

CONFIDENTIAL

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

9/16/12

OPERATOR: License # 9855  
Name: Grand Mesa Operating Company  
Address 1: 1700 N. Waterfront Pkwy, Bldg 600  
Address 2: \_\_\_\_\_  
City: Wichita State: KS Zip: 67206  
Contact Person: Ronald N. Sinclair  
Phone: (316) 265-3000  
CONTRACTOR: License # 30608  
Name: Murfin Drilling Company, Inc.  
Wellsite Geologist: Steven P. Carl  
Purchaser: NCRA

KCC  
SEP 21 2010

CONFIDENTIAL

RECEIVED

SEP 21 2010

KCC WICHITA

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 #: \_\_\_\_\_

<u>06/24/2010</u>	<u>07/03/2010</u>	<u>08/18/2010</u>
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 109-20922-00-00

Spot Description: 2367' FNL & 1693' FWL

SE SW SE NW Sec. 3 Twp. 13 S. R. 32  East  West

2,367 Feet from  North /  South Line of Section

1,693 Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

County: Logan

Lease Name: M. Andersen Well #: 1-3

Field Name: Wildcat

Producing Formation: Cherokee Marmaton & Lansing Zones

Elevation: Ground: 3017' Kelly Bushing: 3022'

Total Depth: 4700' Plug Back Total Depth: 4682'

Amount of Surface Pipe Set and Cemented at: 5 jts. @ 208 Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: 2008 Feet

If Alternate II completion, cement circulated from: 2008'

feet depth to: Surface w/ 300 sx cml.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 19,000 ppm Fluid volume: 1,000 bbls

Dewatering method used: Evaporate, backfill & level location

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: Ronald N. Sinclair

Title: President Date: September 16, 2010

KCC Office Use ONLY

Letter of Confidentiality Received  
Date: 9/16/10 - 9/16/12

Confidential Release Date: \_\_\_\_\_

Wireline Log Received

Geologist Report Received

UIC Distribution

ALT  I  II  III Approved by: NJ Date: 9-27-10

Operator Name: Grand Mesa Operating Company Lease Name: M. Andersen Well #: 1-3 **SEP 16 2010**  
 Sec. 3 Twp. 13 S. R. 32  East  West County: Logan **CONFIDENTIAL**

**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 <i>(Attach Additional Sheets)</i>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Bs/Stone Corral	2546	+ 476
Electric Log Run	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Heebner	3987	- 965
Electric Log Submitted Electronically <i>(If no, Submit Copy)</i>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Lansing	4033	-1011
List All E. Logs Run:		Muncie Creek	4176	-1154
Compact Photo Den/Comp. Neu. Micro Resistivity; Array Ind.		Hushpuckney	4296	-1274
Shallow Focussed Elect. Log; Comp. Sonic; Dual Rec. Cmt Bnd Log		Marmaton	4366	-1344
		Little Osage	4490	-1468
		Mississippian	4642	-1620
		LTD	4699	

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	12 1/4"	8 5/8"	23#	208'	Common	165	3% CC, 2% Gel
Production	7 7/8"	5 1/2"	15.5#	4691'	EA-2	175	

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	0-2008'	SMD	300	
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				
<input checked="" type="checkbox"/> Protect fresh water				

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
4	4520-4523' & 4467-4474'	600 Gal. 15% MCA Acid	4520-23; 4467-74
4	4227-4234'	350 Gal. 15% MCA Acid	4227-34
4	4191-4195'	200 Gal. 15% MCA Acid	4191-95
4	4520-4523' & 4467-4474'	Squeeze 75sxs Standard Cmt	4191-95
		1,000 Gal. 15% Swift N. E. Acid	4520-23; 4467-74

TUBING RECORD:		Size: <u>2 7/8"</u>	Set At: <u>4667'</u>	Packers At:	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. <u>August 18, 2010</u>		Producing Method: <input type="checkbox"/> Flowing <input checked="" 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
	<u>3</u>		<u>10</u>		

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 checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input checked="" type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: <u>4520-4523'; 4467-4474'</u> <u>4227-4234'</u>
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JOB LOG

SWIFT Services, Inc.

DATE 07-03-10 PAGE NO. 1

CUSTOMER GRAND MESA WELL NO. 1-3 LEASE M. ANDERSON JOB TYPE 2 STAGE TICKET NO. 18007

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1030							ONLOCATION
								CMT: BUTTER 125 SMO EA2, TOP 300 SMO
								MUD PUSHT. HCL FLUSH
								RTO 4700, SET PIPE 4683, SJ 10.10 <sup>INSERT</sup> 4682
								5 1/2 155" D.O. on top # 64, 2002 ft
								Cent 1, 3, 5, 7, 9, 11, 13, 15, 17, 51, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99
								RECEIVED SEP 21 2010
	1045							KCC WICHITA
	1235							START CSL & FRONT ERY
	1255							DROP BALL, BREAK CIRC, ROTATE PIPE
	1300	6.0	12		✓		250	MUD FLUSH SCOGAS KCC SEP 16 2010 CONFIDENTIAL
			20		✓			HCL FLUSH
			42.5		✓			EA2 CMT KSOAS
								WASHOUT PL, DROP LD PLUG
	1311	6.0	0		✓		300	START DISP W/H2O
			64		✓		300	" " " / RIG 140
			70		✓		400	STOP ROTATING
			100		✓		700	
			105		✓		750	
	1330		111.4		✓		1400	LAND PLUG
								RELEASE OBY, DROP D.O. OPENING PART.
	1340				✓		1400	OPEN DIV, CIRC W/RIG 3145
	1625		7.5					PLUG RH 30, MH 15
	1630	6.0	20		✓			HCL SPACER
			133		✓			SMD CMT 240 SMO @ 112
			140		✓			" " 20 SMO @ 40
								DROP DIV. CLOSING PLUG
	1655	55	0		✓		200	START DISP, CIRC CMT TO PIT!
			20.0		✓		400	90 SMO
	1705		47.8		✓		1400	LAND PLUG, CLOSE DIV.
								RELEASE B1
								WASH UP
	1745							JOB COMPLETE
								THANK YOU!
								DAVE JOSH, BEALE, STINE



JOB LOG

SWIFT Services, Inc.

DATE 7-29-10 PAGE NO. 1

CUSTOMER GRAND MESA WELL NO. 1-3 LEASE M. ANDERSEN JOB TYPE ACIDIZE FORMATION TICKET NO. 18665

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL/GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1145							ON LOCATION
								2 7/8 x 5 1/2 RBP-4260' ±
								PERFS - 4227-34
								PUR - 4202 TRAT SPOT - 4234
	1215		2	✓		0		SPOT ACID - 4234
	1225							PULL UP SET PUR - 4202'
	1230	3	8 1/2	✓		0		PUMP ACID LOAD HOSE - LEASE WATER KCC SEP 16 2010
	1240		2 5/2	✓		0		LOADED CONFIDENTIAL
	1242		0	✓		200		STAGE
	1247			✓		400		"
	1257			✓		600		"
	1312		1/4	✓		900		"
	1345		1/4	✓		900		" RELEASE PSE - SWAB BACK
								SWAB 200 GAL ACID IN PUMP TRUCK
	1500							DONE FOR TODAY
	1530							JOB COMPLETE
								THANK YOU WAYNE, JOHN
								RECEIVED SEP 21 2010 KCC WICHITA

JOB LOG

SWIFT Services, Inc.

