

**WELL COMPLETION FORM**  
**WELL HISTORY - DESCRIPTION OF WELL & LEASE**

Operator: License # 33625  
Name: HERTEL OIL COMPANY, LLC  
Address: 704 East 12th Street  
City/State/Zip: Hays, KS 67601  
Purchaser: \_\_\_\_\_  
Operator Contact Person: David Hertel  
Phone: (785) 628-2445  
Contractor: Name: Discovery Drilling Co., Inc.  
License: 31548  
Wellsite Geologist: Duane Stecklein

Designate Type of Completion:  
 New Well  Re-Entry  Workover  
 Oil  SWD  SLOW  Temp. Abd.  
 Gas  ENHR  SIGW  
 Dry  Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_  
Well Name: \_\_\_\_\_  
Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_  
 Deepening  Re-perf.  Conv. to Enhr./SWD  
 Plug Back \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_  
 Commingled \_\_\_\_\_ Docket No. \_\_\_\_\_  
 Dual Completion \_\_\_\_\_ Docket No. \_\_\_\_\_  
 Other (SWD or Enhr.?) \_\_\_\_\_ Docket No. \_\_\_\_\_

1/5/08 1/10/08 1/11/08  
Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - 051-25,718-0000  
County: Ellis  
NW NW SE Sec. 8 Twp. 14 S. R. 17W  East  West  
2310 feet from (S) (circle one) Line of Section  
2310 feet from (E) (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:  
(circle one) NE (SE) NW SW  
Lease Name: HOFFMAN Well #: 3-8  
Field Name: Younger

Producing Formation: None  
Elevation: Ground: 2002 Kelly Bushing: 2010  
Total Depth: 3635 Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at 222.48 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 crnt.  
(15sks In Rat Hole)(10sks In Mouse Hole) *Alt 2/Dlg 1/28/09*

**Drilling Fluid Management Plan**  
(Data must be collected from the Reserve Pit)  
Chloride content 14,000 ppm Fluid volume 240 bbls  
Dewatering method used Evaporation

Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: \_\_\_\_\_  
Lease Name: \_\_\_\_\_ License No.: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Docket No.: \_\_\_\_\_

**INSTRUCTIONS:** An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature: [Signature]  
Title: Managing Member Date: 2-15-2008  
Subscribed and sworn to before me this 15th day of FEBRUARY 2008.  
Notary Public: Arlene M. Brungardt  
Date Commission Expires: 03-20-2009

**KCC Office Use ONLY**  
 Letter of Confidentiality Received  
If Denied, Yes  Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution

NOTARY PUBLIC  
STATE OF KANSAS  
ARLENE M. BRUNGARDT  
NOTARY PUBLIC  
STATE OF KANSAS  
My App. Exp. 3-20-2009

**ORIGINAL**

Operator Name: HERTEL OIL COMPANY, LLC Lease Name: HOFFMAN Well #: 3-8  
 Sec. 8 Twp. 14 S. R. 17W  East  West County: Ellis

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

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Attach Additional Sheets)  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Submit Copy)  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum Name Top Datum
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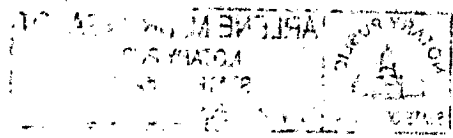
CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./ Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface Pipe	12 1/4	8 5/8	20	222.48	Common	150	2%Gel&3%CC

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

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

TUBING RECORD		Size	Set At	Packer At	Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No
Date of First, Resumerd Production, SWD or Enhr.			Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> 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 <input type="checkbox"/> Other (Specify)	Production Interval
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# ALLIED CEMENTING CO., LLC. 33951

Federal Tax I.D.

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

SERVICE POINT:  
Russell KS

DATE <u>1-5-08</u>	SEC. <u>8</u>	TWP. <u>14</u>	RANGE <u>17W</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>5:15pm</u>
LEASE <u>Hoffman</u>		WELL # <u>3-8</u>		LOCATION <u>Hays KS E on Hwy 40 + Taulon</u>		COUNTY <u>Ellis</u>	STATE <u>KS</u>
OLD OR <u>NEW</u> (Circle one)			<u>1 S 1/2 E N into.</u>				

CONTRACTOR Discovery Drilling Rig #2

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 224

CASING SIZE 8 5/8 ~~20~~ DEPTH 222.48

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

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

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

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

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

CEMENT LEFT IN CSG. 15'

