



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1162861  
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

- New Well       Re-Entry       Workover
- Oil       WSW       SWD       SIOW
- Gas       D&A       ENHR       SIGW
- OG       GSW       Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic       Other (Core, Expl., etc.): \_\_\_\_\_

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

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

- Deepening       Re-perf.       Conv. to ENHR       Conv. to SWD
- Plug Back       Conv. to GSW       Conv. to Producer
- Commingled      Permit #: \_\_\_\_\_
- Dual Completion      Permit #: \_\_\_\_\_
- SWD      Permit #: \_\_\_\_\_
- ENHR      Permit #: \_\_\_\_\_
- GSW      Permit #: \_\_\_\_\_

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27       NAD83       WGS84

County: \_\_\_\_\_

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

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1162861

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

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

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

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

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

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

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

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

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  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 <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
--	---	---



# ALLIED OIL & GAS SERVICES, LLC 054807

Federal Tax I.D.# 20-5975804

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

SERVICE POINT:  
Great Bend KS

DATE <u>10-13-13</u>	SEC. <u>12</u>	TWP. <u>11</u>	RANGE <u>23</u>	CALLED OUT	ON LOCATION	JOB START <u>12:30AM</u>	JOB FINISH <u>1:00AM</u>
LEASE <u>Patterson</u>	WELL # <u>1-12</u>	LOCATION <u>Wakarusa KS 6N 2E 5 1/2</u>			COUNTY <u>Trego</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)				<u>Einto</u>			

CONTRACTOR WW-6

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 262

CASING SIZE 8 7/8 23' DEPTH 261

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

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

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

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

MEAS. LINE \_\_\_\_\_ SHOE JOINT 15'

CEMENT LEFT IN CSG. 15'

PERFS \_\_\_\_\_

DISPLACEMENT 15 1/2 bbl

OWNER \_\_\_\_\_

CEMENT AMOUNT ORDERED 170 com 390cc 279gel

COMMON	<u>170</u>	@	<u>17.96</u>	<u>3043.00</u>	
POZMIX		@			
GEL	<u>3</u>	@	<u>23.40</u>	<u>70.20</u>	
CHLORIDE	<u>6</u>	@	<u>64.00</u>	<u>384.00</u>	
ASC		@			
		@			
		@			
		@			
		@			
		@			
		@			
HANDLING	<u>183.51</u>	<u>575</u>	@	<u>2.48</u>	<u>435.10</u>
MILEAGE	<u>343.58</u>	<u>1/2</u>	@	<u>2.60</u>	<u>893.31</u>
				TOTAL	<u>4845.61</u>

**EQUIPMENT**

PUMP TRUCK # 398 CEMENTER Robert Yakubovich  
HELPER Charles

BULK TRUCK # 410 DRIVER Danny Sinner

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

**REMARKS:**

ran 8 7/8 23' csg review circulation mixed 170 com 390cc 279gel displace 15.5 bbl of water shot in

Cement did circulate to surface displaced 5 bbl to pit  
Thank you

CHARGE TO: Cholla Production

STREET \_\_\_\_\_

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

**SERVICE**

DEPTH OF JOB	<u>262</u>
PUMP TRUCK CHARGE	<u>1512.25</u>
EXTRA FOOTAGE	@
MILEAGE	<u>41 LVMI</u> @ <u>7.70</u> <u>315.70</u>
MANIFOLD	@
	<u>41 LVMI</u> @ <u>4.40</u> <u>180.40</u>
	@
TOTAL <u>2008.35</u>	

**PLUG & FLOAT EQUIPMENT**

_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
TOTAL _____		

To: Allied Oil & Gas Services, 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 Gary D Foltz

SIGNATURE [Signature]

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

TOTAL CHARGES 6853.96

DISCOUNT 1028.09 IF PAID IN 30 DAYS

NET \$5825.87

# ALLIED OIL & GAS SERVICES, LLC 061921

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT:  
Great Bend

DATE <u>10-20-13</u>	SEC. <u>12</u>	TWP. <u>11</u>	RANGE <u>23</u>	CALLED OUT	ON LOCATION	JOB START <u>1 Am</u>	JOB FINISH <u>2 Am</u>
LEASE <u>Patterson</u> WELL # <u>1-12</u> LOCATION <u>Walkerney, GN, 2E, 1/2 S</u>						COUNTY <u>Trego</u>	STATE <u>KS</u>
OLD OR NEW (Circle one) <u>NEW</u>				<u>East into</u>			

CONTRACTOR WW #6  
 TYPE OF JOB production 2 stage  
 HOLE SIZE 7 1/2 TD.  
 CASING SIZE 5 1/2 DEPTH 3913.10  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL DEPTH 1692  
 PRES. MAX 1800 psi MINIMUM  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG.  
 PERFS.  
 DISPLACEMENT 55 bbls water 30 mud 7 water