DATE 7-30-10 PAGE NO. 1

CUSTOMER GRAND MESA WELL NO. 1-3 LEASE M. ANDERSEN JOBTYP E TOOLS - SQUEEZE PERFS TICKET NO. 18666-18667

CHART NO.	TIME	RATE (BPM)	VOLUME (BB) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0900							ON LOCATION PERFS = 4227-34 DON'T SQUEEZE
								2 7/8 x 5 1/2 RBP = 4217
								PERFS = 4191-95 SQUEEZE PERFS
								PKR = 4105 (21 out)
	1220		11	✓		1500		TEST TOOLS PKR = 4205' RBP = 4217' - HELD
	1300		9	✓				SPOT 2 SKS SAND
	1400				✓		600	SET PKR = 4105' - PSE ANNULUS - SHUT IN
	1415	0		✓		1500		INT RATE
	1430		25					SPOT 200 GAL ACID @ 4200'
	1445		6		✓		600	PULL UP SET PKR = 4105' - PSE ANNULUS - SHUT IN
	1450	3	6	✓		600		INT RATE
	1502	3	15 3/4	✓		400		MIX 75 SKS STANDARD CEMENT
	1508							WASH OUT PUMP - INTS
	1510	3	0	✓		0		DISPLACE CEMENT
		3	10	✓		0		"
		2	15	✓		600		" KCC
		1	22	✓		750		" SEP 16 2010
		1/2	24	✓		900		" TOBING CLEAR CONFIDENTIAL
	1520	1/2	24 1/2	✓		925		" SHUT DOWN
	1525					300		SHUT IN - WASH TRUCK
	1615		24 1/2			0/300		STAGE
	1625					500		" HOLDING RECEIVED
	1635					750		" " SEP 21 2010
	1645		24 3/4			1000		" " KCC WICHITA
	1700			✓		1000		RELEASE - HELD
	1705	3	30		✓		400	REVERSE CLEAR
	1730			✓		750		REVERSE SQUEEZE - HELD
	1800							PULL PKR OUT WELL 70 SKS CMT IN PERFS
								TOC = 4150' ±
	1830							JOB COMPLETE
								THANK YOU
								WAYNE, JASON R., JOHN

JOB LOG

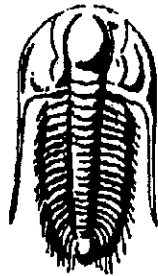
SWIFT Services, Inc.

DATE 8-6-10 PAGE NO. 7

CUSTOMER GRAND MESA WELL NO. 1-3 LEASE M. ANDERSEN JOB TYPE TOOLS - ACIDIZE FORMATION TICKET NO. 18670 - 18671

CHART NO.	TIME	RATE (BPM)	VOLUME (BBLS) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0800							ON LOCATION
								2 7/8 x 5 1/2
								PERFS = 4520-23 4467-74
								PKR - 4425 110WT SPOT 4527 80WT
	0815							START 5 1/2" CST - PACKER IN WELL
	0940		2	✓				SPOT ACID = 4527'
	0950							PULL UP SET PKR = 4425'
	1000	3	24	✓				PUMP ACID
	1008	2	27	✓		0		LOAD HOLE
	1008	2	0	✓		0		TREAT FORMATION
		2	10	✓		50		"
		2	15	✓		125		"
		2	20	✓		150		"
	1020	2	24	✓		175		" ACID CLEAR - SHUT DOWN
						75		ISDP
						VAC		3-MIN
								LOAD = 51 BBLS SWAB TEST
	1030							KCC JOB COMPLETE SEP 16 2010 CONFIDENTIAL
								THANK YOU WAYNE, JOSH B.
								RECEIVED SEP 21 2010 KCC WICHITA





**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

Prepared For: **Grand Mesa Operating Co.**

1700 N Waterfront PKWY  
Wichita KS, 67206

ATTN: Steve Carl

**3-13s-32w Logan KS**

**M Andereson #1-3**

Start Date: 2010.06.28 @ 01:01:05

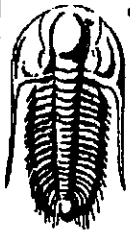
End Date: 2010.06.28 @ 03:34:45

Job Ticket #: 39179                      DST #: 1

KCC  
SEP 16 2010  
CONFIDENTIAL

RECEIVED  
SEP 21 2010  
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

Grand Mesa Operating Co.

**M Andereson #1-3**

1700 N Waterfront PKWY  
Wichita KS, 67206

**3-13s-32w Logan KS**

Job Ticket: 39179

**DST#: 1**

ATTN: Steve Carl

Test Start: 2010.06.28 @ 01:01:05

## GENERAL INFORMATION:

Formation: **E & F**

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

Time Tool Opened:

Time Test Ended: **03:34:45**

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Domsch**

Unit No: **48**

Interval: **4101.00 ft (KB) To 4140.00 ft (KB) (TVD)**

Reference Elevations: **3022.00 ft (KB)**

Total Depth: **4140.00 ft (KB) (TVD)**

**3017.00 ft (CF)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

KB to GR/CF: **5.00 ft**

**Serial #: 8322** Inside

Press@RunDepth: **psig @ 4102.00 ft (KB)**

Capacity: **8000.00 psig**

Start Date: **2010.06.28**

End Date:

**2010.06.28**

Last Calib.:

**2010.06.28**

Start Time: **01:01:05**

End Time:

**03:34:45**

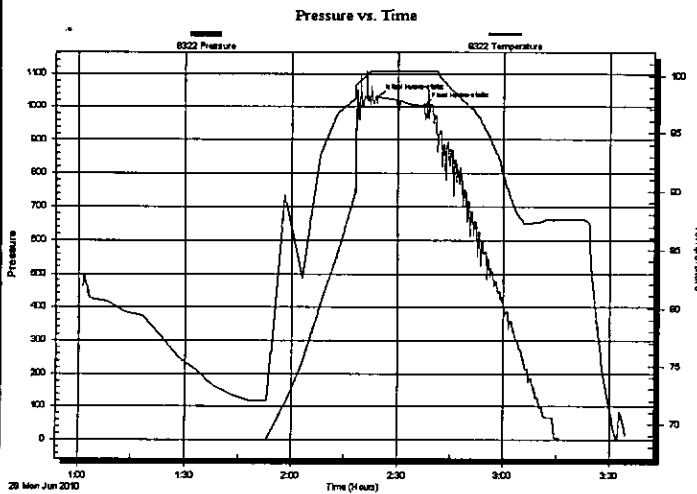
Time On Btm:

**2010.06.28 @ 02:24:15**

Time Off Btm:

**2010.06.28 @ 02:37:30**

**TEST COMMENT:** Stacked out at approx. 2200 ft. Tripped tool out and layed down n to go in w ith bit.  
Msrn.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1029.29	100.41	Initial Hydro-static
14	1002.81	100.37	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating Co.

M Anderson #1-3

1700 N Waterfront PKWY  
Wichita KS, 67206

3-13s-32w Logan KS

Job Ticket: 39179

DST#: 1

ATTN: Steve Carl

Test Start: 2010.06.28 @ 01:01:05

### Tool Information

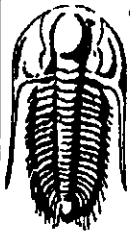
Drill Pipe:	Length: 3962.00 ft	Diameter: 3.80 inches	Volume: 55.58 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: lb
			<u>Total Volume: 56.17 bbl</u>	Tool Chased: ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial lb
Depth to Top Packer:	4101.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	67.00 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			4074.00	
Shut In Tool	5.00			4079.00	
Hydraulic tool	5.00			4084.00	
Jars	5.00			4089.00	
Safety Joint	3.00			4092.00	
Packer	5.00			4097.00	28.00 Bottom Of Top Packer
Packer	4.00			4101.00	
Stubb	1.00			4102.00	
Recorder	0.00	8322	Inside	4102.00	
Recorder	0.00	8166	Inside	4102.00	
Perforations	35.00			4137.00	
Bullnose	3.00			4140.00	39.00 Bottom Packers & Anchor

**Total Tool Length: 67.00**



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Grand Mesa Operating Co.

