



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1203455
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: _____

1203455

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Hutchinson, William S. dba Hutchinson Oil Co.
Well Name	KD 1
Doc ID	1203455

All Electric Logs Run

Dual Induction
Compensated Density/Neutron
Sonic
Micro

Form	ACO1 - Well Completion
Operator	Hutchinson, William S. dba Hutchinson Oil Co.
Well Name	KD 1
Doc ID	1203455

Tops

Name	Top	Datum
Anhydrite	632	1230
Heebner	3224	-1362
Brown Lime	3367	-1505
Lansing	3396	-1534
Viola	3738	-1876
Simpson	3828	-1966
Arbuckle	3880	-2018
LTD	3992	-2130



BASICSM
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

FIELD SERVICE TICKET
1718 08900 A

DATE _____ TICKET NO. _____

DATE OF JOB 1/16/14	DISTRICT Pratt, Ks	NEW WELL <input checked="" type="checkbox"/>	OLD WELL <input type="checkbox"/>	PROD <input type="checkbox"/>	INJ <input type="checkbox"/>	WDW <input type="checkbox"/>	CUSTOMER ORDER NO.:			
CUSTOMER Hutchinson Oil Co.	LEASE KID	WELL NO. 1								
ADDRESS	COUNTY STAFFORD	STATE KS								
CITY	STATE	SERVICE CREW KC, JA, S. Young, PAF								
AUTHORIZED BY	JOB TYPE: CWW - SURFACE									
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
19907		19831	1/2				1-16			0900
		19862	1/2							0600
27463	1									0630
										0930
19960	1/2									1030
21010										35

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: Alan Potts
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP103	60/40 P02	SK	300		3600.00
PC102	CALCESTR	Lb.	75		277.50
CC109	CALCESTR ALUMINATE	Lb.	774		812.70
CF153	8'x8' WOOD PLAC	EA	1		160.00
E100	PERCUSSION MIDDLEAGE	mile	35		148.75
E102	TRUCK MIDDLEAGE	mile	105		735.00
E113	TRUCK DELIVERY	TM	534		854.00
CE200	DEPTH CHARGE 0-500'	EA	1		1000.00
CE240	BLENDING CHARGE	SK	350		496.00
CE504	PLUG CONTINUED	EA	1		250.00
5003	SEWEREE SUPERVISOR	EA	1		175.00
CP100C	COMMON CEMENT	SK	50		800.00
CC109	CALCESTR ALUMINATE	Lb.	80		84.00

SUB TOTAL 6289.26

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		

SERVICE REPRESENTATIVE K. Gonsley THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: Alan Potts
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.



BASICSM
ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
P.O. Box 8613
Pratt, Kansas 67124
Phone 620-672-1201

FIELD SERVICE TICKET
1718 09650 A

DATE _____ TICKET NO. _____

DATE OF JOB 1-23-14 DISTRICT Pratt		NEW WELL <input checked="" type="checkbox"/> OLD WELL <input type="checkbox"/> PROD <input type="checkbox"/> INJ <input type="checkbox"/> WDW <input type="checkbox"/> CUSTOMER ORDER NO.:								
CUSTOMER Hutchinson Oil Co		LEASE KO		WELL NO. 1						
ADDRESS		COUNTY STAFFORD		STATE K						
CITY		STATE		SERVICE CREW MARTIN, KUEHN, PIERSON						
AUTHORIZED BY		JOB TYPE: CNW LS								
EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS	TRUCK CALLED	DATE	AM	PM	TIME
37586	1						1-23-14			6:00
						ARRIVED AT JOB	1-23-14			1:50
27463	1					START OPERATION				11:00
						FINISH OPERATION				11:50
19959/19860	1					RELEASED				1:00
						MILES FROM STATION TO WELL				35

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: [Signature]
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP 105	AA-2 CMT	SA	150		2,550.00
CP 103	60/40 P02	SA	50		600.00
CC 102	CELLULOSE	LB	38		140.60
CC 105	CHIP DEFAMER	LB	29		116.00
CC 111	SAIT	LB	681		340.50
CC 112	CMT FRICTN REDUCR	LB	43		258.00
CC 115	C-44	LB	141		726.15
CC 129	F1A 322 100 FLUID (05)	LB	71		532.50
CC 201	GILSONITE	LB	750		502.50
CF 607	ATCH DOWN RING + GAGE 5/8	EA	1		400.00
CF 1251	AUTO RIG FLOAT SHUT 5/8	EA	1		360.00
CF 1651	TURBOLIFT 5/8	EA	6		660.00
CF 1901	BASKET 5/8	EA	1		290.00
CC 155	SUPER FLUSH II	SAI	500		765.00

SUB TOTAL

CHEMICAL / ACID DATA:			

SERVICE & EQUIPMENT	%TAX ON \$	
MATERIALS	%TAX ON \$	
TOTAL		14

SERVICE REPRESENTATIVE Mike Martin	THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: <u>[Signature]</u> (WELL OWNER OPERATOR CONTRACTOR OR AGENT)
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FIELD SERVICE ORDER NO.



DRILL STEM TEST REPORT

Prepared For: **Hutchinson Oil Co**

PO Box 521
Derby, KS 67037

ATTN: Jeff Burk

KD #1

35-23s-12w Stafford,KS

Start Date: 2014.01.19 @ 07:10:15

End Date: 2014.01.19 @ 13:35:45

Job Ticket #: 51921 DST #: 1

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

Printed: 2014.01.23 @ 15:14:15

Hutchinson Oil Co
35-23s-12w Stafford,KS
KD #1
DST # 1
LKC "B-F"
2014.01.19



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Hutchinson Oil Co
 PO Box 521
 Derby, KS 67037
 ATTN: Jeff Burk

35-23s-12w Stafford, KS

KD #1

Job Ticket: 51921

DST#: 1

Test Start: 2014.01.19 @ 07:10:15

GENERAL INFORMATION:

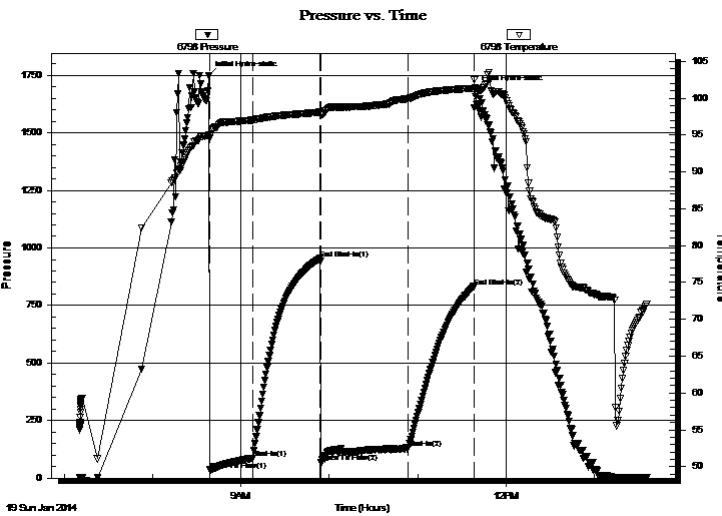
Formation: **LKC "B-F"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 08:39:00
 Tester: Leal Cason
 Time Test Ended: 13:35:45
 Unit No: 74
 Interval: **3408.00 ft (KB) To 3487.00 ft (KB) (TVD)**
 Reference Elevations: 1862.00 ft (KB)
 Total Depth: 3487.00 ft (KB) (TVD)
 1849.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 KB to GR/CF: 13.00 ft

Serial #: 6798

Inside

Press@RunDepth: 129.24 psig @ 3409.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.01.19 End Date: 2014.01.19 Last Calib.: 2014.01.19
 Start Time: 07:10:16 End Time: 13:35:45 Time On Btm: 2014.01.19 @ 08:38:00
 Time Off Btm: 2014.01.19 @ 11:39:15

TEST COMMENT: IF: Strong Blow , BOB in 90 seconds
 IS: No Blow Back
 FF: Strong Blow , BOB in 30 seconds, GTS in 45 minutes, TSTM, Caught Sample
 FS: Weak Surface Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1746.63	94.96	Initial Hydro-static
1	35.75	94.55	Open To Flow (1)
30	86.52	97.03	Shut-In(1)
76	954.24	98.08	End Shut-In(1)
77	67.03	97.77	Open To Flow (2)
136	129.24	99.90	Shut-In(2)
181	832.01	101.33	End Shut-In(2)
182	1688.84	101.48	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	GTS	0.00
329.00	GWMCO 35%G 10%W 25%M 30%O	1.62

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hutchinson Oil Co

35-23s-12w Stafford,KS

PO Box 521
Derby, KS 67037

KD #1

Job Ticket: 51921

DST#: 1

ATTN: Jeff Burk

Test Start: 2014.01.19 @ 07:10:15

Tool Information

Drill Pipe:	Length: 3092.00 ft	Diameter: 3.80 inches	Volume: 43.37 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 329.00 ft	Diameter: 2.25 inches	Volume: 1.62 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 44.99 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3408.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	79.00 ft			
Tool Length:	98.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Shut In Tool	5.00			3394.00	
Hydraulic tool	5.00			3399.00	
Packer	5.00			3404.00	19.00 Bottom Of Top Packer
Packer	4.00			3408.00	
Stubb	1.00			3409.00	
Recorder	0.00	6798	Inside	3409.00	
Recorder	0.00	8367	Outside	3409.00	
Perforations	5.00			3414.00	
Change Over Sub	1.00			3415.00	
Drill Pipe	64.00			3479.00	
Change Over Sub	1.00			3480.00	
Perforations	4.00			3484.00	
Bullnose	3.00			3487.00	79.00 Bottom Packers & Anchor

Total Tool Length: 98.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hutchinson Oil Co

35-23s-12w Stafford,KS

PO Box 521
Derby, KS 67037

KD #1

Job Ticket: 51921

DST#: 1

ATTN: Jeff Burk

Test Start: 2014.01.19 @ 07:10:15

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length: ft

Water Salinity: ppm

Viscosity: 51.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 5000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GTS	0.000
329.00	GWMCO 35%G 10%W 25%M 30%O	1.618