OWNER  
 CEMENT  
 AMOUNT ORDERED 150 ASC 290 gal 10% sulf  
6% gyp 5# Gilsomite per sack  
.14% Defamer 500 gal Du-1100  
 COMMON 500 @ \_\_\_\_\_  
 POZMIX @ \_\_\_\_\_  
 GEL @ \_\_\_\_\_  
 CHLORIDE @ \_\_\_\_\_  
 ASC 150 @ 20.90 3135.00  
Gilsomite 750 @ .98 735.00  
DF 21 @ 9.80 205.80  
Du-1100 500 @ 1.27 635.00

EQUIPMENT  
 PUMP TRUCK CEMENTER Josh Isaac  
 # 597 HELPER Charles Kempfer  
 BULK TRUCK  
 # 699 DRIVER Dan Cooper  
 BULK TRUCK  
 # 544-199 DRIVER Tommy Tijerina TWOS

HANDLING 191.54 @ 2.48 475.91  
 MILEAGE 8.36 x 41x 2.40 891.12  
 TOTAL 6077.16

REMARKS:  
pump 5269 water - 10 bbls Du-1100  
5 bbls water  
mix 150 ASC 290 gal 10% sulf 6% gyp  
5# Gilsomite per sack .14% Defamer  
Displace 55 bbls fresh water  
30 bbls mud 7 bbls water  
land plug 1800 psi

SERVICE  
 DEPTH OF JOB 3913  
 PUMP TRUCK CHARGE 2600.47  
 EXTRA FOOTAGE @ \_\_\_\_\_  
 MILEAGE Hvm 41 @ 7.70 315.70  
Head @ 275.00 275.00  
Hvm 41 @ 4.40 180.40  
 TOTAL 3371.57

CHARGE TO: Wholly production  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT  
5/8 float shoe @ 406.20 406.20  
1013F latch down plug @ 398.75 398.75  
9-centralizers @ 28.40 255.60  
1-Basket @ 159.10 159.10  
Stage collar @ 4047.00 4047.00  
 TOTAL 5306.25

To: Allied Oil & Gas Services, 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.

SALES TAX (if Any) \_\_\_\_\_  
 TOTAL CHARGES 14,755.68  
2,362.18  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS  
12,393.50

PRINTED NAME X Kelly P Branum  
 SIGNATURE [Signature]  
Thank you!

# ALLIED OIL & GAS SERVICES, LLC 061922

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Great Bend

DATE <u>10-21-13</u>	SEC. <u>12</u>	TWP. <u>11</u>	RANGE <u>23</u>	CALLED OUT	ON LOCATION	JOB START <u>4 AM</u>	JOB FINISH <u>5:30 AM</u>
LEASE <u>Patterson</u>		WELL # <u>1-12</u>	LOCATION <u>Wakeney 6<sup>th</sup> 2E</u>			COUNTY <u>King</u>	STATE <u>KS</u>
OLD OR NEW (Circle one)			<u>1/2 S E 1/4</u>				

CONTRACTOR Cholla production

TYPE OF JOB production 2 stage

HOLE SIZE \_\_\_\_\_ T.D. \_\_\_\_\_

CASING SIZE 5 1/2 DEPTH 3908.10

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

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

TOOL \_\_\_\_\_ DEPTH 1682

PRES. MAX 2100 psi MINIMUM \_\_\_\_\_

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

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

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

DISPLACEMENT 40 bbls freshwater

OWNER \_\_\_\_\_

CEMENT

AMOUNT ORDERED 4100 SKS 60/40

6 1/2 gal 24 Flt

EQUIPMENT

PUMP TRUCK CEMENTER bill 1640

# 547 HELPER Charles Kenyon

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

# 544 DRIVER Tommy Tijerina

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

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

COMMON	@	_____	_____
POZMIX	@	_____	_____
GEL	@	_____	_____
CHLORIDE	@	_____	_____
ASC	@	_____	_____
<u>4000x bitum + 698</u>	@	<u>15.95</u>	<u>6380.00</u>
<u>flascal 100</u>	@	<u>2.97</u>	<u>297.00</u>
HANDLING <u>441.60</u>	@	<u>2.48</u>	<u>1095.31</u>
MILEAGE <u>18.3 x 41 x</u>	@	<u>2.60</u>	<u>1950.78</u>
TOTAL			<u>9723.09</u>

REMARKS:

plug path hole 20 SKS

mix 3900 SKS 60/40 bitumal 24 Flt

Drop plug 56

Displace 40 bbls freshwater

hand plug 2100 psi

Cement did circulate

plug down

plug down

CHARGE TO: Cholla production

STREET \_\_\_\_\_

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

SERVICE

DEPTH OF JOB	<u>1682</u>	_____
PUMP TRUCK CHARGE	<u>2213.75</u>	_____
EXTRA FOOTAGE	@	_____
MILEAGE	@	_____
MANIFOLD	@	_____
	@	_____
TOTAL		<u>2213.75</u>