**M Andereson #1-3**

1700 N Waterfront PKWY  
Wichita KS, 67206

**3-13s-32w Logan KS**

Job Ticket: 39179

DST#: 1

ATTN: Steve Carl

Test Start: 2010.06.28 @ 01:01:05

**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:

bbbl

Water Loss: 8.73 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

**Recovery Table**

Length ft	Description	Volume bbbl

Total Length:                      ft

Total Volume:                      bbl

Num Fluid Samples: 0

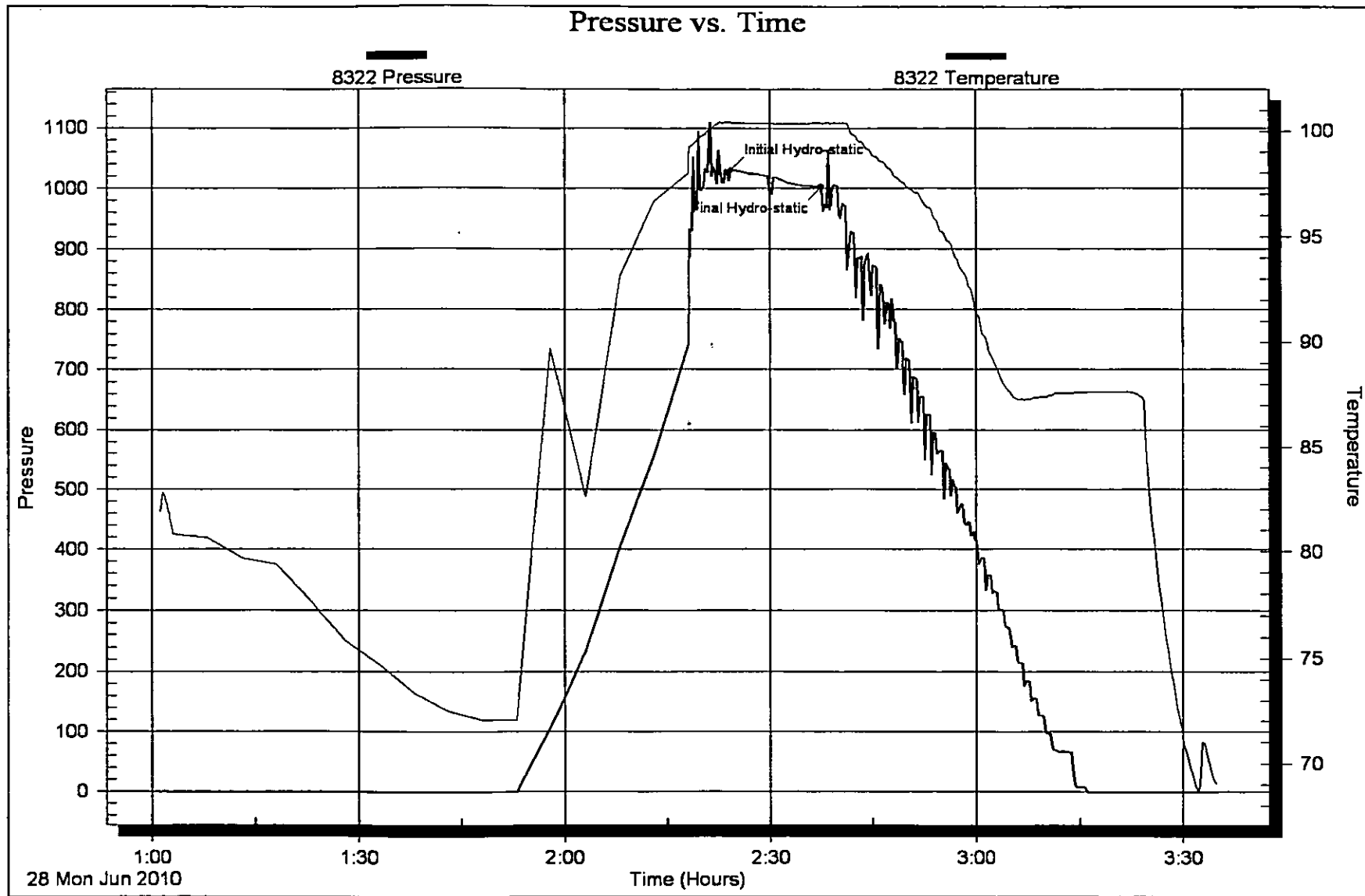
Num Gas Bombs: 0

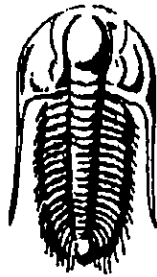
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating Co.**

1700 N Waterfront PKWY  
Wichita KS, 67206

ATTN: Steve Carl

**3-13s-32w Logan KS**

**M Andereson #1-3**

Start Date: 2010.06.28 @ 13:52:05

End Date: 2010.06.28 @ 20:54:59

Job Ticket #: 39180                      DST #: 2

Trilobite Testing, Inc

PO Box 1733 \ Hays, KS 67601

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

Grand Mesa Operating Co.

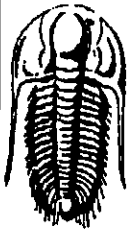
M Andereson #1-3

3-13s-32w Logan KS

DST # 2

E & F

2010.06.28



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Grand Mesa Operating Co.

1700 N Waterfront PKWY  
Wichita KS, 67206

ATTN: Steve Carl

**M Andereson #1-3**

**3-13s-32w Logan KS**

Job Ticket: 39180

DST#: 2

Test Start: 2010.06.28 @ 13:52:05

## GENERAL INFORMATION:

Formation: **E & F**

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

Time Tool Opened: 15:29:15

Time Test Ended: 20:54:59

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Domsch**

Unit No: **48**

Interval: **4101.00 ft (KB) To 4140.00 ft (KB) (TVD)**

Total Depth: **4140.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **3022.00 ft (KB)**

**3017.00 ft (CF)**

KB to GR/CF: **5.00 ft**

**Serial #: 8322**

**Inside**

Press@RunDepth: **745.86 psig @ 4102.00 ft (KB)**

Capacity: **8000.00 psig**

Start Date: **2010.06.28**

End Date:

**2010.06.28**

Last Calib.: **2010.06.28**

Start Time: **13:52:05**

End Time:

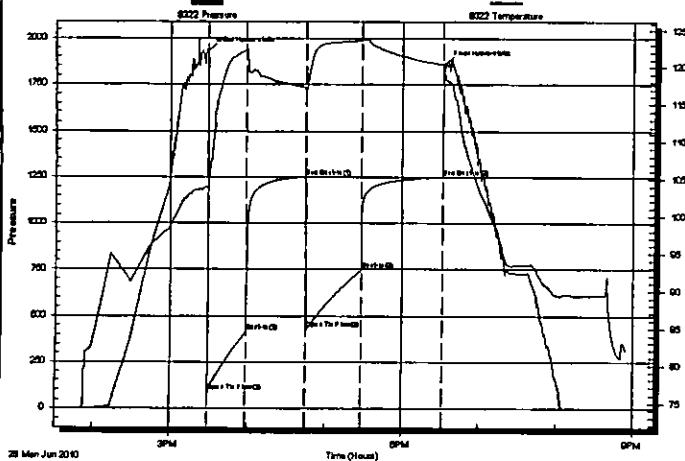
**20:54:59**

Time On Btm: **2010.06.28 @ 15:29:00**

Time Off Btm: **2010.06.28 @ 18:33:15**

**TEST COMMENT:** IF: BOB in 3 1/2 mins.  
IS: No return.  
FF: BOB in 5 mins.  
FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

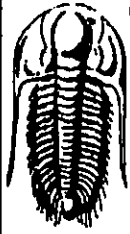
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1931.97	103.83	Initial Hydro-static
1	88.39	102.94	Open To Flow (1)
30	416.61	122.31	Shut-In (1)
76	1251.29	117.21	End Shut-In (1)
76	431.00	116.91	Open To Flow (2)
120	745.86	123.60	Shut-In (2)
183	1250.67	120.35	End Shut-In (2)
185	1858.32	118.49	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	M 100% m	0.15
1150.00	SMCW 95% w 5% m	15.32
80.00	WCM 15% w 85% m	1.12
0.00	GP = 0	0.00
0.00	RW = .155 @ 80F = 42000 ppm	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Grand Mesa Operating Co.  
1700 N Waterfront PKWY  
Wichita KS, 67206  
ATTN: Steve Carl

**M Andereson #1-3**  
**3-13s-32w Logan KS**  
Job Ticket: 39180      DST#: 2  
Test Start: 2010.06.28 @ 13:52:05

**Tool Information**

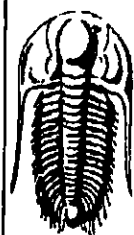
Drill Pipe:	Length: 3962.00 ft	Diameter: 3.80 inches	Volume: 55.58 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 56.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	4101.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	39.00 ft			
Tool Length:	67.00 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			4074.00	
Shut In Tool	5.00			4079.00	
Hydraulic tool	5.00			4084.00	
Jars	5.00			4089.00	
Safety Joint	3.00			4092.00	
Packer	5.00			4097.00	28.00      Bottom Of Top Packer
Packer	4.00			4101.00	
Stubb	1.00			4102.00	
Recorder	0.00	8322	Inside	4102.00	
Recorder	0.00	8166	Inside	4102.00	
Perforations	35.00			4137.00	
Bullnose	3.00			4140.00	39.00      Bottom Packers & Anchor

**Total Tool Length: 67.00**





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Grand Mesa Operating Co.