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

DISPLACEMENT 13.21

OWNER \_\_\_\_\_

CEMENT AMOUNT ORDERED 150com 3%cc 2%gel

COMMON	<u>150</u>	@	<u>12.15</u>	<u>1822.50</u>
POZMIX		@		
GEL	<u>3</u>	@	<u>18.25</u>	<u>54.75</u>
CHLORIDE	<u>5</u>	@	<u>51.00</u>	<u>255.00</u>
ASC		@		

**EQUIPMENT**

PUMP TRUCK # 409 CEMENTER John Roberts  
HELPER Robert

BULK TRUCK # 345 DRIVER Travis

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

RECEIVED

FEB 25 2008

KCC WICHITA

HANDLING	<u>1.50</u>	@	<u>1.90</u>	<u>300.20</u>
MILEAGE	<u>20</u>	<u>SK/m/09</u>		<u>284.40</u>
			TOTAL	<u>276.85</u>

**REMARKS:**

Cement Circ!

**SERVICE**

DEPTH OF JOB				
PUMP TRUCK CHARGE				<u>853.00</u>
EXTRA FOOTAGE		@		
MILEAGE	<u>20</u>	@	<u>7</u>	<u>140.00</u>
MANIFOLD		@		
			TOTAL	<u>1033.00</u>

CHARGE TO: Hertel Oil Company

STREET \_\_\_\_\_

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

**PLUG & FLOAT EQUIPMENT**

		@		
		@		
<u>8 5/8 Wood Plug</u>		@		<u>66.00</u>
		@		

To Allied Cementing Co., LLC.  
You are hereby requested to rent cementing equipment

## GENERAL TERMS AND CONDITIONS

**DEFINITIONS:** In these terms and conditions, "ALLIED" shall mean Allied Cementing Co., LLC, and "CUSTOMER" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "Merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

—**TERMS:** Unless satisfactory credit has been established, CUSTOMER must tender full cash payment to ALLIED before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, CUSTOMER agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing, in no event shall this Contract provide for interest exceeding the maximum rate of interest that CUSTOMER may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the CUSTOMER or at the option of ALLIED, refunded directly to CUSTOMER. For purposes of this paragraph, ALLIED and CUSTOMER agree that Kansas law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.

—**ATTORNEY FEES:** In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the terms of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limited to, a reasonable sum as and for attorney's fees.

—**PRICES AND TAXES:** All merchandise listed in ALLIED'S current price schedule are F.O.B. ALLIED'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by ALLIED shall be added to the quoted prices charged to CUSTOMER.

—**TOWING CHARGES:** ALLIED will make a reasonable attempt to get to and from each job site using its own equipment. Should ALLIED be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by ALLIED, will be charged to and paid by CUSTOMER.

—**PREPARATION CHARGES:** If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay ALLIED for the expenses incurred by ALLIED as a result of the cancellation.

—**DEADHAUL CHARGES:** Unless otherwise specified on the front of this Contract, a deadhaul charge as set forth in ALLIED'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.

### —SERVICE CONDITIONS AND LIABILITIES:

1. ALLIED carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond ALLIED'S control, ALLIED shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. CUSTOMER shall be responsible for and indemnify, defend, and hold harmless ALLIED, its officers, agents and employees, from and against any and all claims or suits for:

(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with ALLIED'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of ALLIED or its employees.

2. With respect to any of ALLIED'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to ALLIED at the landing, CUSTOMER shall either recover the lost item without cost to ALLIED or reimburse ALLIED the current replacement cost of the item unless the loss or damage results from the sole negligence of ALLIED or its employees.

3. ALLIED does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

### WARRANTIES:

1. ALLIED warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. ALLIED'S obligation under this warranty is expressly limited to repair, replacement, or allowance for credit, at its option, for any merchandise which is determined by ALLIED to be defective. THIS IS THE SOLE WARRANTY OF ALLIED AND NO OTHER WARRANTY IS

# ALLIED CEMENTING CO., LLC. 33956

Federal Tax I.D.