PLUG & FLOAT EQUIPMENT

	@	_____
	@	_____
	@	_____
	@	_____
	@	_____
TOTAL		_____

To: Allied Oil & Gas Services, 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 X Kelly P Branum

SIGNATURE X [Signature]

Thank you

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

TOTAL CHARGES 11,936.84

DISCOUNT 2,984.21 IF PAID IN 30 DAYS

8,952.63



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

ATTN: Justin Carter

Job Ticket: 54476

**DST#: 1**

Test Start: 2013.10.16 @ 09:12:00

## GENERAL INFORMATION:

Formation: **LKC "A-C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:18:15

Time Test Ended: 16:12:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 3502.00 ft (KB) To 3556.00 ft (KB) (TVD)**

Reference Elevations: 2241.00 ft (KB)

Total Depth: 3556.00 ft (KB) (TVD)

2236.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6799 Inside**

Press @ Run Depth: 64.10 psig @ 3538.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.16 End Date: 2013.10.16

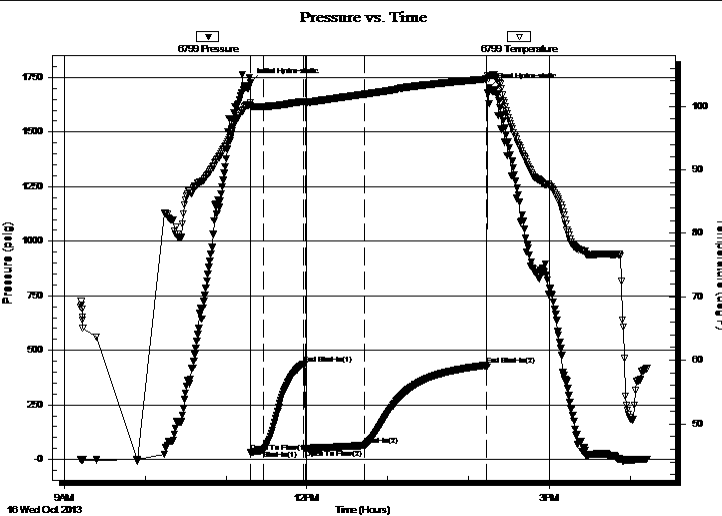
Last Calib.: 2013.10.16

Start Time: 09:12:05 End Time: 16:12:29

Time On Btm: 2013.10.16 @ 11:18:00

Time Off Btm: 2013.10.16 @ 14:15:15

**TEST COMMENT:** 10 - IF- 2" blow  
30 - IS- No return  
45 - FF- 3" blow  
90 - FS- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1724.64	100.53	Initial Hydro-static
1	34.03	100.06	Open To Flow (1)
10	42.13	99.97	Shut-In(1)
40	438.09	100.75	End Shut-In(1)
41	46.65	100.60	Open To Flow (2)
85	64.10	101.91	Shut-In(2)
176	431.80	104.28	End Shut-In(2)
178	1705.12	104.63	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
62.00	GHOCM, 10%G, 40%O, 50%M	0.30
10.00	SOCM, 10%O, 90%M	0.05
0.00	30' of G.I.P.	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

Job Ticket: 54476

**DST#: 1**

ATTN: Justin Carter

Test Start: 2013.10.16 @ 09:12:00

## 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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in<sup>3</sup>

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
62.00	GHOCM, 10%G, 40%O, 50%M	0.305
10.00	SOCM, 10%O, 90%M	0.049
0.00	30' of G.I.P.	0.000

Total Length: 72.00 ft      Total Volume: 0.354 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