**M Andereson #1-3**

1700 N Waterfront PKWY  
Wichita KS, 67206

**3-13s-32w Logan KS**

Job Ticket: 39180

DST#: 2

ATTN: Steve Cart

Test Start: 2010.06.28 @ 13:52:05

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 8.72 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API

deg API

Water Salinity: 42000 ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	M 100%m	0.148
1150.00	SMCW 95%w 5%m	15.321
80.00	WCM 15%w 85%m	1.122
0.00	GP = 0	0.000
0.00	RW = .155@80F = 42000ppm	0.000

Total Length: 1260.00 ft

Total Volume: 16.591 bbl

Num Fluid Samples: 0

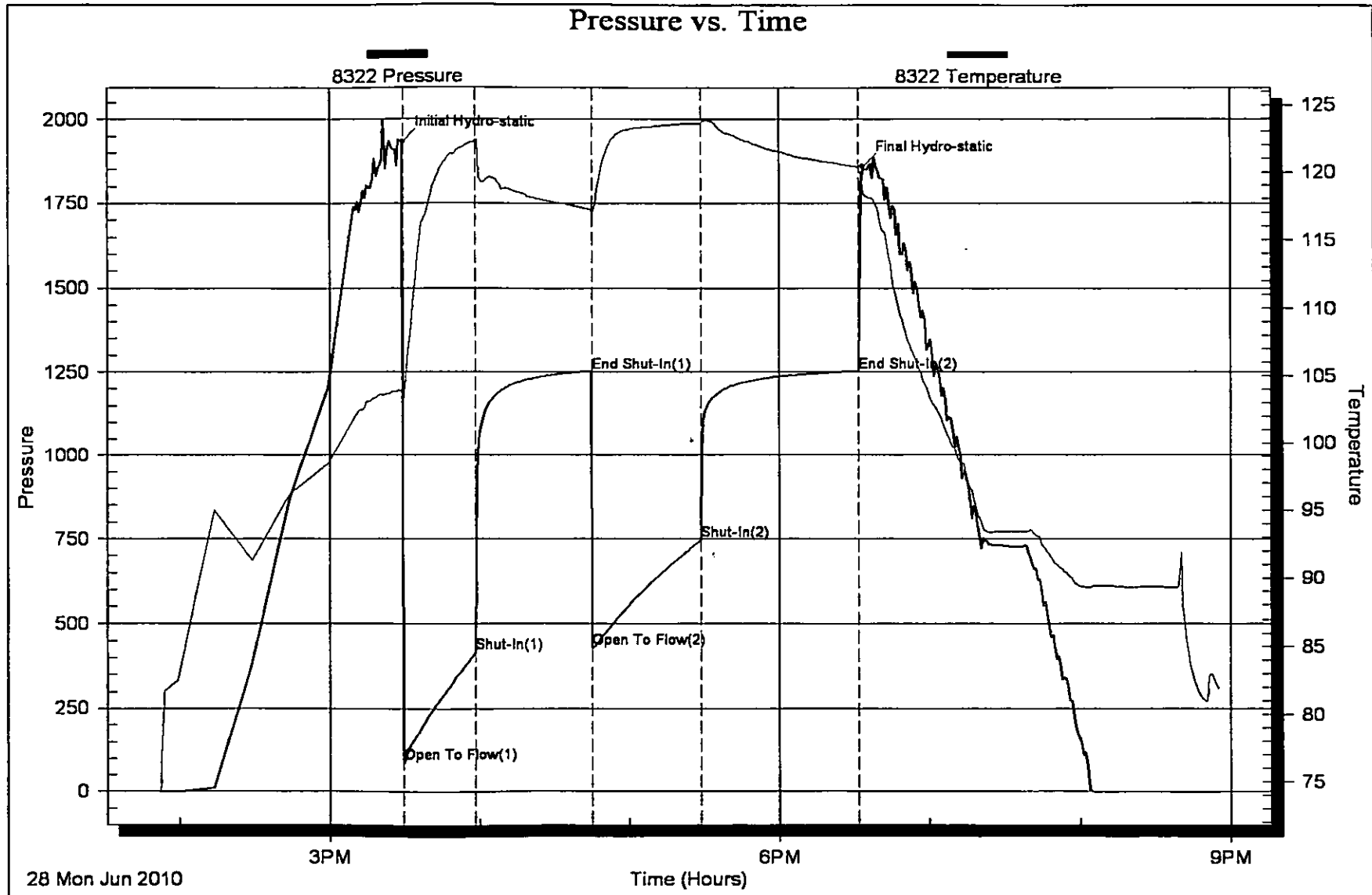
Num Gas Bombs: 0

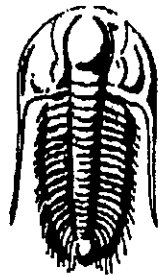
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





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

## DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating Co.**

1700 N Waterfront PKWY  
Wichita KS, 67206

ATTN: Steve Carl

**3-13s-32w Logan KS**

**M Andereson #1-3**

Start Date: 2010.06.29 @ 14:01:05

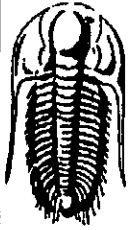
End Date: 2010.06.29 @ 21:10:44

Job Ticket #: 39181                      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

Grand Mesa Operating Co.

1700 N Waterfront PKWY  
Wichita KS, 67206

ATTN: Steve Carl

**M Anderson #1-3**

**3-13s-32w Logan KS**

Job Ticket: 39181

DST#: 3

Test Start: 2010.06.29 @ 14:01:05

### GENERAL INFORMATION:

Formation: **Swope**

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

Time Tool Opened: 15:37:15

Time Test Ended: 21:10:44

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Domsch**

Unit No: **48**

Interval: **4260.00 ft (KB) To 4288.00 ft (KB) (TVD)**

Total Depth: **4288.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **3022.00 ft (KB)**

**3017.00 ft (CF)**

KB to GR/CF: **5.00 ft**

**Serial #: 8322** Inside

Press@RunDepth: **109.21 psig @ 4261.00 ft (KB)**

Start Date: **2010.06.29**

End Date:

**2010.06.29**

Start Time: **14:01:05**

End Time:

**21:10:44**

Capacity: **8000.00 psig**

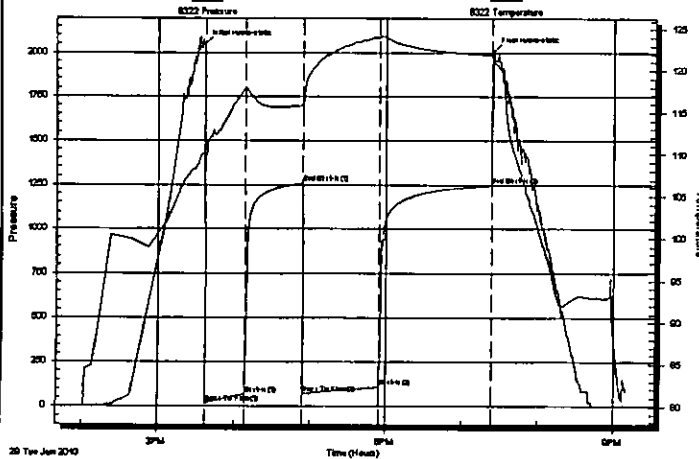
Last Calib.: **2010.06.29**

Time On Btm: **2010.06.29 @ 15:36:30**

Time Off Btm: **2010.06.29 @ 19:24:59**

TEST COMMENT: IF: Built to 3 inches.  
IS: No return.  
FF: Built to 3 1/2 inches.  
FS: No return.

