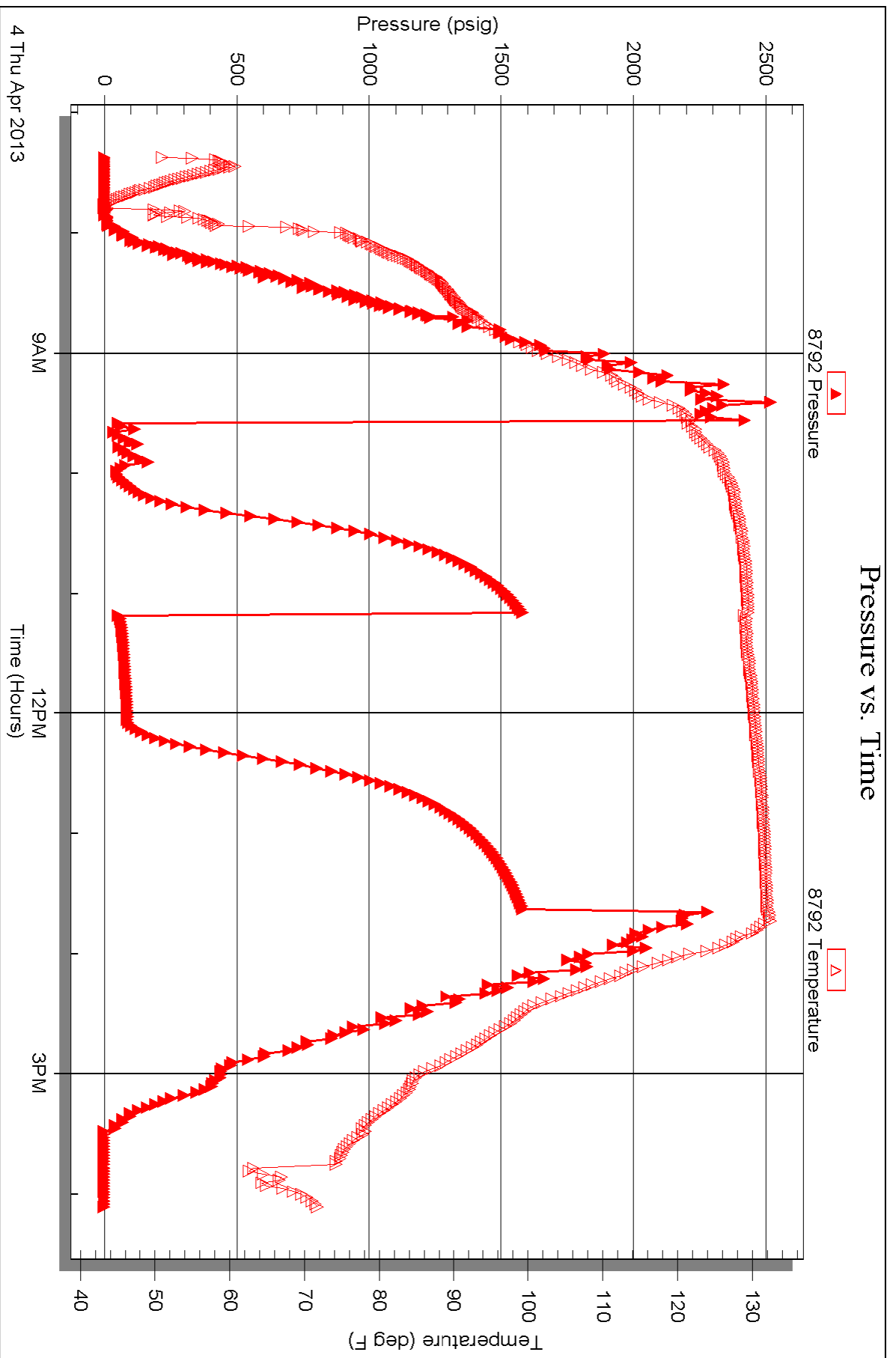


Serial #: 8792

Outside McCoy Petroleum Corp.

Halbower "A" 2-3

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 50873

Printed: 2013.04.09 @ 09:15:16



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50870

4/10

Well Name & No. Halbower "A" 2-3 Test No. 1 Date 4-1-13
 Company McCoy Petro. Corp. Elevation 1377 KB 1368 GL
 Address 8080 E. Central Ste. 300 Wichita, KS 67206 - 23660
 Co. Rep / Geo. Dave Williams Rig Sterling 4
 Location: Sec. 3 Twp. 34s. Rge. 8w. Co. Harper State KS

Interval Tested 4616-4642 Zone Tested Miss. (Salem)
 Anchor Length 26 Drill Pipe Run 4429 Mud Wt. 9.5
 Top Packer Depth 4611 Drill Collars Run 179 Vis 50
 Bottom Packer Depth 4616 Wt. Pipe Run Ø WL 7.2
 Total Depth 4642 Chlorides 4000 ppm System LCM 2#

Blow Description IF: Strong blow. BOB 1 1/2 min. No GTS.
ISI: No blow.
FF: Strong blow. BOB immed No GTS.
FST: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1400</u>	<u>GIP</u>	<u>100</u>			
<u>135</u>	<u>WCM</u>		<u>20</u>	<u>80</u>	
<u>10</u>	<u>SW</u>		<u>100</u>		

Rec Total 1535 BHT 132 Gravity N/C API RW 12 @ 43 °F Chlorides 12400 ppm
 (A) Initial Hydrostatic 2380 Test 1250 T-On Location 1020
 (B) First Initial Flow 21 Jars 250 T-Started 1050
 (C) First Final Flow 39 Safety Joint 75 T-Open 1418
 (D) Initial Shut-In 730 Circ Sub T-Pulled 1820
 (E) Second Initial Flow 27 Hourly Standby 1 hour 100 T-Out 2129
 (F) Second Final Flow 75 Mileage 140 217 Comments
 (G) Final Shut-In 698 Sampler
 (H) Final Hydrostatic 2316 Straddle Ruined Shale Packer
 Shale Packer Ruined Packer
 Extra Packer Extra Copies
 Extra Recorder Sub Total 0
 Day Standby Total 1892
 Accessibility MP/DST Disc't

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 95
 Sub Total 1892

Approved By Daniel P. Williams Our Representative Ryan Reynolds
 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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50871

Well Name & No. Halbawer 'A' 2-3 Test No. 2 Date 4-2-13
 Company McCoy Petro. Corp. Elevation 1377 KB 1368 GL
 Address 8080 E. Central Ste. 300 Wichita, KS 67206-2366
 Co. Rep / Geo. Dave Williams Rig Sterling #4
 Location: Sec. 3 Twp. 34s Rge. 8w. Co. Harper State KS

Interval Tested 4642-4662 Zone Tested Miss.
 Anchor Length 20' Drill Pipe Run 4461 Mud Wt. 9.5
 Top Packer Depth 4637 Drill Collars Run 179 Vis 50
 Bottom Packer Depth 4642 Wt. Pipe Run Ø WL 7.2
 Total Depth 4662 Chlorides 4000 ppm System LCM 2#
 Blow Description IF: Weak blow: 1/2" - Surf. ISI: No blow

FF: Weak blow, 1" throughout
FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>GIP</u>	<u>100</u>			
<u>5</u>	<u>Dirty mud</u>			<u>100</u>	

Rec Total 65 BHT 127 Gravity N/C API RW N/C @ N/C °F Chlorides 4000 ppm

(A) Initial Hydrostatic 2402 Test 1250 T-On Location 0715
 (B) First Initial Flow 12 Jars 250 T-Started 0740
 (C) First Final Flow 17 Safety Joint 75 T-Open 0958
 (D) Initial Shut-In 93 Circ Sub T-Pulled 1400
 (E) Second Initial Flow 13 Hourly Standby T-Out 1621
 (F) Second Final Flow 18 Mileage 140 217 Comments _____
 (G) Final Shut-In 98 Sampler _____
 (H) Final Hydrostatic 2292 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____