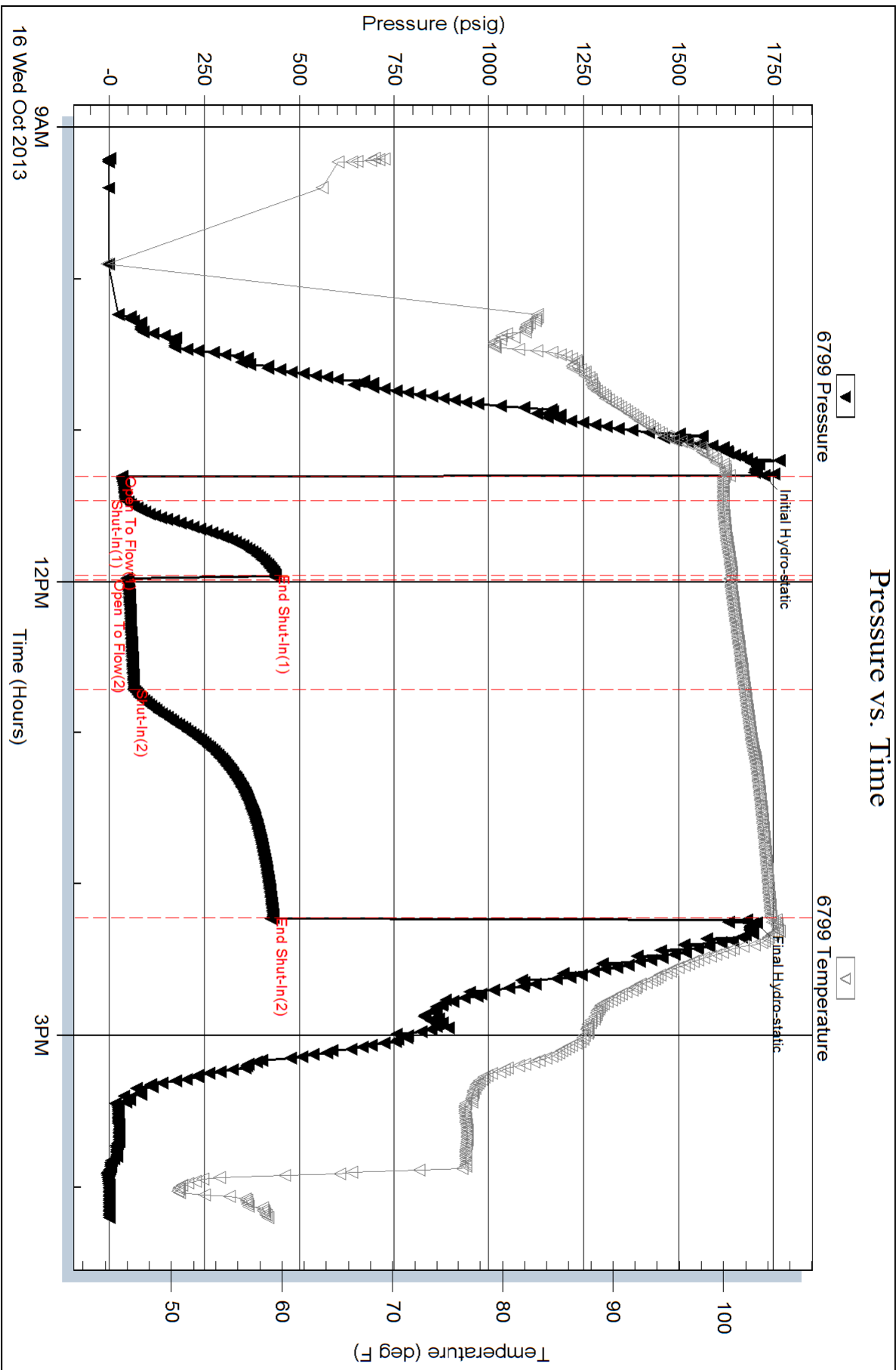
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler: 300ml Oil, 700ml Mud    PSI 160







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

ATTN: Justin Carter

Job Ticket: 54477

**DST#: 2**

Test Start: 2013.10.17 @ 00:20:00

## GENERAL INFORMATION:

Formation: **LKC "C-E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:03:30

Time Test Ended: 07:00:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 3532.00 ft (KB) To 3590.00 ft (KB) (TVD)**

Reference Elevations: 2241.00 ft (KB)

Total Depth: 3590.00 ft (KB) (TVD)

2236.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6799**

**Inside**

Press @ Run Depth: 58.31 psig @ 3568.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.17

End Date:

2013.10.17

Last Calib.: 2013.10.17

Start Time: 00:20:05

End Time:

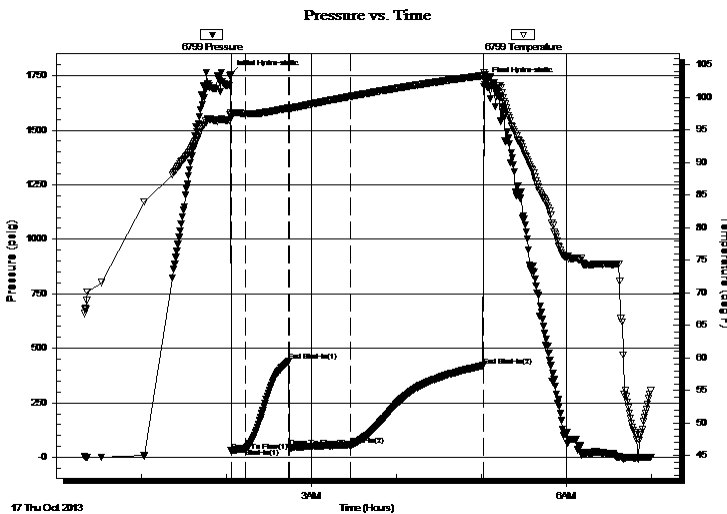
07:00:14

Time On Btm: 2013.10.17 @ 02:03:15

Time Off Btm: 2013.10.17 @ 05:03:00

**TEST COMMENT:** 10 - IF- 2" blow  
30 - IS- No return  
45 - FF- 1" blow  
90 - FS- No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1753.15	97.63	Initial Hydro-static
1	30.24	96.95	Open To Flow (1)
11	41.41	97.48	Shut-In(1)
41	439.68	98.36	End Shut-In(1)
42	45.58	98.25	Open To Flow (2)
85	58.31	100.13	Shut-In(2)
179	420.95	103.34	End Shut-In(2)
180	1722.17	103.20	Final Hydro-static

