

KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION

**ORIGINAL**

Form ACO-1  
June 2009

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

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

OPERATOR: License # 8928  
Name: Liberty Operations & Completions, Inc  
Address 1: 308 West Mill  
Address 2: \_\_\_\_\_  
City: Plainville State: KS Zip: 67663 + \_\_\_\_\_  
Contact Person: Roger L. Comeau  
Phone: ( 785 ) 434-4686  
CONTRACTOR: License # 8925  
Name: Liberty Operations & Completions, Inc  
Wellsite Geologist: Tony Richardson  
Purchaser: \_\_\_\_\_

Designate Type of Completion:  
 New Well     Re-Entry     Workover  
 Oil     WSW     SWD     SLOW  
 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  
 Conv. to GSW  
 Plug Back: \_\_\_\_\_ Plug Back Total Depth \_\_\_\_\_  
 Commingled    Permit #: \_\_\_\_\_  
 Dual Completion    Permit #: \_\_\_\_\_  
 SWD    Permit #: \_\_\_\_\_  
 ENHR    Permit #: \_\_\_\_\_  
 GSW    Permit #: \_\_\_\_\_  
2/05/2010    2/12/2010    2/13/2010  
Spud Date or    Date Reached TD    Completion Date or  
Recompletion Date       Recompletion Date

API No. 15 - 15-051-25954-00-00  
Spot Description: \_\_\_\_\_  
E2\_NE\_NE Sec. 8 Twp. 11 S. R. 17  East  West  
660 Feet from  North /  South Line of Section  
330 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE     NW     SE     SW  
County: Ellis  
Lease Name: Ganoung Well #: 1  
Field Name: \_\_\_\_\_  
Producing Formation: Arbuckle  
Elevation: Ground: 1904 Kelly Bushing: 1908  
Total Depth: 3470 Plug Back Total Depth: \_\_\_\_\_  
Amount of Surface Pipe Set and Cemented at: 211 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: 1700 Feet  
If Alternate II completion, cement circulated from: \_\_\_\_\_  
feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmf.

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**Drilling Fluid Management Plan**  
(Data must be collected from the Reserve Pit)  
Chloride content: 5000 ppm Fluid volume: 80 bbls  
Dewatering method used: Evaporated  
Location of fluid disposal if hauled offsite: \_\_\_\_\_  
Operator Name: \_\_\_\_\_  
Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_  
Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West  
County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**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.

**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.

Signature: Roger L. Comeau  
Title: Pres Date: 5-25-2011

**KCC Office Use ONLY**

Letter of Confidentiality Received  
Date: \_\_\_\_\_  
 Confidential Release Date: \_\_\_\_\_  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: Dlg Date: 5/27/11

Operator Name: Liberty Operations & Completions, Inc Lease Name: Ganoung Well #: 1  
 Sec. 8 Twp. 11 S. R. 17  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 complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input 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 Electric Log Submitted Electronically <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run: <b>Attached</b>	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum Attached Attached Attached
---	---

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
Attached	Attached	Attached	Attached	Attached	Attached	Attached	Attached

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 <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
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 (Explain) _____		
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 (Specify) _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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 MAY 27 2011  
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# QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 3548

Date <u>2/13/10</u>		Sec.	Twp.	Range	County <u>E1113</u>	State <u>Ks</u>	On Location	Finish <u>9:00 pm</u>
Lease <u>Ganoung</u>		Well No. <u>1</u>		Location <u>Hays N to River Rd 3 1/2 E</u>				
Contractor <u>Vision Drly</u>		Owner <u>INIE SINTC</u>			To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.			
Type Job <u>Prod string (2 stage)</u>	Hole Size <u>7 7/8</u>			T.D. <u>3473'</u>	Charge To <u>Liberty Operations</u>			
Csg. <u>52</u>	Depth <u>3471'</u>			Street				
Tbg. Size	Depth			City				State
Drill Pipe	Depth			City				State
Tool <u>DV</u>	Depth <u>1771'</u>			The above was done to satisfaction and supervision of owner agent or contractor.				
Cement Left in Csg.	Shoe Joint			<u>1/4 Flowseal</u>				
Press Max.	Minimum			Amount Ordered <u>200 com 10% salt 5% gilsonite</u>				
Meas Line	Displace			Common				
Perf.				Poz. Mix <u>1</u>				
<b>EQUIPMENT</b>				Gel.				
Pumptrk <u>1</u>	No.	Cementer	<u>Paul</u>	Calcium				
		Helper	<u>Brendon</u>					
Bulktrk <u>8</u>	No.	Driver	<u>Doug</u>	Mills				
		Driver	<u>Doug</u>					
Bulktrk <u>12</u>	No.	Driver	<u>Rocky</u>	Salt				
		Driver	<u>Rocky</u>					
<b>JOB SERVICES &amp; REMARKS</b>				Flowseal				
Pumptrk Charge <u>Bottom Stage</u>								
Mileage								
Footage								
			Total	Handling				
Remarks:				Mileage				
<u>Cents on 1, 5, 10, 15, 20, 25</u>				Pump Truck Charge				
<u>69</u>								
<b>FLOAT EQUIPMENT</b>								
<u>Basket on</u>				Guide Shoe	<u>Triplex Basket Shoe</u>			
<u>DV on 42</u>				Centralizer	<u>7 turbos + 1 Reg</u>			
<u>Set Triplex</u>				Baskets	<u>1</u>			
<u>Pump 500 gal Mud Clear - 48</u>				AFU Inserts	<u>1 DV Tools</u>			
<u>Mix 200' ex down 5 1/2"</u>								
<u>Displace</u>								
<u>Land Plug @ 1500 psi</u>								
<u>Float Held</u>								
<u>Thank You!!</u>								
				Rotating Head				
				Squeez Mainfold				
				RECEIVED MAY 27 2011 KCC WICHITA				
				Signature <u>Raymond L. Cowen</u> Tax Discount Total Charge				

# QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 3733

Date	Sec.	Twp.	Range	County	State	On Location	Finish
2-5-10	8	11	17	Ellis	Kansas		11:00 AM
Lease <i>Gencom</i>	Well No. <i>1</i>		Location <i>Highway 11 to River Rd 3E 11W 1E S 10</i>				
Contractor <i>Vision Drilling</i>	Well No. <i>R1514</i>		Owner				
Type Job <i>Surface</i>	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.						
Hole Size <i>12 1/4</i>	T.D. <i>221</i>		Charge To <i>Liberty Operations</i>				
Csg. <i>8 3/8 2316</i>	Depth		Street				
Tbg. Size	Depth		City				
Tool	Depth		State				
Cement Left in Csg. <i>10-15'</i>	Shoe Joint		The above was done to satisfaction and supervision of owner agent or contractor.				
Meas Line	Displace <i>1330</i>		<b>CEMENT</b>				
<b>EQUIPMENT</b>			Amount Ordered <i>165 Cem 3000 2800</i>				
Pumptrk	No.	Cementer	Common				
		Helper <i>Steve</i>					
Bulktrk	No.	Driver	Poz. Mix				
		Driver <i>Paul</i>					
Bulktrk	No.	Driver	Gel.				
		Driver <i>Doug</i>					
<b>JOB SERVICES &amp; REMARKS</b>			Calcium				
Remarks:			Hulls				
<i>Cement did Circulate</i>			Salt				
			Flowseal				
			Handling				
			Mileage				
			<b>FLOAT EQUIPMENT</b>				
			Guide Shoe				
			Centralizer				
			Baskets				
			AFU Inserts				
			<i>Some (A)</i>				
			Pumptrk Charge				
			Mileage				
			Tax				
			Discount				
			Total Charge				
Signature <i>Chris Hill Vision Drilling</i>							

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# QUALITY OILWELL CEMENTING, INC.

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 3549

Date <b>2-13-10</b>	Sec.	Twp.	Range	County <b>Ellis</b>	State <b>Ks</b>	On Location	Finish <b>10:00 PM</b>
Lease <b>Ganong</b>	Well No. <b>1</b>		Location <b>Flays N to River Rd 3 1/2 E</b>				
Contractor <b>Vision</b>			Owner <b>LAIE SINT</b>				
Type Job <b>prod string (2 stage)</b>	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.						
Hole Size	F.D.						
Csg. <b>5L</b>	Depth		Charge To <b>Liberty Operation</b>				
Tbg. Size	Depth		Street				
Drill Pipe	Depth		City State				
Tool <b>DUP</b>	Depth		The above was done to satisfaction and supervision of owner agent or contractor.				
Cement Left in Csg.	Shoe Joint		<b>CEMENT</b>				
Press Max.	Minimum		Amount Ordered <b>400 5/8 6/8 gel 1/4 flow per sk</b>				
Meas Line	Displace		Common				
Perf.			Poz. Mix				
<b>EQUIPMENT</b>			Gel.				
Pumptrk <b>1</b>	No.	Cementer	<b>Paul</b>				
		Helper					
Bulktrk <b>8</b>	No.	Driver	<b>Brandon</b>				
		Driver					
Bulktrk <b>12</b>	No.	Driver	<b>Doug</b>				
		Driver					
<b>JOB SERVICES &amp; REMARKS</b>			Salt				
Pumptrk Charge <b>TOP Stage</b>			Flowseal				
Mileage	<b>NK</b>						
Footage							
Total			Handling				
Remarks:			Mileage.				
<b>plug Rod hole 40 sk main hole</b>			Pump Truck Charge				
			<b>FLOAT EQUIPMENT</b>				
<b>Mixed Cement. Released plug pumped displacement Landed plug &amp; closed foot @ 1400 psi cement circulated witness: Dave Fink</b>			Guide Shoe				
			Centralizer				
			Baskets				
			AFU, Inserts				
<b>Robert J. Mickelson Owner &amp; Contractor</b>			Rotating Head				
			Squeez Mainfold				
			Tax				
Signature			Discount				
			Total Charge				

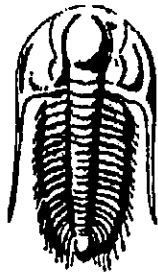
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Form	ACO1- Well Completion						
Operator	Liberty Operations & Completions, Inc						
Well Name	Ganoung 1						
<b><u>TOPS</u></b>							
<u>Name</u>	<u>Top</u>	<u>Datum</u>					
Anhydrite	1151	+757					
Topeka	2864	-956					
Heebner	3083	-1175					
Toronto	3117	-1209					
L/KS A	3134	-1226					
Stark	3319	-1411					
b/KC	3377	-1469					
Conglomerate	3401	-1493					
Arbuckle	3470	-1562					
<b><u>CASING</u></b>							
<u>Purpose of String</u>	<u>Size Hole Drilled</u>	<u>Size Casing Set</u>	<u>Weight</u>	<u>Setting Depth</u>	<u>Type of Cement</u>	<u>Number of Sacks Used</u>	<u>Type &amp; Percent Additives</u>
Surface Pipe	12.5	8.6250	22	221	Common	165	60/40 Poz 3% cc 2 % gel
Prod. String	7.8750	5.5	15.50	2800	Common	200	5% cc 3% gel
Prod. String	7.8750	5.5	15.50	3470	Common	400	light weight 6% salt
Prod. String	7.8750	5.5	15.50	3470	Common	100	Flowseal
<b><u>ALL ELECTRIC LOGS RUN</u></b>							
Dual Receiver Cement Bond Log							
Comensated density/Neutron PE log							
Micro Log							
Dual Induction Log							

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**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Liberty Operations & Completions**  
308 W Mill  
Plainville KS 67663