Initial Open 30 Extra Packer _____
 Initial Shut-In 60 Extra Recorder _____ Sub Total 0
 Final Flow 60 Day Standby _____ Total 1792
 Final Shut-In 90 Accessibility _____ MP/DST Disc't _____
 Sub Total 1792

Approved By Paul P. Williams Our Representative Ryan Reynolds
 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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50872

4/10

Well Name & No. Halbower "A" 2-3 Test No. 3 Date 4-3-13
 Company McCoy Petro. Corp. Elevation 1377 KB 1368 GL
 Address 8080 E. Central Ste. 300 Wichita, KS 67206-2366
 Co. Rep / Geo. Dave Williams Rig Sterling #4
 Location: Sec. 3 Twp. 34s. Rge. 8w. Co. Harper State KS

Interval Tested 4662-4685 Zone Tested Miss. (Warsaw)
 Anchor Length 23 Drill Pipe Run 4461 Mud Wt. 9.5
 Top Packer Depth 4657 Drill Collars Run 179 Vis 63
 Bottom Packer Depth 4662 Wt. Pipe Run ∅ WL 10.8
 Total Depth 4685 Chlorides 5000 ppm System LCM 3#
 Blow Description IF: Weak blow, 1/4 - 3/4" ISI: No blow

FF: Weak blow, 1" throughout
FSI: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>70</u>	<u>GTP</u>	<u>100</u>			
<u>10</u>	<u>Dirty mud</u>			<u>100</u>	

Rec Total 80 BHT 125 Gravity N/C API RW N/C @ N/C °F Chlorides 5000 ppm

(A) Initial Hydrostatic	<u>2384</u>	<input checked="" type="checkbox"/> Test	<u>1250</u>	T-On Location	<u>0300</u>
(B) First Initial Flow	<u>16</u>	<input checked="" type="checkbox"/> Jars	<u>250</u>	T-Started	<u>0315</u>
(C) First Final Flow	<u>19</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>0549</u>
(D) Initial Shut-In	<u>87</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>0948</u>
(E) Second Initial Flow	<u>17</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>1201</u>
(F) Second Final Flow	<u>25</u>	<input checked="" type="checkbox"/> Mileage	<u>140</u> 217	Comments	
(G) Final Shut-In	<u>98</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>2280</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	
		<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Ruined Packer	
Initial Open	<u>30</u>	<input type="checkbox"/> Extra Packer		<input type="checkbox"/> Extra Copies	
Initial Shut-In	<u>60</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>0</u>
Final Flow	<u>60</u>	<input type="checkbox"/> Day Standby		Total	<u>1792</u>
Final Shut-In	<u>90</u>	<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1792</u>		

Approved By Daniel P. Wilk

Our Representative Ryan Reynolds

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.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50873

Well Name & No. Halbower "A" 2-3 Test No. 4 Date 4-4-13
 Company McCoy Petro. Corp. Elevation 1377 KB 1368 GL
 Address 8080 E. Central Ste. 300 Wichita, KS 67206-2366
 Co. Rep / Geo. Dave Williams Rig Sterling #4
 Location: Sec. 3 Twp. 34s. Rge. 8w. Co. Harper State KS

Interval Tested 4700-4740 Zone Tested Miss. "Warsaw"
 Anchor Length 40 Drill Pipe Run 4524 Mud Wt. 9.5
 Top Packer Depth 4695 Drill Collars Run 179 Vis 48
 Bottom Packer Depth 4700 Wt. Pipe Run Ø WL 10.4
 Total Depth 4740 Chlorides 4000 ppm System LCM 3*

Blow Description IF: Good blow, 1/4" - 10".
ISI: No blow.
FF: Strong blow, 1/4" - BOB @ 57 min.
FST: No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>285</u>	<u>GIP</u>				
<u>30</u>	<u>Dry mud</u>			<u>100</u>	
<u>60</u>	<u>SLI WOGCM</u>	<u>5</u>	<u>4</u>	<u>1</u>	<u>90</u>
<u>60</u>	<u>DGWCm</u>	<u>7</u>	<u>5</u>	<u>8</u>	<u>80</u>

Rec Total 435 BHT 133 Gravity N/L API RW N/L @ N/L °F Chlorides 4000 ppm

(A) Initial Hydrostatic 2455 Test 1250 T-On Location 0700
 (B) First Initial Flow 30 Jars 250 T-Started 0726
 (C) First Final Flow 58 Safety Joint 75 T-Open 0935
 (D) Initial Shut-In 1587 Circ Sub T-Pulled 1336
 (E) Second Initial Flow 53 Hourly Standby T-Out 1604
 (F) Second Final Flow 90 Mileage 140 217 Comments _____
 (G) Final Shut-In 1583 Sampler _____
 (H) Final Hydrostatic 2292 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 60 Extra Recorder _____ Sub Total 0
 Final Flow 60 Day Standby _____ Total 1792
 Final Shut-In 90 Accessibility _____ MP/DST Disc't _____

Approved By Daniel P. Williams Our Representative Ryan Reynolds

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.

Customer McCoy PET. CORP.	Lease No.	Date 3-25-2013
Lease HALBOWER 'A'	Well # 2-3	
Field Order # 07932	Station PRATT, KS.	Casing 8 5/8"
		Depth
Type Job CNW - 8 5/8" S.P.	Formation TD - 275'	County HARPER
		State Ks.
		Legal Description 3-34-8

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 8 5/8" x 24'	Tubing Size	Shots/Ft	CMT -	Acid 175 SKS. 100/40 POZ	RATE	PRESS	ISIP	
Depth 270.11	Depth	From	To	Pre Pad @ 1.21 CUFT³	Max 55 = 15'		5 Min.	
Volume 17 BBL	Volume	From	To	Pad	Min.		10 Min.	
Max Press 300	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection P.C.	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth 353	Packer Depth	From	To	Flush 16.2 BBL	Gas Volume		Total Load	

Customer Representative **D. ULLER** Station Manager **D. SCOTT** Treater **K. LESLEY**

Service Units	37586	19959	19843	19960	21010				
Driver Names	LESLEY	MARQUEE	PIBSON						

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
3:00 PM					ON LOCATION - SAFETY MEETING
4:00 PM					RUN 6 JTS. 8 5/8" x 24' CSG.
5:15 PM					CSG. ON BOTTOM
5:30 PM					HOOK UP TO CSG. / BREAK CIRC. W/ RIG
5:40 PM	100		5	6	H2O AHEAD
5:44 PM	50		38	6	MIX 175 SKS. 100/40 POZ @ 14.8 PPG
5:50 PM					SHUT DOWN - DROP WOODEN PLUG
5:55 PM	0		0	4	START DISPLACEMENT
5:56 PM	50		4	4	LIFT PSI
5:58 PM	100		12	2	SLOW RATE
6:00 PM	100		16.2	2	PLUG DOWN - CLOSE IN @ HEAD
					CIRC. THRU JOB
					CIRC. 10 BBL TO PIT
					JOB COMPLETE
					THANKS -
					KEVIN LESLEY



Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: HALBOWER A #2-3
Location: C - SE - NW of Sec. 3 - T. 34 S. - R. 08 W.
License Number: A.P.I. #15-077-21,915-00-00
Spud Date: 03/25/2013
Surface Coordinates: SPOT: 1980' FNL & 1980' FWL

Region: HARPER CO., KS
Drilling Completed: 04/04/2013

Bottom Hole
Coordinates:
Ground Elevation (ft): 1368' K.B. Elevation (ft): 1377'
Logged Interval (ft): 270' To: 4438' Total Depth (ft): 4740'
Formation: MISSISSIPPIAN
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: McCOY PETROLEUM CORPORATION KCC LIC. NO. # 5003
Address: 8080 E. CENTRAL, STE. 300
WICHITA, KANSAS 67206-2366

GEOLOGIST

Name: DAVID P. WILLIAMS, P.G.
Company: DW ENERGY, LLC
Address: 312 N. BROADVIEW STREET
WICHITA, KANSAS 67208

Casings & Deviation

Surface Casing Data: Spud at 9:45 AM on 03/25/13. Drilled 12-1/4" hole to 275'. Ran 6 joints of new 24# 8-5/8" surface casing, Tallied 259.11', set at 270.11' KB. Welded straps on bottom 3 joints. Cemented with 175 sks 60/40 POZ; 2% Gel; 3% CC; 1/4# CF. Plug down at 6:00 PM on 03/25/13. Cement did circulate. Basic Energy Cementing ticket #07932.