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
60.00	SOCM, 10%O, 90%M	0.30

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

Job Ticket: 54477

**DST#: 2**

ATTN: Justin Carter

Test Start: 2013.10.17 @ 00:20:00

## 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: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.38 in<sup>3</sup>

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
60.00	SOCM, 10%O, 90%M	0.295

Total Length: 60.00 ft      Total Volume: 0.295 bbl

Num Fluid Samples: 0

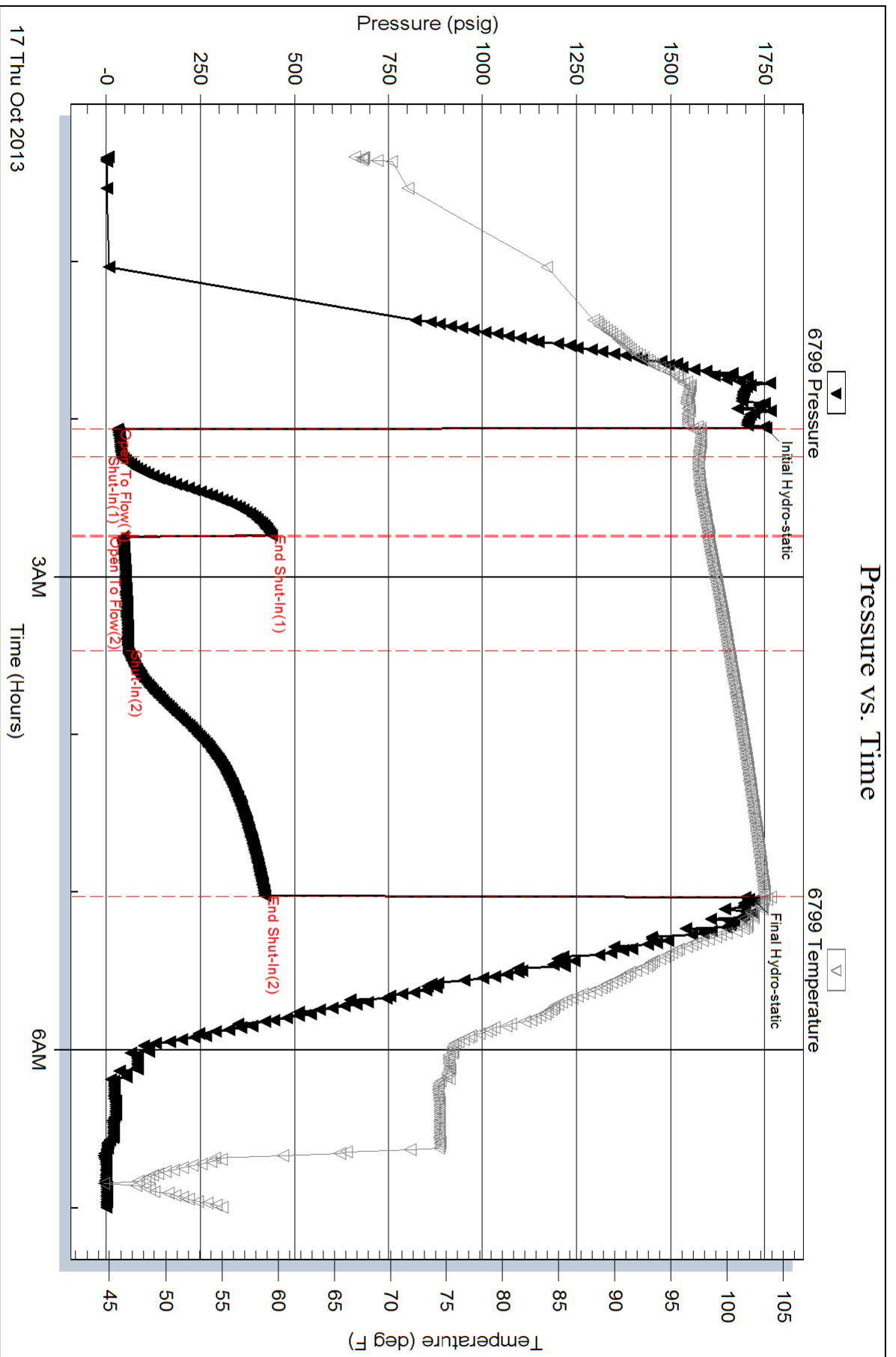
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler: 100ml Oil, 1900 ml Mud, 40 PSI





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

ATTN: Justin Carter

Job Ticket: 54478

**DST#: 3**

Test Start: 2013.10.17 @ 12:08:00

## GENERAL INFORMATION:

Formation: **LKC "E-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:54:30

Time Test Ended: 19:32:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 3566.00 ft (KB) To 3602.00 ft (KB) (TVD)**