ATTN: Roger Comeau

**8 1 17 Ellis KS**

**Ganoung # 1**

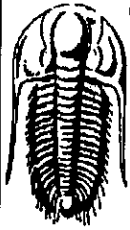
Start Date: 2010.02.11 @ 13:00:16

End Date: 2010.02.11 @ 17:19:46

Job Ticket #: 38127                      DST #: 1

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KCC WICHITA**

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Liberty Operations & Completions

**Ganoung # 1**

308 W Mill  
Plainville KS 67663

**8 1 17 Ellis KS**

Job Ticket: 38127

DST#: 1

ATTN: Roger Comeau

Test Start: 2010.02.11 @ 13:00:16

### GENERAL INFORMATION:

Formation: **E-F-G LKC**

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

Time Tool Opened: 15:15:00

Time Test Ended: 17:19:46

Test Type: **Conventional Straddle**

Tester: **Dan Bangle**

Unit No: **38**

Interval: **3195.00 ft (KB) To 3235.00 ft (KB) (TVD)**

Total Depth: **3455.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **1908.00 ft (KB)**

**1900.00 ft (CF)**

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

**Serial #: 8354** Inside

Press@RunDepth: psig @ **3198.00 ft (KB)**

Start Date: **2010.02.11**

End Date: **2010.02.11**

Capacity: **8000.00 psig**

Last Calib.: **2010.02.11**

Start Time: **13:00:17**

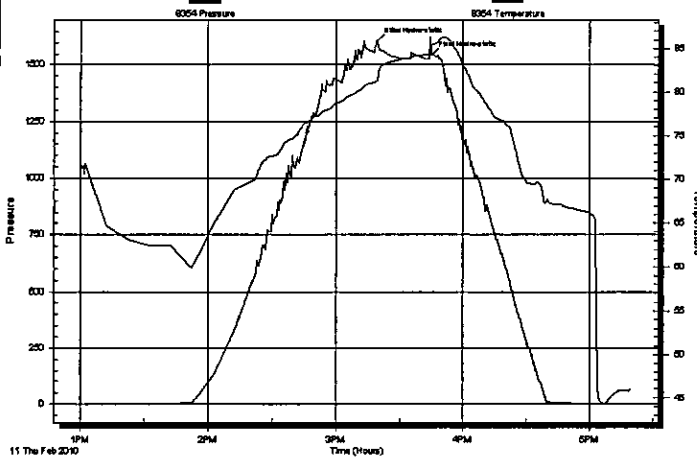
End Time: **17:19:46**

Time On Btm: **2010.02.11 @ 15:19:16**

Time Off Btm: **2010.02.11 @ 15:45:16**

TEST COMMENT: **Packer Failure**

Pressure vs. Time



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1605.82	81.21	Initial Hydro-static
26	1545.70	85.27	Final Hydro-static

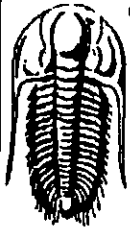
### Recovery

Length (ft)	Description	Volume (bbl)
60.00	Drig Mud	0.84

### Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Liberty Operations & Completions

**Ganoung # 1**

308 W Mill  
Plainville KS 67663

**8 1 17 Ellis KS**

Job Ticket: 38127

**DST#: 1**

ATTN: Roger Comeau

Test Start: 2010.02.11 @ 13:00:16

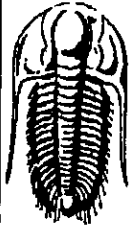
## Tool Information

Drill Pipe:	Length: 3175.00 ft	Diameter: 3.80 inches	Volume: 44.54 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 30000.00 lb
			<u>Total Volume: 44.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	0.00 ft			String Weight: Initial 30000.00 lb
Depth to Top Packer:	3195.00 ft			Final 30000.00 lb
Depth to Bottom Packer:	3235.00 ft			
Interval between Packers:	40.00 ft			
Tool Length:	280.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3176.00	
Shut In Tool	5.00			3181.00	
Hydraulic tool	5.00			3186.00	
Packer	5.00			3191.00	20.00 Bottom Of Top Packer
Packer	4.00			3195.00	
Stubb	1.00			3196.00	
Perforations	1.00			3197.00	
Change Over Sub	1.00			3198.00	
Recorder	0.00	8354	Inside	3198.00	
Recorder	0.00	8653	Outside	3198.00	
Drill Pipe	31.00			3229.00	
Perforations	2.00			3231.00	
Blank Off Sub	1.00			3232.00	
Blank Spacing	3.00			3235.00	40.00 Tool Interval
Packer	2.00			3237.00	
Stubb	1.00			3238.00	
Perforations	3.00			3241.00	
Change Over Sub	1.00			3242.00	
Recorder	0.00	8520	Inside	3242.00	
Drill Pipe	213.00			3455.00	220.00 Bottom Packers & Anchor

**Total Tool Length: 280.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Liberty Operations & Completions

**Ganoung # 1**

308 W Mill  
Plainville KS 67663

**8 1 17 Ellis KS**

Job Ticket: 38127

DST#: 1

ATTN: Roger Comeau

Test Start: 2010.02.11 @ 13:00:16

**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: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
60.00	Drig Mud	0.842