Total Length: 329.00 ft Total Volume: 1.618 bbl

Num Fluid Samples: 0

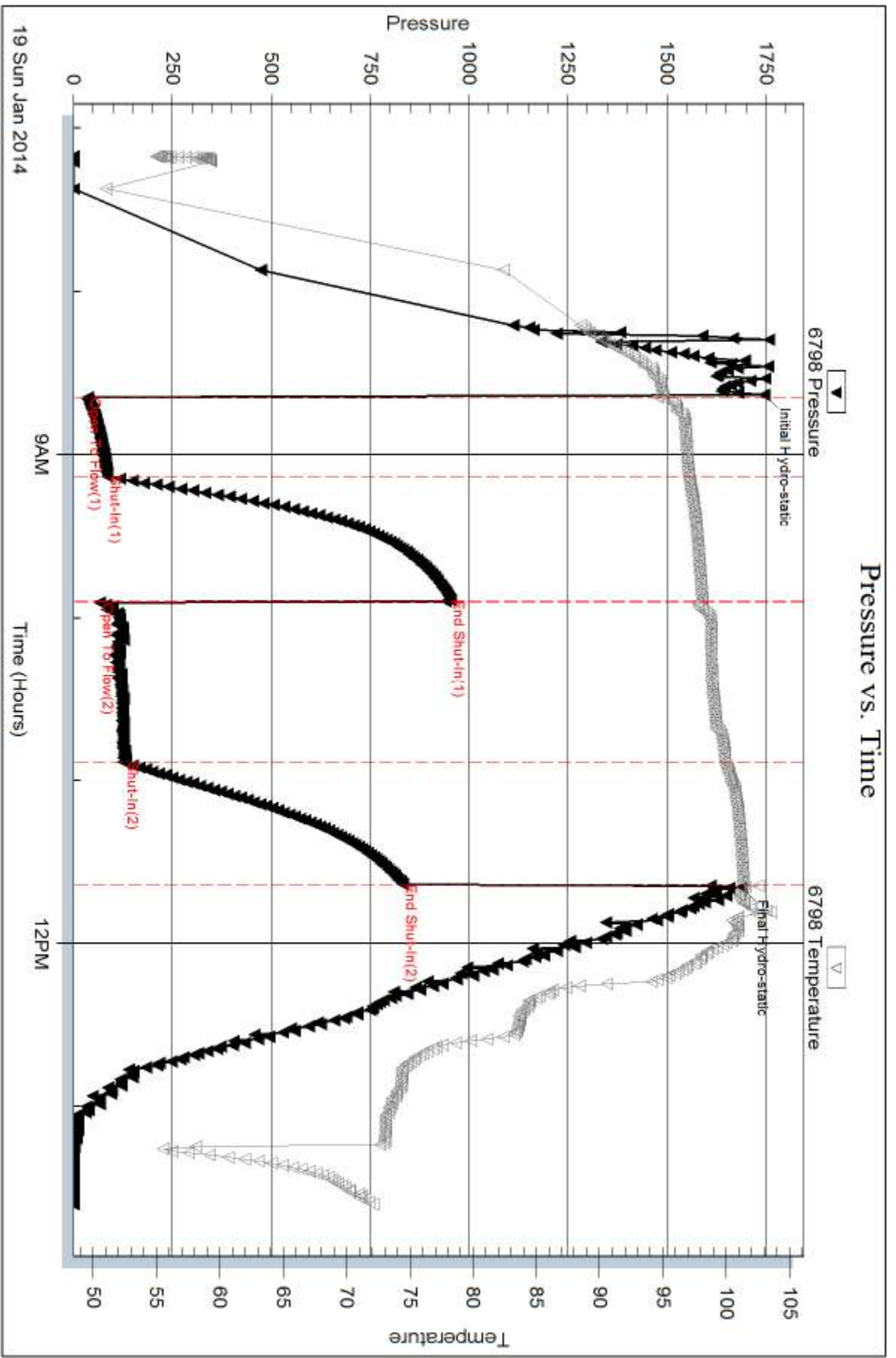
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

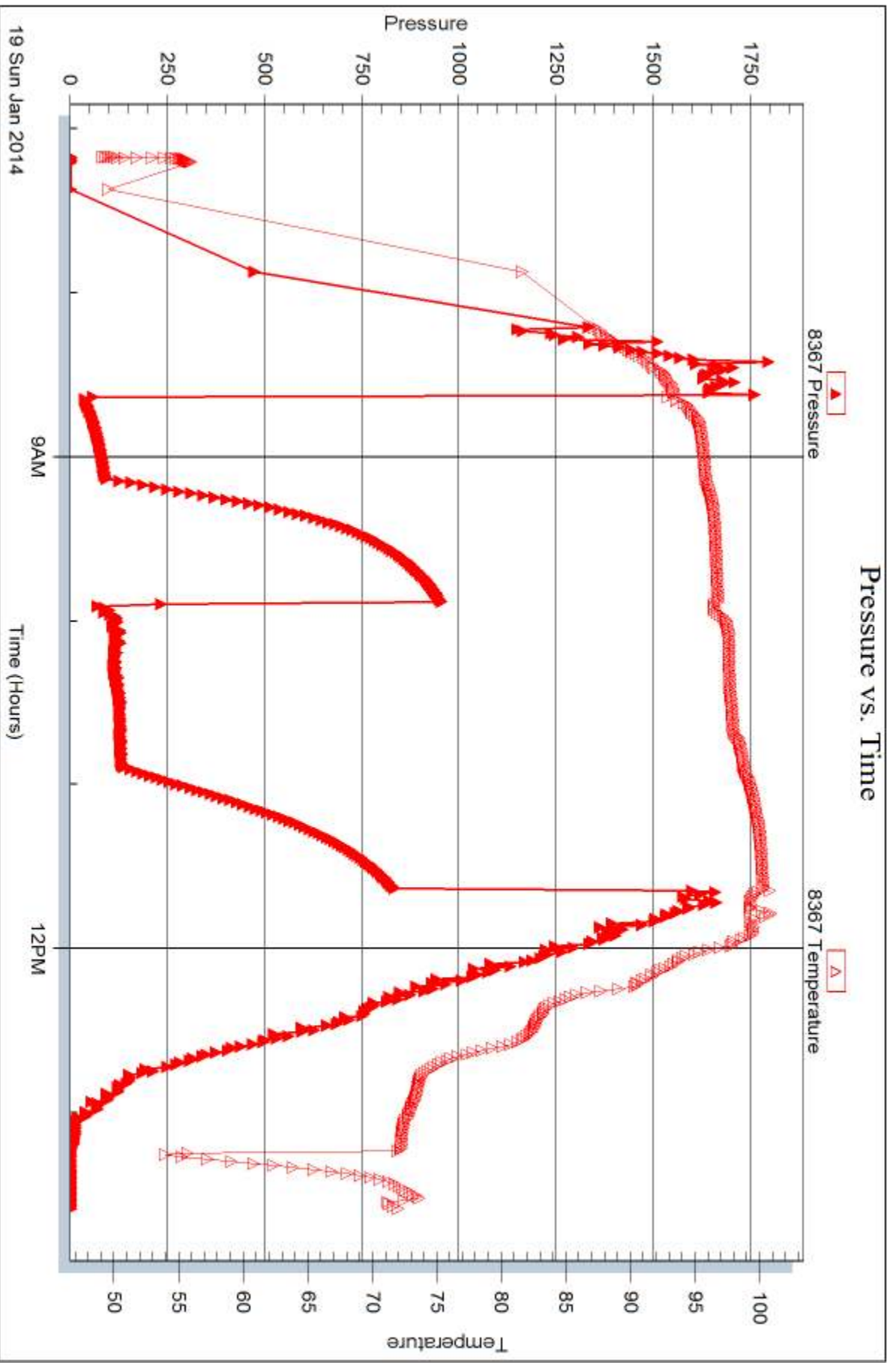


Serial #: 8367

Outside Hutchinson Oil Co

KD#1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Hutchinson Oil Co**

PO Box 521
Derby, KS 67037

ATTN: Jeff Burk

KD #1

35-23s-12w Stafford,KS

Start Date: 2014.01.19 @ 19:41:31

End Date: 2014.01.20 @ 02:29:16

Job Ticket #: 51922 DST #: 2

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

Printed: 2014.01.23 @ 15:13:54



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hutchinson Oil Co

35-23s-12w Stafford,KS

PO Box 521
Derby, KS 67037

KD #1

Job Ticket: 51922

DST#: 2

ATTN: Jeff Burk

Test Start: 2014.01.19 @ 19:41:31

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:22:01

Time Test Ended: 02:29:16

Test Type: Conventional Bottom Hole (Reset)

Tester: Leal Cason

Unit No: 74

Interval: 3487.00 ft (KB) To 3501.00 ft (KB) (TVD)

Reference Elevations: 1862.00 ft (KB)

Total Depth: 3501.00 ft (KB) (TVD)

1849.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 13.00 ft

Serial #: 6798

Inside

Press@RunDepth: 103.63 psig @ 3488.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.01.19

End Date:

2014.01.20

Last Calib.:

2014.01.20

Start Time: 19:41:32

End Time:

02:29:16

Time On Btm:

2014.01.19 @ 21:20:16

Time Off Btm:

2014.01.20 @ 00:39:01

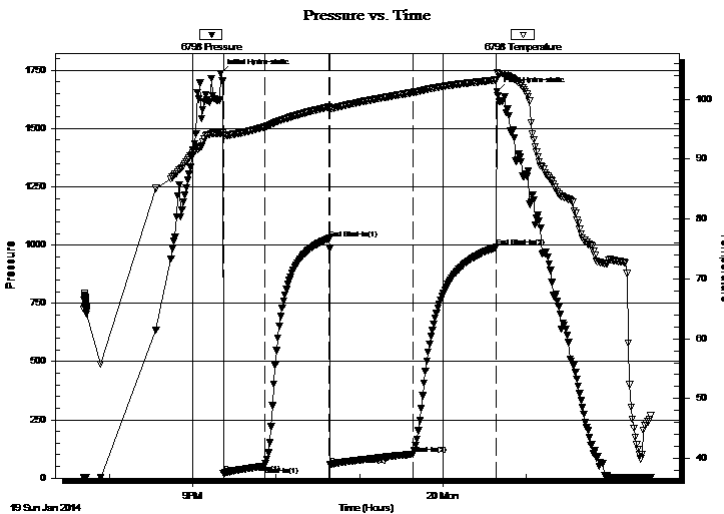
TEST COMMENT: IF: Fair Blow , Built to 8 inches

IS: No Blow Back

FF: Weak Blow , Built to 3 inches

FS: No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1736.59	94.37	Initial Hydro-static
2	19.48	93.96	Open To Flow (1)
32	51.78	95.41	Shut-In(1)
78	1028.20	98.74	End Shut-In(1)
79	57.21	98.48	Open To Flow (2)
139	103.63	101.16	Shut-In(2)
198	990.52	103.23	End Shut-In(2)
199	1658.83	104.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	62 GIP	0.00
120.00	Water	0.59
62.00	SOMCW 5%O 45%M 50%W	0.30

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hutchinson Oil Co

35-23s-12w Stafford,KS

PO Box 521
Derby, KS 67037

KD #1

Job Ticket: 51922

DST#: 2

ATTN: Jeff Burk

Test Start: 2014.01.19 @ 19:41:31

Tool Information

Drill Pipe:	Length: 3156.00 ft	Diameter: 3.80 inches	Volume: 44.27 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 329.00 ft	Diameter: 2.25 inches	Volume: 1.62 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 45.89 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial	68000.00 lb
Depth to Top Packer:	3487.00 ft			Final	69000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	14.00 ft				
Tool Length:	33.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3473.00	
Hydraulic tool	5.00			3478.00	
Packer	5.00			3483.00	19.00 Bottom Of Top Packer
Packer	4.00			3487.00	
Stubb	1.00			3488.00	
Recorder	0.00	6798	Inside	3488.00	
Recorder	0.00	8367	Outside	3488.00	
Perforations	10.00			3498.00	
Bullnose	3.00			3501.00	14.00 Bottom Packers & Anchor
Total Tool Length:	33.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hutchinson Oil Co

35-23s-12w Stafford,KS

PO Box 521
Derby, KS 67037

KD #1

Job Ticket: 51922

DST#: 2

ATTN: Jeff Burk

Test Start: 2014.01.19 @ 19:41:31

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:

80000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	62 GIP	0.000
120.00	Water	0.590
62.00	SOMCW 5%O 45%M 50%W	0.305

