



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1213710  
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: \_\_\_\_\_

1213710

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

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

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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

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

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

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

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Baird Oil Company LLC
Well Name	Curtis Tien 1-12
Doc ID	1213710

Tops

Name	Top	Datum
Anhydrite	2130	+301
Base Anhydrite	2164	+267
Topeka	3477	-1046
Heebner	3680	-1249
Toronto	3703	-1272
Lansing	3720	-1289
Base Kansas City	3914	-1483
Total Depth	3944	-1513



Global Cementing LLC

18048 I-70 Road  
Russell, KS 67665

# Invoice

Date	Invoice #
5/28/2014	1345

Bill To
BAIRD OIL COMPANY LLC PO BOX 428 LOGAN, KS 67646

*CK# 14524  
6/6/14*

P.O. No.	Terms	Project
CURTIS TEIN#1-12	Net 30	

Quantity	Description	Rate	Amount
190	COMMON	15.50	2,945.00
7	CALCIUM	53.00	371.00
4	GEL	23.50	94.00
201	HANDLING	2.10	422.10
	BULK MILEAGE	385.92	385.92
1	TRI-PLEX PUMP CHARGE FOR SURFACE	1,050.00	1,050.00
48	PUMP TRUCK MILEAGE	6.50	312.00
48	PICKUP	2.50	120.00
	DEDUCT 15% FROM TOTAL IF PAID WITHIN 30 DAYS OF INVOICE GRAHAM CO	7.15%	0.00

*R 6/6/2014*

*P 6/6/2014*

*C Tien 190402 5700.02  
Curtis Tien 1-12 - Pump charge,  
Cement + other misc. used to  
Cement + surface casing*

Thank you for your business.

**Total** \$5,700.02

Phone #	Fax #	E-mail
785-324-2658	785-445-3526	

# GLOBAL CEMENTING, L.L.C.

1345

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT: Russell, KS

DATE <u>5-28-14</u>	SEC. <u>12</u>	TWP. <u>7</u>	RANGE <u>24</u>	CALLED OUT	ON LOCATION	JOB START <u>5:45pm</u>	JOB FINISH <u>6:15pm</u>
LEASE <u>Curtis Tien</u>	WELL #. <u>1-12</u>	LOCATION			COUNTY <u>Graham</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW (CIRCLE ONE)							

CONTRACTOR [Redacted] W.W. Drilling

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. \_\_\_\_\_

CASING SIZE 8 5/8 DEPTH 264.

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

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

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

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

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

CEMENT LEFT IN CSG. 204

PERFS \_\_\_\_\_

DISPLACEMENT \_\_\_\_\_

OWNER \_\_\_\_\_

CEMENT AMOUNT ORDERED 190sr com 3% CC 2% gel

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

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

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

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

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

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

HANDLING \_\_\_\_\_ @ \_\_\_\_\_

MILEAGE \_\_\_\_\_ @ \_\_\_\_\_

TOTAL \_\_\_\_\_

EQUIPMENT

PUMP TRUCK CEMENTER Heath

# P1 HELPER Cody - Brock

BULK TRUCK DRIVER Fric - Peyton

# B4 DRIVER \_\_\_\_\_

REMARKS:

Ran 6 hrs of 8 5/8 casing and landing

Est circulation with mud pump

Hooked up and mixed 190 sr and disp

15.5 bbl of H2O - shut in @ 300psi

Cement did circulate

CHARGE TO: Bard Oil

STREET \_\_\_\_\_

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

Global Cementing, L.L.C.,  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Calvin Finnerstein

SIGNATURE [Signature]

SERVICE

DEPTH OF JOB \_\_\_\_\_

PUMP TRUCK CHARGE \_\_\_\_\_

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

MILEAGE 24x2 @ \_\_\_\_\_

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

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

TOTAL \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

TOTAL \_\_\_\_\_

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

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

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

Global Cementing LLC

18048 I-70 Road  
Russell, KS 67665

# Invoice

Date	Invoice #
6/3/2014	1349

Bill To
BAIRD OIL COMPANY LLC PO BOX 428 LOGAN,KS 67646

P.O. No.	Terms	Project
CURTIS TIEN#1-12	Net 30	

Quantity	Description	Rate	Amount
144	COMMON	15.50	2,232.00
96	POZ	8.50	816.00
8	GEL	23.50	188.00
56	FLO-SEAL	2.00	112.00
248	HANDLING	2.10	520.80
	BULK MILEAGE	476.16	476.16
1	TRI-PLEX PUMP CHARGE FOR PLUG	1,200.00	1,200.00
48	PUMP TRUCK MILEAGE	6.50	312.00
48	PICKUP	2.50	120.00
1	8 5/8 WOOD PLUG	57.50	57.50
	DEDUCT 15% FROM TOTAL IF PAID WITHIN 30 DAYS OF INVOICE GRAHAM CO	7.15%	0.00

*R 6/6/2014*  
*P 6/6/2014*  
*C Tien 190402 6034.46*  
*Curtis Tien 1-12- Pump charge,*  
*Cement + other misc used to*  
*plug well*

Thank you for your business.

**Total**

\$6,034.46

Phone #	Fax #	E-mail
785-324-2658	785-445-3526	

# GLOBAL CEMENTING, L.L.C.

1349

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT: Russell, KS

DATE <u>6-3-14</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START <u>9:00am</u>	JOB FINISH <u>10:00am</u>
LEASE <u>Curtis Tien</u>	WELL #. <u>1-12</u>		LOCATION			COUNTY <u>Graham</u>	STATE <u>KS</u>
OLD OR <input checked="" type="radio"/> NEW (CIRCLE ONE)							

CONTRACTOR W.W. Drilling #12

TYPE OF JOB  Rotary Plug

HOLE SIZE 7 7/8" T.D. \_\_\_\_\_

CASING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

TUBING SIZE \_\_\_\_\_ DEPTH \_\_\_\_\_

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

TOOL \_\_\_\_\_ DEPTH \_\_\_\_\_

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

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

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

PERFS \_\_\_\_\_

DISPLACEMENT \_\_\_\_\_

OWNER \_\_\_\_\_

CEMENT AMOUNT ORDERED 240SK 60/40 4%gel

1 1/4" P10

EQUIPMENT

PUMP TRUCK CEMENTER Heath B-

# P1 HELPER Cody A

BULK TRUCK DRIVER Brad

# B3

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

# \_\_\_\_\_

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

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

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

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

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

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

HANDLING \_\_\_\_\_ @ \_\_\_\_\_

MILEAGE \_\_\_\_\_ @ \_\_\_\_\_

TOTAL \_\_\_\_\_

REMARKS:

1st Plug @ 2155 @ 50SK

2nd Plug @ 1275 = 100SK

3rd Plug @ 315 = 50SK

Come out of hole and run wiper plug and top off with 10SK = RH=30'

CHARGE TO: Baird Oil

STREET \_\_\_\_\_

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

Global Cementing, L.L.C.,  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Global Cementing L.L.C.

