



KANSAS CORPORATION COMMISSION 1090624
OIL & GAS CONSERVATION DIVISION

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 # 8925
Name: Liberty Oper & Compl, Inc
Address 1: 308 W MILL
Address 2: _____
City: PLAINVILLE State: KS Zip: 67663 + 2229
Contact Person: Roger L. Comeau
Phone: (785) 434-4686
CONTRACTOR: License # 34481
Name: Tornado Drilling Company, LLC
Wellsite Geologist: Tony Richardson
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
 Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
 Commingled Permit #: _____
 Dual Completion Permit #: _____
 SWD Permit #: _____
 ENHR Permit #: _____
 GSW Permit #: _____

9/20/2011	10/1/2011	10/1/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-163-23979-00-00

Spot Description: _____
SW NE SW NW Sec. 28 Twp. 10 S. R. 17 East West
1760 Feet from North / South Line of Section
925 Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: Rooks

Lease Name: Ganoung Well #: 1

Field Name: _____

Producing Formation: Conglomerate

Elevation: Ground: 2110 Kelly Bushing: 2112

Total Depth: 3800 Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: 226 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: 1000 ppm Fluid volume: 100 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 #: _____

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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: Deanna Garrison Date: 08/29/2012



1090624

Operator Name: Liberty Oper & Compl, Inc Lease Name: Ganoung Well #: 1
Sec. 28 Twp. 10 S. R. 17 [] East [x] West County: Rooks

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 [x] Yes [] No
Samples Sent to Geological Survey [] Yes [x] No
Cores Taken [] Yes [x] No
Electric Log Run [x] Yes [] No
Electric Log Submitted Electronically [x] Yes [] No
List All E. Logs Run: Attached

CASING RECORD [x] New [] Used
Report all strings set-conductor, surface, intermediate, production, etc.
Table with columns: 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
Table with columns: Purpose, Depth Top Bottom, Type of Cement, # Sacks Used, Type and Percent Additives

PERFORATION RECORD - Bridge Plugs, Set/Type
Specify Footage of Each Interval Perforated
Table with columns: Shots Per Foot, PERFORATION RECORD, Acid, Fracture, Shot, Cement Squeeze Record, Depth

TUBING RECORD: Size: Set At: Packer At: Liner Run: [] Yes [] No

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

Estimated Production Per 24 Hours
Table with columns: Oil Bbls., Gas Mcf, Water Bbls., Gas-Oil Ratio, Gravity

DISPOSITION OF GAS: [] Vented [] Sold [] Used on Lease
METHOD OF COMPLETION: [] Open Hole [] Perf. [] Dually Comp. [] Commingled
PRODUCTION INTERVAL:

Form	ACO1 - Well Completion
Operator	Liberty Oper & Compl, Inc
Well Name	Ganoung 1
Doc ID	1090624

All Electric Logs Run

CDL/DNL
Micro
DIL
Sonic

Form	ACO1 - Well Completion
Operator	Liberty Oper & Compl, Inc
Well Name	Ganoung 1
Doc ID	1090624

Tops

Name	Top	Bottom
Anhydrite	1638	+744
Topeka	3079	-967
Heebner	3304	-1192
Toronto	3323	-1211
L/KC A	3345	-1233
Stark Shale	3539	-1427
b/KC	3597	-1485
Conglomerate	3605	-1493
Arbuckle	3722	-1610

Form	ACO1 - Well Completion
Operator	Liberty Oper & Compl, Inc
Well Name	Ganoung 1
Doc ID	1090624

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.2500	8.6250	20	226	Common	150	3 % CC 2 % Gel
Production	7.8750	5.5000	15.50	1870	Common	425	10% salt 2 % Gel
Production	7.8750	5.5000	15.50	3798	Common	150	60/40 poz 6 % Gel 1/4 lb flow seal
Cement Cirrculated	0	0	0	0	0	0	0

ALLIED CEMENTING CO., LLC. 038333

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

SERVICE POINT: Roller

DATE <u>1-11-11</u>	SEC. <u>28</u>	TWP. <u>10</u>	RANGE <u>17</u>	CALLED OUT	ON LOCATION	JOB START <u>3:45 PM</u>	JOB FINISH <u>4:45 PM</u>
LEASE <u>From</u>		WELL # <u>1</u>	LOCATION <u>Marville S. of RR</u>	COUNTY <u>Rooks</u>	STATE <u>Kan.</u>		
OLD OR NEW (Circle one)				<u>N/E 1/4 S</u>			