Total Length: 182.00 ft Total Volume: 0.895 bbl

Num Fluid Samples: 0

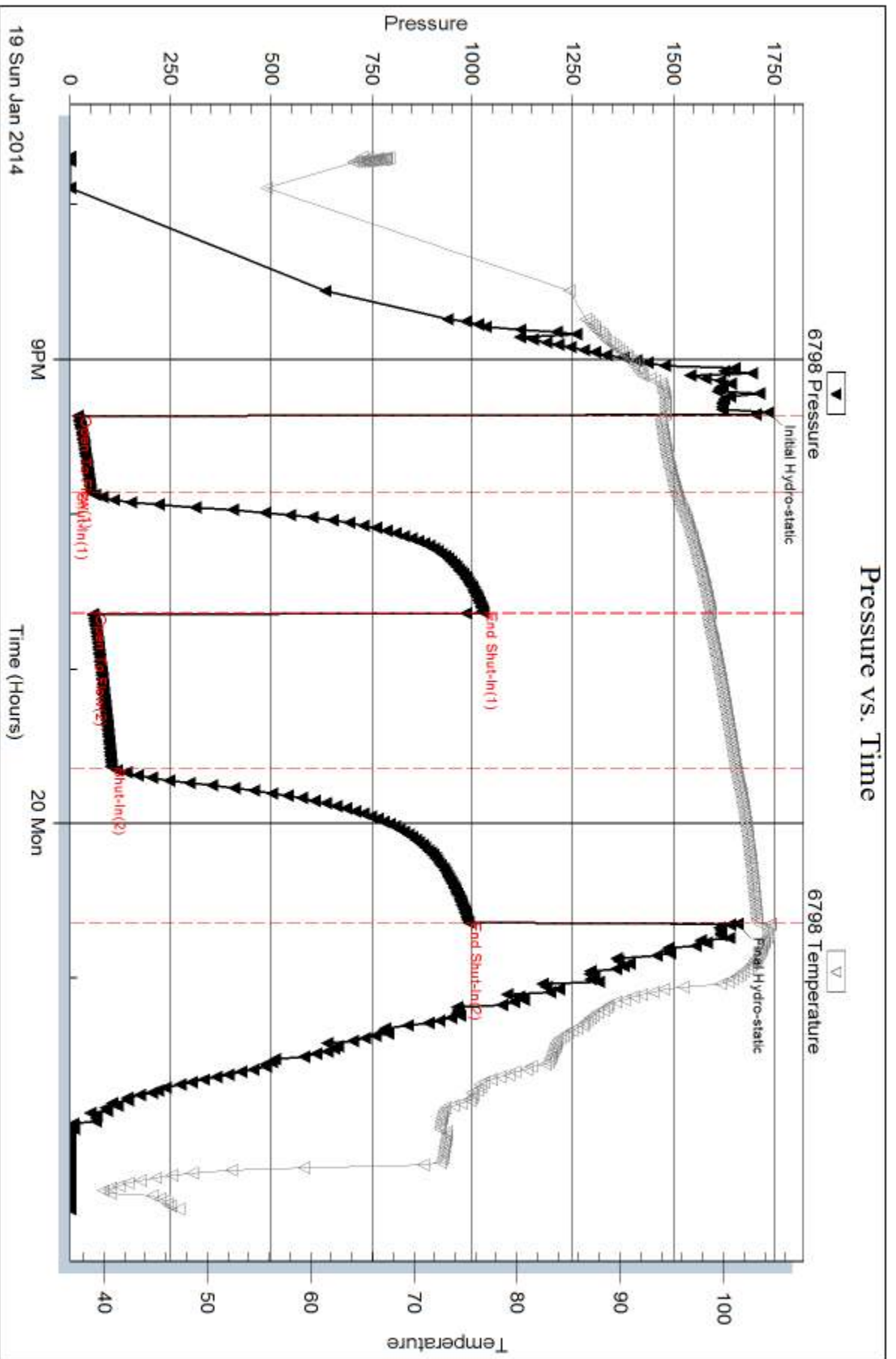
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .17 @ 40 degrees

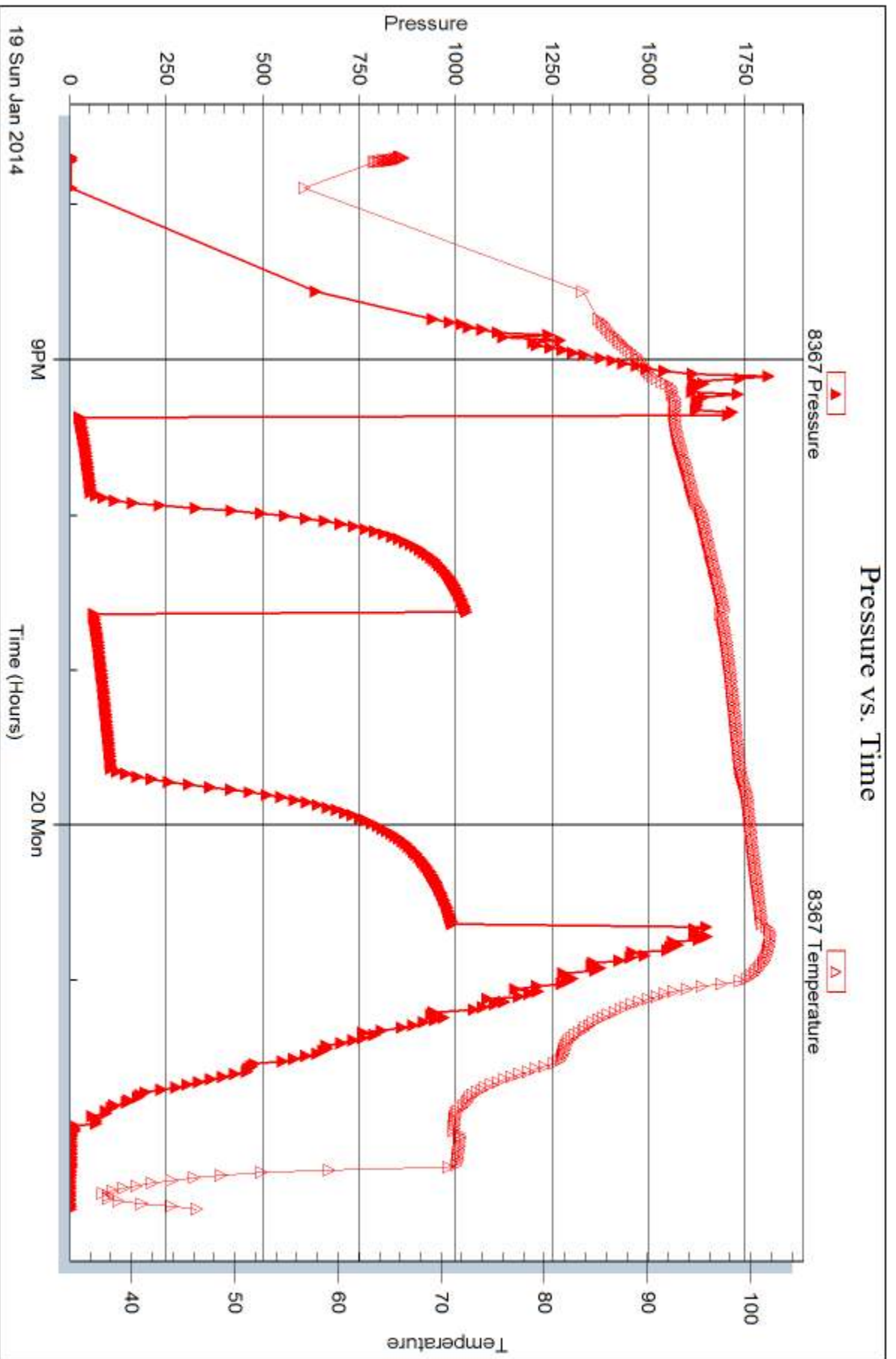


Serial #: 8367

Outside Hutchinson Oil Co

KD#1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Hutchinson Oil Co**

PO Box 521
Derby, KS 67037

ATTN: Jeff Burk

KD #1

35-23s-12w Stafford,KS

Start Date: 2014.01.20 @ 15:23:49

End Date: 2014.01.20 @ 23:05:04

Job Ticket #: 51923 DST #: 3

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

Printed: 2014.01.23 @ 15:13:29

Hutchinson Oil Co
35-23s-12w Stafford,KS
KD #1
DST # 3
LKC "H-K"
2014.01.20



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Hutchinson Oil Co
PO Box 521
Derby, KS 67037
ATTN: Jeff Burk

35-23s-12w Stafford,KS

KD #1

Job Ticket: 51923

DST#: 3

Test Start: 2014.01.20 @ 15:23:49

GENERAL INFORMATION:

Formation: **LKC "H-K"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 17:24:49
 Time Test Ended: 23:05:04
 Interval: **3533.00 ft (KB) To 3620.00 ft (KB) (TVD)**
 Total Depth: 3620.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Leal Cason
 Unit No: 74
 Reference Elevations: 1862.00 ft (KB)
 1849.00 ft (CF)
 KB to GR/CF: 13.00 ft

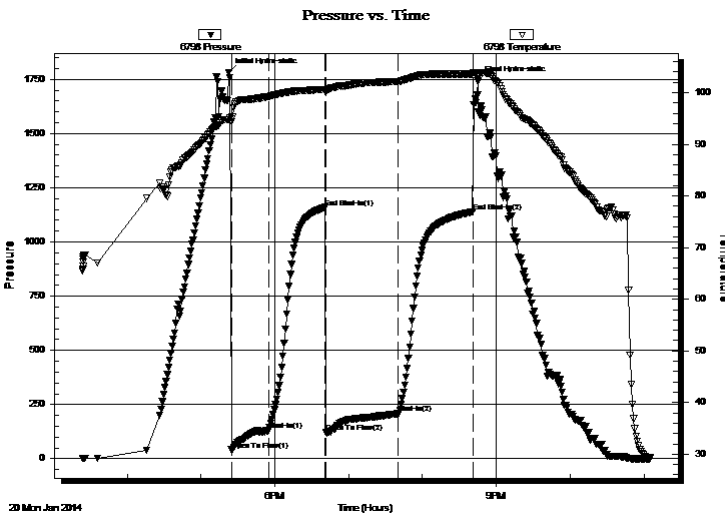
Serial #: 6798

Inside

Press@RunDepth: 208.65 psig @ 3534.00 ft (KB)
 Start Date: 2014.01.20 End Date: 2014.01.20
 Start Time: 15:23:50 End Time: 23:05:04
 Capacity: 8000.00 psig
 Last Calib.: 2014.01.20
 Time On Btm: 2014.01.20 @ 17:22:34
 Time Off Btm: 2014.01.20 @ 20:44:49

TEST COMMENT: IF: Strong Blow , BOB in 3 minutes
 IS: Weak Surface Blow Back
 FF: Strong Blow , BOB in 30 seconds
 FS: 1 1/2 inch Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1781.67	94.82	Initial Hydro-static
3	38.45	94.89	Open To Flow (1)
33	132.84	99.25	Shut-In(1)
78	1159.56	100.62	End Shut-In(1)
79	123.31	100.17	Open To Flow (2)
138	208.65	102.16	Shut-In(2)
199	1139.03	103.59	End Shut-In(2)
203	1741.75	103.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	2827 GIP	0.00
300.00	GMCO 40%G 20%M 40%O	1.48
72.00	GOCM 2%G 5%O 93%M	0.75