SIGNATURE [Signature]

SERVICE

DEPTH OF JOB \_\_\_\_\_

PUMP TRUCK CHARGE \_\_\_\_\_

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

MILEAGE 24vr \_\_\_\_\_ @ \_\_\_\_\_

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

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

TOTAL \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

85% dry hole plug \_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_

TOTAL \_\_\_\_\_

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

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

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



A.P.I. # 15-065-24041-00-00

**GEOLOGICAL REPORT**  
DRILLING TIME AND SAMPLE LOG

COMPANY Baird Oil Company, L.C.  
 LEASE Curtis Tien #1-12  
 FIELD Wildcat  
 LOCATION 2305' ENL + 330' FEL  
 SEC 12 TWSP 7s RGE 24W  
 COUNTY Graham STATE Kansas

ELEVATION  
 KB 2431'  
 DF 2429'  
 GL 2423'  
 Depths Measured From  
 Log KB Drilling KB

CONTRACTOR WW Drilling Rig #12  
 SPUD 5-28-14 COMP 6-3-14  
 SAMPLES SAVED FROM 3450' TO R.T.D.

CASING  
 Surface 8 5/8" @ 264'  
 Production None

ELECTRIC LOGS  
Nabors

FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE	E. LOG	DATUM	A	B	C	D
			<u>E. Log</u>	<u>-0-</u>	<u>●</u>		
<u>Anhydrite</u>	<u>2135</u>	<u>2130</u>	<u>+ 301</u>	<u>+ 301</u>	<u>+ 291</u>		
<u>Base Anhydrite</u>	<u>2169</u>	<u>2164</u>	<u>+ 267</u>	<u>+ 268</u>	<u>+ 257</u>		
<u>Topeka</u>	<u>3483</u>	<u>3477</u>	<u>-1046</u>	<u>-1038</u>	<u>-1040</u>		
<u>Heebner</u>	<u>3686</u>	<u>3680</u>	<u>-1249</u>	<u>-1235</u>	<u>-1244</u>		
<u>Toronto</u>	<u>3709</u>	<u>3703</u>	<u>-1272</u>	<u>-1259</u>	<u>-1268</u>		
<u>Lansing</u>	<u>3726</u>	<u>3720</u>	<u>-1289</u>	<u>-1274</u>	<u>-1282</u>		
<u>Base Kansas City</u>	<u>3920</u>	<u>3914</u>	<u>-1483</u>	<u>-1466</u>	<u>-1486</u>		
<u>Total Depth</u>	<u>3950</u>	<u>3944</u>	<u>-1513</u>	<u>-1504</u>	<u>-1523</u>		

REFERENCE WELLS

- A Baird Oil Co. McAnail-Goetz Unit #1-1, 330' ENL + 2420' FWL, Sec 1-7s-24W
- B Baird Oil Co. Fountain Unit #1-18, 2400' ENL + 640' FWL, Sec. 18-7s-23W
- C
- D

REMARKS

This well ran 7 to 15 feet lower on the fansing top than the reference wells. After considering the pertinent information it was decided this well should be plugged and abandoned.