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

SERVICE POINT:  
Russell KS

DATE <u>1-11-08</u>	SEC. <u>8</u>	TWP. <u>14</u>	RANGE <u>17W</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>Hoffman</u>		WELL # <u>3-8</u>		LOCATION <u>Toulon and Hwy 40 1 South</u>		COUNTY <u>Ellis</u>	STATE <u>KS</u>
<input checked="" type="radio"/> OLD OR NEW (Circle one)		Y <sub>2</sub> East North into					

CONTRACTOR Discovery Drilling Rig #2 OWNER

TYPE OF JOB Rotary Plug

HOLE SIZE <u>7 7/8</u>	T.D. <u>3635'</u>
CASING SIZE	DEPTH
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH <u>3525'</u>
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT	

CEMENT AMOUNT ORDERED 225 69/40 4% Gel 1/4" Flo

COMMON	<u>135</u>	@ <u>12.15</u>	<u>1640.25</u>
POZMIX	<u>90</u>	@ <u>6.80</u>	<u>612.00</u>
GEL	<u>8</u>	@ <u>18.25</u>	<u>146.00</u>
CHLORIDE		@	
ASC		@	
<u>Flo seal 56lbs</u>		@ <u>2.20</u>	<u>123.20</u>
<b>RECEIVED</b>			
<b>FEB 25 2008</b>			
<b>KCC WICHITA</b>			
HANDLING	<u>233</u>	@ <u>2.05</u>	<u>477.65</u>
MILEAGE	<u>22 SK/mi/09</u>		<u>461.29</u>
			TOTAL <u>3460.44</u>

**EQUIPMENT**

PUMP TRUCK	CEMENTER <u>John Roberts</u>
<u>366</u>	HELPER <u>Adrian</u>
BULK TRUCK	
<u>410</u>	DRIVER <u>Doug</u> Helper - <u>Neal</u>
BULK TRUCK	DRIVER

**REMARKS:**

- 3525' 25 sks
- 235' 25 sks
- 580' 80 sks
- 275' 40 sks
- 40' 10 sks
- Mousehole 10 sks
- Rathole 15 sks

**SERVICE**

DEPTH OF JOB	
PUMP TRUCK CHARGE	<u>893.00</u>
EXTRA FOOTAGE	@
MILEAGE	<u>22</u> @ <u>7.00</u> <u>154.00</u>
MANIFOLD	@
	@
	@

TOTAL 1047.00

**PLUG & FLOAT-EQUIPMENT**

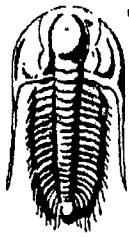
	@	
	@	
<u>Dry Hole Plug</u>	@	<u>39.00</u>
	@	

ORDER TO: Hertel Oil Co. Inc.

ADDRESS \_\_\_\_\_

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

Allied Cementing Co., LLC.  
are hereby requested to rent cementing equipment



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hertel Oil Co LLC

**Hoffman #3-8**

704 E 12th St  
Hays KS 67601

**8 14 17 Ellis KS**

Job Ticket: 31495

**DST#: 1**

ATTN: Mke Hertel

Test Start: 2008.01.10 @ 00:36:43

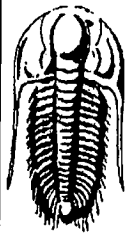
**Tool Information**

Drill Pipe:	Length: 3483.00 ft	Diameter: 3.80 inches	Volume: 48.86 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 65000.00 lb
		<b>Total Volume:</b>	<b>49.01 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 49000.00 lb
Depth to Top Packer:	3525.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	100.02 ft			
Tool Length:	121.02 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3505.00	
Shut In Tool	5.00			3510.00	
Hydraulic tool	5.00			3515.00	
Packer	5.00			3520.00	21.00 Bottom Of Top Packer
Packer	5.00			3525.00	
Stubb	1.00			3526.00	
Perforations	7.00			3533.00	
Blank Spacing	64.00			3597.00	
Recorder	0.01	8365	Inside	3597.01	
Recorder	0.01	8371	Outside	3597.02	
Perforations	25.00			3622.02	
Bullnose	3.00			3625.02	100.02 Bottom Packers & Anchor

**Total Tool Length: 121.02**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hertel Oil Co LLC

**Hoffman #3-8**

704 E 12th St  
Hays KS 67601

**8 14 17 Ellis KS**

Job Ticket: 31495

**DST#: 1**

ATTN: Mike Hertel

Test Start: 2008.01.10 @ 00:36:43

## 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: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.76 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: 2.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
220.00	SOCM 2%O 98%M	2.813

Total Length: 220.00 ft      Total Volume: 2.813 bbl

Num Fluid Samples: 0

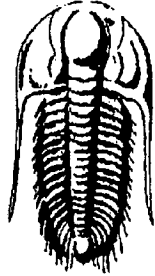
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Hertel Oil Co LLC**