Total Length: 60.00 ft

Total Volume: 0.842 bbl

Num Fluid Samples: 0

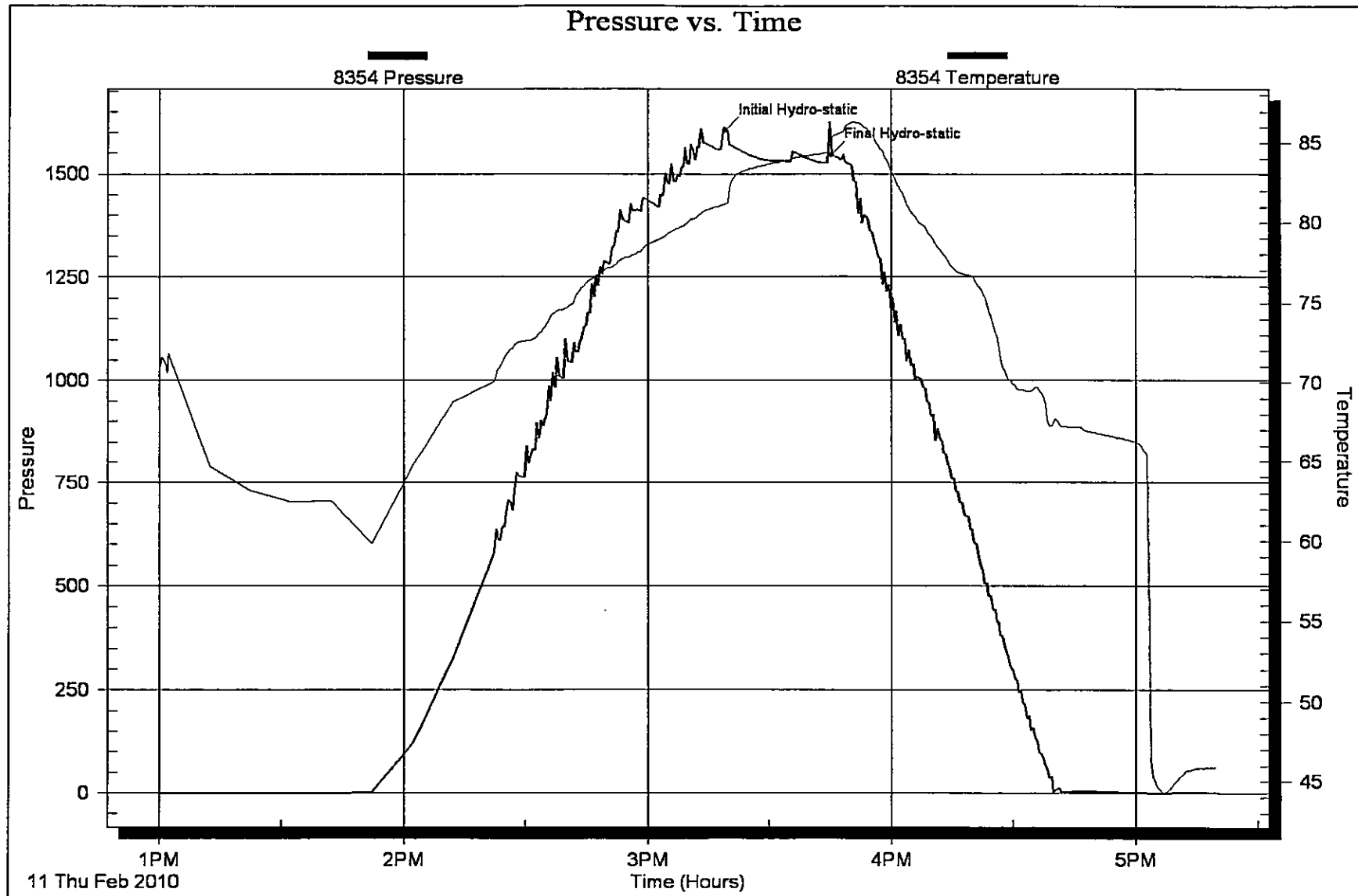
Num Gas Bombs: 0

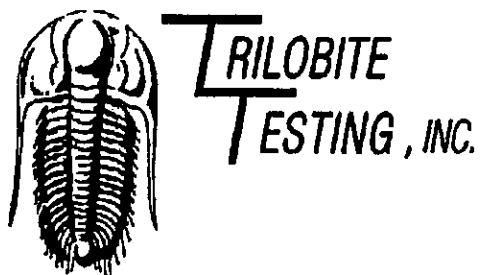
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





## DRILL STEM TEST REPORT

Prepared For: **Liberty Operations & Completions**

308 W Mill  
Plainville KS 67663

ATTN: Roger Comeau

**8 1 17 Ellis KS**

**Ganoung # 1**

Start Date: 2010.02.11 @ 19:00:59

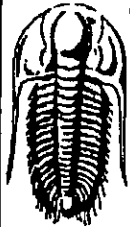
End Date: 2010.02.12 @ 03:31:29

Job Ticket #: 38128                      DST #: 2

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Liberty Operations & Completions

Ganoung # 1

308 W Mill  
Plainville KS 67663

8 1 17 Ells KS

Job Ticket: 38128

DST#: 2

ATTN: Roger Comeau

Test Start: 2010.02.11 @ 19:00:59

### GENERAL INFORMATION:

Formation: E-F-G LKC  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 20:26:59  
Time Test Ended: 03:31:29

Test Type: Conventional Straddle  
Tester: Dan Bangle  
Unit No: 38

Interval: 3195.00 ft (KB) To 3235.00 ft (KB) (TVD)  
Total Depth: 3455.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1908.00 ft (KB)  
1900.00 ft (CF)  
KB to GR/CF: 8.00 ft

Serial #: 8354

Inside

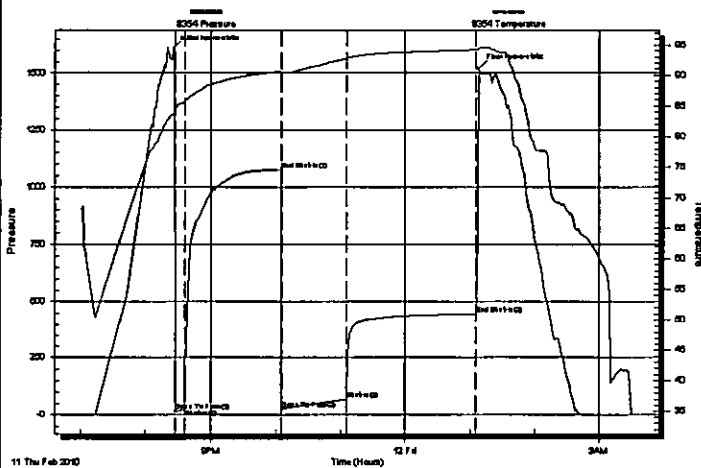
Press@RunDepth: 69.58 psig @ 3198.00 ft (KB)  
Start Date: 2010.02.11 End Date: 2010.02.12  
Start Time: 19:01:00 End Time: 03:31:29