CONTRACTOR <u>Foranck Drilling</u> TYPE OF JOB <u>Production Str. @ Oil Well</u> HOLE SIZE <u>7 7/8</u> T.D. <u>3600'</u> CASING SIZE <u>5 1/2 17'</u> DEPTH <u>3798'</u> TUBING SIZE DEPTH _____ DRILL PIPE DEPTH _____ TOOL <u>Dy. 5.1</u> DEPTH <u>1520'</u> PRES. MAX. MINIMUM _____ MEAS. LINE SHOE JOINT <u>2788'</u> CEMENT LEFT IN CSG. <u>2711'</u> PERFS. _____ DISPLACEMENT <u>92 01 611</u>	OWNER _____ CEMENT AMOUNT ORDERED <u>150 Can 100 S&H 226-1</u> <u>500 Gal WFK-2</u> <u>425 Can 14 5 FL</u> COMMON _____ @ _____ POZMIX _____ @ _____ GEL _____ @ _____ CHLORIDE _____ @ _____ ASC _____ @ _____ HANDLING MILEAGE _____ @ _____
--	---

EQUIPMENT

PUMP TRUCK	CEMENTER <u>Shane</u>
# <u>403</u>	HELPER <u>Todd</u>
BULK TRUCK	
# <u>371</u>	DRIVER <u>Cody</u>
BULK TRUCK	
# <u>477</u>	DRIVER <u>Mark</u>

REMARKS:

Final 2770' @ Marville S&H
Fr. 2 Mixed 150' @
D. Mixed 520' @
Pl. @ 1700' Fr. H&H
Ground Oil Well @ 1500'
Roller 700' @ 475' @
Cement 2711'
WFK-2 @ 500'

CHARGE TO: Liberty

STREET _____

CITY _____ **STATE** _____ **ZIP** _____

To Allied Cementing Co., LLC.
 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 _____

SIGNATURE [Signature]

TOTAL _____

SERVICE

DEPTH OF JOB	_____
PUMP TRUCK CHARGE	_____
EXTRA FOOTAGE	@ _____
MILEAGE	@ _____
MANIFOLD	@ _____
_____	@ _____
_____	@ _____

TOTAL _____

PLUG & FLOAT EQUIPMENT

<u>1x Tool</u>	@ _____
<u>1x Cement</u>	@ _____
<u>1x 200' @ 100'</u>	@ _____
<u>1x Basket</u>	@ _____
<u>6x Cement</u>	@ _____

TOTAL _____

SALES TAX (If Any) _____

TOTAL CHARGES _____

DISCOUNT _____ **IF PAID IN 30 DAYS**

ALLIED CEMENTING CO., LLC. 038273

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

SERVICE POINT: Russell

DATE <u>9/21/11</u>	SEC. <u>28</u>	TWP. <u>10</u>	RANGE <u>17 W.</u>	CALLED OUT	ON LOCATION	JOB START <u>5:20 A.</u>	JOB FINISH <u>5:30 A.</u>
LEASE <u>Garwood</u>		WELL# <u>1</u>		LOCATION <u>Plainville 5 + 0.25 d.</u>		COUNTY <u>Rock</u>	STATE <u>KS</u>
OLD OR NEW (Circle one)							

CONTRACTOR Terrace Drilling

TYPE OF JOB Surface Tub

HOLE SIZE 12 1/2 **T.D.** _____

CASING SIZE 8 1/2 **DEPTH** 226.67

TUBING SIZE _____ **DEPTH** _____

DRILL PIPE _____ **DEPTH** _____

TOOL _____ **DEPTH** _____

PRES. MAX. _____ **MINIMUM** _____

MEAS. LINE _____ **SHOE JOINT** _____

CEMENT LEFT IN CSG. 15

PERFS. _____

DISPLACEMENT 13.47

OWNER _____

CEMENT

AMOUNT ORDERED 20 1/2 ton 3500
29.601

COMMON _____ @ _____

POZMIX _____ @ _____

GEL _____ @ _____

CHLORIDE _____ @ _____

ASC _____ @ _____

EQUIPMENT

PUMP TRUCK **CEMENTER** Steve

438 **HELPER** Tony

BULK TRUCK

308 **DRIVER** Mark

BULK TRUCK

_____ **DRIVER** _____

HANDLING MILEAGE _____ @ _____

TOTAL _____

REMARKS:

Rev. 5 2011

Exp. 1 12 2011

Min. 1 12 2011

Cement for casing

SERVICE

DEPTH OF JOB _____

PUMP TRUCK CHARGE _____

EXTRA FOOTAGE _____ @ _____

MILEAGE _____ @ _____

MANIFOLD _____ @ _____

TOTAL _____

CHARGE TO: Liberty Operations

STREET _____

CITY _____ **STATE** _____ **ZIP** _____

PLUG & FLOAT EQUIPMENT

_____ @ _____

_____ @ _____

_____ @ _____

_____ @ _____

TOTAL _____

To Allied Cementing Co., LLC.

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.

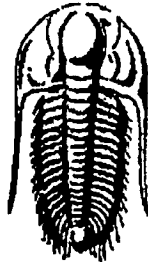
PRINTED NAME _____

SIGNATURE Mark's

SALES TAX (If Any) _____

TOTAL CHARGES _____

DISCOUNT _____ **IF PAID IN 30 DAYS**



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Liberty Operation & Completion**

100 SW 9th Street
Plainville, KS 67663

ATTN: Tony Richardson

Ganoung #1

28-10s-17w Rooks,KS

Start Date: 2011.09.27 @ 12:50:03

End Date: 2011.09.27 @ 21:44:33

Job Ticket #: 44619 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.10.06 @ 13:42:23

Liberty Operation & Completion
28-10s-17w Rooks,KS
Ganoung #1
DST # 1
KC-E-J
2011.09.27



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Liberty Operation & Completion

28-10s-17w Rooks,KS

100 SW 9th Street
Rainville, KS 67663

Ganoung #1

Job Ticket: 44619

DST#: 1

ATTN: Tony Richardson

Test Start: 2011.09.27 @ 12:50:03

GENERAL INFORMATION:

Formation: **KC"E1"**

Deviated: No Whipstock ft (KB)

Time Tool Opened: 15:47:33

Time Test Ended: 21:44:33

Test Type: Conventional Bottom Hole (Initial)

Tester: Brett Dickinson

Unit No: 47

Interval: 3406.00 ft (KB) To 3517.00 ft (KB) (TVD)

Total Depth: 3517.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2112.00 ft (KB)

2104.00 ft (CF)

KB to GR/CF: 8.00 ft

Serial #: 6753

Inside

Press@RunDepth: 38.97 psig @ 3407.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.09.27

End Date:

2011.09.27

Last Calib.: 2011.09.27

Start Time: 12:50:08

End Time:

21:44:33

Time On Btm: 2011.09.27 @ 15:45:33

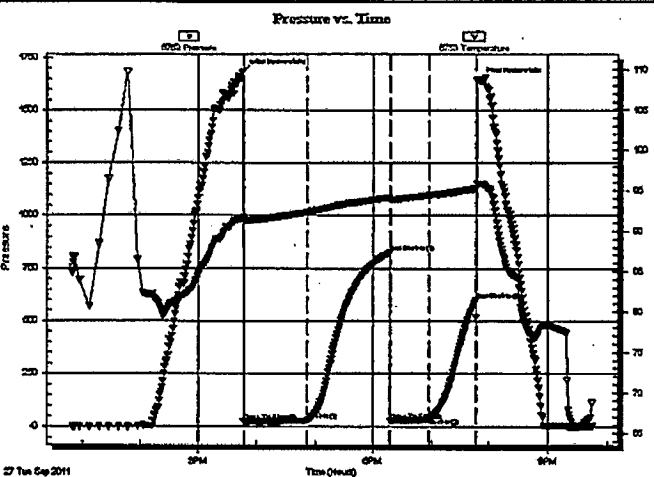
Time Off Btm: 2011.09.27 @ 19:50:03

TEST COMMENT: IF-1/2 in blow died in 50 min

ISI-No blow

FF-No blow

FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1678.73	91.62	Initial Hydro-static
2	23.49	91.28	Open To Flow (1)
67	29.23	92.37	Shut-in(1)
151	825.95	94.10	End Shut-in(1)
152	28.34	93.87	Open To Flow (2)
192	38.97	94.38	Shut-in(2)
241	600.63	95.23	End Shut-in(2)
245	1639.56	95.79	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	VSOCM 5%O 95%M	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Liberty Operation & Completion