Richard B. Bell  
6-3-14

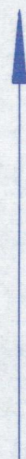
7502

LEGEND

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

DRILLING TIME IN MINUTES  
PER FOOT

Rate of Penetration Decreases



DEPTH

2120

40

LITHOLOGY

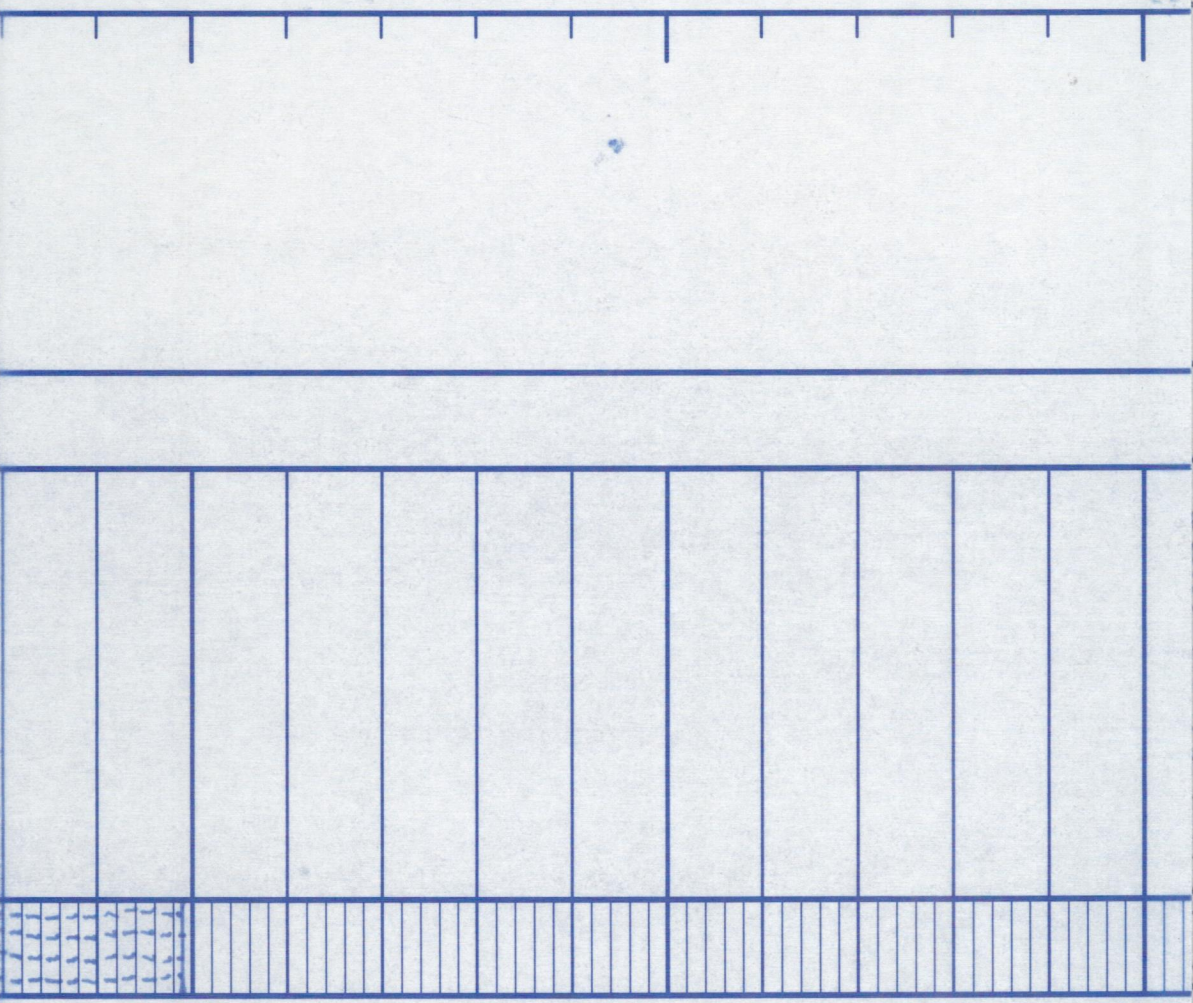


OIL SHOWS

SAMPLE DESCRIPTIONS

REMARKS

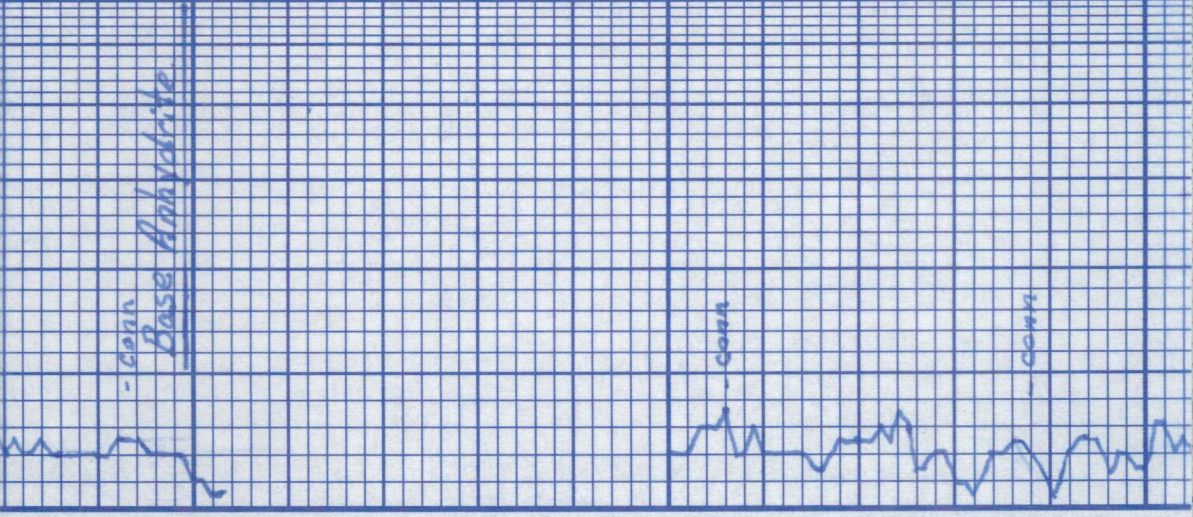
LOG 7710



60

3350

3400



- Conn  
Base Anhydrite

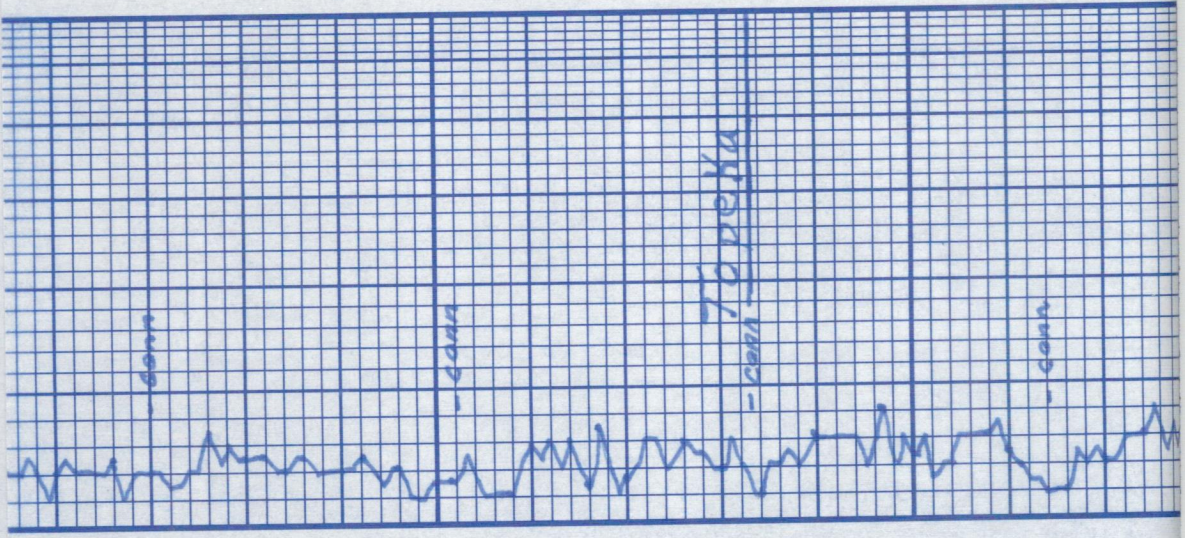
- Conn

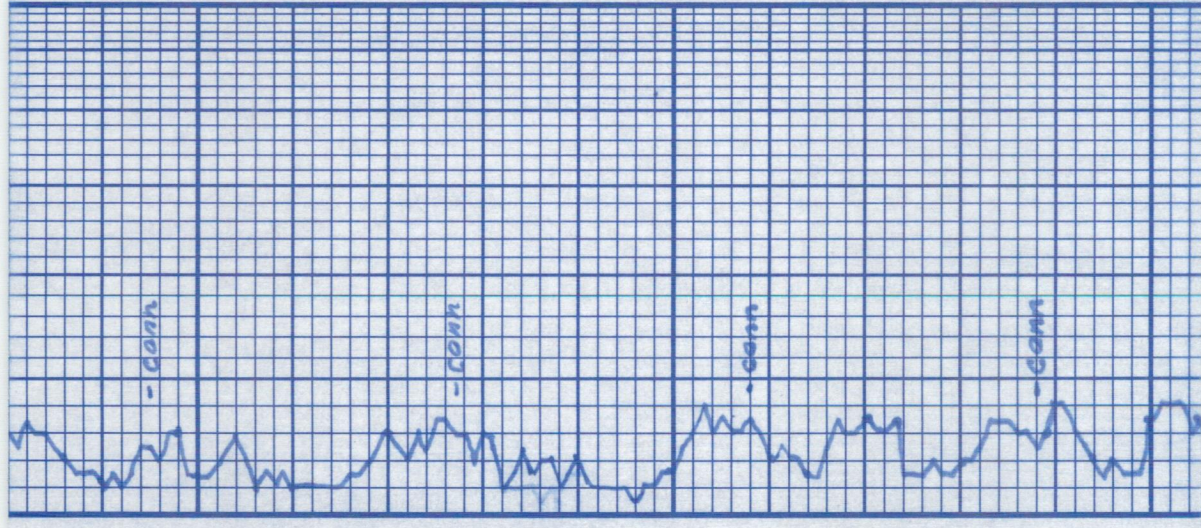
- Conn

Samples are lagged  
Good Samples

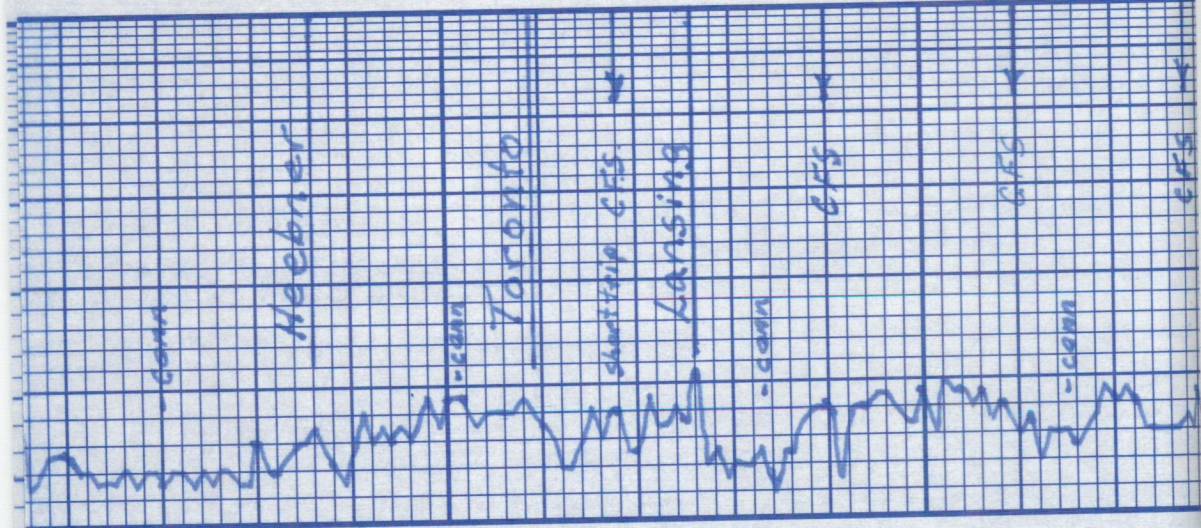
Drilling time has to  
be adjusted up 6 ft.  
to match log depths.