Pressure vs. Time



### PRESSURE SUMMARY

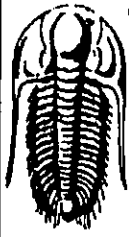
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2045.06	110.15	Initial Hydro-static
1	18.36	109.88	Open To Flow (1)
32	68.84	117.91	Shut-In(1)
78	1258.66	115.85	End Shut-In(1)
78	70.39	115.57	Open To Flow (2)
139	109.21	124.06	Shut-In(2)
227	1247.14	121.95	End Shut-In(2)
229	2007.57	121.54	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
185.00	SMCW 90%w 10% m	1.51
20.00	WCM w/ a splash O on top 20%w 80% m 0.28	
0.00	GIP = 0	0.00
0.00	RW = .180 @ 75F = 38000ppm	0.00

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating Co.

**M Anderson #1-3**

1700 N Waterfront PKWY  
Wichita KS, 67206

**3-13s-32w Logan KS**

Job Ticket: 39181

DST#: 3

ATTN: Steve Carl

Test Start: 2010.06.29 @ 14:01:05

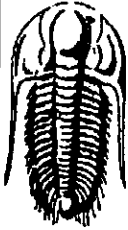
### Tool Information

Drill Pipe:	Length: 4118.00 ft	Diameter: 3.80 inches	Volume: 57.76 bbl	Tool Weight: 1500.00 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: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 58.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4260.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	28.00 ft			
Tool Length:	56.00 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			4233.00	
Shut In Tool	5.00			4238.00	
Hydraulic tool	5.00			4243.00	
Jars	5.00			4248.00	
Safety Joint	3.00			4251.00	
Packer	5.00			4256.00	28.00 Bottom Of Top Packer
Packer	4.00			4260.00	
Stubb	1.00			4261.00	
Recorder	0.00	8322	Inside	4261.00	
Recorder	0.00	8166	Inside	4261.00	
Perforations	24.00			4285.00	
Bullnose	3.00			4288.00	28.00 Bottom Packers & Anchor

**Total Tool Length: 56.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Grand Mesa Operating Co.

**M Andereson #1-3**

1700 N Waterfront PKWY  
Wichita KS, 67206

**3-13s-32w Logan KS**

Job Ticket: 39181

DST#: 3

ATTN: Steve Carl

Test Start: 2010.06.29 @ 14:01:05

## 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:

38000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.95 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	SMCW 90%w 10%m	1.511
20.00	WCM w / a splash O on top 20%w 80%m	0.281
0.00	GIP = 0	0.000
0.00	RW = .180@75F = 38000ppm	0.000

Total Length: 205.00 ft

Total Volume: 1.792 bbl

Num Fluid Samples: 0

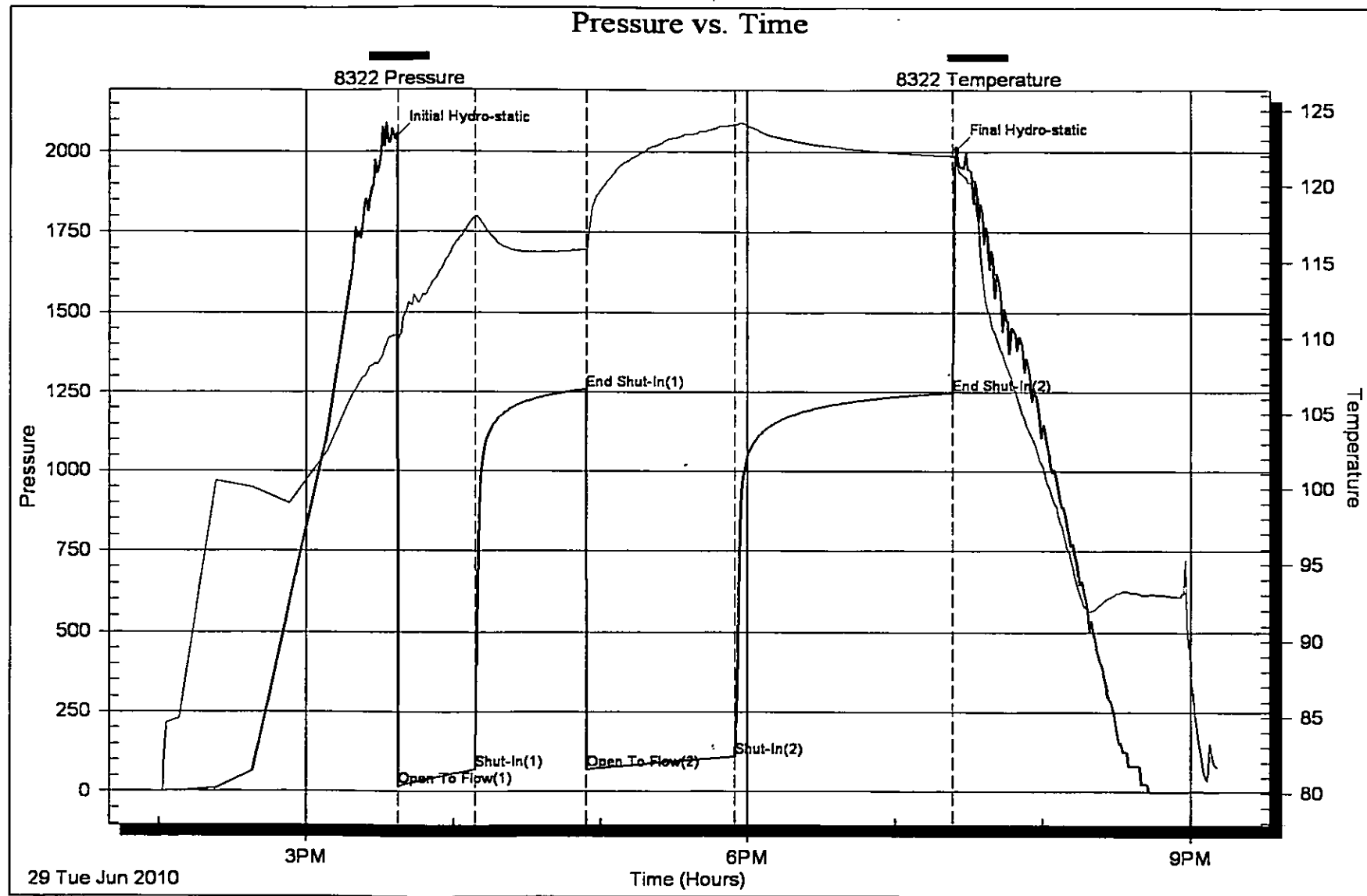
Num Gas Bombs: 0

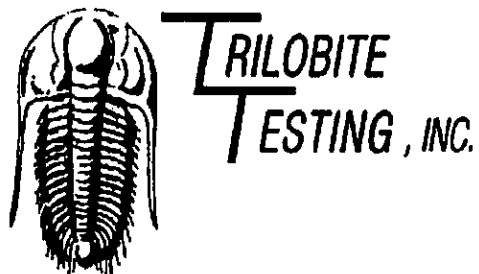
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





## DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating Co.**

1700 N Waterfront PKWY  
Wichita KS, 67206

ATTN: Steve Carl

**3-13s-32w Logan KS**

**M Andereson #1-3**

Start Date: 2010.06.30 @ 17:11:05

End Date: 2010.07.01 @ 00:25:29

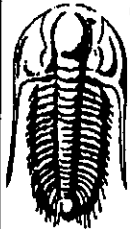
Job Ticket #: 39182                      DST #: 4

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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