28-10s-17w Rooks,KS

100 SW 9th Street
Plainville, KS 67663

Ganoung #1

Job Ticket: 44619

DST#: 1

ATTN: Tony Richardson

Test Start: 2011.09.27 @ 12:50:03

Tool Information

Drill Pipe:	Length: 3390.00 ft	Diameter: 3.80 inches	Volume: 47.55 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 35000.00 lb
			<u>Total Volume: 47.55 bbl</u>	Tool Chased: 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3406.00 ft			Final 35000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	111.00 ft			
Tool Length:	132.00 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			3386.00	
Shut In Tool	5.00			3391.00	
Hydraulic tool	5.00			3396.00	
Packer	5.00			3401.00	21.00 Bottom Of Top Packer
Packer	5.00			3406.00	
Stubb	1.00			3407.00	
Recorder	0.00	6753	Inside	3407.00	
Recorder	0.00	8319	Outside	3407.00	
Perforations	5.00			3412.00	
Change Over Sub	1.00			3413.00	
Drill Pipe	92.00			3505.00	
Change Over Sub	1.00			3506.00	
Perforations	8.00			3514.00	
Bullnose	3.00			3517.00	111.00 Bottom Packers & Anchor

Total Tool Length: 132.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Liberty Operation & Completion

28-10s-17w Rooks,KS

100 SW 9th Street
Rainville, KS 67663

Ganoung #1

Job Ticket: 44619

DST#: 1

ATTN: Tony Richardson

Test Start: 2011.09.27 @ 12:50:03

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:

bbl

Water Loss: 7.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	VSOOM 5%O 95%M	0.210