20	sh: gry	sh: gry
40	LS: tn- gry- fs/ f dns	LS: tn- gry- fs/ f dns
	sh: brn, gry, grn LS: wh- tn- gry- fs/ f dns N.S.O.	sh: brn, gry, grn LS: wh- tn- gry- fs/ f dns N.S.O.
	sh: brn + gry	sh: brn + gry
60	LS: tn- gry- sli- yel- fs/ f dns	LS: tn- gry- sli- yel- fs/ f dns
	LS: gry- fs/ f dns	LS: gry- fs/ f dns
80	LS: wh- tn- fsl- n- sli- fs/ f dns	LS: wh- tn- fsl- n- sli- fs/ f dns
	sh: brn + gry	sh: brn + gry
	LS: wh- tn- yel- sli- cky- fsl- n dns	LS: wh- tn- yel- sli- cky- fsl- n dns
3500	LS: tn- gry- fs/ f dns	LS: tn- gry- fs/ f dns
	LS: wh- tn- cky- fs/ f pp φ N.S.O. Δ TA- brn	LS: wh- tn- cky- fs/ f pp φ N.S.O. Δ TA- brn
20	LS: wh- tn- sli- cky- fs/ f pp φ N.S.O.	LS: wh- tn- sli- cky- fs/ f pp φ N.S.O.
	LS: tn- fsl- n- dns TA	LS: tn- fsl- n- dns TA
	LS: tn- gry- fs/ f dns sh: brn + gry	LS: tn- gry- fs/ f dns sh: brn + gry





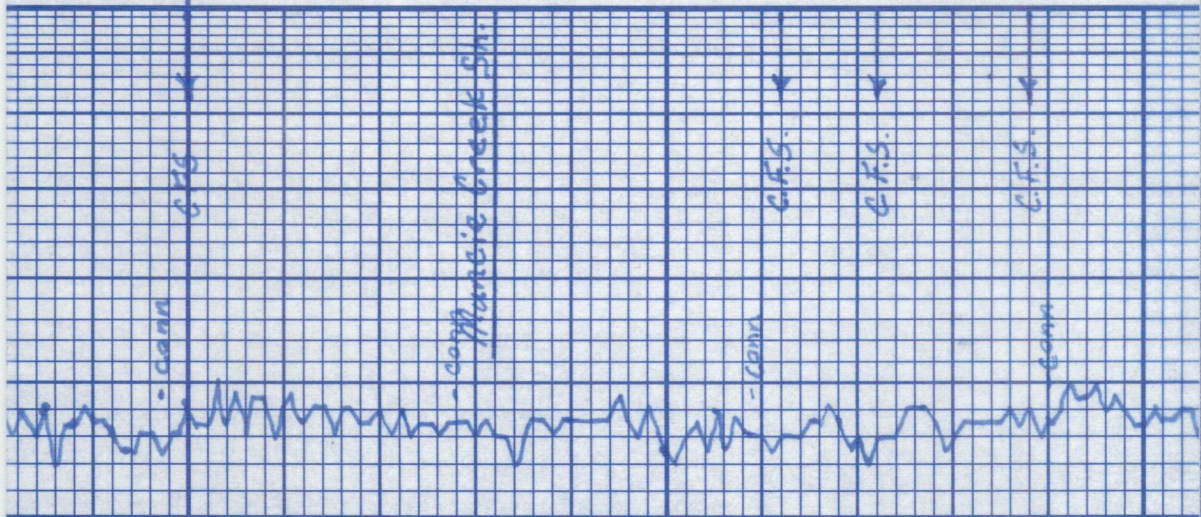
40	LS: wh-tn sli. cky-fsch sli. ööl ppø N.S.O.
60	LS: tn-gry fslf das Tr Δwh LS: wh-tn sli. cky-fsch Tr sli. ööl ppø N.S.O. Δxy wh-tn
80	LS: tn-lt. gry fslf das Sh: blk Carb LS: tn mtld fslf das sh: gry + brn
3600	Ststonebrn
20	LS: wh-tn cky-fsch ööl pp. ppø N.S.O. sh-brn
40	LS: wh-tn cky-fsch fslf ööl / foss. incl. ppø inpart ø N.S.O. Tr. soft blk Carb Sh. LS: wh-tn cky-fsch ööl ppø- inpart ø N.S.O.



60	LS: th + kh oo. impart 4 N.S.O.
80	LS: wh-th cky-feln oöl ppφ. impart φ N.S.O. - Δ y wh
3700	Sh: blk Carb LS: tn-gry fslf dās Sh: brn + gry
20	LS: wh-th cky-feln sln oöl Tr ppφ N.S.O. Δ y tn-or
40	Sh: brn + gry LS: wh-th V. cky-feln oöl impart φ N.S.O. LS: tn-fgry feln dās LS: tn-feln dās LS: wh-th cky-feln sub oöl dās
60 C	LS: wh-th sl: cky-feln oöl pp. impart φ h. s. d. o. s. tn N.F.O. No odor Δ wh-tr Sh: brn + gry
80 D	LS: wh-th sl: cky-fslf impart φ Tr. vgy φ h. pr. o. s. tn. Tr. pp. f. a. v. odor Δ wh

Trilobite Testing

DST #1 3758' - 3778'  
 30-30-30-30  
 IF: wk blow 30 min  
 FF: No blow  
 Recovery: 10' Total  
 5' M  
 5' MW  
 NYk: 1912-1885#  
 FP: 22-26/30-34#  
 BHP: 1036 - 1001#  
 BHTemp: 115°F.



L.S. m - Lt. gry fcln dns L.S. tn - Lt. brn fslf dns N.S.O	L.S. wh-tn cky - fcln dns R.T edge str D: 1 to fcln insln - vey p ft sp p. O. str Tr Lt rainbw sp p. O. an crushing No odor	L.S. wh-tn sli. cky. fcln dns	L.S. a Tr Δ tn	Tr. Sh: blk Carb soft L.S. tn: gry mtld fslf dns pmtc spks	sh: gry	L.S. wh-tn cky-fcln sli. ool Pr. in part p fr. isol. vugs Pr. Lt. Spnd O Str Tr pp F.O. on crushing Tr. asph No odor	L.S. tn - Lt. gry fcln dns	L.S. tn - Lt. gry fcln - sli: fslf dns	L.S. wh-tn sli. cky. fcln ool Sent. pp p ft O Str Tr pp fclning F.O. Tr asph No odor	Sh: brn & gry L.S. wh-tn sticky - fcln dns Tr spnd edge str N.F.O.
---	---	-------------------------------	----------------	--	---------	---	----------------------------	--	--	--