Deviation Survey's Taken: @ 275' = 1 1/2 degree; @ 4642' = 1 1/2 degrees @ 4740' = degrees.

DSTs

DST # 1: 4616'-4642'. Times: 30"-60"-60"-90" Blow: IF=Strong BOB/1.5". FF = BOB//0" NO GTS.
 Recovery: 1400' G.I.P; TF= 135' (125' WCM (20% W & 80% M); & (10' SW (100% SW). Chl.= 124,000 Ppm.
 Pressures: IH = 2380#; FH= 2316#; IF = 21-39#; FF= 27-75#;
 ISIP= 730#; FSIP= 698#; Temp= 132 degrees F;


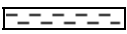

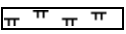
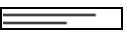
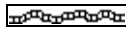




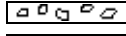




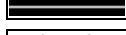


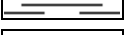

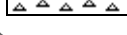


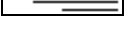
DST # 2: 4642'-4662'. Times: 30"-60"-60"-90" Blow: IF=Weak 0.5"/Weak Surface Blow. FF = Weak/1" Throughout.
 Recovery: 60' G.I.P. TF= 5 Drilling Mud' (100% M).
 Pressures: IH= 2402#; FH= 2292#; IF=12-17#; FF=13-18#; ISIP= 93#; FSIP= 98#; Temp = 127 degrees F;

DST # 3: 4662'-4685'. Times: 30"-60"-60"-90" Blow: IF= Weak / 1/4"-3/4" Blow; FF = Weak/ 1" Throughout.
 Recovery: 70' G.I.P. TF= 10' Drilling Mud' (100% M).
 Pressures: IH= 2384#; FH= 2280#; IF=16-19#; FF=17-25#;
 ISIP= 87#; FSIP= 98#; Temp =125 degrees F.











































































DST # 4: 4700'-4740'. Times: 30"-60"-60"-90" Blow: IF=Good/1"-10". FF=Strong/1/4"-BOB/57".
 Recovery: 285' G.I.P. TF=150': 30' DM (100% M); 60' Sli. WOGCM (5% G; 4% O 1% W & 90% M); & 60' DGWCM (7% G; 5% O;8% W; & 80% M). Not Enough Wtr. For Chl. Analysis.
 I.F.= Sli. Plugging Observed.
 Pressures: IH = 2455#; FH= 2292#; IF = 30-58#; FF= 53-90#;
 ISIP = 1587#; FSIP = 1583#; Temp= 133 degrees F;

Comments

ROCK TYPES

 Anhy	 Clyst	 Gry sh	 Mrlst	 Shgy
 Bent	 Coal	 Gyp	 Red shale	 Sltst
 Brec	 Congl	 Igne	 Salt	 Ss
 Carb sh	 Dol	 Lmst	 Shale	 Till
 Cht	 Grn sh	 Meta	 Shcol	

ACCESSORIES

MINERAL  Anhy  Arggrn  Arg  Bent  Bit  Brecfrag  Calc  Carb  Chtdk  Chtlt  Dol  Feldspar  Ferrpel  Ferr  Glau  Gyp	 Hvymin  Kaol  Marl  Minxl  Nodule  Phos  Pyr  Salt  Sandy  Silt  Sil  Sulphur  Tuff FOSSIL  Algae  Amph	 Belm  Bioclst  Brach  Bryozoa  Cephal  Coral  Crin  Echin  Fish  Foram  Fossil  Fuss  Gastro  Oolite  Oomold  Ostra  Pelec	 Pellet  Pisolite  Plant  Strom STRINGER  Anhy  Arg  Bent  Coal  Dol  Gyp  Ls  Mrst  Sltstrg  Sltstn  Ssstrg	TEXTURE  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
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OTHER SYMBOLS

- POROSITY**
 [E] Earthy
 [B] Fenest
 [F] Fracture
 [X] Inter
 [Z] Moldic
 [O] Organic
 [P] Pinpoint