**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Grand Mesa Operating Co.

1700 N Waterfront PKWY  
Wichita KS, 67206

ATTN: Steve Carl

**M Anderson #1-3**

**3-13s-32w Logan KS**

Job Ticket: 39182

DST#: 4

Test Start: 2010.06.30 @ 17:11:05

### GENERAL INFORMATION:

Formation: **Upper Ft Scott**

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

Time Tool Opened: 19:05:45

Time Test Ended: 00:25:29

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Domsch**

Unit No: **48**

Interval: **4454.00 ft (KB) To 4485.00 ft (KB) (TVD)**

Total Depth: **4485.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **3022.00 ft (KB)**

**3017.00 ft (CF)**

KB to GR/CF: **5.00 ft**

Serial #: **8322** Inside

Press@RunDepth: **67.44 psig @ 4455.00 ft (KB)**

Start Date: **2010.06.30**

End Date: **2010.07.01**

Start Time: **17:11:05**

End Time: **00:25:29**

Capacity: **8000.00 psig**

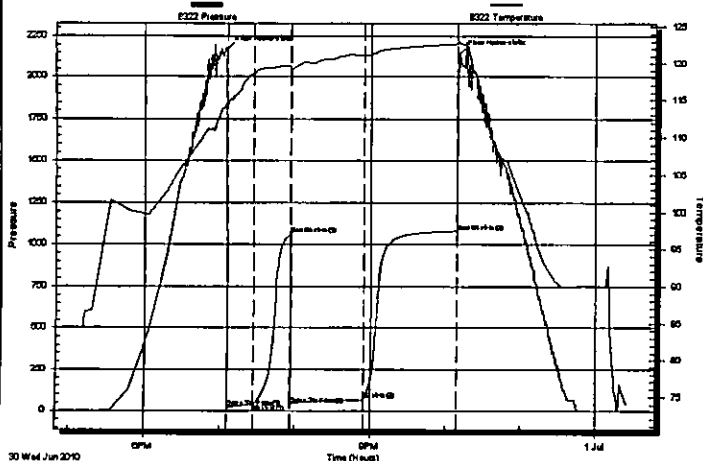
Last Calib.: **2010.07.01**

Time On Btm: **2010.06.30 @ 19:05:15**

Time Off Btm: **2010.06.30 @ 22:11:14**

TEST COMMENT: IF: Built to 4 1/4 inches.  
IS: No return.  
FF: BOB in 33 mins.  
FS: Weak surface blow for 5 mins.

Pressure vs. Time



### PRESSURE SUMMARY

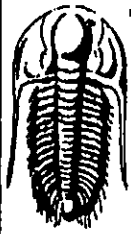
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2166.70	114.55	Initial Hydro-static
1	18.11	114.34	Open To Flow (1)
22	42.34	118.51	Shut-In(1)
51	1058.79	119.58	End Shut-In(1)
52	38.37	119.19	Open To Flow (2)
110	67.44	121.10	Shut-In(2)
184	1080.25	122.64	End Shut-In(2)
186	2144.04	122.84	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
135.00	MCO 70%o 30%r	0.81
20.00	CO 10%g 90%o	0.28
0.00	GP = 400ft	0.00
0.00	API = 31.5@75F = 30 Corrected	0.00

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating Co.

M Andereson #1-3

1700 N Waterfront PKWY  
Wichita KS, 67206

3-13s-32w Logan KS

Job Ticket: 39182

DST#: 4

ATTN: Steve Carl

Test Start: 2010.06.30 @ 17:11:05

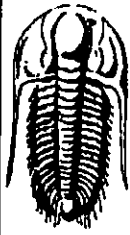
### Tool Information

Drill Pipe:	Length: 4336.00 ft	Diameter: 3.80 inches	Volume: 60.82 bbl	Tool Weight: 1500.00 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: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 61.41 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4454.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	31.00 ft			
Tool Length:	59.00 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			4427.00	
Shut In Tool	5.00			4432.00	
Hydraulic tool	5.00			4437.00	
Jars	5.00			4442.00	
Safety Joint	3.00			4445.00	
Packer	5.00			4450.00	28.00 Bottom Of Top Packer
Packer	4.00			4454.00	
Stubb	1.00			4455.00	
Recorder	0.00	8322	Inside	4455.00	
Recorder	0.00	8166	Inside	4455.00	
Perforations	27.00			4482.00	
Bullnose	3.00			4485.00	31.00 Bottom Packers & Anchor

**Total Tool Length: 59.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

FLUID SUMMARY

Grand Mesa Operating Co.

M Andereson #1-3

1700 N Waterfront PKWY  
Wichita KS, 67206

3-13s-32w Logan KS

Job Ticket: 39182

DST#: 4

ATTN: Steve Carl

Test Start: 2010.06.30 @ 17:11:05

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 48.00 sec/qt

Water Loss: 7.17 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 3000.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

30 deg API

Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
135.00	MCO 70%o 30%m	0.810
20.00	CO 10%g 90%o	0.281
0.00	GIP = 400ft	0.000
0.00	API = 31.5@75F = 30 Corrected	0.000

Total Length: 155.00 ft

Total Volume: 1.091 bbl

Num Fluid Samples: 0

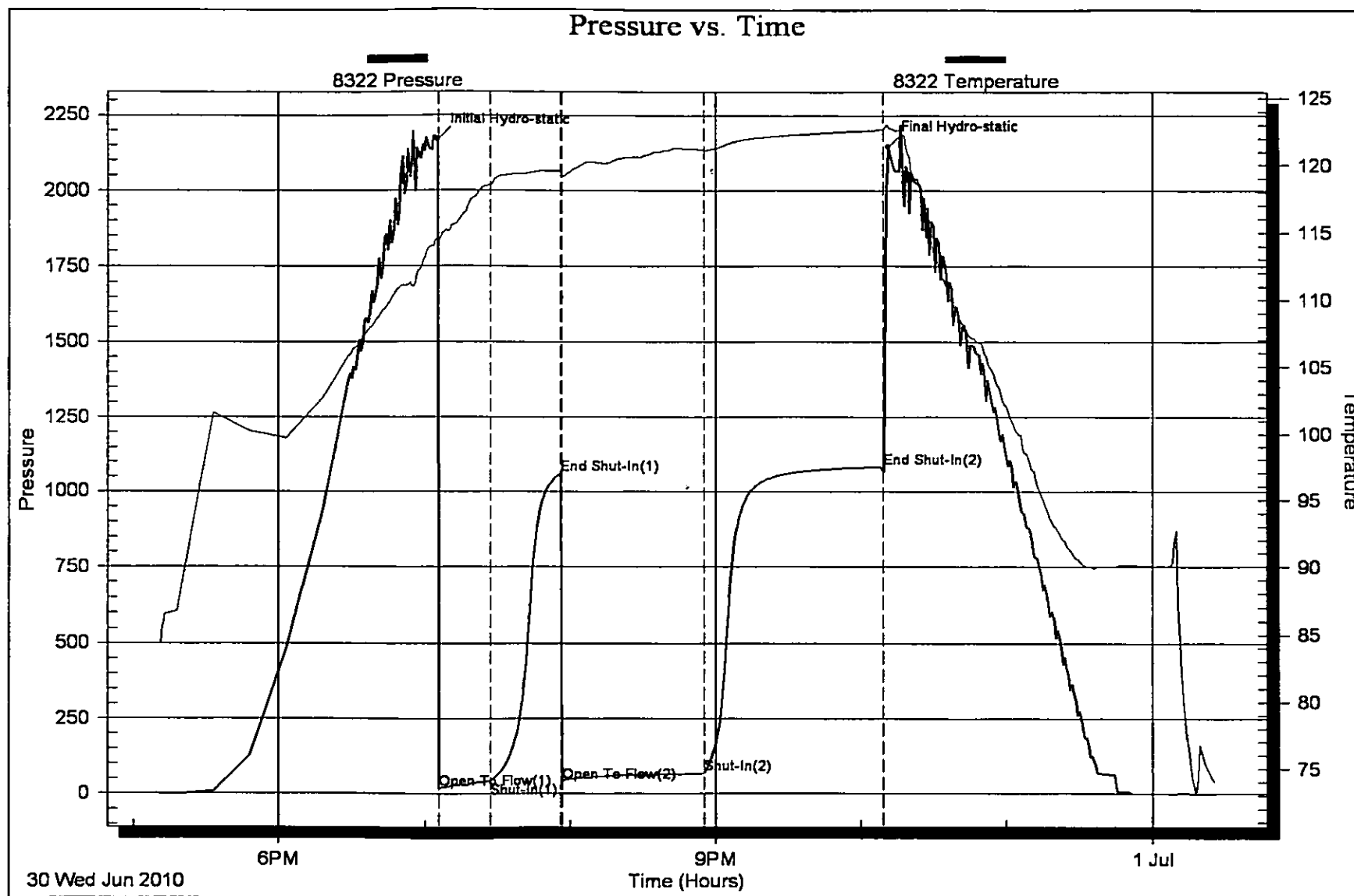
Num Gas Bombs: 0

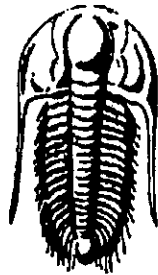
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating Co.**