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hutchinson Oil Co

35-23s-12w Stafford,KS

PO Box 521
Derby, KS 67037

KD #1

Job Ticket: 51923

DST#: 3

ATTN: Jeff Burk

Test Start: 2014.01.20 @ 15:23:49

Tool Information

Drill Pipe:	Length: 3188.00 ft	Diameter: 3.80 inches	Volume: 44.72 bbl	Tool Weight:	2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 329.00 ft	Diameter: 2.25 inches	Volume: 1.62 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume: 46.34 bbl</u>	Tool Chased	ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	3533.00 ft			Final	71000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	87.00 ft				
Tool Length:	106.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

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

Shut In Tool	5.00			3519.00	
Hydraulic tool	5.00			3524.00	
Packer	5.00			3529.00	19.00 Bottom Of Top Packer
Packer	4.00			3533.00	
Stubb	1.00			3534.00	
Recorder	0.00	6798	Inside	3534.00	
Recorder	0.00	8367	Outside	3534.00	
Perforations	7.00			3541.00	
Change Over Sub	1.00			3542.00	
Drill Pipe	64.00			3606.00	
Change Over Sub	1.00			3607.00	
Perforations	10.00			3617.00	
Bullnose	3.00			3620.00	87.00 Bottom Packers & Anchor

Total Tool Length: 106.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hutchinson Oil Co

35-23s-12w Stafford,KS

PO Box 521
Derby, KS 67037

KD #1

Job Ticket: 51923

DST#: 3

ATTN: Jeff Burk

Test Start: 2014.01.20 @ 15:23:49

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	2827 GIP	0.000
300.00	GMCO 40%G 20%M 40%O	1.475
72.00	GOCM 2%G 5%O 93%M	0.746

Total Length: 372.00 ft Total Volume: 2.221 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

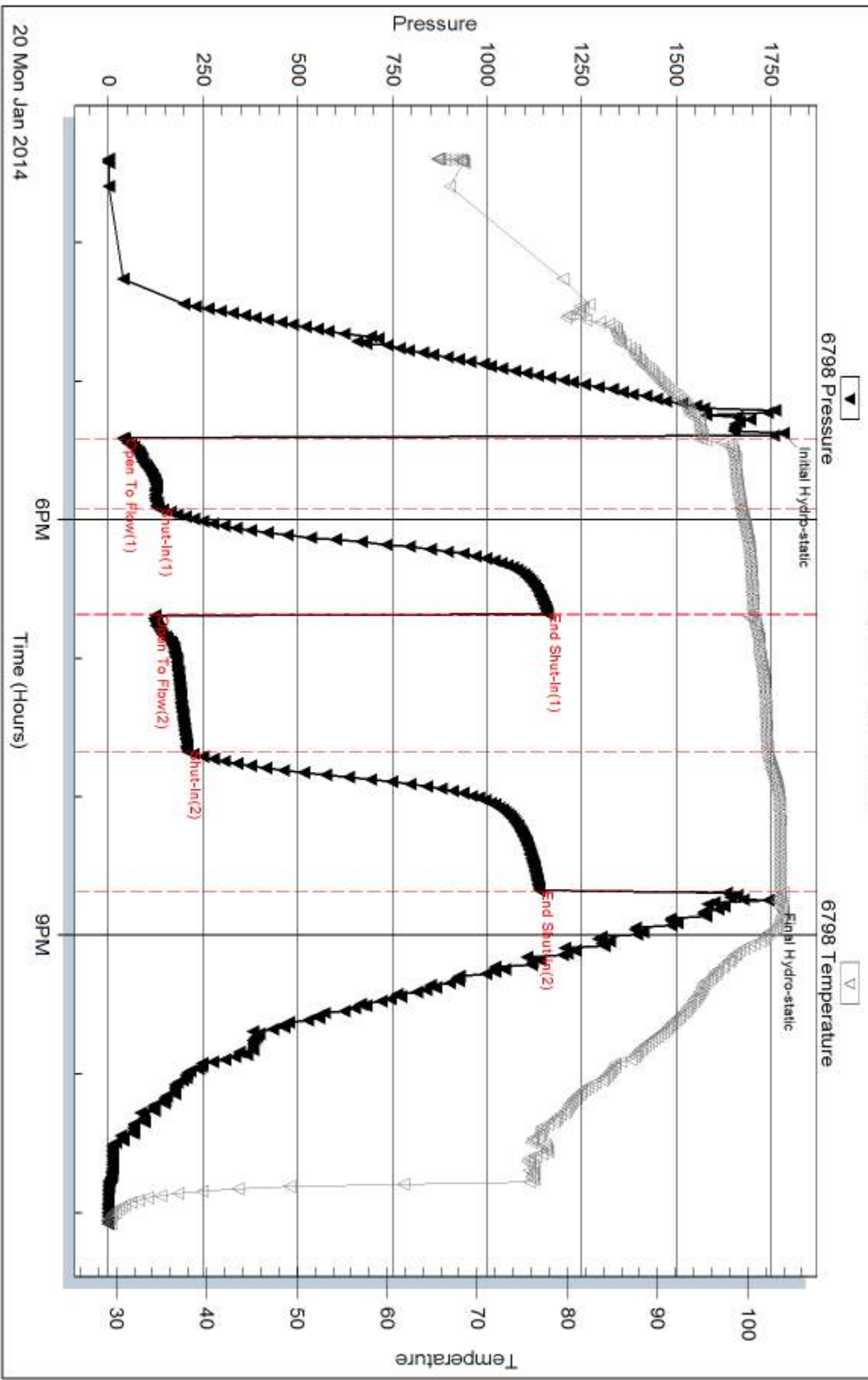
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

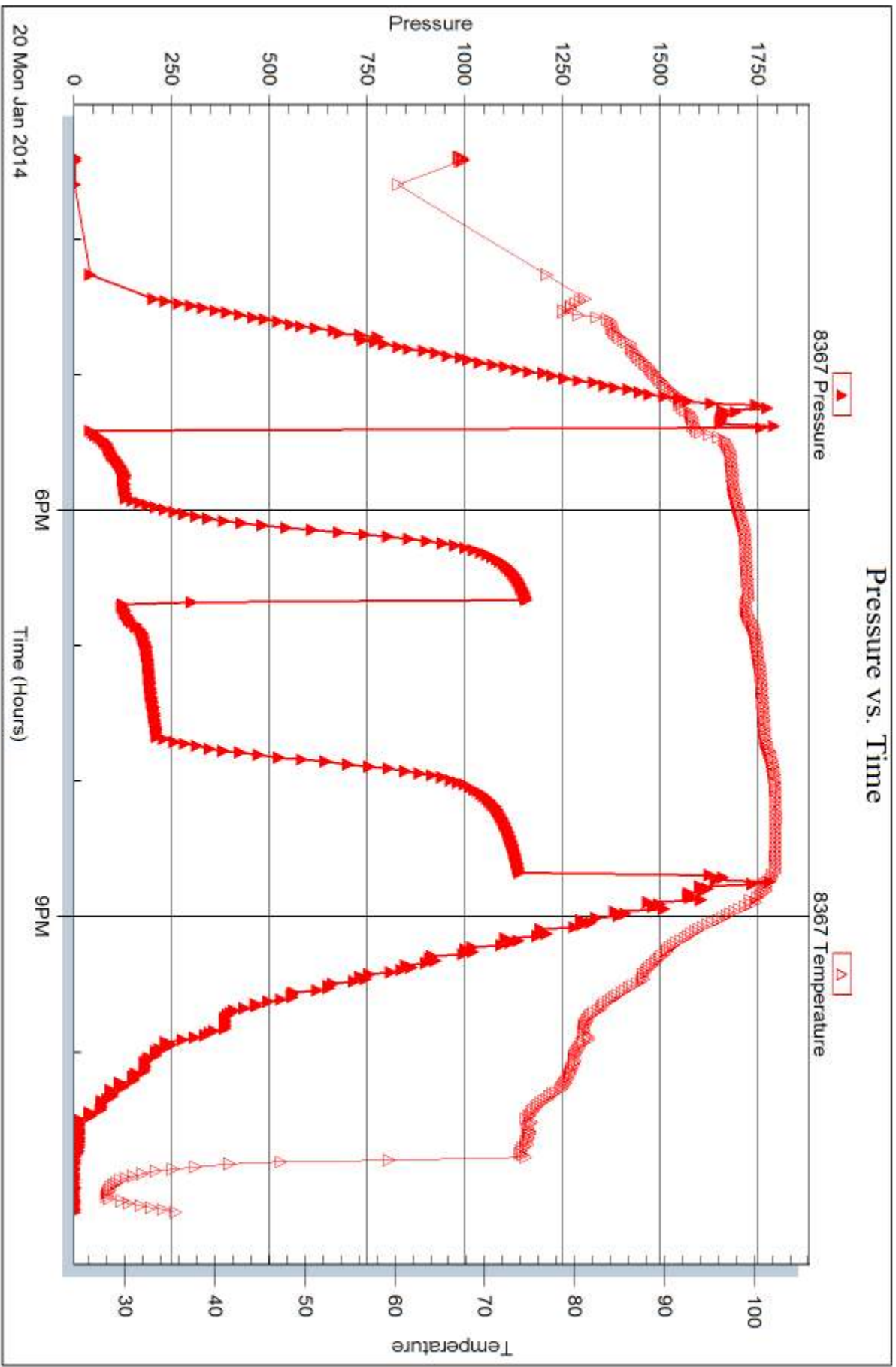


Serial #: 8367

Outside Hutchinson Oil Co

KD#1

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Hutchinson Oil Co**

PO Box 521
Derby, KS 67037

ATTN: Jeff Burk

KD #1

35-23s-12w Stafford,KS

Start Date: 2014.01.21 @ 19:36:07

End Date: 2014.01.22 @ 03:16:22

Job Ticket #: 51924 DST #: 4

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

Printed: 2014.01.23 @ 15:12:50

Hutchinson Oil Co
35-23s-12w Stafford,KS
KD #1
DST # 4
Arbuckle
2014.01.21



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Hutchinson Oil Co
 PO Box 521
 Derby, KS 67037
 ATTN: Jeff Burk

35-23s-12w Stafford,KS

KD #1

Job Ticket: 51924

DST#: 4

Test Start: 2014.01.21 @ 19:36:07

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 21:57:07
 Tester: Leal Cason
 Time Test Ended: 03:16:22
 Unit No: 74
 Interval: **3817.00 ft (KB) To 3885.00 ft (KB) (TVD)**
 Reference Elevations: 1862.00 ft (KB)
 Total Depth: 3885.00 ft (KB) (TVD)
 1849.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 KB to GR/CF: 13.00 ft