- [V] Vuggy
SORTING
 [W] Well
 [M] Moderate
 [P] Poor

- ROUNDING**
 [R] Rounded
 [r] Subrnd
 [a] Subang
 [A] Angular

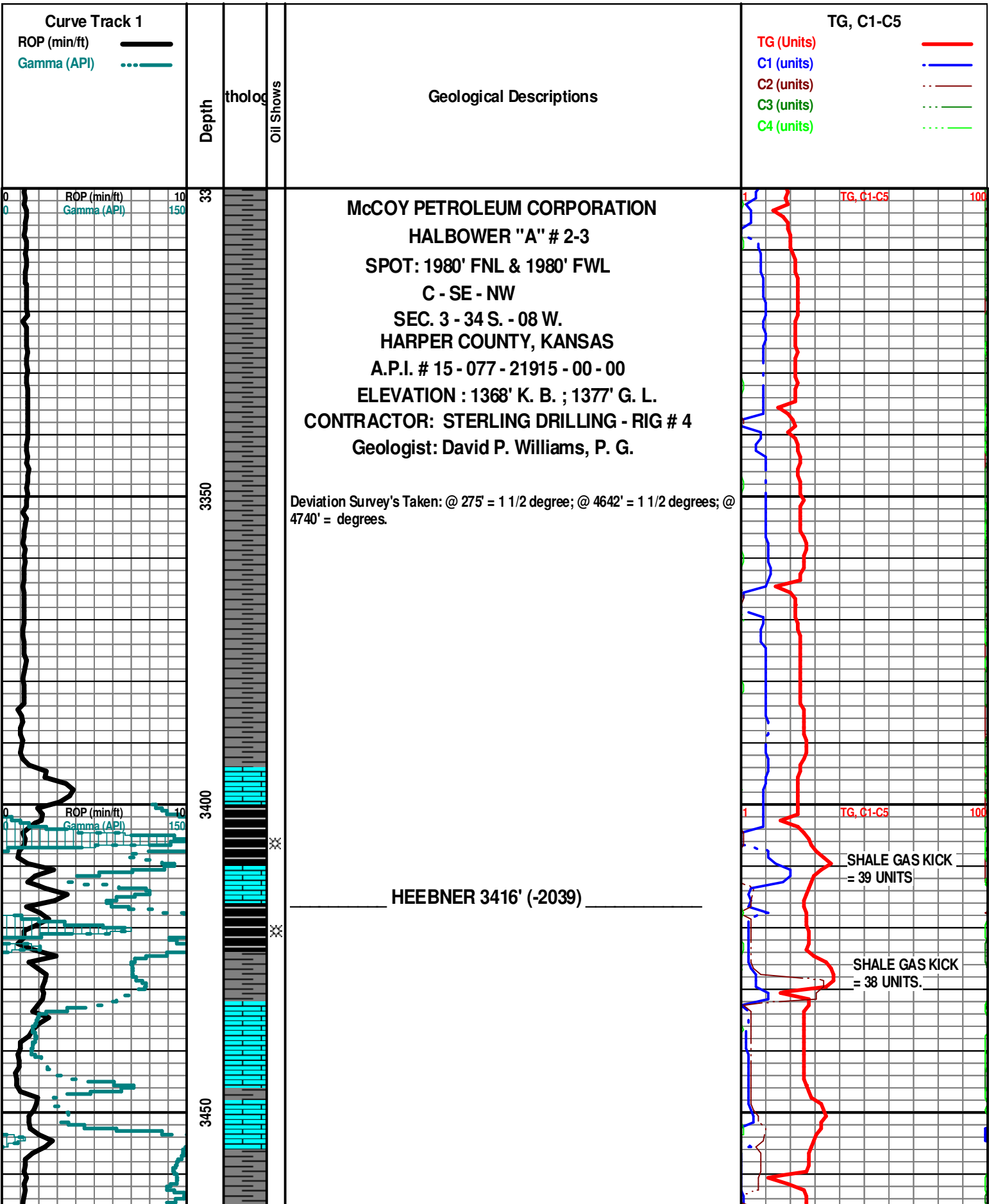
- OIL SHOW**
 [X] Gas show

- [●] Even
 [◉] Spotted
 [◌] Ques
 [◻] Dead

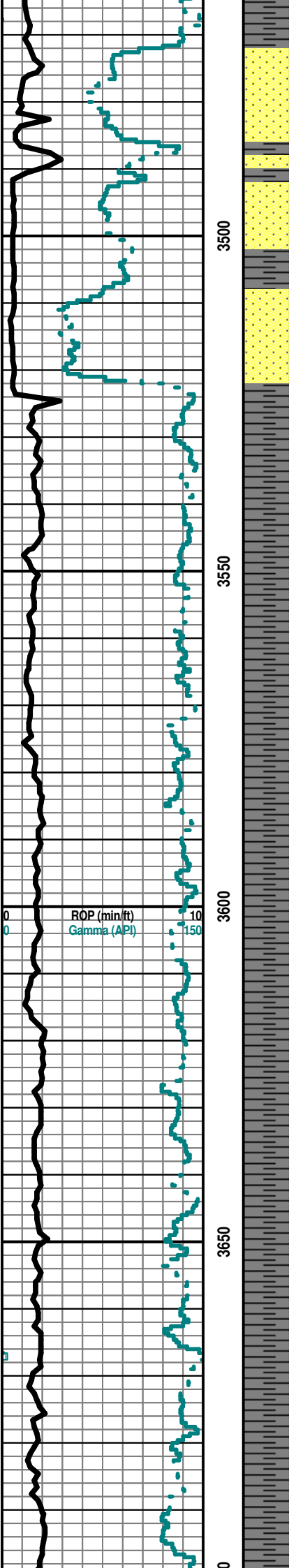
- INTERVAL**
 [■] Core
 [■] Dst

- [■] Dst_alt
 [■] Straddle test tail pi

- EVENT**
 [▽] Rft
 [▽] Sidewall



DOUGLAS SAND 3472' (-2095)



3500

3550

3600

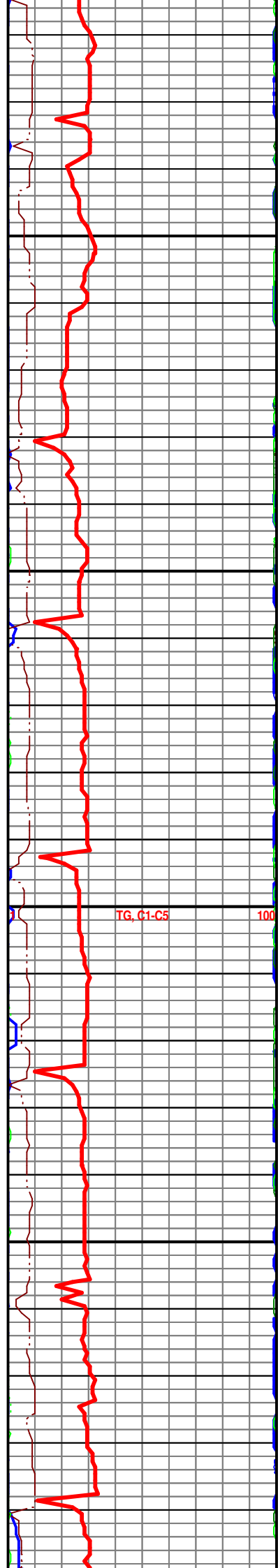
3650

0

ROP (min/ft)
Gamma (API)

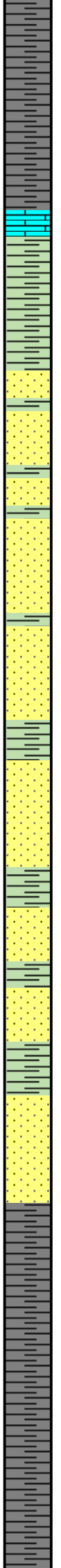
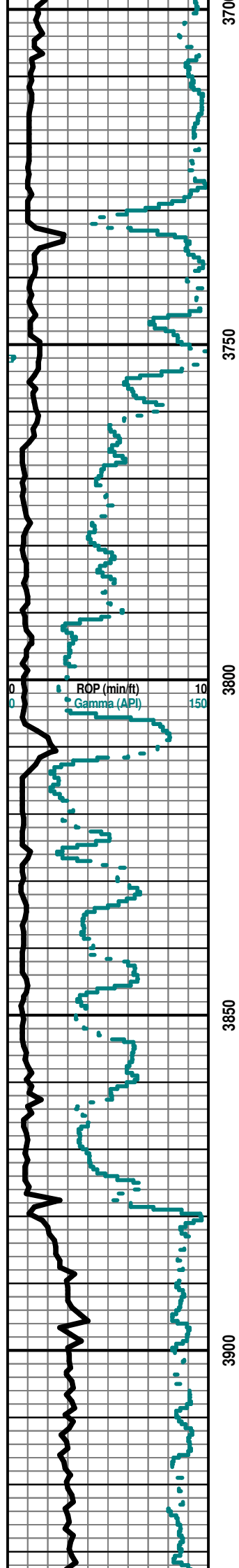
0
0