1700 N Waterfront PKWY  
Wichita KS, 67206

ATTN: Steve Carl

**3-13s-32w Logan KS**

**M Andereson #1-3**

Start Date: 2010.07.01 @ 12:50:05

End Date: 2010.07.01 @ 19:40:44

Job Ticket #: 39183                      DST #: 5

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

Grand Mesa Operating Co.

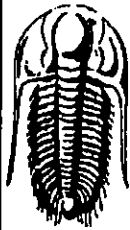
M Andereson #1-3

3-13s-32w Logan KS

DST # 5

Verdgrfs

2010.07.01



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Grand Mesa Operating Co.

1700 N Waterfront PKWY  
Wichita KS, 67206

ATTN: Steve Carl

**M Anderson #1-3**

**3-13s-32w Logan KS**

Job Ticket: 39183

DST#: 5

Test Start: 2010.07.01 @ 12:50:05

## GENERAL INFORMATION:

Formation: **Vertigris**

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

Time Tool Opened: 14:39:00

Time Test Ended: 19:40:44

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Domsch**

Unit No: **48**

Interval: **4490.00 ft (KB) To 4546.00 ft (KB) (TVD)**

Total Depth: **4546.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **3022.00 ft (KB)**

**3017.00 ft (CF)**

KB to GR/CF: **5.00 ft**

**Serial #: 8322** Inside

Press@RunDepth: **41.43 psig @ 4491.00 ft (KB)**

Start Date: **2010.07.01**

End Date: **2010.07.01**

Start Time: **12:50:05**

End Time: **19:40:44**

Capacity: **8000.00 psig**

Last Calib.: **2010.07.01**

Time On Btm: **2010.07.01 @ 14:38:45**

Time Off Btm: **2010.07.01 @ 17:42:45**

## TEST COMMENT:

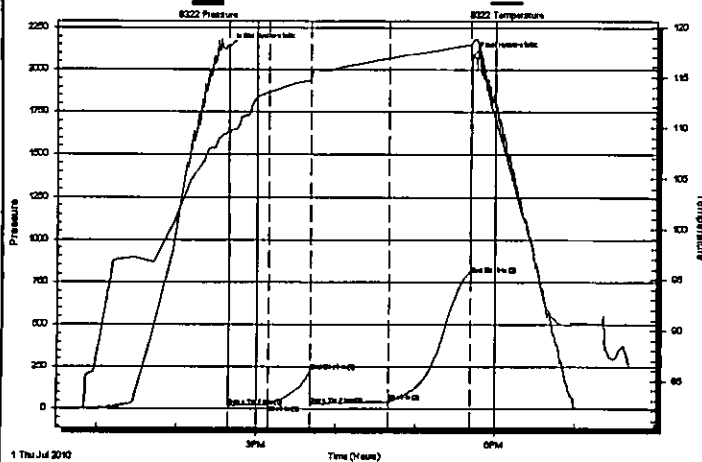
IF: Built to 2 inches.

IS: No return.

FF: Built to 3 inches died back to 2 1/4 inches.

FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

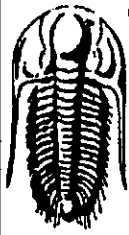
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2135.67	109.99	Initial Hydro-static
1	16.17	109.01	Open To Flow (1)
30	26.45	113.52	Shut-In(1)
62	220.88	114.66	End Shut-In(1)
62	26.36	114.82	Open To Flow (2)
121	41.43	116.85	Shut-In(2)
183	794.28	118.22	End Shut-In(2)
184	2081.85	118.65	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	HMCO 60%o 40%m	0.30
0.00	GIP = 0	0.00
0.00	API = NA	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Grand Mesa Operating Co.

**M Andereson #1-3**

1700 N Waterfront PKWY  
Wichita KS, 67206

**3-13s-32w Logan KS**

Job Ticket: 39183

**DST#: 5**

ATTN: Steve Carl

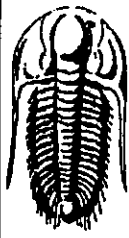
Test Start: 2010.07.01 @ 12:50:05

**Tool Information**

Drill Pipe:	Length: 4368.00 ft	Diameter: 3.80 inches	Volume: 61.27 bbl	Tool Weight: 1500.00 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: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 61.86 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4490.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	84.00 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			4463.00	
Shut In Tool	5.00			4468.00	
Hydraulic tool	5.00			4473.00	
Jars	5.00			4478.00	
Safety Joint	3.00			4481.00	
Packer	5.00			4486.00	28.00 Bottom Of Top Packer
Packer	4.00			4490.00	
Stubb	1.00			4491.00	
Recorder	0.00	8322	Inside	4491.00	
Recorder	0.00	8166	Inside	4491.00	
Perforations	19.00			4510.00	
Change Over Sub	1.00			4511.00	
Drill Pipe	31.00			4542.00	
Change Over Sub	1.00			4543.00	
Bullnose	3.00			4546.00	56.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>84.00</b>				



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Grand Mesa Operating Co.

**M Andereson #1-3**

1700 N Waterfront PKWY  
Wichita KS, 67206

**3-13s-32w Logan KS**

Job Ticket: 39183

DST#: 5

ATTN: Steve Carl

Test Start: 2010.07.01 @ 12:50:05

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 52.00 sec/qt

Water Loss: 7.97 in<sup>3</sup>

Resistivity: 0.00 ohm.m

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

deg API

ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	HMCO 60%o 40%m	0.305
0.00	GP = 0	0.000
0.00	API = N/A	0.000

Total Length: 62.00 ft      Total Volume: 0.305 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