Capacity: 8000.00 psig  
Last Calib.: 2010.02.12  
Time On Btm: 2010.02.11 @ 20:25:29  
Time Off Btm: 2010.02.12 @ 01:07:59

TEST COMMENT: IF-Weak building to 2"

FF-Weak building to 1/4"

Pressure vs. Time



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1608.72	83.80	Initial Hydro-static
2	15.94	83.94	Open To Flow (1)
11	24.84	85.75	Shut-In(1)
99	1075.28	90.64	End Shut-In(1)
100	25.70	90.16	Open To Flow (2)
160	69.58	92.71	Shut-In(2)
281	445.15	94.15	End Shut-In(2)
283	1521.11	94.52	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
120.00	Mud w/ oil spots on top	1.68

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Liberty Operations & Completions

**Ganoung # 1**

308 W Mill  
Plainville KS 67663

**8 1 17 Ells KS**

Job Ticket: 38128

DST#: 2

ATTN: Roger Comeau

Test Start: 2010.02.11 @ 19:00:59

### Tool Information

Drill Pipe:	Length: 3175.00 ft	Diameter: 3.80 inches	Volume: 44.54 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 44.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	0.00 ft			String Weight: Initial 30000.00 lb
Depth to Top Packer:	3195.00 ft			Final 30000.00 lb
Depth to Bottom Packer:	3235.00 ft			
Interval between Packers:	40.00 ft			
Tool Length:	280.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

### Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3176.00	
Shut In Tool	5.00			3181.00	
Hydraulic tool	5.00			3186.00	
Packer	5.00			3191.00	20.00 Bottom Of Top Packer
Packer	4.00			3195.00	
Stubb	1.00			3196.00	
Perforations	1.00			3197.00	
Change Over Sub	1.00			3198.00	
Recorder	0.00	8354	Inside	3198.00	
Recorder	0.00	8653	Outside	3198.00	
Drill Pipe	31.00			3229.00	
Perforations	2.00			3231.00	
Blank Off Sub	1.00			3232.00	
Blank Spacing	3.00			3235.00	40.00 Tool Interval
Packer	2.00			3237.00	
Stubb	1.00			3238.00	
Perforations	3.00			3241.00	
Change Over Sub	1.00			3242.00	
Recorder	0.00	8520	Inside	3242.00	
Drill Pipe	213.00			3455.00	220.00 Bottom Packers & Anchor

**Total Tool Length: 280.00**



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

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Liberty Operations & Completions

**Ganoung # 1**

308 W Mill  
Plainville KS 67663

**8 1 17 Ellis KS**

Job Ticket: 38128

DST#: 2

ATTN: Roger Comeau

Test Start: 2010.02.11 @ 19:00:59

## 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: 46.00 sec/qt

Cushion Volume:

bbbl

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

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

## Recovery Information

### Recovery Table

Length ft	Description	Volume bbbl
120.00	Mud w / oil spots on top	1.683

Total Length: 120.00 ft

Total Volume: 1.683 bbl

Num Fluid Samples: 0

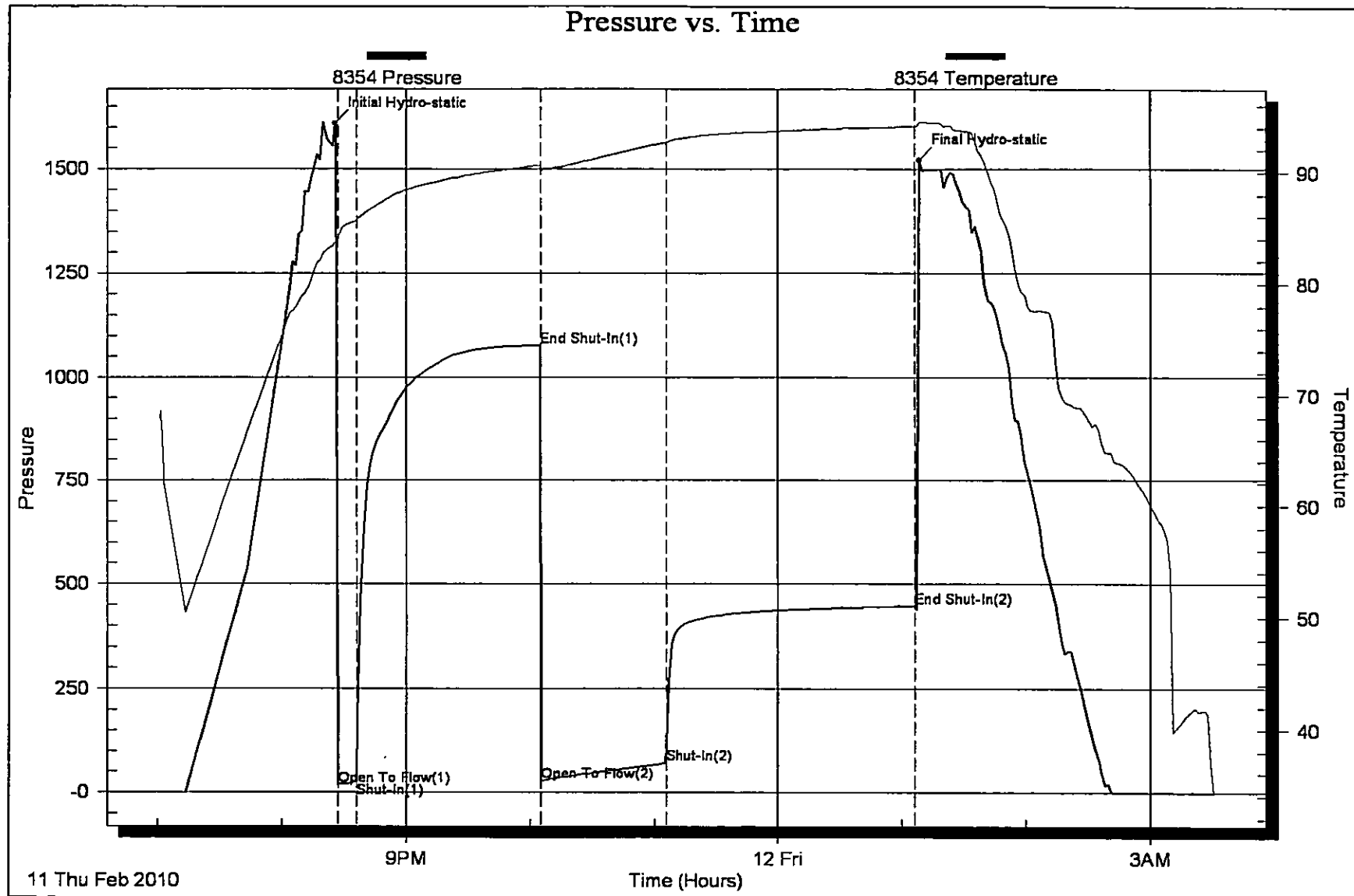
Num Gas Bombs: 0

Serial #:

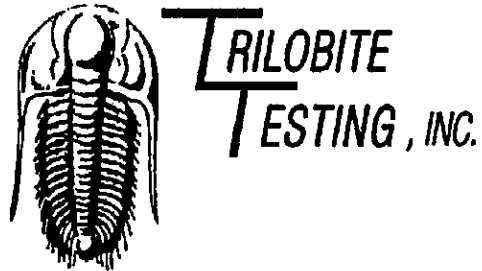
Laboratory Name:

Laboratory Location:

Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **Liberty Operations & Completions**

308 W Mill  
Plainville KS 67663

ATTN: Roger Comeau

**8 1 17 Ellis KS**

**Ganoung # 1**

Start Date: 2010.02.12 @ 08:45:54

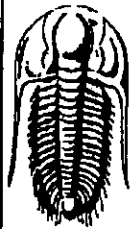
End Date: 2010.02.12 @ 17:24:54

Job Ticket #: 38129                      DST #: 3

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Liberty Operations & Completions

**Ganoung # 1**

308 W Mill  
Plainville KS 67663

**8 1 17 Ellis KS**

Job Ticket: 38129

DST#: 3

ATTN: Roger Comeau

Test Start: 2010.02.12 @ 08:45:54

### GENERAL INFORMATION:

Formation: **KC**

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

Time Tool Opened: 10:54:54

Time Test Ended: 17:24:54

Test Type: **Conventional Straddle**

Tester: **Dan Bangle**

Unit No: **38**

Interval: **3140.00 ft (KB) To 3185.00 ft (KB) (TVD)**

Reference Elevations: **1908.00 ft (KB)**

Total Depth: **3455.00 ft (KB) (TVD)**

**1900.00 ft (CF)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

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

**Serial #: 8354**

**Inside**

Press@RunDepth: **99.99 psig @ 3147.00 ft (KB)**

Capacity: **8000.00 psig**

Start Date: **2010.02.12**

End Date:

**2010.02.12**

Last Calib.: **2010.02.12**

Start Time: **08:45:55**

End Time:

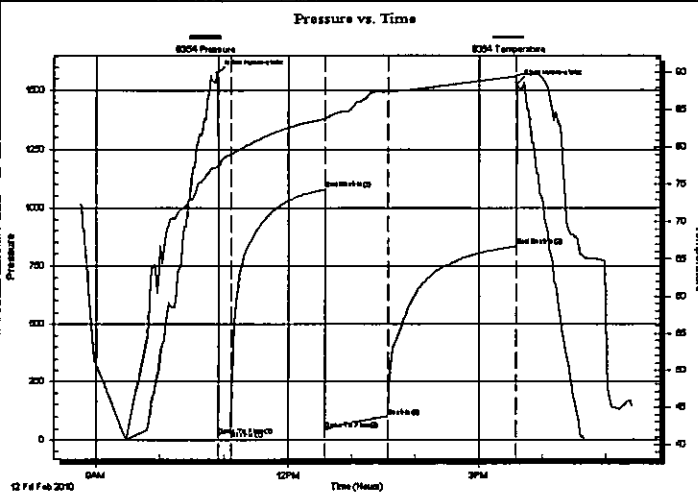
**17:24:54**

Time On Btm: **2010.02.12 @ 10:53:24**

Time Off Btm: **2010.02.12 @ 15:35:54**

TEST COMMENT: **IF-Weak building to 5" fair blow**

**FF-Weak building to 2"**



### PRESSURE SUMMARY

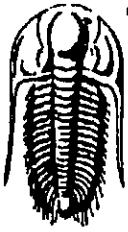
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1576.15	77.45	Initial Hydro-static
2	22.89	77.48	Open To Flow (1)
13	39.96	79.04	Shut-In(1)
101	1078.93	83.80	End Shut-In(1)
102	46.20	83.47	Open To Flow (2)
161	99.99	87.41	Shut-In(2)
282	833.33	89.52	End Shut-In(2)
283	1531.48	89.59	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
185.00	Drig Mud	2.60

### Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate (Mc/d)



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Liberty Operations & Completions

**Ganoung # 1**

308 W Mill  
Plainville KS 67663

**8 1 17 Ellis KS**

Job Ticket: 38129

DST#: 3

ATTN: Roger Comeau

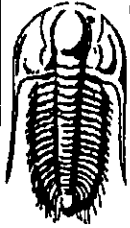
Test Start: 2010.02.12 @ 08:45:54

**Tool Information**

Drill Pipe:	Length: 3146.00 ft	Diameter: 3.80 inches	Volume: 44.13 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 44.13 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 30000.00 lb
Depth to Top Packer:	3140.00 ft			Final 30000.00 lb
Depth to Bottom Packer:	3185.00 ft			
Interval between Packers:	45.00 ft			
Tool Length:	335.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:  
Bottom packer did not hold