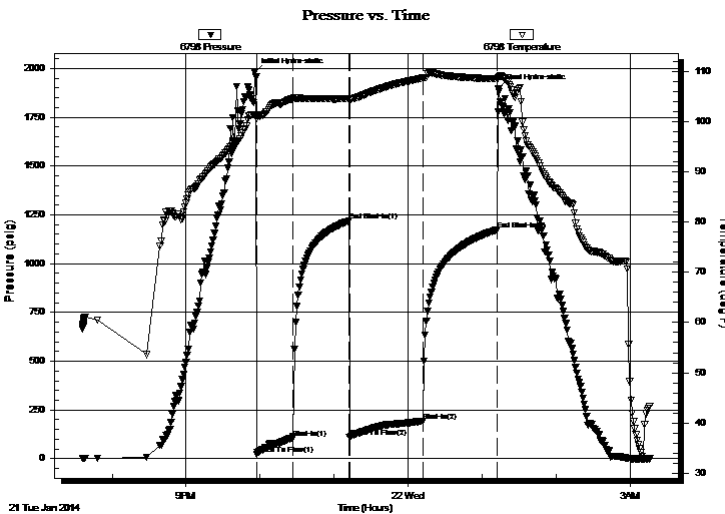
Serial #: 6798

Inside

Press@RunDepth: 192.78 psig @ 3818.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.01.21 End Date: 2014.01.22 Last Calib.: 2014.01.22
 Start Time: 19:36:08 End Time: 03:16:22 Time On Btm: 2014.01.21 @ 21:55:52
 Time Off Btm: 2014.01.22 @ 01:13:22

TEST COMMENT: IF: Weak 1 1/2 inch Blow
 IS: No Blow Back
 FF: Weak 1 inch Blow
 FS: No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1980.15	101.24	Initial Hydro-static
2	24.49	100.56	Open To Flow (1)
31	107.68	104.50	Shut-In(1)
77	1218.72	104.56	End Shut-In(1)
77	111.63	104.27	Open To Flow (2)
137	192.78	108.62	Shut-In(2)
197	1174.41	108.48	End Shut-In(2)
198	1896.79	108.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	Water	0.59
266.00	MCW 40%M 60%W	1.83

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Hutchinson Oil Co

35-23s-12w Stafford,KS

PO Box 521
Derby, KS 67037

KD #1

Job Ticket: 51924

DST#: 4

ATTN: Jeff Burk

Test Start: 2014.01.21 @ 19:36:07

Tool Information

Drill Pipe:	Length: 3475.00 ft	Diameter: 3.80 inches	Volume: 48.75 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 329.00 ft	Diameter: 2.25 inches	Volume: 1.62 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 50.37 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3817.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	68.00 ft			
Tool Length:	87.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3803.00	
Hydraulic tool	5.00			3808.00	
Packer	5.00			3813.00	19.00 Bottom Of Top Packer
Packer	4.00			3817.00	
Stubb	1.00			3818.00	
Recorder	0.00	6798	Inside	3818.00	
Recorder	0.00	8367	Outside	3818.00	
Perforations	10.00			3828.00	
Change Over Sub	1.00			3829.00	
Drill Pipe	32.00			3861.00	
Change Over Sub	1.00			3862.00	
Perforations	20.00			3882.00	
Bullnose	3.00			3885.00	68.00 Bottom Packers & Anchor

Total Tool Length: 87.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Hutchinson Oil Co

35-23s-12w Stafford,KS

PO Box 521
Derby, KS 67037

KD #1

Job Ticket: 51924

DST#: 4

ATTN: Jeff Burk

Test Start: 2014.01.21 @ 19:36:07

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:

31000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	Water	0.590
266.00	MCW 40%M 60%W	1.827

Total Length: 386.00 ft Total Volume: 2.417 bbl

Num Fluid Samples: 0

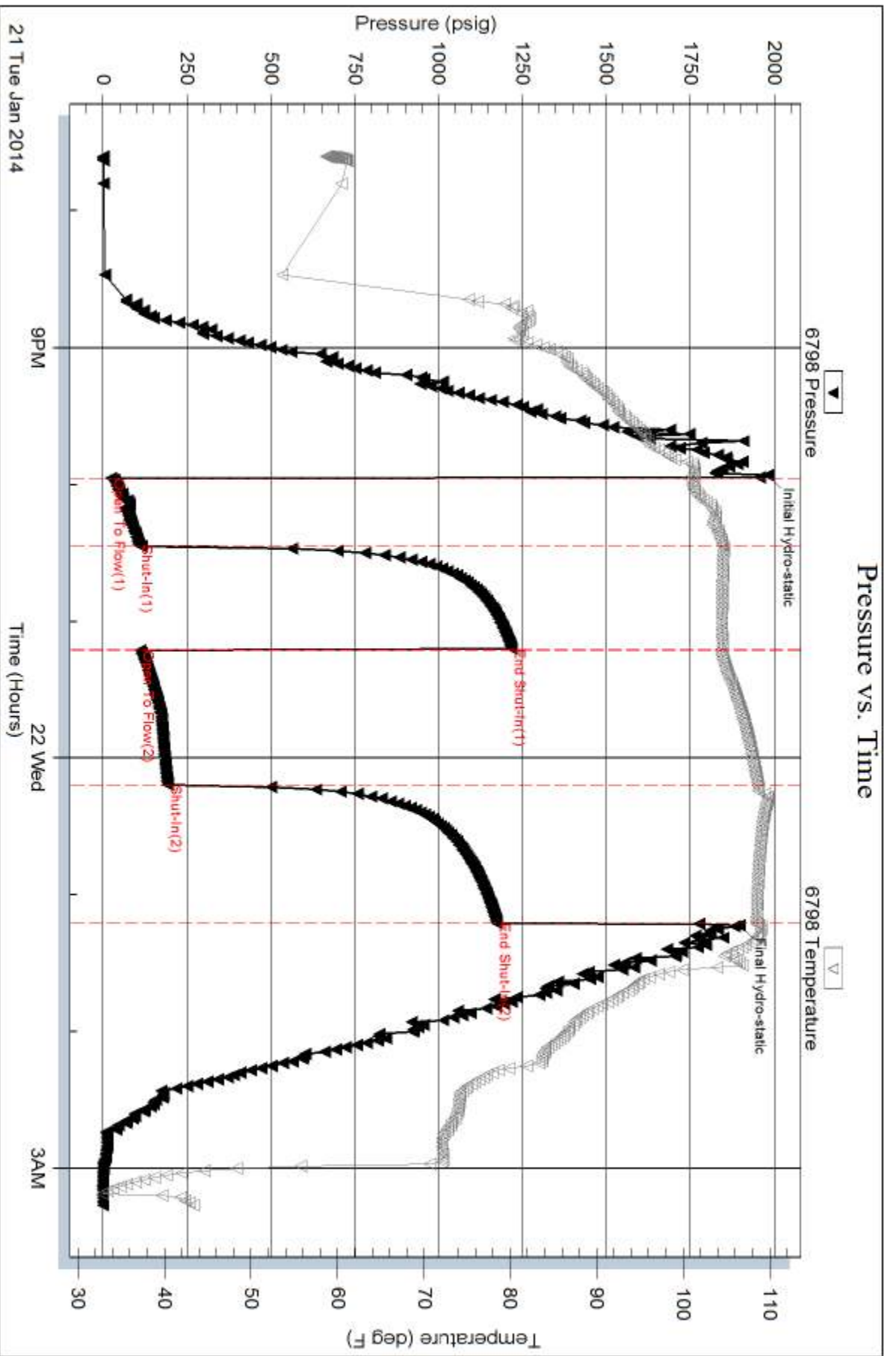
Num Gas Bombs: 0

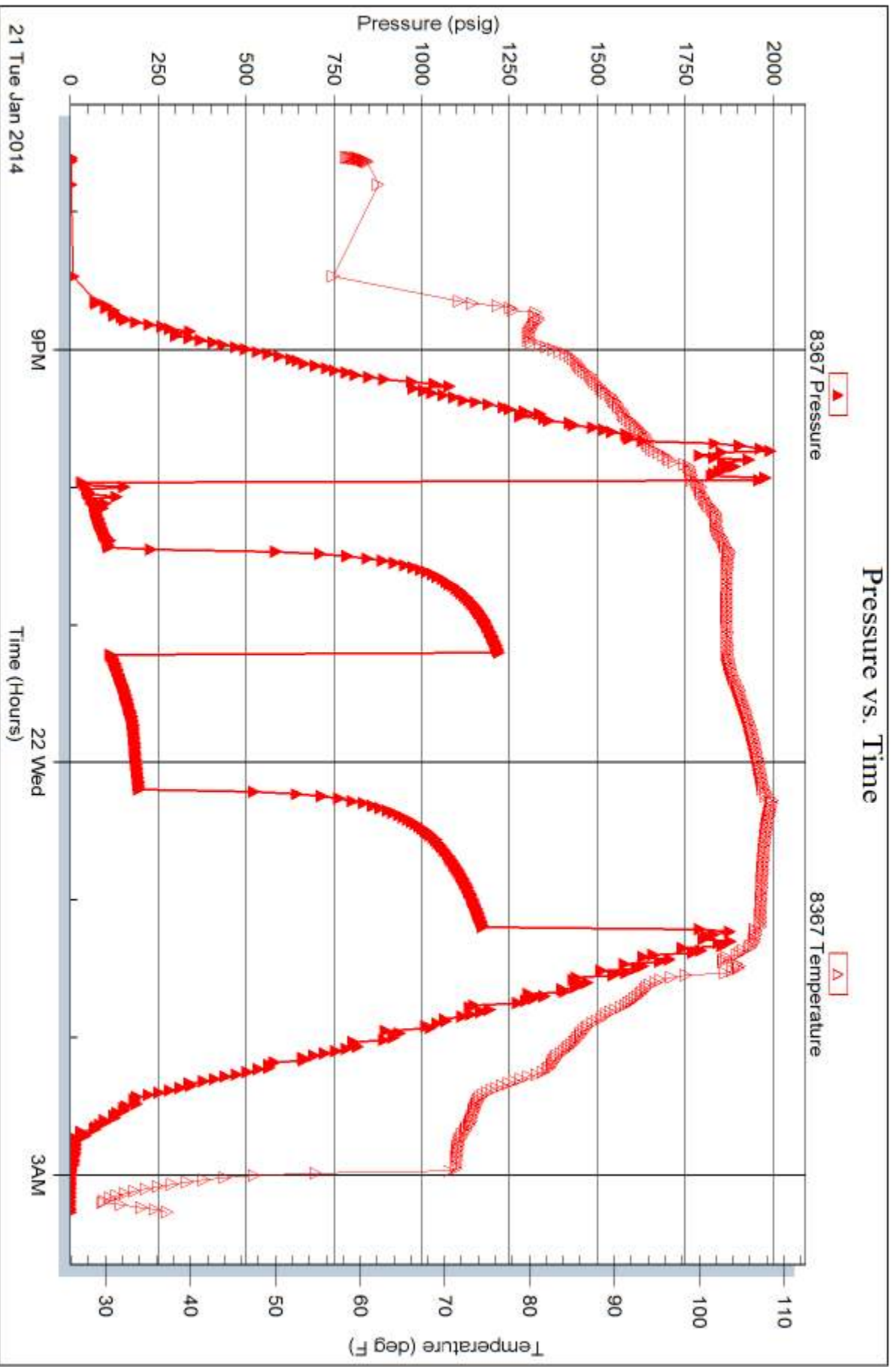
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .4 @ 40 degrees







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51921

Well Name & No. KDI Test No. 1 Date 01/19/14
 Company Hutchinson Oil CO Elevation 1862 KB 1849 GL
 Address PO Box 521 Derby, KS 67037
 Co. Rep / Geo. Jeff Burk Rig Sterling 5
 Location: Sec. 35 Twp. 23S Rge. 12W Co. Stafford State KS