10
150



TG, C1-C5

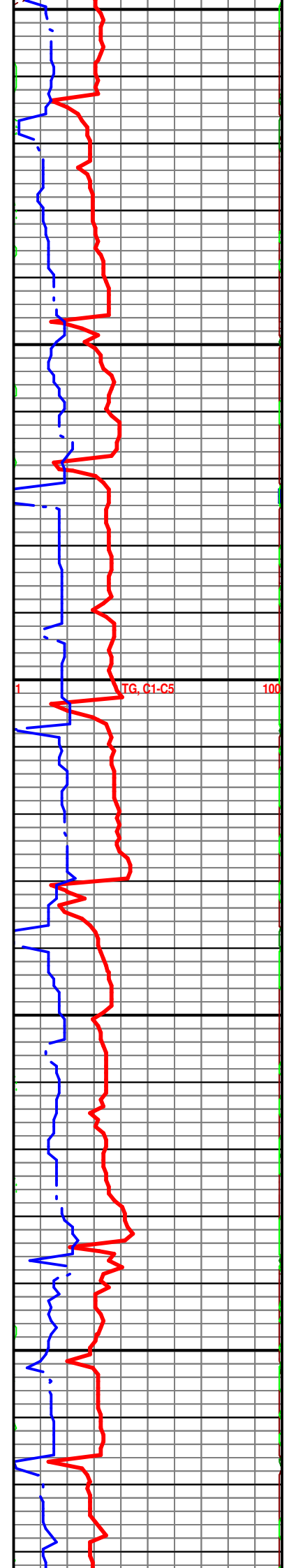
100

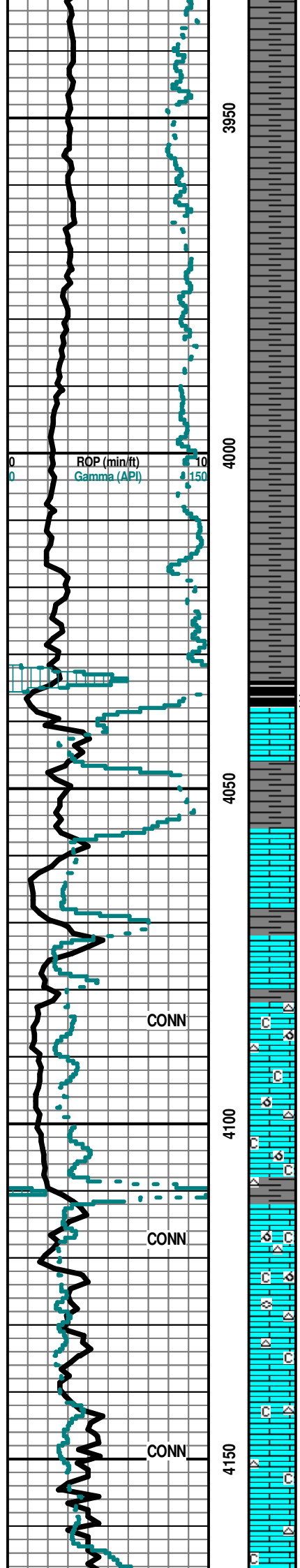


IATAN 3730' (- 2353)

STALNAKER 3754' (- 2377)

BASE STALNAKER 3878' (- 2501)





Geologist's Call Depth @ 4000' @ 5:29 AM on 3/30/13.

KANSAS CITY 4038' (- 2665)

Note: All samples have been lagged to depth by calculated time.

Geologist on location @ (4100') 10:30 AM 3-30-13

Begin 10' Sample Examination @ 4100'.

Ls Crm-Lt Tan FxIn Micritic Grad Poor-Fair OOM Por Barren Poor Leaching
 Poor InterOOM Develop Cht Wht-Lt Gry Op Shp Vit Chalk V Abd Sh
 Char-Gry-Blk Carb Tr Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Lt Tan FxIn Micritic Grad Poor-Fair OOM Por Barren Poor Leaching
 Poor InterOOM Develop Cht Wht-Lt Gry Op Shp Vit Chalk V Abd Sh
 Char-Gry-Blk Carb Tr Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Lt Tan FxIn Micritic Grad Poor-Fair OOM Por Barren Poor Leaching
 Poor InterOOM Develop Cht Wht-Lt Gry Op Shp Vit Chalk Dec Sh
 Char-Gry-Blk Carb Tr Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Lt Tan FxIn Micritic Barren Cht Wht-Lt Gry Op Shp Vit Chalk Dec Sh
 Char-Gry-Blk Carb Tr Soft-Fissil No Odor No Stn No Flor NS

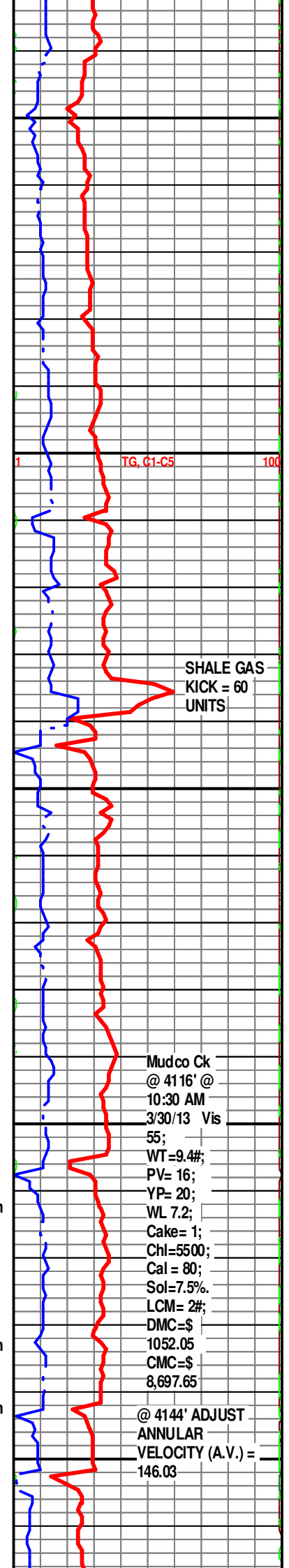
Ls Wht-Crm-Lt Tan FxIn Micritic Barren Grad Poor OOM Por Por
 Develop-Poor Leaching Barren Cht Lt Gry (w Fos (Fuss) Includ)-Amber Op
 Shp Vit Chalk Dec Sh Char-Gry-Blk Carb Tr Soft-Fissil No Odor No Stn No
 Flor NS

Ls Crm-Lt Tan FxIn Micritic Barren Cht Wht-Lt Gry Op Shp Vit Chalk Dec Sh
 Char-Gry-Blk Carb Tr Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Lt Tan FxIn Micritic Barren Cht Wht-Lt Gry Op Shp Vit Chalk Dec Sh
 Char-Gry-Blk Carb Tr Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Lt Tan FxIn Micritic Grad Poor-Fair IxIn Por Barren Cht Wht-Lt Gry
 Op Shp Vit Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

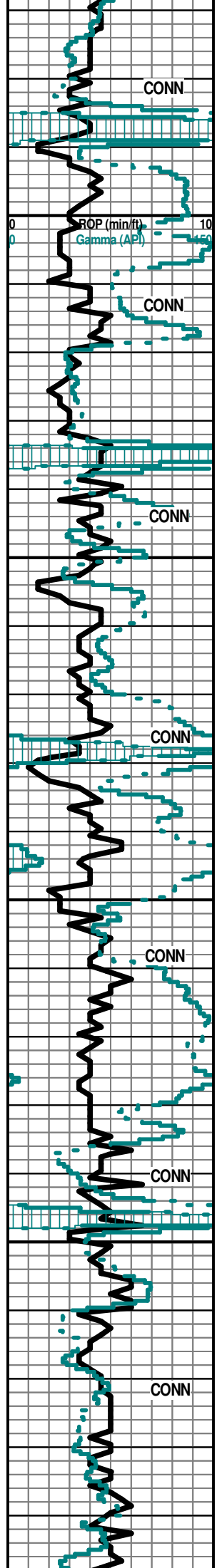
Ls Wht-Crm-Tan FxIn Micritic Grad Poor IxIn Por Barren Cht Lt Gry Op Shp
 Vit Chalky Sh Char-Gry-Aqua Tr Soft-Fissil No Odor No Stn No Flor NS



SHALE GAS
KICK = 60
UNITS

Mudco Ck
@ 4116' @
10:30 AM
3/30/13 Vis
55;
WT=9.4#;
PV= 16;
YP= 20;
WL 7.2;
Cake= 1;
Chl=5500;
Cal = 80;
Sol=7.5%
LCM= 2#;
DMC=\$
1052.05
CMC=\$
8,697.65

@ 4144' ADJUST
ANNULAR
VELOCITY (A.V.) =
146.03



Ls Crm-Tan Fxn-Mxn Micritic Grad Poor Ixn Por Barren Cht Wht-Smoky Gry Transl-Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Tan Fxn-Mxn Micritic Grad Poor Ixn Por Barren Cht Wht-Smoky Gry Transl-Op Shp Vit Chalk Sh Char-Gry Soft-Fissil No Odor No Stn No Flor NS

STARK SHALE 4184' (- 2807)

Sh Blk Carb-Char-Gry Fissil Ls Crm-Tan Mxn Micritic Barren Cht Clear-Smoky Gry-Amber Op Shp Vit No Odor No Stn No Flor NS