LIST # 3118 3800  
 45-45-30-30  
 IF: wt blow incr. to 3"  
 FF: No blow  
 Recovery: 135' MW  
 60% w. 40% m  
 MYD: 1909-1840#  
 FP: 16-53/56-75#  
 BHP: 1005 - 980#  
 BHTemp: 115°F.  
 Board 3828.86  
 Strap 3825.84  
 D: ff 3.02  
 Incline @ 3778' 3/4°







## DRILL STEM TEST REPORT

Prepared For: **Baird Oil Company, LLC**

PO Box 428  
Logan, KS 67646

ATTN: Richard Bell

### **Curtis Tien #1-12**

### **12-7s-24w Graham,KS**

Start Date: 2014.06.01 @ 10:48:35

End Date: 2014.06.01 @ 16:25:05

Job Ticket #: 59239                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.06.03 @ 14:48:39



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Baird Oil Company, LLC

**12-7s-24w Graham,KS**

PO Box 428  
Logan, KS 67646

**Curtis Tien #1-12**

Job Ticket: 59239

**DST#: 1**

ATTN: Richard Bell

Test Start: 2014.06.01 @ 10:48:35

## GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:50:35

Time Test Ended: 16:25:05

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan L

Unit No: 48

**Interval: 3758.00 ft (KB) To 3778.00 ft (KB) (TVD)**

Reference Elevations: 2431.00 ft (KB)

Total Depth: 3778.00 ft (KB) (TVD)

2423.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8321 Outside**

Press@RunDepth: 34.30 psig @ 3775.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.01

End Date:

2014.06.01

Last Calib.:

2014.06.01

Start Time: 10:48:36

End Time:

16:25:05

Time On Btm:

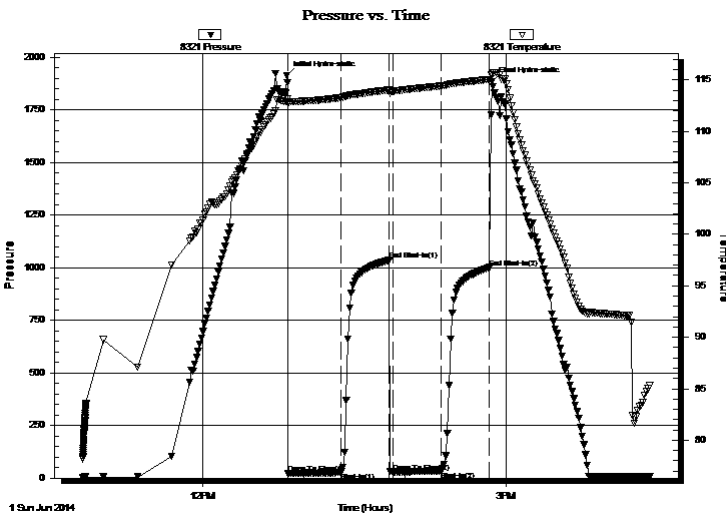
2014.06.01 @ 12:49:35

Time Off Btm:

2014.06.01 @ 14:51:35

**TEST COMMENT:** 30- IF- Weak Surface blow  
30- IS- No blow  
30- FF- No blow  
30- FSI- No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1912.42	112.88	Initial Hydro-static
1	21.53	112.75	Open To Flow (1)
32	25.97	113.27	Shut-In(1)
61	1035.96	114.02	End Shut-In(1)
63	29.62	113.88	Open To Flow (2)
92	34.30	114.40	Shut-In(2)
121	1000.78	115.04	End Shut-In(2)
122	1885.33	115.52	Final Hydro-static

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
5.00	M	0.02
5.00	MW	0.02

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Baird Oil Company, LLC

**12-7s-24w Graham,KS**

PO Box 428  
Logan, KS 67646

**Curtis Tien #1-12**

Job Ticket: 59239

**DST#: 1**

ATTN: Richard Bell

Test Start: 2014.06.01 @ 10:48:35

## Tool Information

Drill Pipe:	Length: 3648.00 ft	Diameter: 3.75 inches	Volume: 49.83 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3758.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	40.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3739.00	
Shut In Tool	5.00			3744.00	
Hydraulic tool	5.00			3749.00	
Packer	5.00			3754.00	20.00 Bottom Of Top Packer
Packer	4.00			3758.00	
Stubb	1.00			3759.00	
Perforations	16.00			3775.00	
Recorder	0.00	8372	Inside	3775.00	
Recorder	0.00	8321	Outside	3775.00	
Bullnose	3.00			3778.00	20.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>40.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Baird Oil Company, LLC

**12-7s-24w Graham,KS**

PO Box 428  
Logan, KS 67646

**Curtis Tien #1-12**

Job Ticket: 59239

**DST#: 1**

ATTN: Richard Bell

Test Start: 2014.06.01 @ 10:48:35

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	M	0.025
5.00	MW	0.025

Total Length: 10.00 ft

Total Volume: 0.050 bbl

Num Fluid Samples: 0

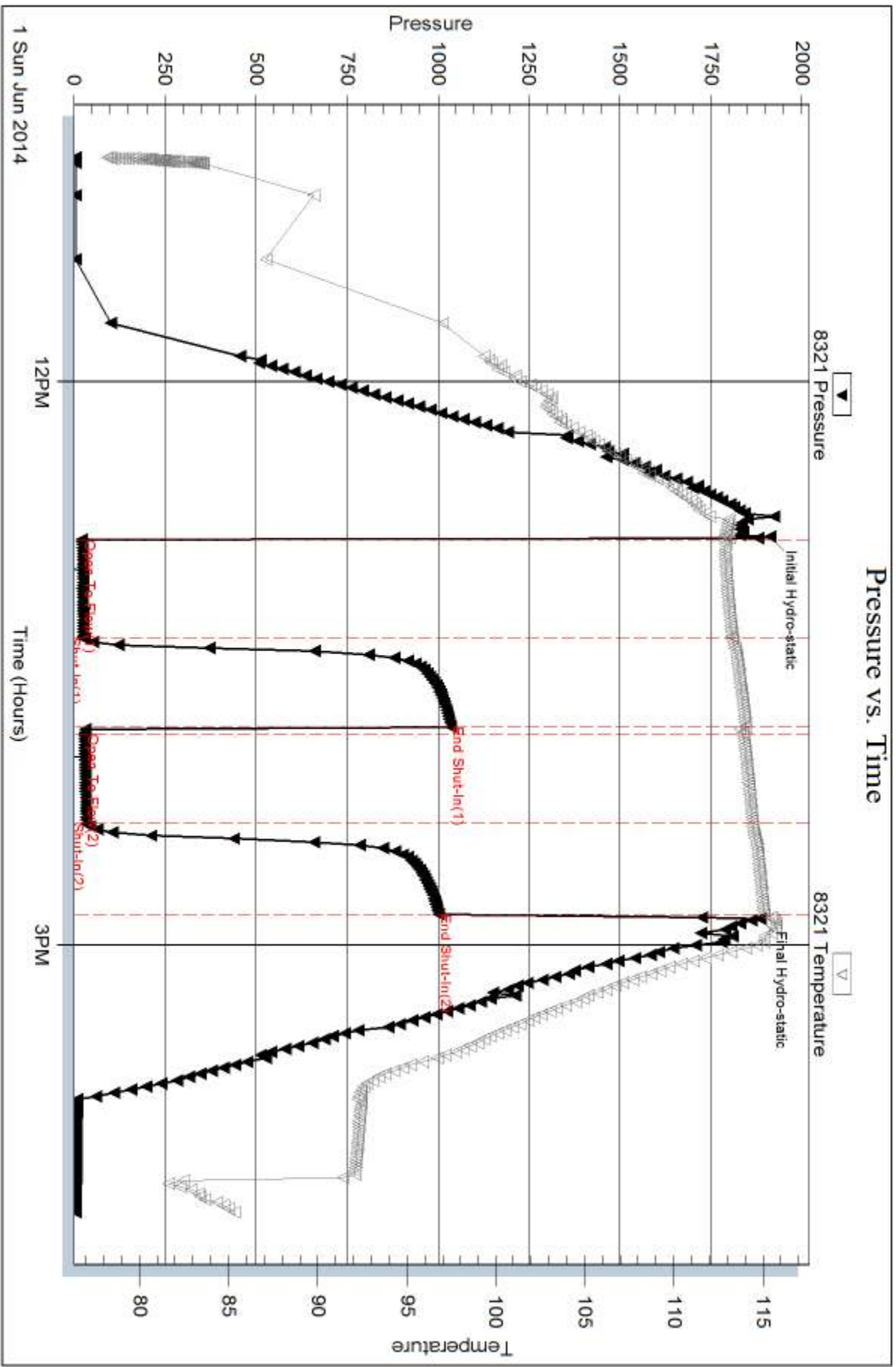
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