Reference Elevations: 2241.00 ft (KB)

Total Depth: 3602.00 ft (KB) (TVD)

2236.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6799**

**Inside**

Press @ Run Depth: 98.19 psig @ 3569.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.17

End Date:

2013.10.17

Last Calib.: 2013.10.17

Start Time: 12:08:05

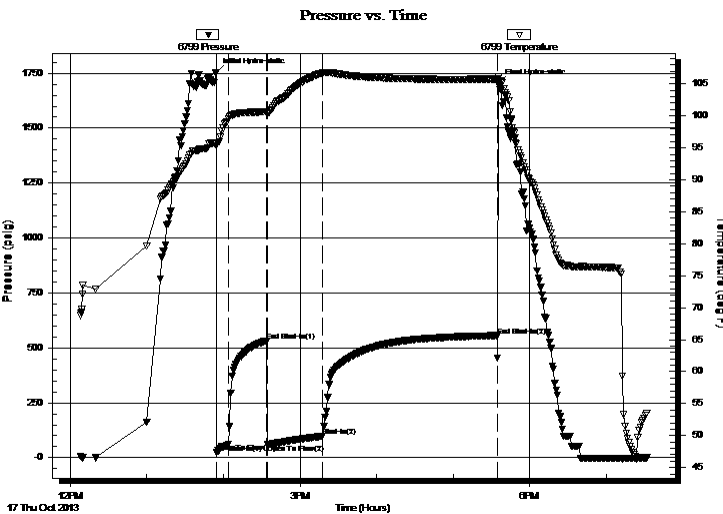
End Time:

19:31:59

Time On Btm: 2013.10.17 @ 13:54:15

Time Off Btm: 2013.10.17 @ 17:35:15

**TEST COMMENT:** 10 - IF- 5" blow  
30 - IS- No return  
45 - FF- 7" blow  
135 - FS- Surface return, died in 27 minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1753.55	95.69	Initial Hydro-static
1	23.06	95.30	Open To Flow (1)
10	60.25	99.58	Shut-In(1)
40	531.77	100.66	End Shut-In(1)
41	61.29	100.29	Open To Flow (2)
84	98.19	106.72	Shut-In(2)
221	555.60	105.79	End Shut-In(2)
221	1704.56	106.06	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
176.00	SOCWM, 10%O, 40%W, 50%M	1.65
10.00	GO, 5%G, 95%O	0.14

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

Job Ticket: 54478

**DST#: 3**

ATTN: Justin Carter

Test Start: 2013.10.17 @ 12:08:00

### 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in<sup>3</sup>

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
176.00	SOCWM, 10%O, 40%W, 50%M	1.649
10.00	GO, 5%G, 95%O	0.140

Total Length: 186.00 ft      Total Volume: 1.789 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler: 100ml Oil, 200ml Mud, 1700ml Water, PSI 90