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3121.00	
Shut In Tool	5.00			3126.00	
Hydraulic tool	5.00			3131.00	
Packer	5.00			3136.00	20.00 Bottom Of Top Packer
Packer	4.00			3140.00	
Stubb	1.00			3141.00	
Perforations	5.00			3146.00	
Change Over Sub	1.00			3147.00	
Recorder	0.00	8354	Inside	3147.00	
Recorder	0.00	8520	Outside	3147.00	
Drill Pipe	31.00			3178.00	
Perforations	3.00			3181.00	
Blank Off Sub	1.00			3182.00	
Blank Spacing	3.00			3185.00	45.00 Tool Interval
Packer	2.00			3187.00	
Stubb	1.00			3188.00	
Perforations	1.00			3189.00	
Recorder	0.00	8653	Outside	3189.00	
Change Over Sub	1.00			3190.00	
Drill Pipe	247.00			3437.00	
Change Over Sub	1.00			3438.00	
Perforations	14.00			3452.00	
Bullnose	3.00			3455.00	270.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>335.00</b>				



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Liberty Operations & Completions

**Ganoung # 1**

308 W Mill  
Plainville KS 67663

**8 1 17 Ells KS**

Job Ticket: 38129

**DST#: 3**

ATTN: Roger Comeau

Test Start: 2010.02.12 @ 08:45:54

**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: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbbl
185.00	Drig Mud	2.595

Total Length: 185.00 ft

Total Volume: 2.595 bbl

Num Fluid Samples: 0

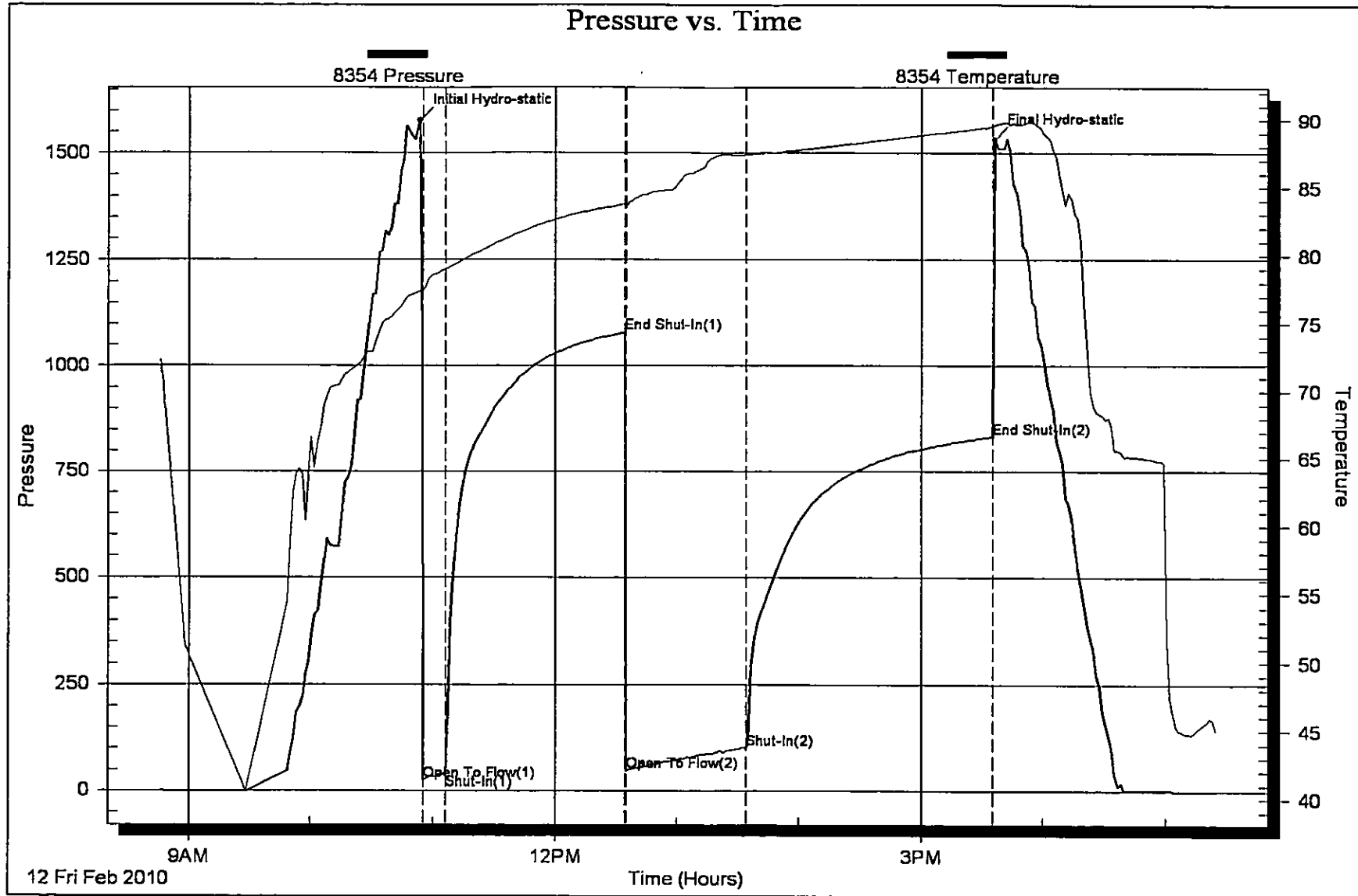
Num Gas Bombs: 0

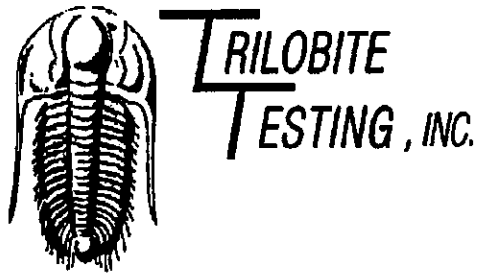
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