704 E 12th St  
Hays KS 67601

15-051-29718-0000  
ATTN: Mike Hertel

**8 14 17 Ellis KS**

**Hoffman #3-8**

Start Date: 2008.01.10 @ 00:36:43

End Date: 2008.01.10 @ 07:45:07

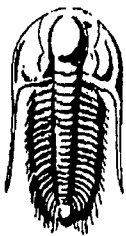
Job Ticket #: 31495                      DST #: 1

RECEIVED  
FEB 20 2008  
KCC WICHITA

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

Hertel Oil Co LLC  
Hoffman #3-8  
8 14 17 Ellis KS  
DST # 1  
Arbuckle  
2008.01.10





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Hertel Oil Co LLC

704 E 12th St  
Hays KS 67601

ATTN: Mke Hertel

**Hoffman #3-8**

**8 14 17 Ellis KS**

Job Ticket: 31495

DST#: 1

Test Start: 2008.01.10 @ 00:36:43

## GENERAL INFORMATION:

Formation: **Arbuckle**

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

Time Tool Opened: 02:29:08

Time Test Ended: 07:45:07

Test Type: **Conventional Bottom Hole**

Tester: **Ray Schwager**

Unit No: **42**

Interval: **3525.00 ft (KB) To 3625.00 ft (KB) (TVD)**

Total Depth: **3625.00 ft (KB) (TVD)**

Hole Diameter: **7.85 inches** Hole Condition: **Fair**

Reference Elevations: **2010.00 ft (KB)**

**2002.00 ft (CF)**

KB to GR/CF: **8.00 ft**

**Serial #: 8365**

**Inside**

Press@RunDepth: **153.51 psig @ 3597.01 ft (KB)**

Start Date: **2008.01.10**

End Date:

**2008.01.10**

Start Time: **00:36:43**

End Time:

**07:45:07**

Capacity: **7000.00 psig**

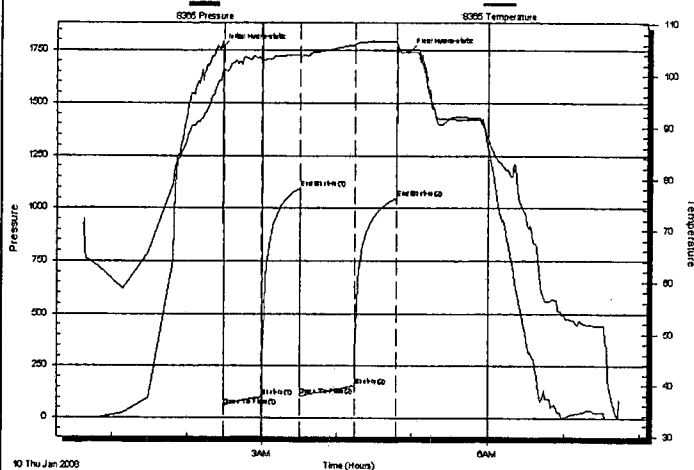
Last Calib.: **2008.01.10**

Time On Btm: **2008.01.10 @ 02:26:38**

Time Off Btm: **2008.01.10 @ 04:57:07**

TEST COMMENT: IFF Wk bl thru-out 1/2 " to 3 " bl  
FFP Wk bl thru-out 1/4 " to 2 3/4 " bl  
Times 30 30 45 30