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0

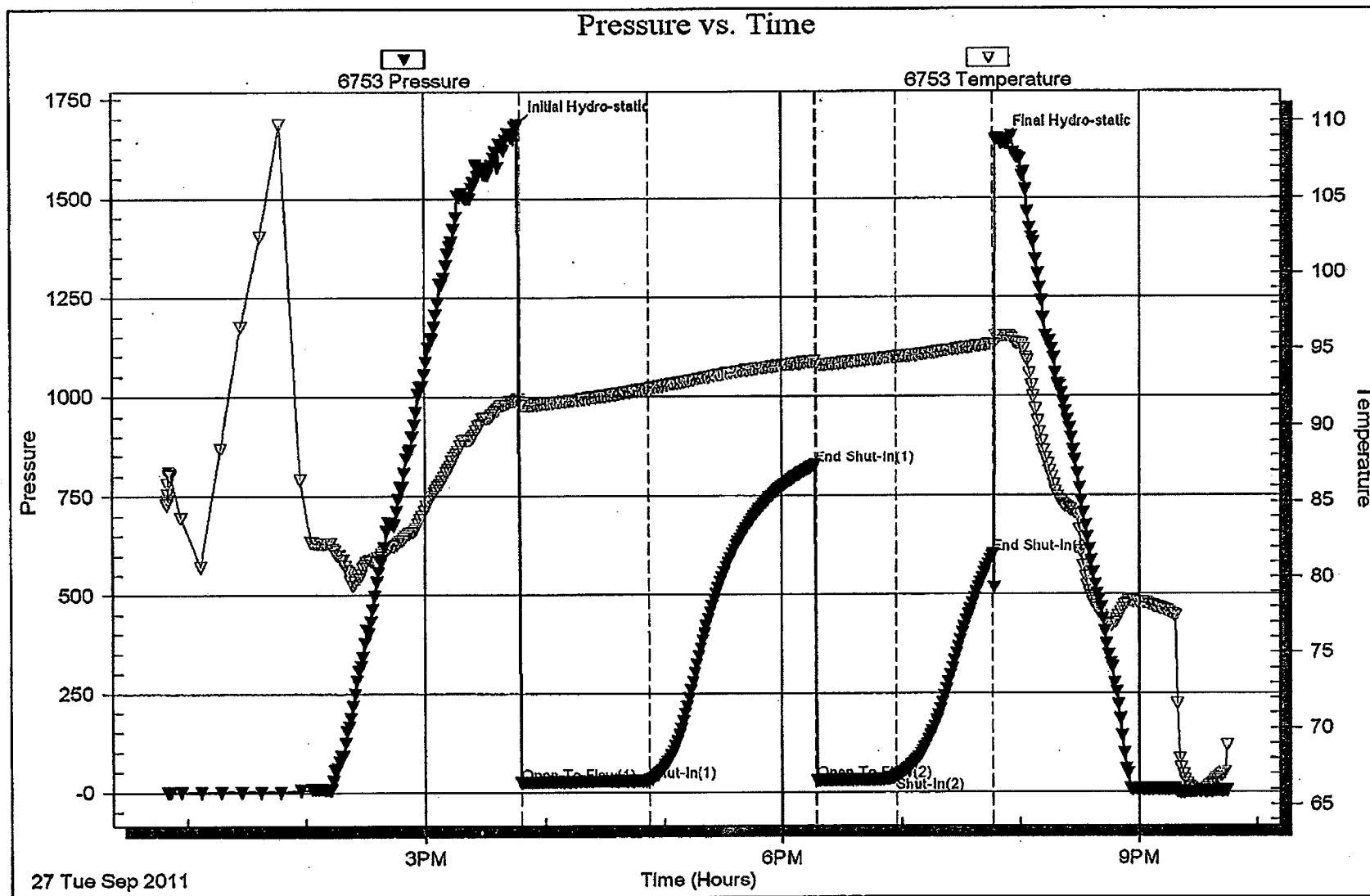
Num Gas Bombs: 0

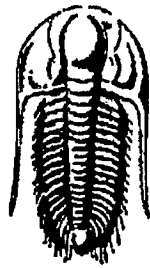
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Liberty Operation & Completion**

100 SW 9th Street
Plainville, KS 67663

ATTN: Tony Richardson

Ganoung #1

28-10s-17w Rooks,KS

Start Date: 2011.09.28 @ 11:30:28

End Date: 2011.09.28 @ 21:13:28

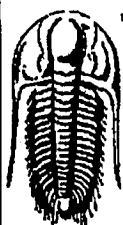
Job Ticket #: 44620 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Liberty Operation & Completion 28-10s-17w Rooks,KS Ganoung #1 DST # 2 KC: J,K,L, Cong." 2011.09.28



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Liberty Operation & Completion

28-10s-17w Rooks,KS

100 SW 9th Street
Plainville, KS 67663

Ganoung #1

Job Ticket: 44620

DST#:2

ATTN: Tony Richardson

Test Start: 2011.09.28 @ 11:30:28

GENERAL INFORMATION:

Formation: KC"J,K,L,Cong."

Deviated: No Whipstock ft (KB)

Time Tool Opened: 14:14:28

Time Test Ended: 21:13:28

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 47

Interval: 3508.00 ft (KB) To 3622.00 ft (KB) (TVD)

Reference Elevations: 2112.00 ft (KB)

Total Depth: 3622.00 ft (KB) (TVD)

2104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 6753

Inside

Press@RunDepth: 53.13 psig @ 3509.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.09.28

End Date:

2011.09.28

Last Calib.: 2011.09.28

Start Time: 11:30:33

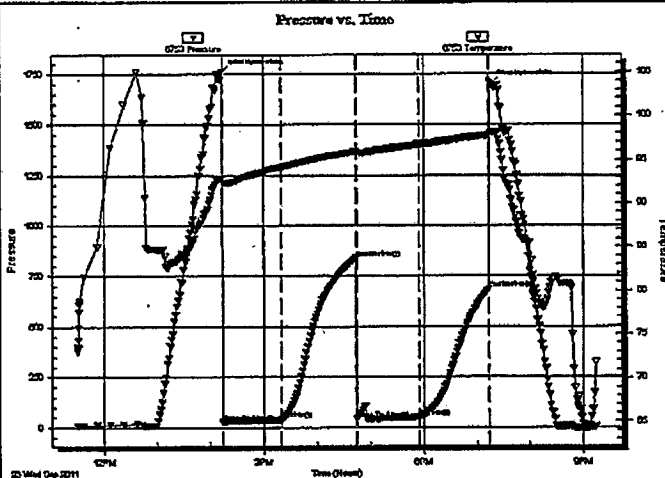
End Time:

21:13:28

Time On Btm: 2011.09.28 @ 14:12:58

Time Off Btm: 2011.09.28 @ 19:16:28

TEST COMMENT: IF-2.25 in blow
IS-1/2 in blow died in 65 min
FF-1/2 in blow died back to 1/4 in
FS-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1760.27	92.76	Initial Hydro-static
2	29.29	92.31	Open To Flow (1)
67	40.06	94.10	Shut-In(1)
151	838.54	95.89	End Shut-In(1)
152	41.94	95.71	Open To Flow (2)
222	53.13	96.64	Shut-In(2)
301	685.96	97.70	End Shut-In(2)
304	1698.81	98.05	Final Hydro-static

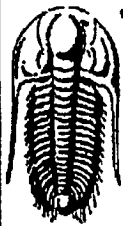
Recovery

Length (ft)	Description	Volume (bb)
50.00	SOQM 10%O 90%M	0.70

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Liberty Operation & Completion

28-10s-17w Rooks,KS

100 SW 9th Street
Rainville, KS 67663

Ganoung #1

Job Ticket: 44620

DST#: 2

ATTN: Tony Richardson

Test Start: 2011.09.28 @ 11:30:28

Tool Information

Drill Pipe:	Length: 3514.00 ft	Diameter: 3.80 inches	Volume: 49.29 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 35000.00 lb
			<u>Total Volume: 49.29 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3508.00 ft			Final 35000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	114.00 ft			
Tool Length:	135.00 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			3488.00	
Shut In Tool	5.00			3493.00	
Hydraulic tool	5.00			3498.00	
Packer	5.00			3503.00	21.00 Bottom Of Top Packer
Packer	5.00			3508.00	
Stubb	1.00			3509.00	
Recorder	0.00	6753	Inside	3509.00	
Recorder	0.00	8319	Outside	3509.00	
Perforations	7.00			3516.00	
Change Over Sub	1.00			3517.00	
Drill Pipe	93.00			3610.00	
Change Over Sub	1.00			3611.00	
Perforations	8.00			3619.00	
Bullnose	3.00			3622.00	114.00 Bottom Packers & Anchor

Total Tool Length: 135.00



**TRIOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Liberty Operation & Completion

28-10s-17w Rooks, KS

100 SW 9th Street
Plainville, KS 67663

Ganoung #1

Job Ticket: 44620

DST#: 2

ATTN: Tony Richardson

Test Start: 2011.09.28 @ 11:30:28

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 In³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
50.00	SOCM 10%O 90%M	0.701