Interval Tested 3408 - 3487 Zone Tested Lansing "B-F"
 Anchor Length 79 Drill Pipe Run ~~3092~~ 3092 Mud Wt. 8.7
 Top Packer Depth 3403 Drill Collars Run 329 Vis 51
 Bottom Packer Depth 3408 Wt. Pipe Run 0 WL 8.0
 Total Depth 3487 Chlorides 5000 ppm System LCM 2

Blow Description IF: strong Blow, BOB in 90 seconds
ISI: NO Blow Back

FF: Strong Blow, BOB in 30 seconds, GTS in 45 minutes, TSTM, caught sample

FSI: weak surface Blow Back

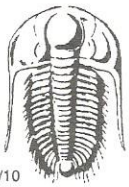
Rec	Feet of	%gas	%oil	%water	%mud
<u>3092</u>	<u>GIP</u>				
<u>329</u>	<u>GW GWMC0</u>	<u>35</u>	<u>30</u>	<u>10</u>	<u>25</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 329 BHT 102 Gravity NIC API RW NIC @ NIC °F Chlorides NIC ppm

(A) Initial Hydrostatic <u>1747</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>05:45</u>
(B) First Initial Flow <u>36</u>	<input type="checkbox"/> Jars	T-Started <u>07:10</u>
(C) First Final Flow <u>87</u>	<input type="checkbox"/> Safety Joint	T-Open <u>08:39</u>
(D) Initial Shut-In <u>954</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>11:38</u>
(E) Second Initial Flow <u>67</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>13:35</u>
(F) Second Final Flow <u>129</u>	<input checked="" type="checkbox"/> Mileage <u>(60)</u> <u>93</u>	Comments
(G) Final Shut-In <u>832</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1689</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1243</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1243</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51922

Well Name & No. KD 1 Test No. 2 Date 01/19/14
 Company Hutchinson Oil Co Elevation 1862 KB 1849 GL
 Address PO Box 521 Derby, KS 67037
 Co. Rep / Geo. Jeff Burk Rig Sterling 5
 Location: Sec. 35 Twp. 23S Rge. 12W Co. Stafford State KS

Interval Tested 3487 - 3501 Zone Tested Lansing "G"
 Anchor Length 14 Drill Pipe Run 3156 Mud Wt. 8.7
 Top Packer Depth 3482 Drill Collars Run 329 Vis 5'
 Bottom Packer Depth 3487 Wt. Pipe Run 0 WL 8.0
 Total Depth 3501 Chlorides 5000 ppm System LCM 2

Blow Description IF: Fair Blow, Built to 8 inches
ISI: NO BLOW BACK
FF: weak Blow, Built to 3 inches
FSI: NO BLOW BACK

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>GIP</u>				
<u>62</u>	<u>50 MCW</u>		<u>5</u>	<u>50</u>	<u>45</u>
<u>120</u>	<u>WATER</u>				

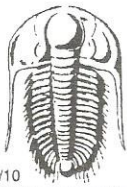
Rec Total 182 BHT 104 Gravity WIC API RW .17 @ 40 ° F Chlorides 80,000 ppm

(A) Initial Hydrostatic <u>1737</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>19:15</u>
(B) First Initial Flow <u>19</u>	<input type="checkbox"/> Jars	T-Started <u>19:41</u>
(C) First Final Flow <u>52</u>	<input type="checkbox"/> Safety Joint	T-Open <u>21:22</u>
(D) Initial Shut-In <u>1028</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>00:38</u>
(E) Second Initial Flow <u>57</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>02:29</u>
(F) Second Final Flow <u>104</u>	<input checked="" type="checkbox"/> Mileage <u>60</u> <u>93</u>	Comments
(G) Final Shut-In <u>991</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1659</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>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>60</u>	<input type="checkbox"/> Day Standby	Total <u>1243</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't

Sub Total 1243

Approved By [Signature] Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51923

4/10

Well Name & No. KDI Test No. 3 Date 01/20/14
 Company Hutchinson oil CO Elevation 1862 KB 1849 GL
 Address PO BOX 521 Derby, KS 67037
 Co. Rep / Geo. Jeff Burk Rig Sterling 5
 Location: Sec. 35 Twp. 23S Rge. 12W Co. Stafford State KS

Interval Tested 3533 - 3620 Zone Tested Lansing "H-K"
 Anchor Length 87 Drill Pipe Run 3188 Mud Wt. 8.9
 Top Packer Depth 3528 Drill Collars Run 329 Vis 50
 Bottom Packer Depth 3533 Wt. Pipe Run 0 WL 8.8
 Total Depth 3620 Chlorides 5000 ppm System LCM 1

Blow Description IF: strong Blow, BOB in 3 minutes
ISI: weak surface Blow Back
FF: strong Blow, BOB in 30 seconds
FSI: 1 1/2 inch Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>2927</u>	<u>GIP</u>				
<u>72</u>	<u>GOCM</u>	<u>2</u>	<u>5</u>	<u>93</u>	
<u>300</u>	<u>GMCO</u>	<u>40</u>	<u>40</u>	<u>20</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

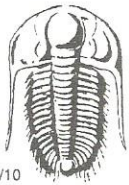
Rec Total 372 BHT 103 Gravity N/C API RW N/C @ N/C °F Chlorides N/C ppm

(A) Initial Hydrostatic 1782 Test 1150 T-On Location 14:30
 (B) First Initial Flow 38 Jars _____ T-Started 15:23
 (C) First Final Flow 133 Safety Joint _____ T-Open 17:24
 (D) Initial Shut-In 1160 Circ Sub _____ T-Pulled 20:40
 (E) Second Initial Flow 123 Hourly Standby _____ T-Out 23:05
 (F) Second Final Flow 209 Mileage 60 93 Comments _____
 (G) Final Shut-In 1139 Sampler _____
 (H) Final Hydrostatic 1742 Straddle _____

Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 45 Extra Packer _____ Ruined Packer _____
 Final Flow 60 Extra Recorder _____ Sub Total 0
 Final Shut-In 60 Day Standby _____ Total 1243
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1243

Approved By [Signature] Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 51924

4/10

Well Name & No. KD 1 Test No. 4 Date 01/21/14
 Company Hutchinson oil co Elevation 1862 KB 1849 GL
 Address PO Box 521 Derby, KS 67037
 Co. Rep / Geo. Jeff Burk Rig Sterling 5
 Location: Sec. 35 Twp. 23S Rge. 12W Co. Stafford State KS

Interval Tested 3817 - 3885 Zone Tested Arbuckle
 Anchor Length 68 Drill Pipe Run 3475 Mud Wt. 8.9
 Top Packer Depth 3812 Drill Collars Run 329 Vis 52
 Bottom Packer Depth 3817 Wt. Pipe Run 0 WL 8.8
 Total Depth 3885 Chlorides 5000 ppm System LCM

Blow Description IF: weak 1 1/2 inch Blow
ISI: NO Blow Back

FF: weak 1 inch Blow

FSI: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>266</u>	<u>MCW</u>		<u>60</u>	<u>40</u>	
<u>120</u>	<u>water</u>		60		

Rec Total 386 BHT 108 Gravity NIC API RW .4 @ 40 ° F Chlorides 31,000 ppm

(A) Initial Hydrostatic 1980 Test 1150 T-On Location 18:30
 (B) First Initial Flow 24 Jars _____ T-Started 19:36
 (C) First Final Flow 108 Safety Joint _____ T-Open 21:57
 (D) Initial Shut-In 1219 Circ Sub _____ T-Pulled 01:12
 (E) Second Initial Flow 112 Hourly Standby _____ T-Out 03:16
 (F) Second Final Flow 193 Mileage 60 93 Comments _____
 (G) Final Shut-In 1174 Sampler _____
 (H) Final Hydrostatic 1897 Straddle _____

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 45 Extra Packer _____
 Final Flow 60 Extra Recorder _____ Sub Total 0
 Final Shut-In 60 Day Standby _____ Total 1243
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1243

Approved By [Signature]

Our Representative [Signature]

TriLOBITE TESTING Inc. shall not be liable for damaged or 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.

DST Reports

DST #1 3408'-3487' (Lansing "B"- "F")

OP 30"-45"-60"-45"

1st open: BOB in 90 sec. w/ no GTS

1st shut in: no blow back

2nd open: BOB in 30 seconds w/GTS in 45 minutes (TSTM)

2nd shut in: weak surface blow back

REC: 3092' GIP

329' GWMCO (35% G, 30% O, 25% M, 10% W)

IHP: 1747#

IFP: 36#-87#

ISIP: 954#

FFP: 67#-129#

FSIP: 832#

FHP: 1689#

BHT: 102 degrees

Note: Not enough water for a chloride check

DST #2 3487'-3501' (Lansing "G")

OP 30"-45"-60"-60"

1st open: fair blow - built to 8"

1st shut in: no blow back

2nd open: weak blow - built to 3"

2nd shut in: now blow back

REC: 62' GIP

62' SOMCW (5% O, 50% W, 45% M)

120' Water

IHP: 1737#

IFP: 19#-52#

ISIP: 1028#

FFP: 57#-104#

FSIP: 991#

FHP: 1659#

BHT: 104 degrees

Chlorides: 80,000 ppm (RW .17 @ 40 degrees)

DST #3 3533'-3620' (Lansing "H", "I", "J", "K")

OP 30"-45"-60"-60"

1st open: strong blow w/ BOB in 3 min. w/ no GTS

1st shut in: weak surface blow back

2nd open: strong blow w/ BOB in 30 seconds w/ no GTS

2nd shut in: 3 1/2' blow, declined to 1 1/2" blow back

REC: 2827' GIP

72' GOCM (2% G, 5% O, 93% M)

300' GMCO (40% G, 40% O,

20% M)

IHP: 1782#

IFP: 38#-133#

ISIP: 1160#

FFP: 123#-209#

FSIP: 1139#

FHP: 1742#

BHT: 103 degrees

DST #4 3817'-3885' (Arbuckle)

OP 30"-45"-60"-60"

1st open: weak 1/2" blow w/ no GTS

1st shut in: no blow back

2nd open: weak 1" blow

2nd shut in: no blow back

REC: 266' MCW (60% W, 40% M)

120' W

IHP: 1980#

IFP: 24#-108#

ISIP: 1219#

FFP: 112#-193#

FSIP: 1174#

FHP: 1897#

BHT: 108 degrees

Comments

Due to the positive results and hydrocarbons recovered on DST #1 and DST #3, it was decided by all parties involved to set 5 1/2" casing in order to further evaluate the zones covered by those tests.