## DRILL STEM TEST REPORT

Prepared For: **Liberty Operations & Completions**  
308 W Mill  
Plainville KS 67663

ATTN: Roger Comeau

**8 1 17 Ellis KS**

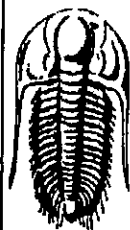
**Ganoung # 1**

Start Date: 2010.02.13 @ 01:50:31

End Date: 2010.02.13 @ 09:56:31

Job Ticket #: 38130                      DST #: 4

Trilobite Testing, Inc  
PO Box 1733 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Liberty Operations & Completions

**Ganoung # 1**

308 W Mill  
Plainville KS 67663

**8 1 17 Ellis KS**

Job Ticket: 38130

DST#: 4

ATTN: Roger Comeau

Test Start: 2010.02.13 @ 01:50:31

## GENERAL INFORMATION:

Formation: **Cong-Simpson-Arb**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:30:31

Time Test Ended: 09:56:31

Test Type: Conventional Straddle

Tester: Dan Bangle

Unit No: 38

Interval: **3375.00 ft (KB) To 3473.00 ft (KB) (TVD)**

Total Depth: **3473.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: Good

Reference Elevations: **1908.00 ft (KB)**

**1900.00 ft (CF)**

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

**Serial #: 8354** Inside

Press@RunDepth: **242.22 psig @ 3386.00 ft (KB)**

Start Date: **2010.02.13**

Start Time: **01:50:32**

End Date: **2010.02.13**

End Time: **09:56:31**

Capacity: **8000.00 psig**

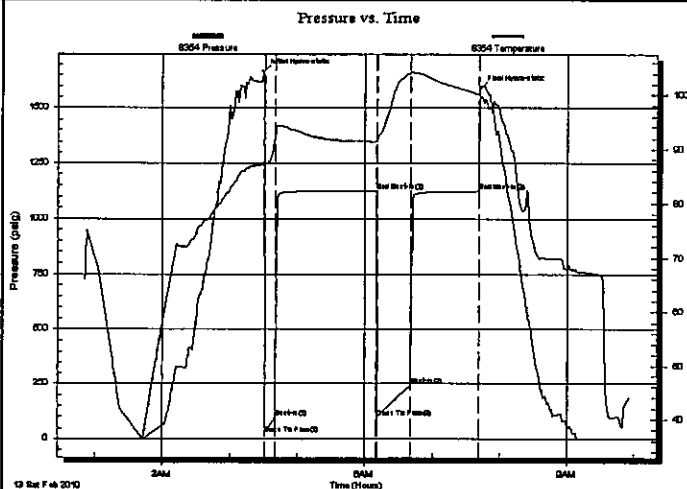
Last Calib.: **2010.02.13**

Time On Btm: **2010.02.13 @ 04:29:01**

Time Off Btm: **2010.02.13 @ 07:42:01**

TEST COMMENT: IF-Strong B-B in 5 min

FF-Strong B-B in 7 min



## PRESSURE SUMMARY

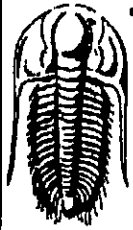
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1665.12	87.07	Initial Hydro-static
2	23.76	86.58	Open To Flow (1)
11	94.33	91.87	Shut-In(1)
101	1124.02	91.49	End Shut-In(1)
102	97.25	91.59	Open To Flow (2)
132	242.22	104.07	Shut-In(2)
192	1122.15	100.15	End Shut-In(2)
193	1586.18	99.64	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
110.00	Wtr	1.54
310.00	M&WCO 80%o 10%w 10%m	4.35
310.00	SillyO&WCM 3%o 10%w 87%m	4.35

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Liberty Operations & Completions

**Ganoung # 1**

308 W Mill  
Plainville KS 67663

**8 1 17 Ells KS**

Job Ticket: 38130

**DST#: 4**

ATTN: Roger Comeau

Test Start: 2010.02.13 @ 01:50:31

**Tool Information**

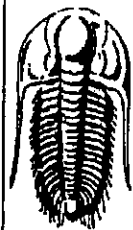
Drill Pipe:	Length: 3388.00 ft	Diameter: 3.80 inches	Volume: 47.52 bbl	Tool Weight: 3000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 40000.00 lb
			<u>Total Volume: 47.52 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 32000.00 lb
Depth to Top Packer:	3375.00 ft			Final 34000.00 lb
Depth to Bottom Packer:	3477.00 ft			
Interval between Packers:	102.00 ft			
Tool Length:	118.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3360.00	
Shut In Tool	5.00			3365.00	
Hydraulic tool	5.00			3370.00	
Packer	5.00			3375.00	16.00 Bottom Of Top Packer
Packer - Shale	4.00			3379.00	
Stubb	1.00			3380.00	
Perforations	5.00			3385.00	
Change Over Sub	1.00			3386.00	
Recorder	0.00	8354	Inside	3386.00	
Recorder	0.00	8520	Outside	3386.00	
Drill Pipe	62.00			3448.00	
Change Over Sub	1.00			3449.00	
Perforations	25.00			3474.00	
Bullnose	3.00			3477.00	102.00 Anchor Tool

**Total Tool Length: 118.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Liberty Operations & Completions

**Ganoung # 1**

308 W Mill  
Plainville KS 67663

**8 1 17 Ellis KS**

Job Ticket: 38130

**DST#: 4**

ATTN: Roger Comeau

Test Start: 2010.02.13 @ 01:50:31

## 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:

25000 ppm

Viscosity: 44.00 sec/qt

Cushion Volume:

bbl

Water Loss: 10.37 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 10000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
110.00	Wr	1.543
310.00	M&WCO 80%o 10%w 10%m	4.348
310.00	SilyO&WCM 3%o 10%w 87%m	4.348

Total Length: 730.00 ft      Total Volume: 10.239 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .22 @ 80 = 25000ppm