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0

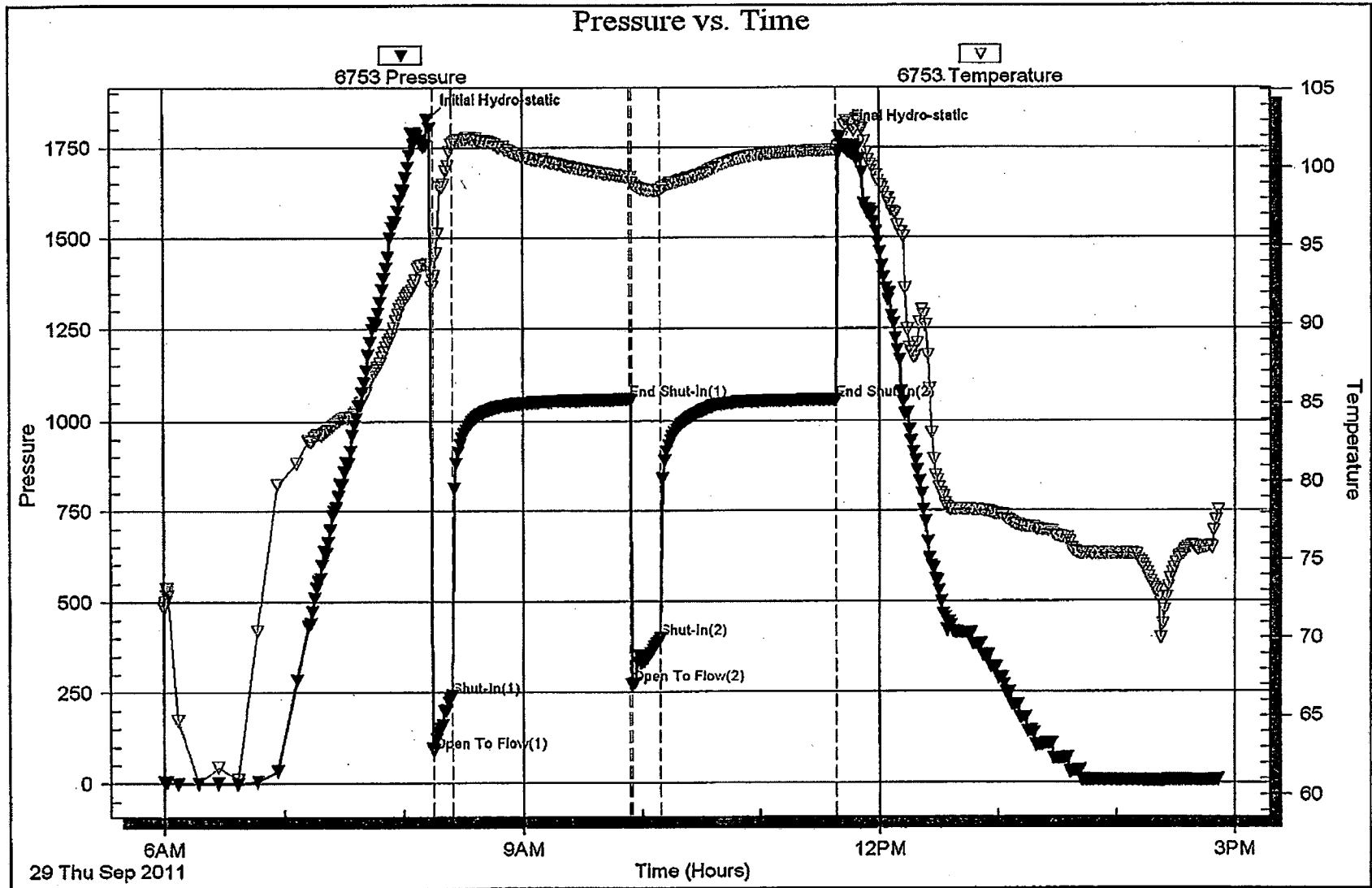
Num Gas Borbs: 0

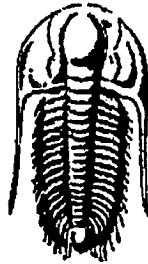
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Liberty Operation & Completion**

100 SW 9th Street
Plainville, KS 67663

ATTN: Tony Richardson

Ganoung #1

28-10s-17w Rooks,KS

Start Date: 2011.09.29 @ 05:59:42

End Date: 2011.09.29 @ 14:51:12

Job Ticket #: 44621 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2011.10.06 @ 13:43:03

Liberty Operation & Completion

28-10s-17w Rooks,KS

Ganoung #1

DST # 3

Conglomerate

2011.09.29



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Liberty Operation & Completion