Pressure vs. Time



## PRESSURE SUMMARY

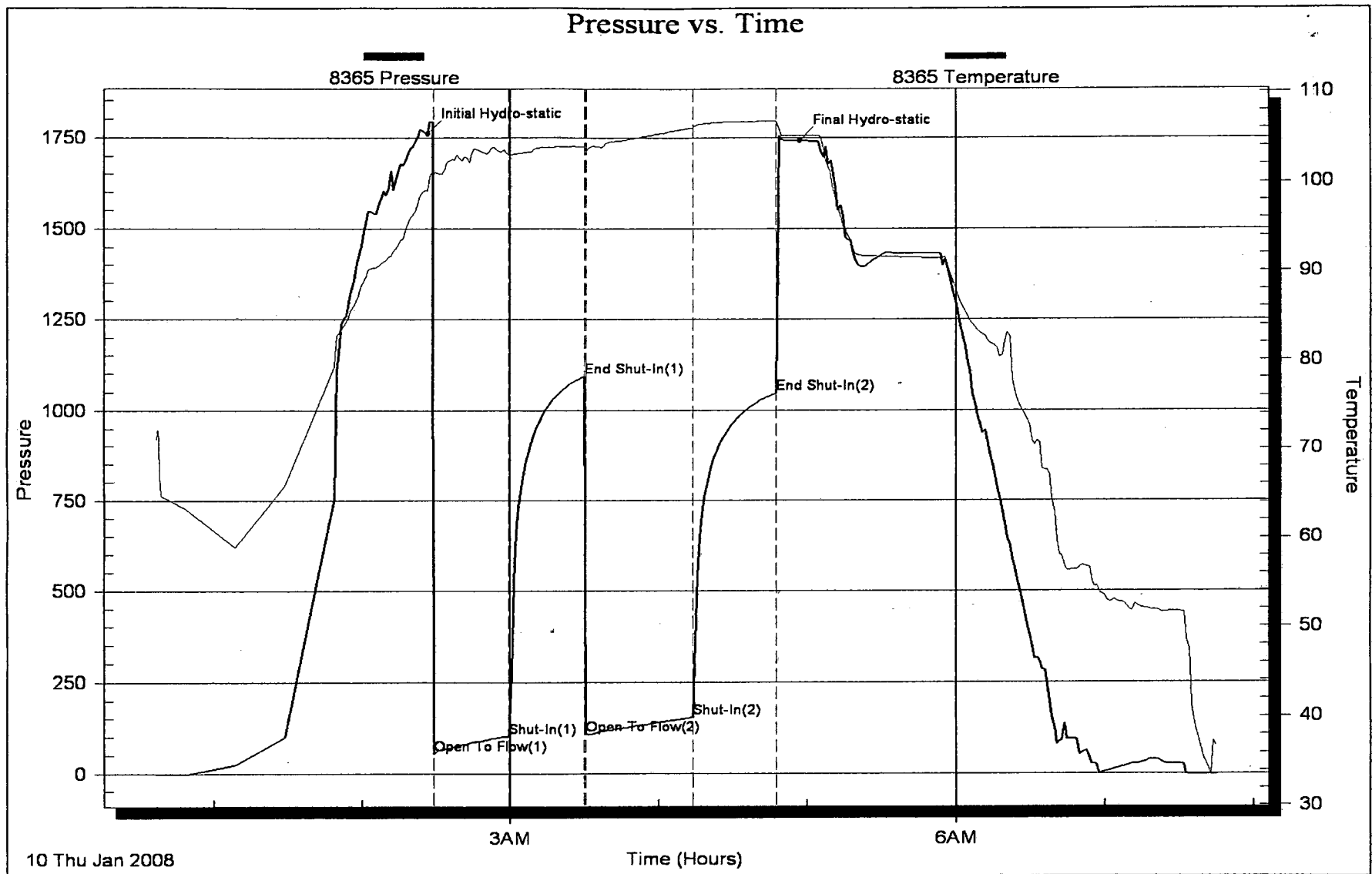
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1759.70	99.02	Initial Hydro-static
3	54.39	100.75	Open To Flow (1)
33	101.48	103.01	Shut-In (1)
64	1092.92	103.94	End Shut-In (1)
64	105.90	103.42	Open To Flow (2)
108	153.51	106.04	Shut-In (2)
141	1047.19	106.68	End Shut-In (2)
151	1741.35	105.17	Final Hydro-static

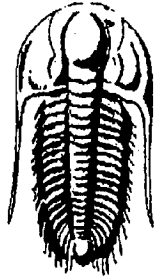
## Recovery

Length (ft)	Description	Volume (bbl)
220.00	SOCM 2%O 98%M	2.81

## Gas Rates

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





**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Hertel Oil Co LLC**

704 E 12th St  
Hays KS 67601

ATTN: Mike Hertel

**8 14 17 Ellis KS**

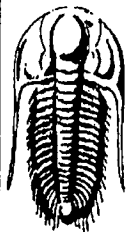
**Hoffman #3-8**

Start Date: 2008.01.10 @ 14:53:49

End Date: 2008.01.10 @ 20:20:13

Job Ticket #: 31496                      DST #: 2

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Hertel Oil Co LLC

**Hoffman #3-8**

704 E 12th St  
Hays KS 67601

**8 14 17 Ellis KS**

Job Ticket: 31496

DST#: 2

ATTN: Mike Hertel

Test Start: 2008.01.10 @ 14:53:49

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:21:44

Time Test Ended: 20:20:13

Test Type: Conventional Bottom Hole

Tester: Ray Schwager

Unit No: 42

Interval: **3605.00 ft (KB) To 3635.00 ft (KB) (TVD)**

Reference Elevations: 2010.00 ft (KB)