SHALE GAS KICK = 50 UNITS

Ls Crm-Tan-Lt Gry Fxn Micritic Barren Cht Wht (w/Fos (Fuss) Inclus) -Smoky Gry-Amber Op Shp Vit Sh Char-Gry-Grn (w/Carb Inclus) Soft-Fissil No Odor No Stn No Flor NS

TG, C1-C5 100

Ls Crm-Tan-Drk Tan Microxn Micritic Barren Cht Wht-Smoky Gry Op Shp Vit Chalky Sh Char-Gry Soft-Fissil SiltStn Gry (w/Carb Inclus) No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry Microxn Micritic Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

HUSHPUCKNEY SHALE 4233' (- 1856)

Sh Blk Carb-Char-Gry Fissil Ls Crm-Tan Microxn-Fxn Micritic Barren Chalk SiltStn Gry (w/Carb Inclus) No Odor No Stn No Flor NS

Ls Crm-Tan-Gry-Drk Brn Microxn Micritic Barren Chalky Sh Blk Carb-Char-Gry-Grn Fissil SiltStn Gry (w/Carb Inclus) No Odor No Stn No Flor NS

Ls Crm-Tan-Gry-Drk Brn Microxn Micritic Barren Chalky Sh Blk Carb-Char-Gry-Grn Fissil SiltStn Gry (w/Carb Inclus) No Odor No Stn No Flor NS

BASE KANSAS CITY 4270' (- 2893)

Sh Blk Carb-Gry Fissil Ls Crm-Tan Mxn Micritic Barren Chalk No Odor No Stn No Flor NS

MARMATON 4283' (- 2906)

SHALE GAS KICK = 45 UNITS

Sh Blk Carb-Gry Fissil Ls Crm-Tan Microxn Micritic Barren Chalk No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry Microxn-Fxn Micritic Barren Chalky Sh Blk Carb-Char-Gry-Red-Maroon Fissil No Odor No Stn No Flor NS

SET MUD PUMP = 54 SPM.

Ls Wht-Crm-Tan-Gry Microxn Micritic Barren Chalky Sh Blk Carb-Char-Gry-Grn Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Char - Gry-Grn Soft-Fissil Ls Wht-Crm-Tan-Gry Microxn Micritic Barren Chalky No Odor No Stn No Flor NS

Sh Maroon-Gry-Grn-Aqua-Maroon Soft-Fissil Ls Wht-Crm-Tan Mxn Micritic Barren Chalky No Odor No Stn No Flor NS

Sh Gry-Grn-Aqua Inc-Maroon Soft-Fissil Ls Wht-Crm-Tan Microxn Micritic Barren Chalky No Odor No Stn No Flor NS

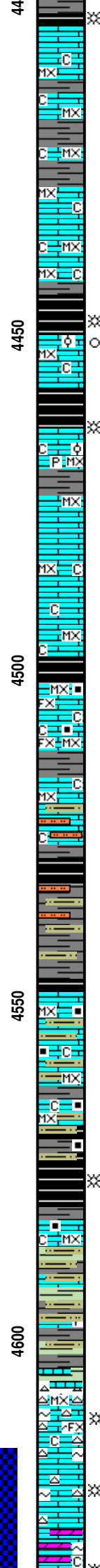
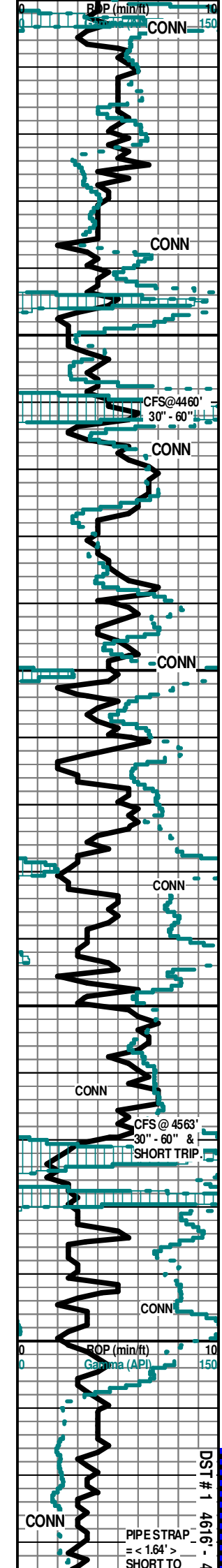
Ls Wht-Crm-Tan Microxn Micritic Barren Chalky Sh Gry-Grn-Aqua-Maroon Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan Microxn Micritic Barren Chalky Sh Blk Carb-Char-Gry-Grn-Aqua-Maroon Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry Microxn Micritic Barren Chalky Sh Char-Gry-Grn-Aqua-Maroon Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry Microxn Micritic Barren Chalky Sh Char-Gry-Grn-Aqua-Maroon Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan-Gry Microxn Micritic Barren Cht Yell Translu Shp Vit Chalky Sh Char-Gry-Grn-Aqua-Maroon Soft-Fissil No Odor No Stn No Flor NS



PAWNEE 4405' (- 3028)

Ls Wht-Crm-Tan MicroxIn Micritic Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan MicroxIn Micritic Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Tan MicroxIn Micritic Barren Chalky Sh Char-Gry Fissil No Odor No Stn No Flor NS

30" CFS @ 4460' Ls Wht-Crm-Tan MicroxIn Micritic Tr Poor IxIn Por (w/Sli ? Scat Flor (Lt Grn) Chalky Sh Char-Gry Fissil ? Faint Odor No Stn NS

FORT SCOTT 4449' (- 3072)

60" CFS @ 4460' Ls Wht-Crm MicroxIn Micritic Tr Poor IxIn Por (w/Sli ? Scat Flor (Lt Grn) Grad Poor OOL Por (Small OOL in pl) Poor No Dissolu Poor Leaching Chalky Sh Char-Gry Fissil ? Faint Odor NS

CHEROKEE SHALE 4458' (- 3081)

Sh Blk Carb-Char-Gry Fissil Ls Wht-Crm MicroxIn Micritic Tr Poor IxIn Por Grad Poor OOL Por (1 Pc Small OOL in pl w/Poor - No Dissolu Poor-No Leaching w/Pyr Includ) Chalky No Odor No Stn NS

Ls Wht-Crm-Tan-Gry MicroxIn Micrite Dns Barren Grad FxIn Granular w/Poor IxIn Gran Por Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry MicroxIn Micrite Dns Barren Grad FxIn Granular w/Poor IxIn Gran Por Chalky Sh Char-Gry-Blk Carb-Brn (w/Pyr Includ) Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry MicroxIn Micrite Dns Barren Grad FxIn Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

Sh Char-Gry-Blk Carb-Aqua (w/Carb Includ) Fissil Ls Wht-Crm MicroxIn-FxIn Micrite Dns Barren Chalk Abd No Odor No Stn No Flor NS

Sh Char-Gry-Blk Carb-Aqua (w/Carb Includ) Fissil Ls Wht-Crm MicroxIn-FxIn Micrite Dns Barren Chalk Abd No Odor No Stn No Flor NS

Ls Crm-Tan-Gry MicroxIn Micrite Dns Barren Qtz Siltstn Wht-Aqua Poor Well Sort Well Rd P-F Igran Por Barren Chalky Sh Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

Sh Char-Gry-Blk Carb-Aqua Fissil Ls Crm-Tan-Gry MicroxIn Micrite Qtz Siltstn Wht-Aqua Barren Chalk No Odor No Stn No Flor NS

Ls Crm-Tan MicroxIn Micrite Qtz Siltstn Wht-Aqua Barren Chalk Sh Char-Gry-Blk Carb-Aqua Fissil No Odor No Stn No Flor NS

30" CFS @ 4563' Sh Char-Gry (w/Carb Includ) Blk Carb-Aqua Fissil Ls Crm-Tan-Gry MicroxIn Micrite Qtz Siltstn Wht-Aqua Barren Chalk No Odor No Stn No Flor NS