28-10s-17w Rooks,KS

100 SW 9th Street
Plainville, KS 67663

Ganoung #1

Job Ticket: 44621

DST#: 3

ATTN: Tony Richardson

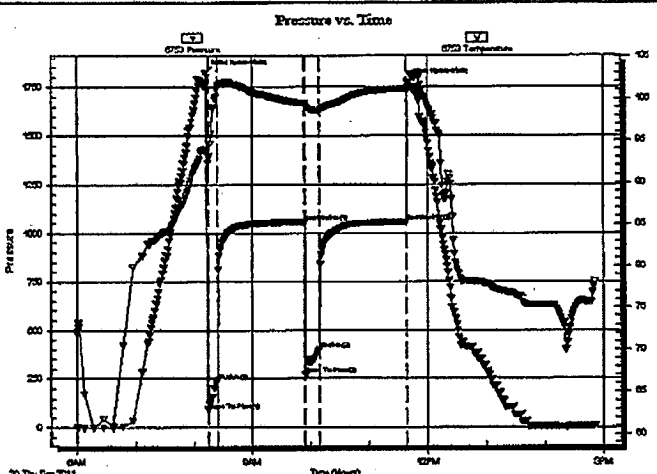
Test Start: 2011.09.29 @ 05:59:42

GENERAL INFORMATION:

Formation: **Conglomerate**
 Deviated: No Whipstock ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 08:14:42
 Tester: Brett Dickinson
 Time Test Ended: 14:51:12
 Unit No: 47
 Interval: 3556.00 ft (KB) To 3682.00 ft (KB) (TVD)
 Reference Elevations: 2112.00 ft (KB)
 Total Depth: 3682.00 ft (KB) (TVD)
 2104.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 KB to GR/CF: 8.00 ft

Serial #: 6753 Inside
 Press@RunDepth: 398.72 psig @ 3557.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2011.09.29 End Date: 2011.09.29 Last Calib.: 2011.09.29
 Start Time: 05:59:47 End Time: 14:51:12 Time On Btrt: 2011.09.29 @ 08:12:12
 Time Off Btrt: 2011.09.29 @ 11:39:42

TEST COMMENT: IF-BOB in 2 min
 IS- No blow
 FF-BOB in 2 min
 FS- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1824.13	93.87	Initial Hydro-static
3	87.88	92.83	Open To Flow (1)
12	239.97	101.47	Shut-In(1)
102	1057.78	99.35	End Shut-In(1)
103	271.18	99.02	Open To Flow (2)
117	398.72	98.49	Shut-In(2)
206	1055.49	101.09	End Shut-In(2)
208	1777.19	101.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (tbi)
45.00	SOCM 10%O 90%M	0.63
60.00	OCM 30%O 70%M	0.84
120.00	MCO 80%O 20%M	1.68
625.00	GO 20%G 80%O	8.77

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Liberty Operation & Completion

28-10s-17w Rooks,KS

100 SW 9th Street
Rainville, KS 67663

Ganoung #1

Job Ticket: 44621

DST#: 3

ATTN: Tony Richardson

Test Start: 2011.09.29 @ 05:59:42

Tool Information

Drill Pipe:	Length: 3546.00 ft	Diameter: 3.80 inches	Volume: 49.74 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Full Loose: 40000.00 lb
			<u>Total Volume: 49.74 bbl</u>	Tool Chased: 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 35000.00 lb
Depth to Top Packer:	3556.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	126.00 ft			
Tool Length:	147.00 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			3536.00	
Shut In Tool	5.00			3541.00	
Hydraulic tool	5.00			3546.00	
Packer	5.00			3551.00	21.00 Bottom Of Top Packer
Packer	5.00			3556.00	
Stubb	1.00			3557.00	
Recorder	0.00	6753	Inside	3557.00	
Recorder	0.00	8319	Outside	3557.00	
Perforations	7.00			3564.00	
Change Over Sub	1.00			3565.00	
Drill Pipe	93.00			3658.00	
Change Over Sub	1.00			3659.00	
Perforations	20.00			3679.00	
Bullnose	3.00			3682.00	126.00 Bottom Packers & Anchor

Total Tool Length: 147.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Liberty Operation & Completion

28-10s-17w Rooks, KS

100 SW 9th Street
Fairville, KS 67663

Ganoung #1

Job Ticket: 44621

DST#: 3

ATTN: Tony Richardson

Test Start: 2011.09.29 @ 05:59:42

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 8.79 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	SOCM 10%O 90%M	0.631
60.00	OCM 30%O 70%M	0.842
120.00	MCO 80%O 20%M	1.683
625.00	GO 20%G 80%O	8.767

Total Length: 850.00 ft Total Volume: 11.923 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