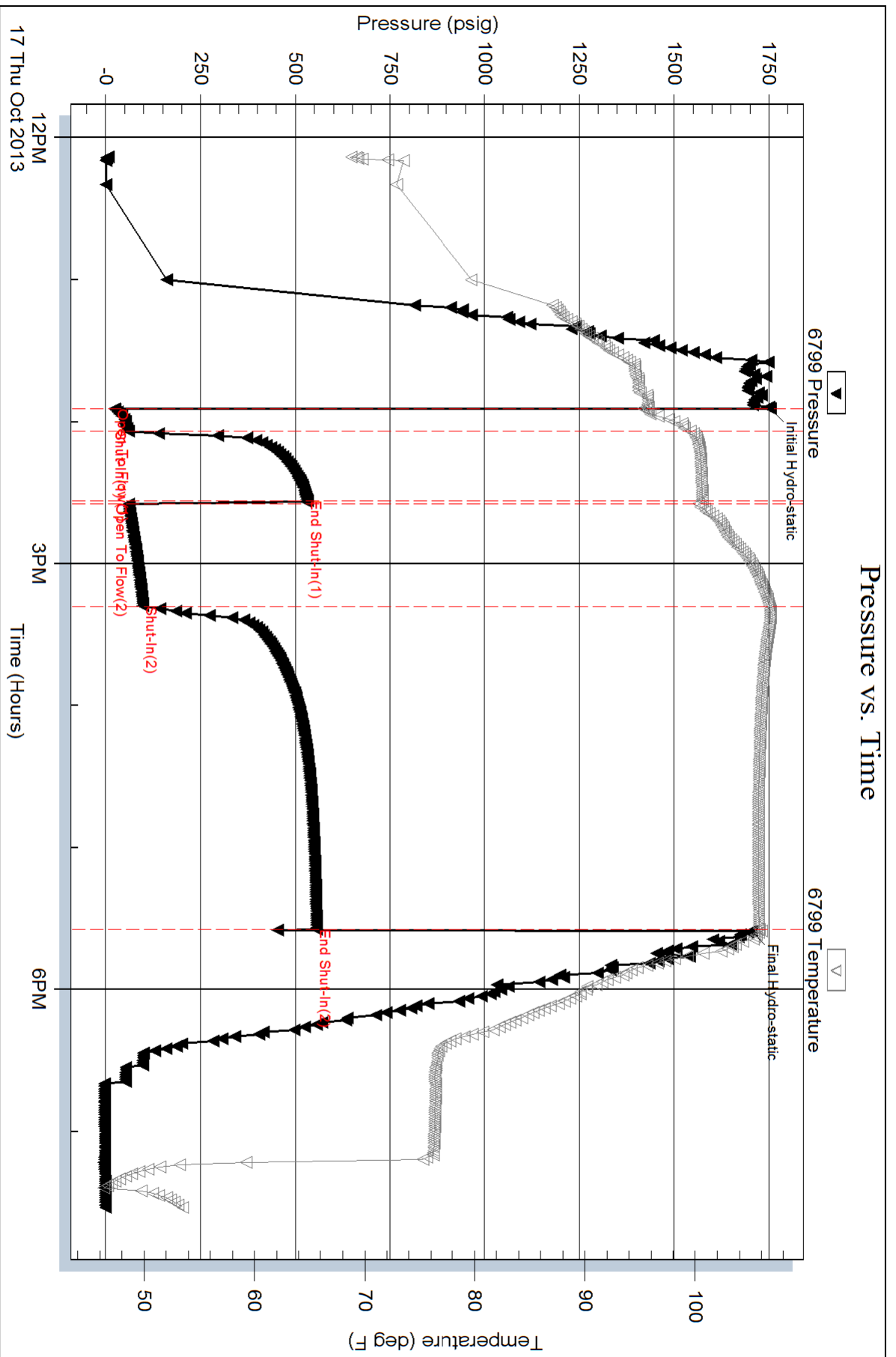
Serial #: 6799

Inside

Cholla Production

Patterson # 1-12

DST Test Number: 3





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

ATTN: Justin Carter

Job Ticket: 54479

**DST#: 4**

Test Start: 2013.10.18 @ 04:30:00

## GENERAL INFORMATION:

Formation: **LKC "I-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:26:30

Time Test Ended: 12:02:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 3650.00 ft (KB) To 3690.00 ft (KB) (TVD)**

Reference Elevations: 2241.00 ft (KB)

Total Depth: 3690.00 ft (KB) (TVD)

2236.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6799 Inside**

Press @ RunDepth: 13.66 psig @ 3687.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.18 End Date: 2013.10.18

Last Calib.: 2013.10.18

Start Time: 04:30:05 End Time: 12:02:29

Time On Btm: 2013.10.18 @ 08:26:15

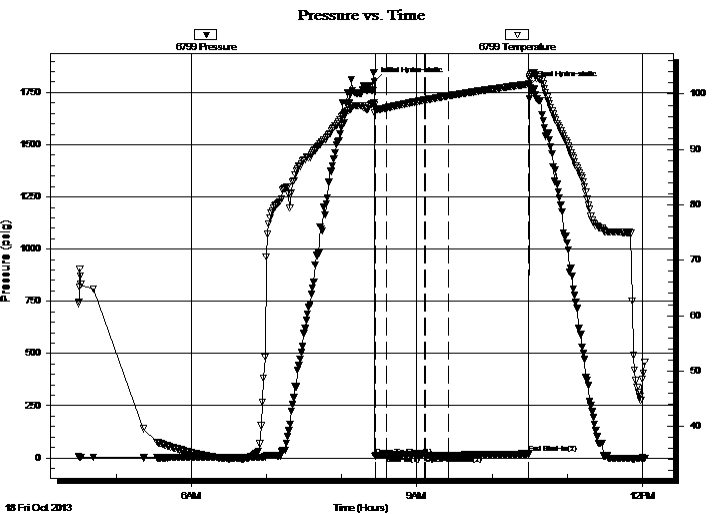
Time Off Btm: 2013.10.18 @ 10:30:00

**TEST COMMENT:** 10 - IF- 1/4" blow , died in 9 minutes

30 - IS- No return

20 - FF- No blow

60 - FS- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1803.30	97.98	Initial Hydro-static
1	8.81	96.64	Open To Flow (1)
10	13.60	97.51	Shut-In(1)
40	19.55	98.91	End Shut-In(1)
41	12.94	98.93	Open To Flow (2)
59	13.66	99.66	Shut-In(2)
123	20.01	101.79	End Shut-In(2)
124	1783.23	103.11	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