Respectfully submitted,

PETERRA Energy Services
 Jeffrey A. Burk, Petroleum Geologist
 Eli Felts, Petroleum Geologist

ROCK TYPES

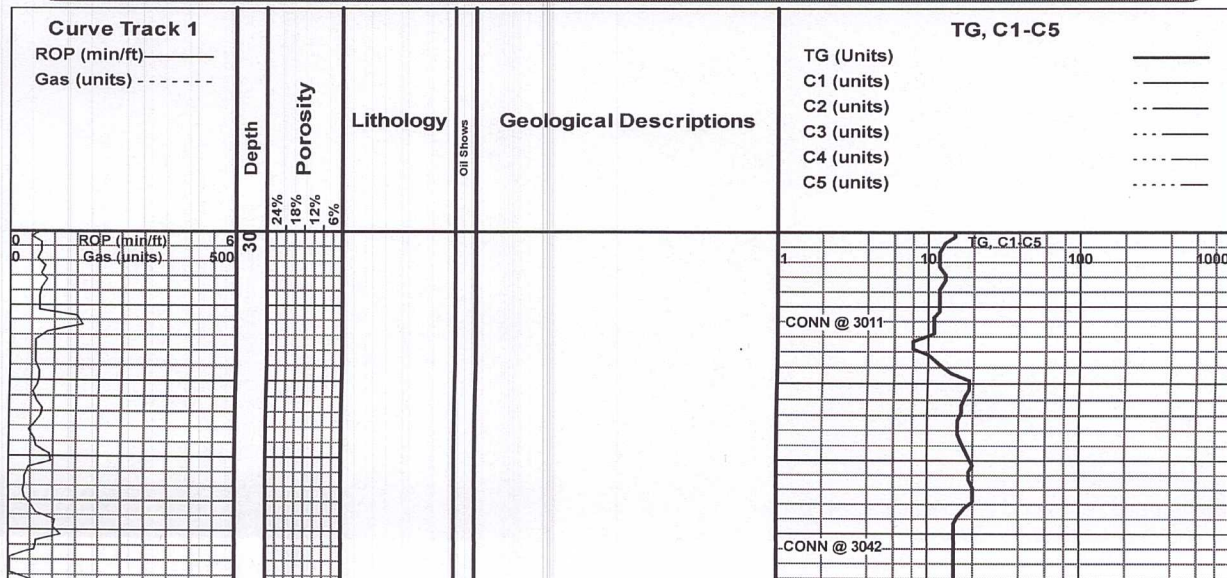
Anhy	Coal	Lmst	Shcol
Bent	Congl	Meta	Shgy
Brec	Dol	Mrlst	Sltst
Cht	Gyp	Salt	Ss
Clyst	Igne	Shale	Till

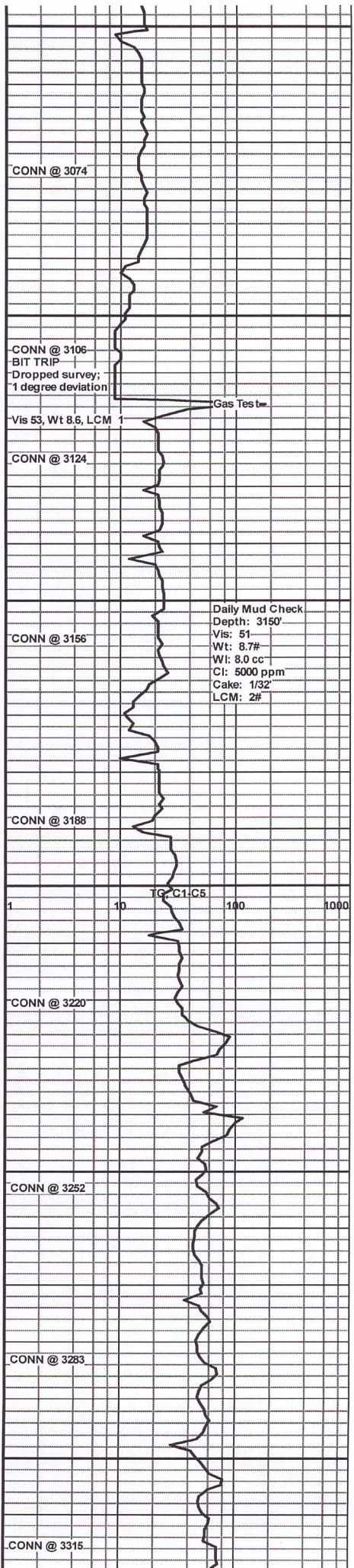
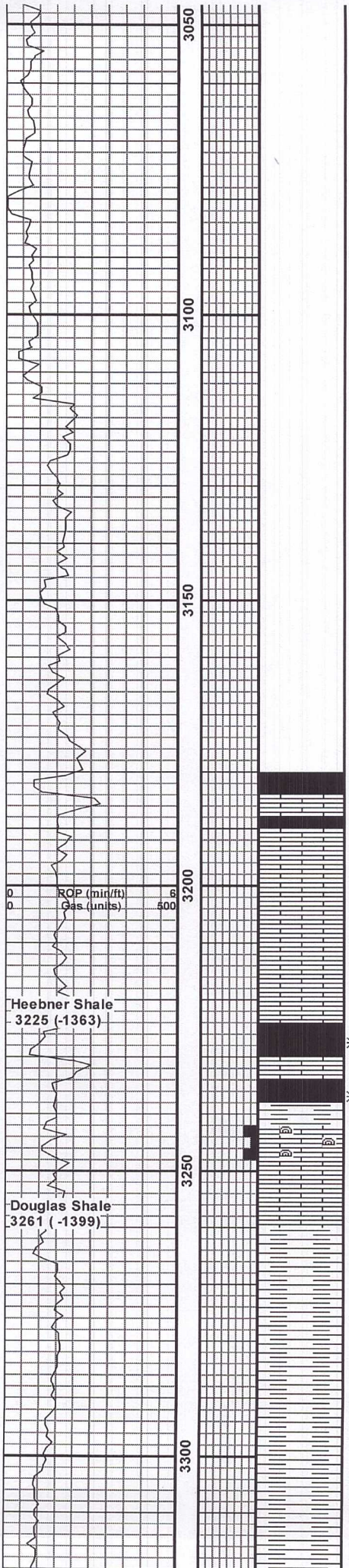
ACCESSORIES

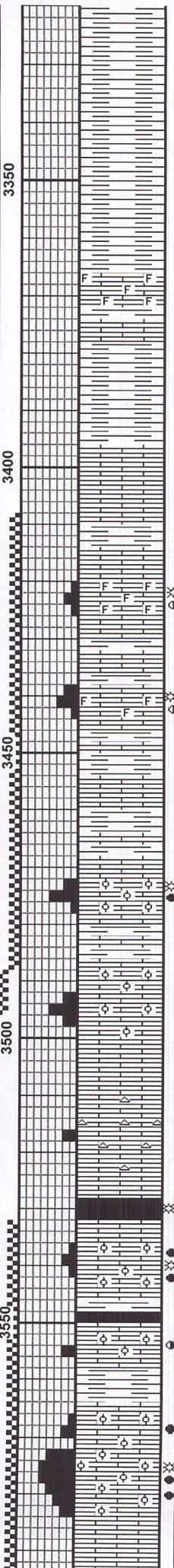
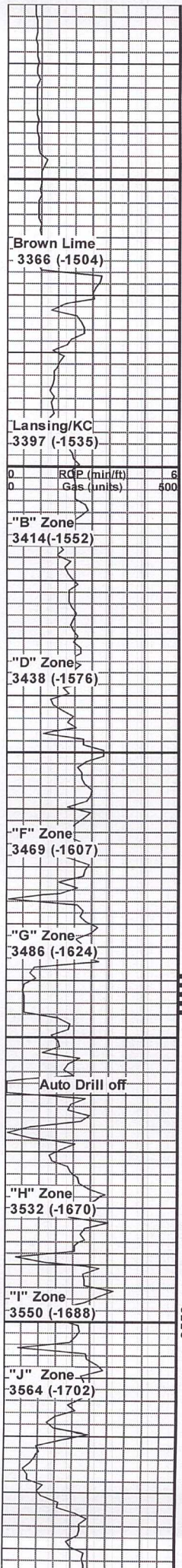
MINERAL	Minxl	Crin	Gyp
Anhy	Nodule	Echin	Ls
Arggrn	Phos	Fish	Mrst
Arg	Pyr	Foram	Sltstrg
Bent	Salt	Fossil	Ssstrg
Bit	Sandy	Gastro	
Brecfrag	Silt	Oolite	TEXTURE
Calc	Sil	Ostra	Boundst
Carb	Sulphur	Pelec	Chalky
Chtdk	Tuff	Pellet	Cryxln
Chtlt		Pisolite	Earthy
Dol	FOSSIL	Plant	Finexln
Feldspar	Algae	Strom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

OTHER SYMBOLS

POROSITY	SORTING	OIL SHOW	Dst
Earthy	Well	Even	Dst
Fenest	Moderate	Spotted	
Fracture	Poor	Ques	EVENT
Inter		Dead	pipesymbol
Moldic	ROUNDING	Gas show	Rft
Organic	Rounded	New symbol	Sidewall
Pinpoint	Subrnd		
Vuggy	Subang	INTERVAL	
	Angular	Core	







SH- gry, gry.grn, silty, mica in part few sl
mushy

SH- mst gry, so ft and mushy as above,
tr scatt pyrite

LS- mst brn, v dns, f xln, few foss, poor
to no vis por.

SH- mst gry, fewgr nish and slsdy, tr red

LS- wh to crm/buff, mst f xln, few spty
foss, few sl chky, NS

SH- mst drk gry, fewsl limey

LS- crm to tan, mst f xln, tr foss, to frac
porosity, w/few spty sh oi & gas in very
few, sl odor, spty dull flor, spty edged lt
brn stain

LS- crm to gryish, f xln, tr foss, few w/
fair inner foss por, sh drk fr oil in few,
faint odor, poor dull flor, spty 30% drk
stain

LS- mst gry to tan, dns f xln, tr foss,
poor dev inner foss por, NSFO

LS- tan, f-med xln, few ool/oom por, tr
inner xln por, fair sh fr oil and gas, fair
odor, dull spty flor, 25% spty lt brn stain

LS- crm to buff, highly dev ool/ool por,
fair sh lt fr oil, tr gas bubbles, fair odor,
spty 25% stain.

LS- crm to tan, f xln, v few ool, poor dev
inner ool/foss por, NSFO

LS- tan, f xln, v dens, poor to no vis por,
tr chert, NSFO

SH- mst blk to carb, dns organic sh,
bleeds gas

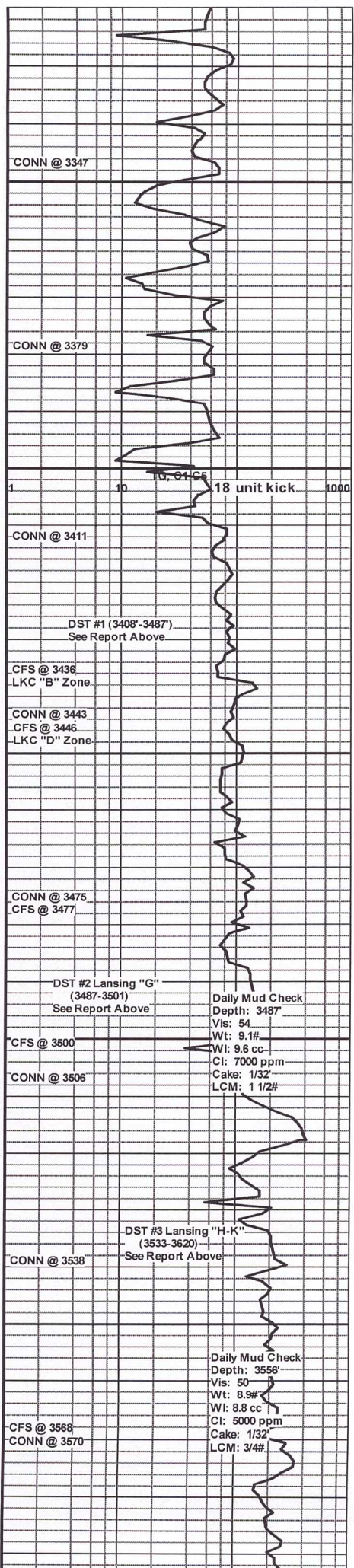
LS, crm, fn-med xln, few ool/ool, few pp/
vuggy porosity, f sh fr oil & gas, fair
odor, spty fluor.