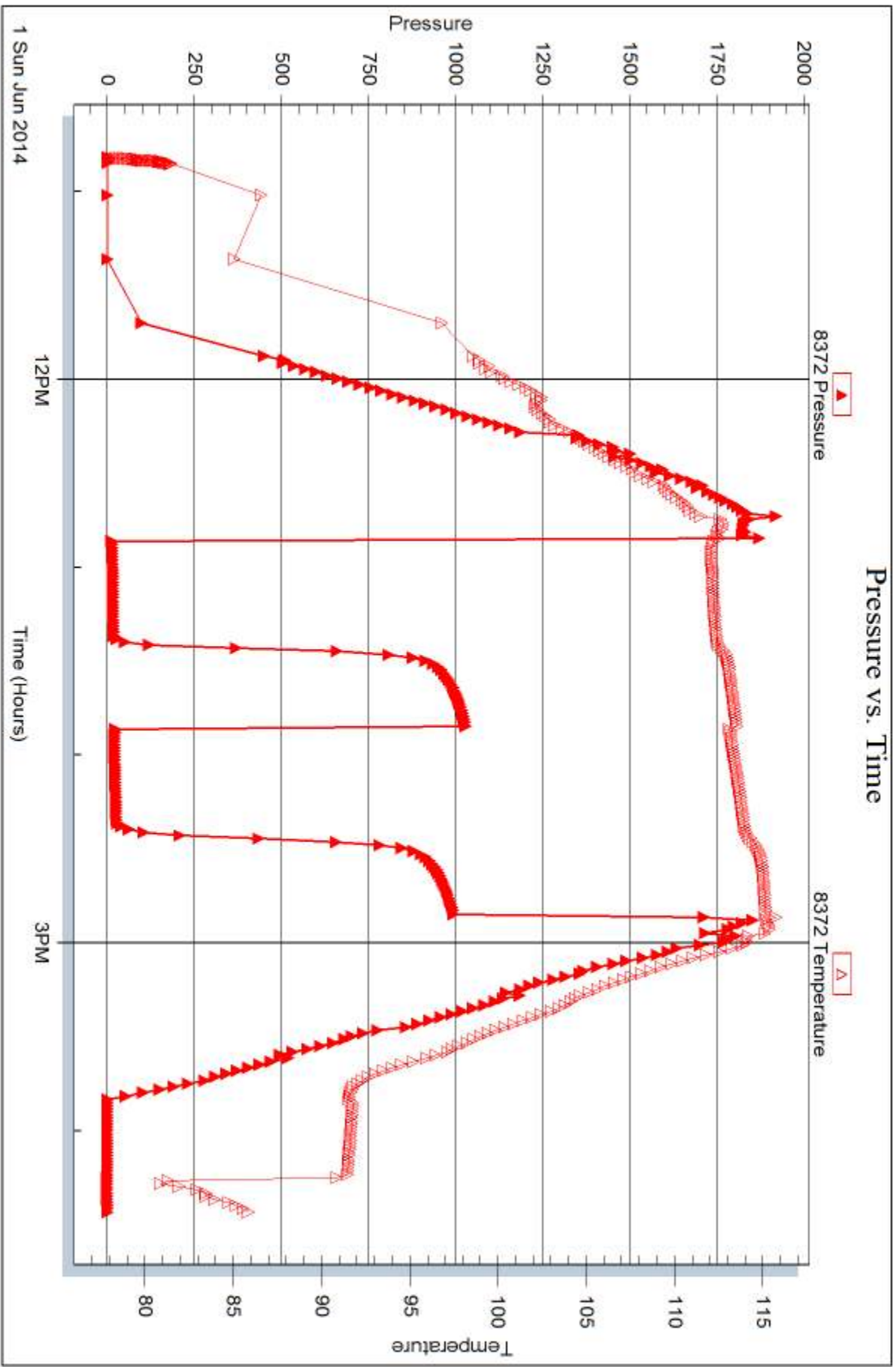
Serial #: 8372

Inside

Baird Oil Company, LLC

Curtis Tien #1-12

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 59239

Printed: 2014.06.03 @ 14:48:41



## DRILL STEM TEST REPORT

Prepared For: **Baird Oil Company, LLC**

PO Box 428  
Logan, KS 67646

ATTN: Richard Bell

### **Curtis Tien #1-12**

#### **12-7s-24w Graham,KS**

Start Date: 2014.06.01 @ 22:17:34

End Date: 2014.06.02 @ 06:20:04

Job Ticket #: 59240                      DST #: 2

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

Printed: 2014.06.03 @ 14:48:07





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Baird Oil Company, LLC

**12-7s-24w Graham,KS**

PO Box 428  
Logan, KS 67646

**Curtis Tien #1-12**

Job Ticket: 59240

**DST#: 2**

ATTN: Richard Bell

Test Start: 2014.06.01 @ 22:17:34

## GENERAL INFORMATION:

Formation: **LKC "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:17:34

Time Test Ended: 06:20:04

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan L

Unit No: 48

**Interval: 3778.00 ft (KB) To 3800.00 ft (KB) (TVD)**

Reference Elevations: 2431.00 ft (KB)

Total Depth: 3800.00 ft (KB) (TVD)

2423.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8372**

**Inside**

Press@RunDepth: 75.03 psig @ 3797.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.06.01

End Date:

2014.06.02

Last Calib.:

2014.06.02

Start Time: 22:17:35

End Time:

06:20:04

Time On Btm:

2014.06.02 @ 01:15:04

Time Off Btm:

2014.06.02 @ 03:51:34

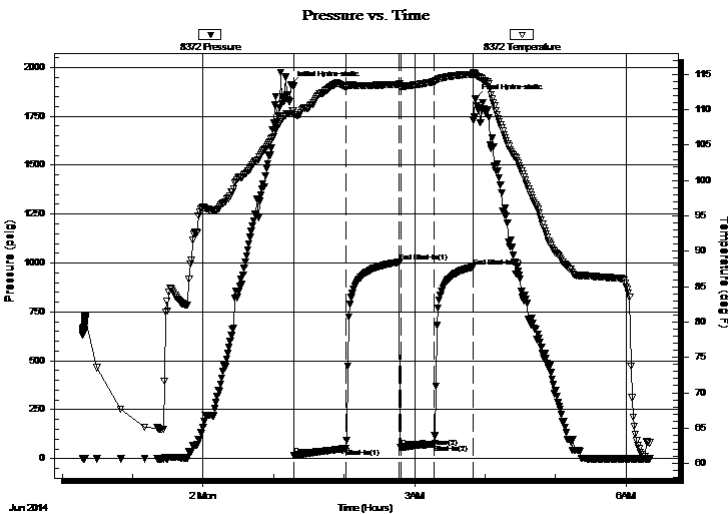
TEST COMMENT: 45- IF- Built very slow ly to 3"

45- IS- No blow

30- FF- No blow

30- FSI- No blow

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1909.12	109.46	Initial Hydro-static
3	16.04	109.33	Open To Flow (1)
47	53.29	113.30	Shut-In(1)
92	1004.51	113.62	End Shut-In(1)
93	55.57	113.33	Open To Flow (2)
122	75.03	113.98	Shut-In(2)
155	979.70	115.02	End Shut-In(2)
157	1839.57	114.95	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
135.00	MW, 40%M 60%W	0.77

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Baird Oil Company, LLC

**12-7s-24w Graham,KS**

PO Box 428  
Logan, KS 67646

**Curtis Tien #1-12**

Job Ticket: 59240

**DST#: 2**

ATTN: Richard Bell

Test Start: 2014.06.01 @ 22:17:34

## Tool Information

Drill Pipe:	Length: 3648.00 ft	Diameter: 3.75 inches	Volume: 49.83 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.75 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 123.00 ft	Diameter: 2.25 inches	Volume: 0.60 bbl	Weight to Pull Loose: 57000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3778.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	42.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3759.00	
Shut In Tool	5.00			3764.00	
Hydraulic tool	5.00			3769.00	
Packer	5.00			3774.00	20.00 Bottom Of Top Packer
Packer	4.00			3778.00	
Stubb	1.00			3779.00	
Perforations	18.00			3797.00	
Recorder	0.00	8372	Inside	3797.00	
Recorder	0.00	8321	Outside	3797.00	
Bullnose	3.00			3800.00	22.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>42.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Baird Oil Company, LLC

**12-7s-24w Graham,KS**

PO Box 428  
Logan, KS 67646

**Curtis Tien #1-12**

Job Ticket: 59240

**DST#: 2**

ATTN: Richard Bell

Test Start: 2014.06.01 @ 22:17:34

## 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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1400.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
135.00	MW, 40%M 60%W	0.769

Total Length: 135.00 ft      Total Volume: 0.769 bbl

Num Fluid Samples: 0

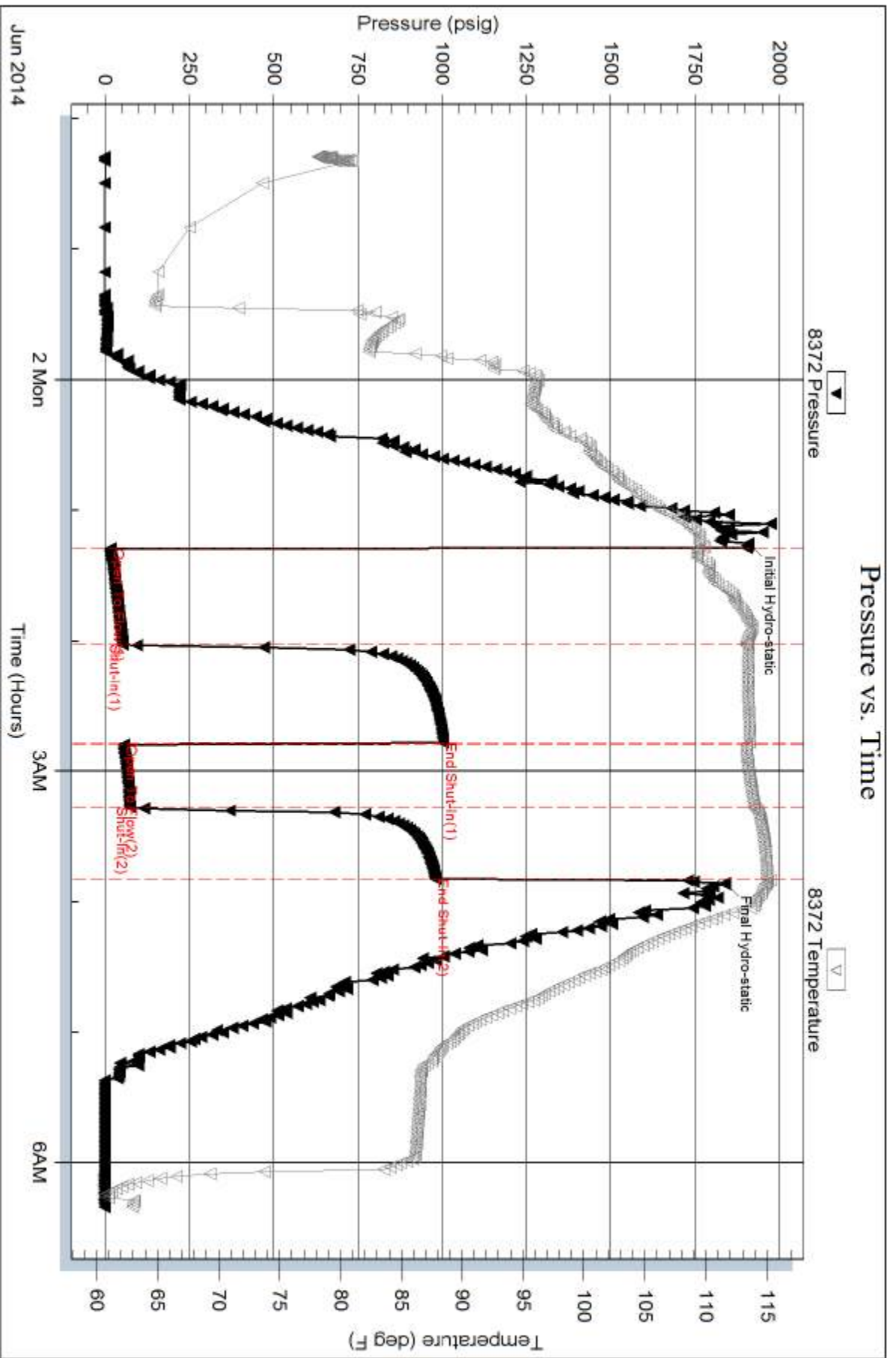
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