60" CFS @ 4563' Sh Char-Gry (w/Carb Includ) Blk Carb-Aqua Fissil Ls Crm-Tan-Gry MicroxIn Micrite Qtz Siltstn Wht-Aqua Barren Chalk No Odor No Stn No Flor NS

Sh Char-Gry (w/Carb Includ) Blk Carb-Aqua Fissil Ls Crm-Tan-Gry MicroxIn Micrite Qtz Siltstn Wht-Aqua AA Barren Chalk No Odor No Stn No Flor NS

Sh Char-Gry (w/Carb Includ) Blk Carb-Aqua Fissil Ls Crm-Tan-Gry MicroxIn Micrite Qtz Siltstn Wht-Aqua Barren Chalk No Odor No Stn No Flor NS

Sh Char-Gry (w/Carb Includ) Blk Carb-Aqua-Red-Purple Soft- Fissil Ls Crm-Tan-Gry MicroxIn Micrite Qtz Siltstn Wht-Aqua Barren Chalk No Odor No Stn No Flor NS

Sh Varicolored Char-Gry-Blk Carb-Aqua-Maroon-Red Fissil Ls Crm-Tan MicroxIn Micrite (w/Pyr Includ) Siltstn Wht-Aqua Barren Cht Wht Op Shp Vit Chalk No Odor No Stn No Flor NS

MISS. SALEM (SPERGEN) 4607' (- 3230)

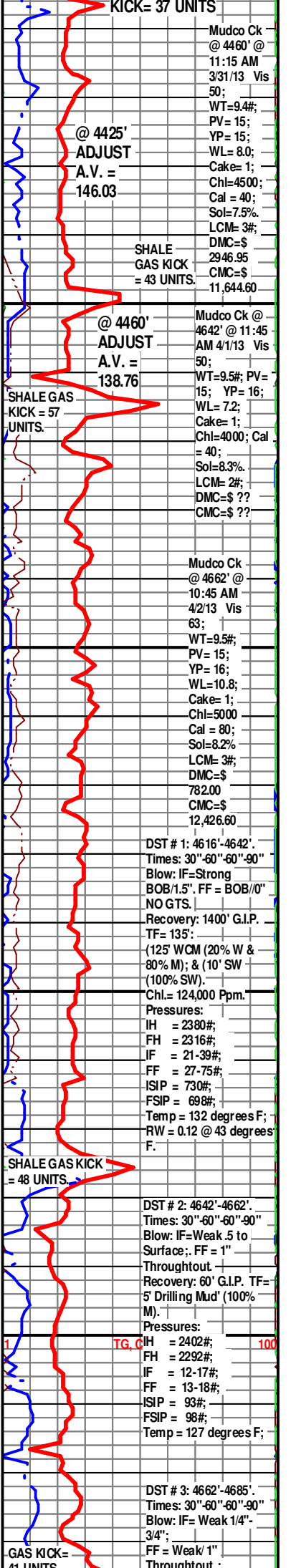
Cht Wht-Crm Trip (Few Pcs Drk Brn Stn) Translu-Op Shp Vit (w/Glacu Includ) Por Ls Crm-Tan MicroxIn-FxIn Micrite (w/Glacu Includ) Barren Grad Poor-Fair Pin-Pt IxIn Por (w/SSG) Chalky Sh Varicolored AA Dec Faint Odor Sli Scat Flor (Lt Grn-10 Pcs) SSG

30" CFS @ 4642' Ls Crm-Tan FxIn Fair Inc Poor Pin-Pt IxIn Por (w/SSG & Tr Glacu Includ) Grad Dolo Tan Fair Sucrosic Por Fair IxIn Por Inc Cht Wht-Lt Brn Trip (w/SG) Chalky Sh AA Fair Inc Flor (Lt Grn > 35% in Spl) Fair Inc Stn (Lt Brn) Fair Inc Odor SG

MISS. SALEM "B" (SPERGEN) 4630' (-3253)

60" CFS @ 4642' Ls Crm-Tan FxIn Fair Inc Poor Pin-Pt IxIn Por (w/SSG & Tr Glacu Includ) Grad

SHALE GAS KICK= 37 UNITS



Mudco Ck @ 4460' @ 11:15 AM 3/31/13 Vis 50; WT=9.4#; PV= 15; YP= 15; WL= 8.0; Cake= 1; Chl=4500; Cal = 40; Sol=7.5%; LCM= 3#; DMC=\$ 2946.95; CMC=\$ 11,644.60

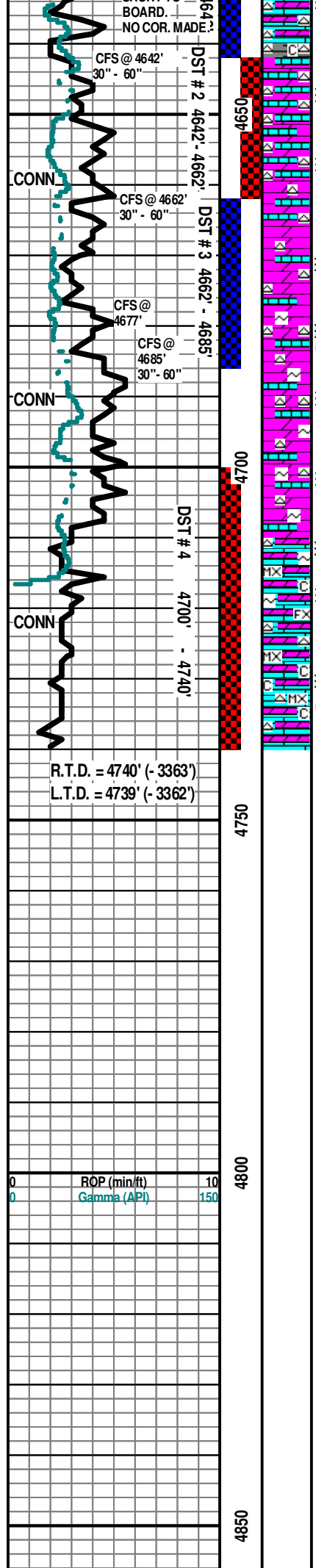
Mudco Ck @ 4642' @ 11:45 AM 4/1/13 Vis 50; WT=9.5#; PV= 15; YP= 16; WL= 7.2; Cake= 1; Chl=4000; Cal = 40; Sol=8.3%; LCM= 2#; DMC=\$??; CMC=\$??

Mudco Ck @ 4662' @ 10:45 AM 4/2/13 Vis 63; WT=9.5#; PV= 15; YP= 16; WL=10.8; Cake= 1; Chl=5000; Cal = 80; Sol=8.2%; LCM= 3#; DMC=\$ 782.00; CMC=\$ 12,426.60

DST # 1: 4616'-4642'. Times: 30"-60"-60"-90" Blow: IF=Strong BOB/1.5". FF = BOB/0" NO GTS. Recovery: 1400' G.I.P. TF= 135'. (125' WCM (20% W & 80% M); & (10' SW (100% SW). Chl.= 124,000 Ppm. Pressures: IH = 2380#; FH = 2316#; IF = 21-39#; FF = 27-75#; ISIP = 730#; FSIP = 698#; Temp = 132 degrees F; RW = 0.12 @ 43 degrees F.

DST # 2: 4642'-4662'. Times: 30"-60"-60"-90" Blow: IF=Weak .5 to Surface.; FF = 1" Throughout. Recovery: 60' G.I.P. TF= 5' Drilling Mud' (100% M). Pressures: IH = 2402#; FH = 2292#; IF = 12-17#; FF = 13-18#; ISIP = 93#; FSIP = 98#; Temp = 127 degrees F;

DST # 3: 4662'-4685'. Times: 30"-60"-60"-90" Blow: IF= Weak 1/4"-3/4"; FF = Weak/ 1" Throughout.