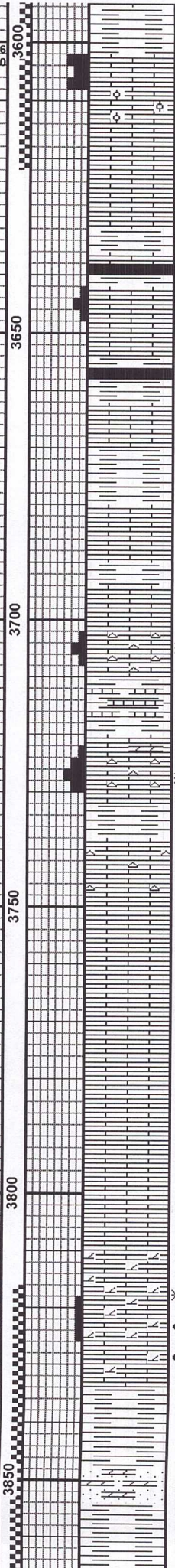
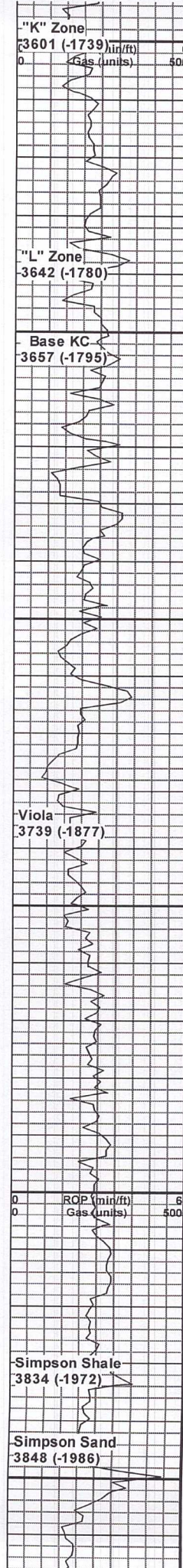
LS- crm to buff, abdt sm ool, few w.
inner ool por, v wksh of lt fr oil in 2
pieces

LS- crm to tan, mst f xln, few w/ spty
ool/foss por, f sh lt fr oil and gas
bubbles, fair odor/flor, spty 25% brn
stain

LS- crm to tan, aa, mst med xln, highly
ool/ool, fair show of lt fr oil w/ few gas
bubbles, fair odor, spty yellow flor, 30 %
spty brn stain.

LS- tan, dns, tr sparse ool, mst w/ poor
to no vis por, NS





SH- mst gry few sl limey, few sif oss, w/ tr pell

LS, crm, dns, f xln w/ scat ool/oom porosity in few, sl sh f oil, sl odor, dull fluor

LS- mst gry to tan, v dns, f xln, mst w/ poor dev inner xln por, NSFO

SH, grey/grn/ few blk carb, small traces pyrite

LS, crm to gry, f- xln w/ scat inner fossiliferous / oolitic porosity, fair show of dark free oil, fair odor, spotty fluor.

SH- drk gry to blk, sub to carb, mst brittle, fissile

LS- mst gry to drk gry, fn to micro xln, poor to no vis por

SH- mst gry, grn, reddish sh, most soft, few red mushy

LS- gry to maroon, mst micro xln, few var colored sh, tr chert, NSFO

SH- var colors, mst maroon, waxy

CH- mst tan to wh, many limey, mst dns, fresh chert, few w/ tr gas show, no odor, poor flor

SH- mst gry, few gr nish, mst limey, few maroon

CH- mst bone white, few sl trip, abdt LS inner-bedded, few w/ sl sh of gas, poor dev por. no sh fr oil, no odor

SH- mst gry, few waxy & dns, silty w/ tr pyrite

LS- most wh to buff, f xln, w/ inner-bedded bone wh chert, poor to no vis por, NSFO

LS- mst wh to buff, f xln, dns, few scatt cherts, NSFO

LS- mst wh to crm, dns, v f xln, tr bone white cherts, NSFO

LS- mst wh to tan, few sl dol, poor dev pp por in few, NSFO

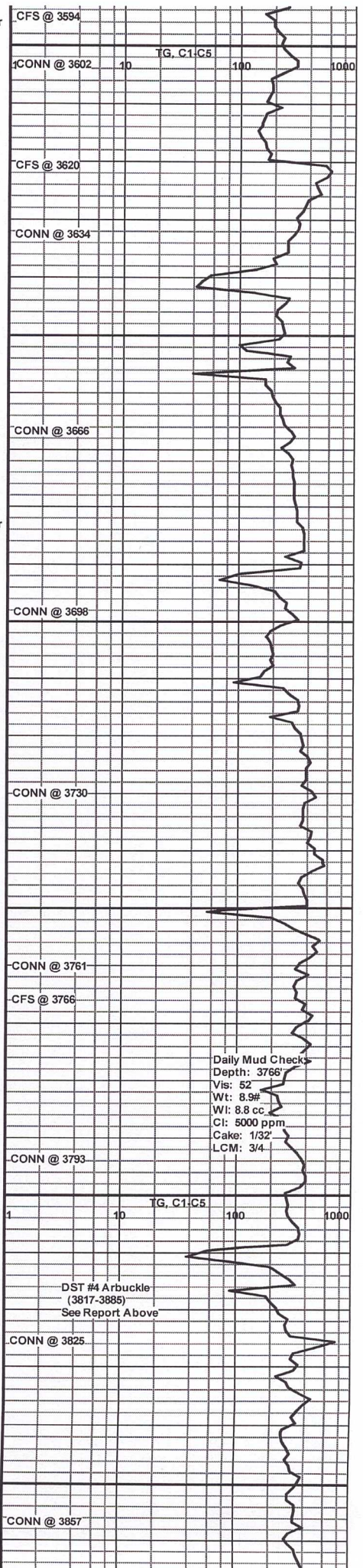
DOL- brn micro xln, v dns, v fn xln, some limey, sl sdy app, sl sh gas & bleeding fr oil.

DOL- drk brn aa, v f xln, grainular app, sl sh bleeding fr oil, v faint odor, dull flor

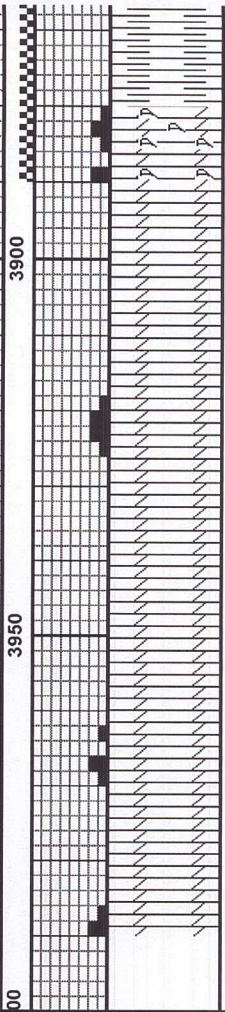
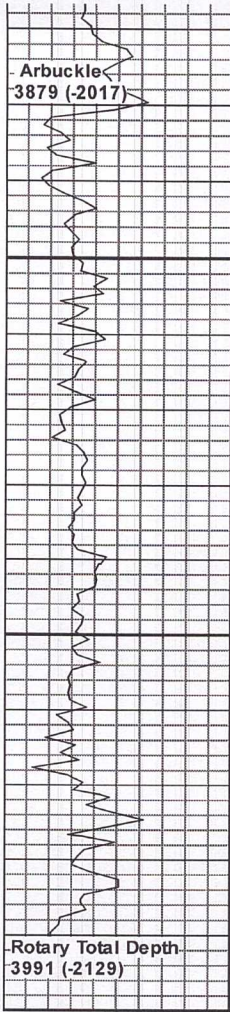
SH, mst grey to greenish, few blue grn, some sl sandy

SS- mst tan to clear, f-med grain, fair sorted, poor fria, mst dol, NSFO

SH, grn-grey, some vry mushy, traces pyrite.



Daily Mud Checks
 Depth: 3766'
 Vis: 52
 Wt: 8.9#
 WI: 8.8 cc
 Cl: 5000 ppm
 Cake: 1/32"
 LCM: 3/4"



SH, dark grey to grnish, lots of pyrite,

DOL- mst crm to tan, some fn to m xln, tr foss to pp por, f sh of fr oil, fair to gd odor, spty 30% lt brn stain

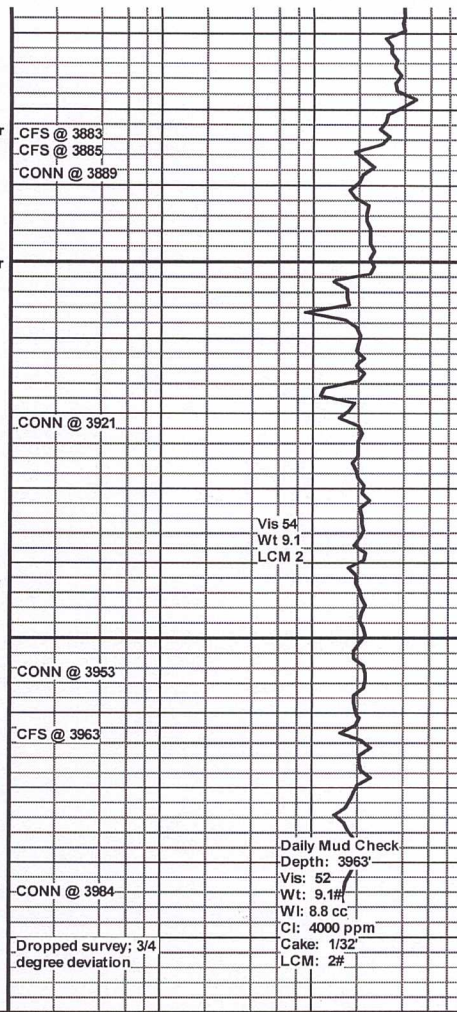
DOL- mst tan, f xln, dns, poor dev pp por in few, tr pyrite, faint odor, poor flor, NSFO

DOL- Tan to crm, mst m xln, fair dev por, faint odor, poor flor, NSFO

DOL- mst tan to pink, mst f xln, poor dev por, no sh fr oil, poor odor, dull flor

DOL- mst tan w/ few pinkish, f xln, dns, poor dev pp por in few, tr pyrite, faint odor, no flor, NSFO

DOL- mst f-med xln, fair dev pp to vuggy por, v faint odor, no flor, NSFO



.CFS @ 3883
.CFS @ 3885
CONN @ 3889

.CONN @ 3921

Vis 54
Wt 9.1
LCM 2

.CONN @ 3953

.CFS @ 3963

Daily Mud Check
Depth: 3963'
Vis: 52
Wt: 9.1#
Wl: 8.8 cc
Cl: 4000 ppm
Cake: 1/32
LCM: 2#

.CONN @ 3984

.Dropped survey; 3/4 degree deviation