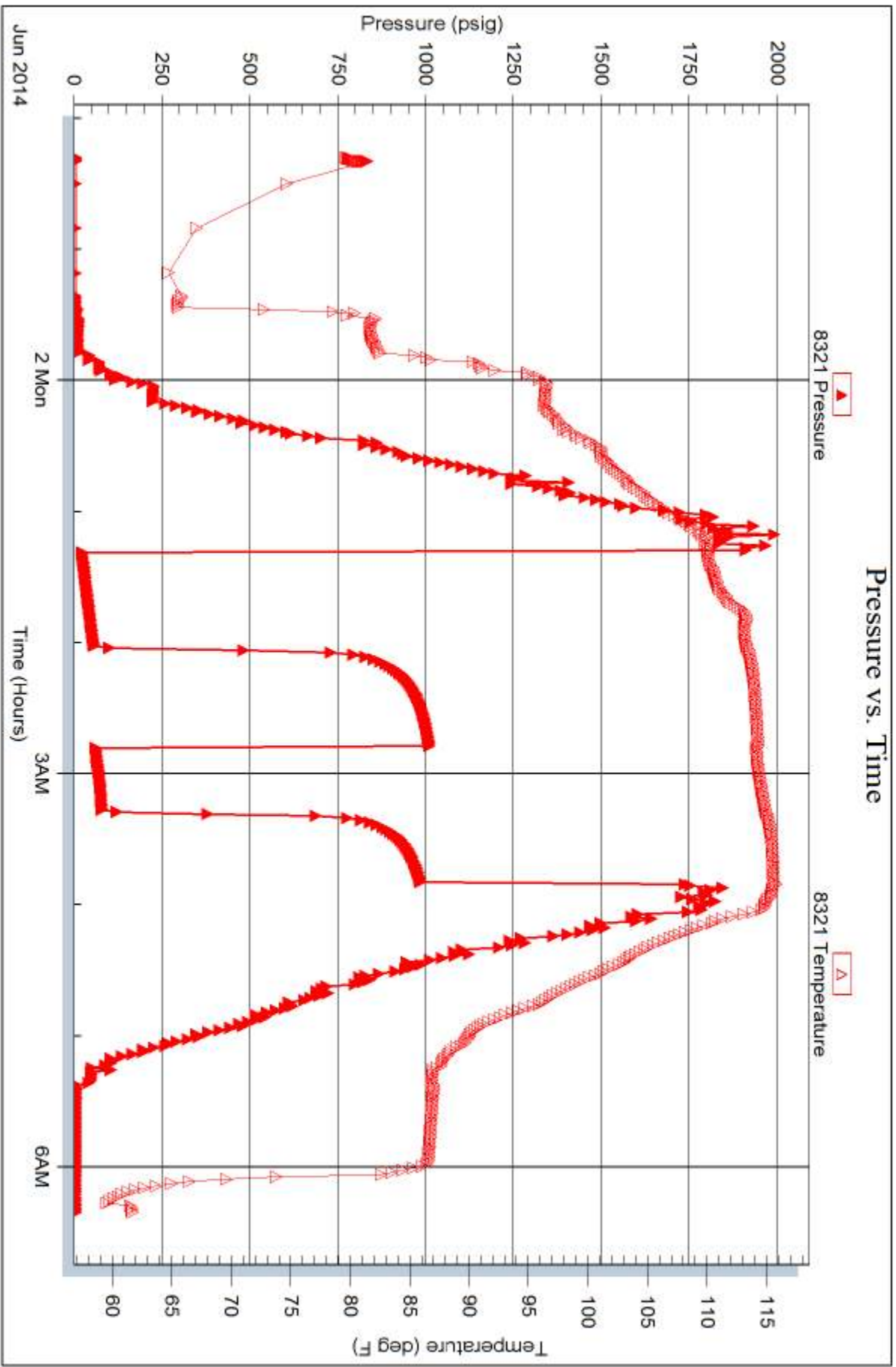


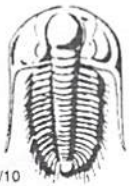
Serial #: 8321

Outside Baird Oil Company, LLC

Curtis Tien #1-12

DST Test Number: 2





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 59239

Well Name & No. Curtis Tien #1-72 Test No. 1 Date 6/1/14  
 Company Baird Oil Company, LLC Elevation 2431 KB 2423 GL  
 Address 113 W. Main PO Box 428 Logan, KS 67646  
 Co. Rep / Geo. Richard Bell Rig WW #12  
 Location: Sec. 12 Twp. 7S Rge. 24W Co. Graham State KS

Interval Tested 3758-3778 Zone Tested LKC "D"  
 Anchor Length 20' Drill Pipe Run 3648 Mud Wt. 8.9  
 Top Packer Depth 3753 Drill Collars Run 123 Vis 60  
 Bottom Packer Depth 3758 Wt. Pipe Run \_\_\_\_\_ WL 7.6  
 Total Depth 3778 Chlorides 1300 ppm System LCM 1#

Blow Description IF - Weak surface blow  
ISI - No blow  
FF - No blow  
FST - No blow

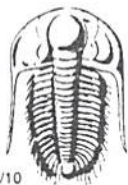
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>M</u>				
<u>5</u>	<u>MW</u>				

Rec Total 10' BHT 115° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1912  Test 1150 T-On Location 1040  
 (B) First Initial Flow 22  Jars \_\_\_\_\_ T-Started 1049  
 (C) First Final Flow 26  Safety Joint \_\_\_\_\_ T-Open 1251  
 (D) Initial Shut-In 1036  Circ Sub \_\_\_\_\_ T-Pulled 1451  
 (E) Second Initial Flow 30  Hourly Standby \_\_\_\_\_ T-Out 1625  
 (F) Second Final Flow 34  Mileage 152 RT 235.60 Comments \_\_\_\_\_  
 (G) Final Shut-In 1001  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1885  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 30  Day Standby \_\_\_\_\_ Total 1385.60  
 Final Flow 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 30 Sub Total 1385.60

Approved By \_\_\_\_\_ Our Representative Brannan L

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. 59240

Well Name & No. Curtis Tien #1-12 Test No. 2 Date 6/11/14  
 Company Baird Oil Company, LLC Elevation 2431 KB 2423 GL  
 Address 113 W. Main PO Box 428 Logan, KS 67646  
 Co. Rep / Geo. Richard Bell Rig WW #12  
 Location: Sec. 12 Twp. 7S Rge. 24W Co. Graham State KS

Interval Tested 3778-3800 Zone Tested LKC "F"  
 Anchor Length 22' Drill Pipe Run 3648 Mud Wt. 9.1  
 Top Packer Depth 3773 Drill Collars Run 123 Vis 55  
 Bottom Packer Depth 3778 Wt. Pipe Run --- WL 7.2  
 Total Depth 3800 Chlorides 1,400 ppm System LCM 3#

Blow Description IF - Built very slowly to 3"  
ISD - No blow  
FF - No blow  
PSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>135</u>	<u>MW</u>			<u>60</u>	<u>40</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 135' BHT 115° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic <u>1909</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2210</u>
(B) First Initial Flow <u>16</u>	<input type="checkbox"/> Jars _____	T-Started <u>2218</u>
(C) First Final Flow <u>53</u>	<input type="checkbox"/> Safety Joint _____	T-Open <u>0117 6/2</u>
(D) Initial Shut-In <u>1005</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>0347</u>
(E) Second Initial Flow <u>56</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>0620</u>
(F) Second Final Flow <u>75</u>	<input checked="" type="checkbox"/> Mileage <u>152 RT</u>	Comments <u>Loaded tools</u>
(G) Final Shut-In <u>980</u>	<input type="checkbox"/> Sampler _____	<u>6/3 @ 0400</u>
(H) Final Hydrostatic <u>1840</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____

Initial Open 45  
 Initial Shut-In 45  
 Final Flow 30  
 Final Shut-In 30

Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Sub Total 1621.20

Sub Total 1621.20

Approved By \_\_\_\_\_ Our Representative Braman L

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.