Total Depth: 3635.00 ft (KB) (TVD)

2002.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 8371** Outside

Press@RunDepth: 291.16 psig @ 3606.02 ft (KB)

Capacity: 7000.00 psig

Start Date: 2008.01.10

End Date: 2008.01.10

Last Calib.: 2008.01.10

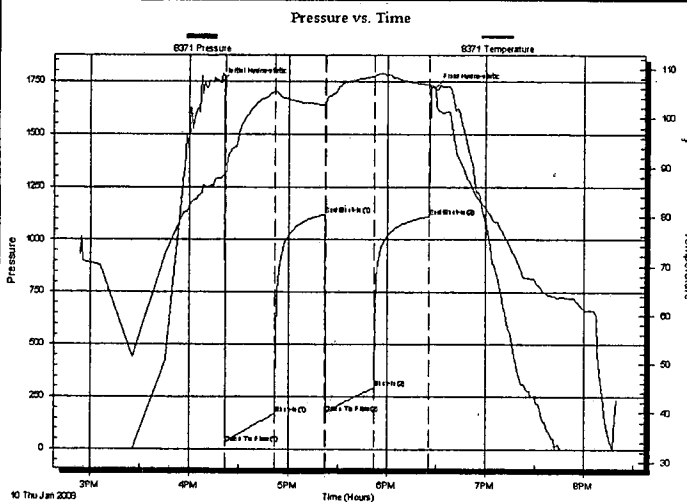
Start Time: 14:53:49

End Time: 20:20:13

Time On Btm: 2008.01.10 @ 16:19:14

Time Off Btm: 2008.01.10 @ 18:29:14

TEST COMMENT: IFP Strg bl in 8 min  
FFP Strg bl in 15 min  
ISIP No bl  
FSIP Surface bl bk Time 30 30 30 30



## PRESSURE SUMMARY

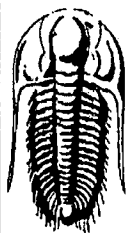
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1745.13	87.86	Initial Hydro-static
3	27.32	87.79	Open To Flow (1)
33	166.97	105.41	Shut-In(1)
63	1119.14	102.62	End Shut-In(1)
63	173.21	102.60	Open To Flow(2)
93	291.16	108.48	Shut-In(2)
126	1110.93	106.81	End Shut-In(2)
130	1720.25	106.22	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
160.00	MW 15%M 85%W w/show of Oil	1.97
420.00	Water RW .5 @ 55F	5.89

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Hertel Oil Co LLC

**Hoffman #3-8**

704 E 12th St  
Hays KS 67601

**8 14 17 Ellis KS**

ATTN: Mike Hertel

Job Ticket: 31496

**DST#: 2**

Test Start: 2008.01.10 @ 14:53:49

### Tool Information

Drill Pipe:	Length: 3568.00 ft	Diameter: 3.80 inches	Volume: 50.05 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 60000.00 lb
		<b>Total Volume:</b>	<b>50.20 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3605.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.02 ft			
Tool Length:	51.02 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			3585.00	
Shut In Tool	5.00			3590.00	
Hydraulic tool	5.00			3595.00	
Packer	5.00			3600.00	21.00 Bottom Of Top Packer
Packer	5.00			3605.00	
Stubb	1.00			3606.00	
Recorder	0.01	8365	Inside	3606.01	
Recorder	0.01	8371	Outside	3606.02	
Perforations	26.00			3632.02	
Bullnose	3.00			3635.02	30.02 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>51.02</b>				



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Hertel Oil Co LLC

**Hoffman #3-8**

704 E 12th St  
Hays KS 67601

**8 14 17 Ellis KS**

Job Ticket: 31496

**DST#: 2**

ATTN: Mke Hertel

Test Start: 2008.01.10 @ 14:53:49

**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:

17000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.75 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: 2.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
160.00	MW 15%M 85%W w/show of Oil	1.971
420.00	Water RW .5 @ 55F	5.891

Total Length: 580.00 ft

Total Volume: 7.862 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