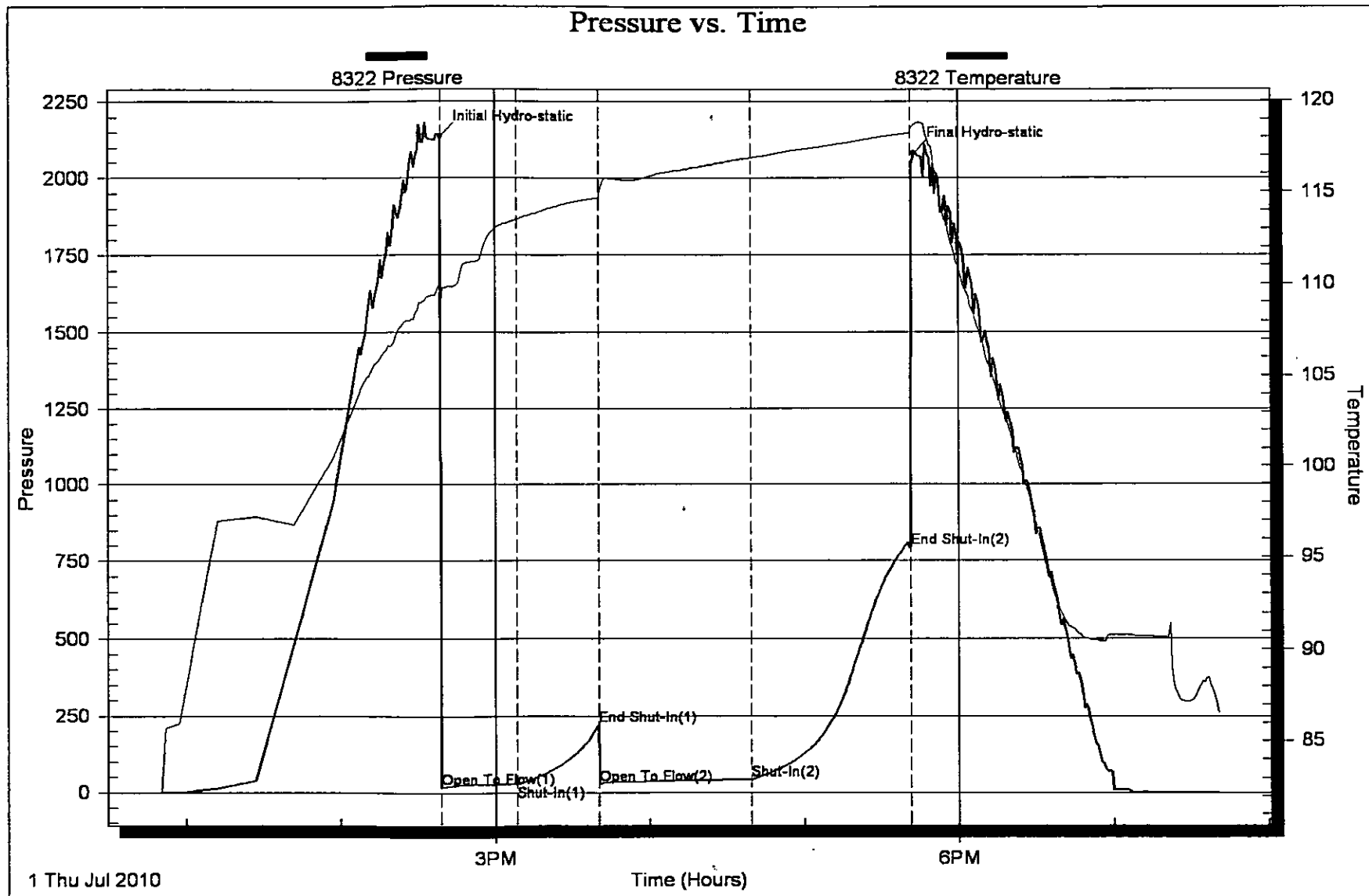
Serial #:

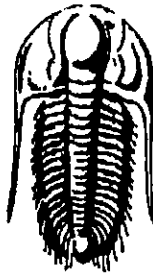
Laboratory Name:

Laboratory Location:

Recovery Comments:







**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Grand Mesa Operating Co.**

1700 N Waterfront PKWY  
Wichita KS, 67206

ATTN: Steve Carl

**3-13s-32w Logan KS**

**M Andereson #1-3**

Start Date: 2010.07.02 @ 04:24:05

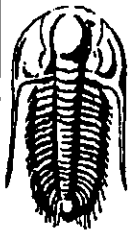
End Date: 2010.07.02 @ 09:58:14

Job Ticket #: 39184                      DST #: 6

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

Grand Mesa Operating Co.

**M Anderson #1-3**

1700 N Waterfront PKWY  
Wichita KS, 67206

**3-13s-32w Logan KS**

Job Ticket: 39184

DST#: 6

ATTN: Steve Carl

Test Start: 2010.07.02 @ 04:24:05

### GENERAL INFORMATION:

Formation: **Johnson**

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

Time Tool Opened: 06:15:00

Time Test Ended: 09:58:14

Test Type: **Conventional Bottom Hole**

Tester: **Brandon Domsch**

Unit No: **48**

Interval: **4546.00 ft (KB) To 4612.00 ft (KB) (TVD)**

Reference Elevations: **3022.00 ft (KB)**

Total Depth: **4612.00 ft (KB) (TVD)**

**3017.00 ft (CF)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

KB to GR/CF: **5.00 ft**

Serial #: **8322**

Inside

Press@RunDepth: **27.24 psig @ 4547.00 ft (KB)**

Capacity: **8000.00 psig**

Start Date: **2010.07.02**

End Date:

**2010.07.02**

Last Calib.: **2010.07.02**

Start Time: **04:24:05**

End Time:

**09:58:14**

Time On Btm: **2010.07.02 @ 06:14:30**

Time Off Btm: **2010.07.02 @ 08:12:30**

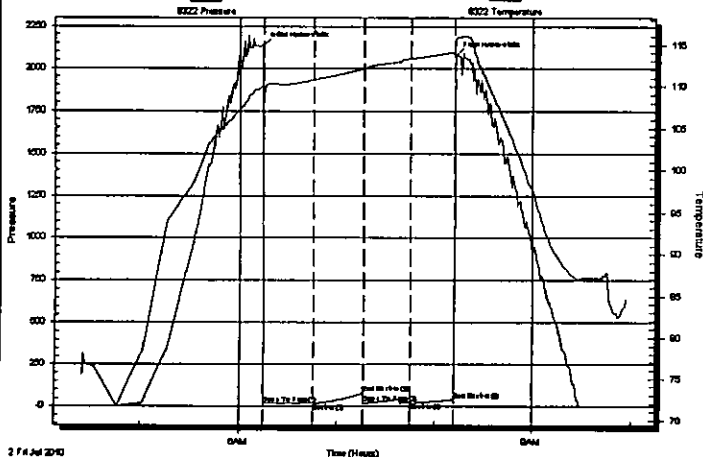
TEST COMMENT: IF: 1/4 inch died in 17 mins.

IS: No return.

FF: No blow.

FS: No return.

Pressure vs. Time



### PRESSURE SUMMARY

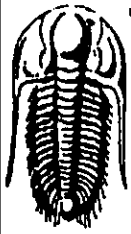
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2136.65	109.94	Initial Hydro-static
1	15.54	109.00	Open To Flow (1)
31	17.65	110.79	Shut-In(1)
62	77.18	112.02	End Shut-In(1)
63	18.51	112.05	Open To Flow (2)
91	27.24	113.32	Shut-In(2)
118	38.22	114.12	End Shut-In(2)
118	2078.69	115.28	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
2.00	SOCM 5%o 95% m	0.01
0.00	GIP = 0	0.00

### Gas Rates

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



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Grand Mesa Operating Co.

M Andereson #1-3

1700 N Waterfront PKWY  
Wichita KS, 67206

3-13s-32w Logan KS

Job Ticket: 39184

DST#: 6

ATTN: Steve Carl

Test Start: 2010.07.02 @ 04:24:05

### Tool Information

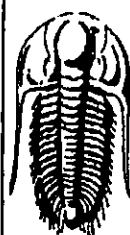
Drill Pipe:	Length: 4409.00 ft	Diameter: 3.80 inches	Volume: 61.85 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 62.44 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	4546.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	94.00 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			4519.00	
Shut In Tool	5.00			4524.00	
Hydraulic tool	5.00			4529.00	
Jars	5.00			4534.00	
Safety Joint	3.00			4537.00	
Packer	5.00			4542.00	28.00 Bottom Of Top Packer
Packer	4.00			4546.00	
Stubb	1.00			4547.00	
Recorder	0.00	8322	Inside	4547.00	
Recorder	0.00	8166	Inside	4547.00	
Perforations	29.00			4576.00	
Change Over Sub	1.00			4577.00	
Drill Pipe	31.00			4608.00	
Change Over Sub	1.00			4609.00	
Bullnose	3.00			4612.00	66.00 Bottom Packers & Anchor

**Total Tool Length: 94.00**



**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Grand Mesa Operating Co.

**M Andereson #1-3**

1700 N Waterfront PKWY  
Wichita KS, 67206

**3-13s-32w Logan KS**

Job Ticket: 39184

DST#: 6

ATTN: Steve Carl

Test Start: 2010.07.02 @ 04:24:05

### 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: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3500.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	SOCM 5%o 95%m	0.010
0.00	GIP = 0	0.000

Total Length: 2.00 ft

Total Volume: 0.010 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