BOARD. NO COR. MADE. Dolo Tan Fair Sucrosic Por Fair Ixln Por Inc Cht Wht-Lt Brn Trip (w/SG) Inc Chalky Sh AA Fair Inc Flor (Lt Grn > 15% in Spl) Fair Inc Stn (Lt Brn) Fair Inc Odor SG

30" CFS @ 4662' Dolo/Ls Wht-Tan MicroIn Poor Ixln Pin-Pt Por Grad Fair Ixln Pin-Pt "Salt & Pepper" Por (w/Tr Lt Brn Stn & SG) Cht Wht-Lt Brn Trip (w/SG) AA Chalky Sh AA Fair Inc Flor (Lt Grn > 25% in Spl) Fair Stn (Lt Brn) Fair Inc Odor SG

60" CFS @ 4662' Dolo/Ls Wht-Tan MicroIn Fair Ixln Pin-Pt Por Fair Ixln "Salt & Pepper" Por (w/Tr Lt Brn Stn & SG) Cht Wht-Lt Brn Trip (w/SG) AA Chalky Sh AA Fair Inc Flor (Lt Grn > 30% in Spl) Fair Stn (Lt Brn) Fair Odor SG

MISSISSIPPIAN WARSAW 4664' (- 3287)

30" CFS @ 4685' Dolo/Ls Wht-Tan MicroIn Fair Inc Ixln Pin-Pt Sucrosic "Salt & Pepper" (Banded w/Cht Wht & Glacu Inklus) Por (w/Lt Brn Stn & MSG & SFO) Inc Cht Wht-Lt Brn Trip (w/SG & SFO) Op Vit Shp Chalky Sh AA Fair-Med Flor (Lt Grn > 50% in Spl & Both Gas & Oil Do Flor) Med Stn (Lt Brn) Fair-Med Odor Inc MSG & MSFO

60" CFS @ 4685' Dolo/Ls Wht-Tan MicroIn-Fxln Fair-Med Ixln Pin-Pt Sucrosic "Salt & Pepper" (Banded w/Cht Wht & Glacu Inklus) Por (w/Lt Brn Stn & GSG & GSFO) Cht Wht-Lt Brn Trip (w/GSG & GSFO) Op Vit Shp Chalky Sh AA Med Flor (Lt Grn > 60% in Spl & Both Gas & Oil Do Flor) Med-Good Stn (Lt Brn) Good Odor Inc GSG & GSFO

Dolo/Ls Wht-Tan MicroIn-Fxln Fair Ixln Pin-Pt Sucrosic "Salt & Pepper" (Banded w/Cht Wht & Glacu Inklus) Por (w/Tr Lt Brn Stn & SSG & SSO) AA Cht Wht-Lt Brn Trip (w/SSG & SSO) Op Vit Shp Chalky Sh AA Sli Flor (Lt Grn > 30% in Spl & Both Gas & Oil Do Flor) Sli Stn (Lt Brn) Faint Odor SSSG & SSFO AA

Dolo/Ls Wht-Tan MicroIn-Fxln Fair Ixln Pin-Pt Sucrosic "Salt & Pepper" (Banded w/Cht Wht & Glacu Inklus) Por (w/Tr Lt Brn Stn & SSG & SSO) AA Cht Wht-Lt Brn Trip (w/SSG & SSO) Op Vit Shp Chalky Sh AA Sli Flor (Lt Grn > 30% in Spl & Both Gas & Oil Do Flor) Sli Stn (Lt Brn) Faint Odor SSSG & SSFO AA

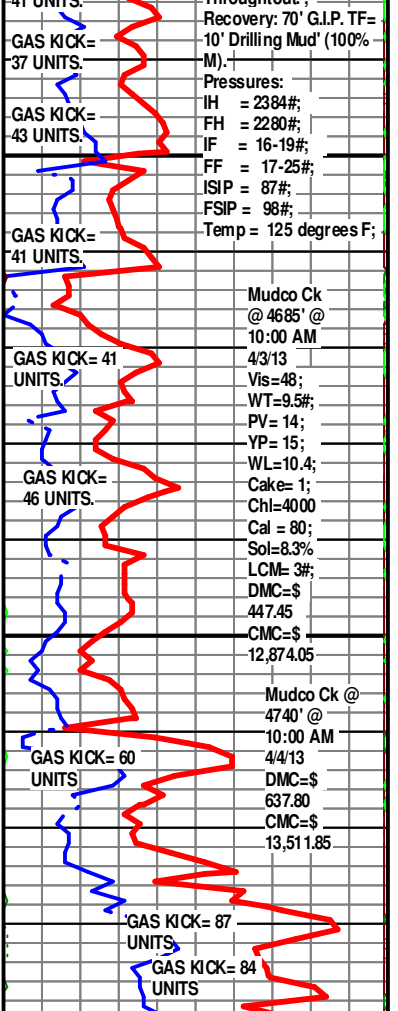
Ls/Dolo Wht-Crm-Gry MicroIn-Fxln Fair-Med Ixln Pin-Pt Sucrosic "Salt & Pepper" (Banded w/Cht Wht & Glacu Inklus) Friable Por (w/Lt Brn Stn & MSG Cht Wht-Gry Translu-Op Vit Shp Chalky Inc Sh AA Med Inc Flor (Lt Grn > 50% in Spl (Gas Does Flor) Fair Inc Stn (Lt Brn) Fair-Med Odor Inc MSG

30" CFS @ 4740' Ls/Dolo Wht-Crm-Gry MicroIn-Fxln Med Ixln Pin-Pt Sucrosic "Salt & Pepper" (Banded w/Cht Wht & Glacu Inklus) Friable Por (w/Lt Brn Stn & GSG & GSFO (Lt Brn Droplets)) Cht Wht-Gry Translu-Op Vit Shp Chalk Abd Sh AA Med-Good Inc Flor (Lt Grn > 60% in Spl (Gas & Oil Do Flor) Med-Good Odor Inc GSG & GSFO

60" CFS @ 4740' Ls/Dolo Wht-Crm-Gry MicroIn-Fxln Med-Good Ixln Sucrosic Pin-Pt "Salt & Pepper" (Banded w/Cht Wht & Glacu Inklus) Friable Por (w/Lt Brn Stn & GSG & GSFO (Lt Brn Droplets)) Cht Wht-Gry Translu-Op Vit Shp Chalk Abd Sh AA Good Flor (Lt Grn > 70% in Spl (Gas & Oil Do Flor)) Good Odor GSG & GSFO

Electric Logs Run: By Pioneer Logging: Dual Induction; Compensated Density-Neutron; & Microresistivity Logs.

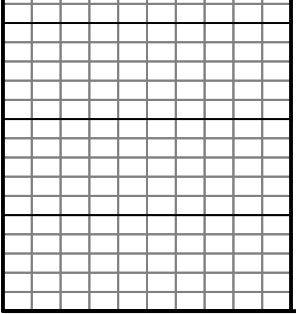
Geologist Left Location at: : PM on 04/04/2013



DST # 4: 4700'-4740'.
 Times: 30"-60"-60"-90"
 Blow: IF=Good/1"-10".
 FF=Strong/1/4"-BOB/57".
 Recovery: 285' G.I.P.
 TF=150':
 (30' DM (100% M); 60' Sli
 WOGCM (5% G; 4% O 1%
 W & 90% M); & 60'
 DGWCM (7% G; 5% O; 8%
 W; & 80% M). Not Enough.
 Wtr For Chl. Annalysis.
 I.F.= Sli. Plugging.
 Pressures:
 IH = 2455#;
 FH = 2292#;
 IF = 30-58#;
 FF = 53-90#;
 ISIP = 1587#;
 FSIP = 1583#;
 Temp = 133 degrees F;

ROP (min/ft) 10
 Gamma (API) 150

1 TG, C1-C5 100



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