Job Ticket: 54479

**DST#: 4**

ATTN: Justin Carter

Test Start: 2013.10.18 @ 04:30:00

## 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

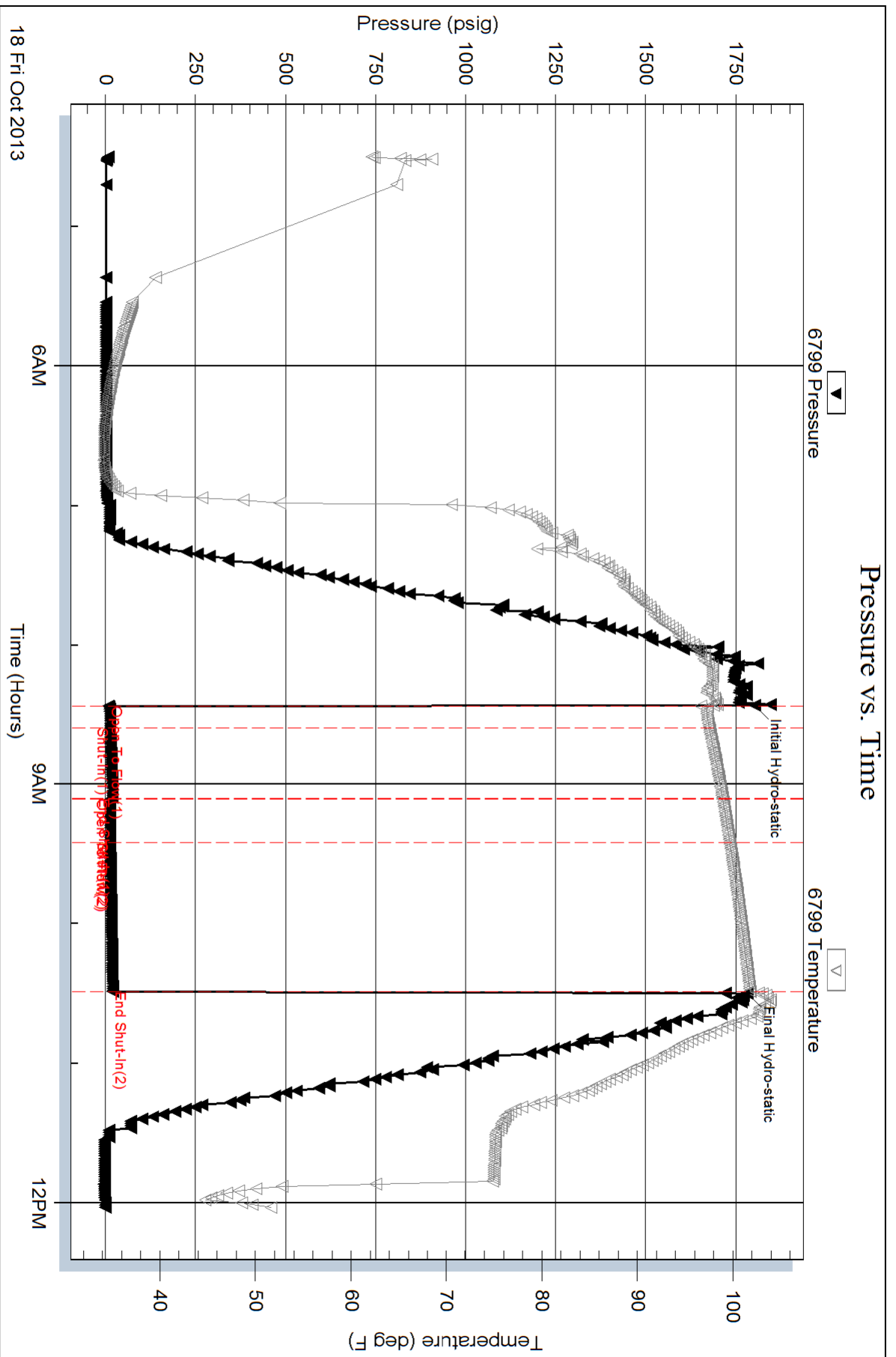
Length ft	Description	Volume bbbl

Total Length:                      ft      Total Volume:                      bbl

Num Fluid Samples: 0                      Num Gas Bombs: 0                      Serial #:

Laboratory Name:                      Laboratory Location:

Recovery Comments: There was mud in the hydraulic tool only. Fluid did not make it to the sampler.





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Cholla Production

10290 Bradford Rd  
Littleton CO, 80127

ATTN: Justin Carter

**12-11s-23w Trego**

**Patterson # 1-12**

Job Ticket: 54480

**DST#: 5**

Test Start: 2013.10.16 @ 09:12:00

### GENERAL INFORMATION:

Formation: **LKC "K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended:

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 3686.00 ft (KB) To 3706.00 ft (KB) (TVD)**

Total Depth: 3706.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2241.00 ft (KB)

2236.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 6799 Inside**

Press @ Run Depth: psig @ 3688.00 ft (KB)

Start Date: 2013.10.18

End Date: 2013.10.18

Start Time: 16:55:05

End Time: 20:48:00

Capacity: 8000.00 psig

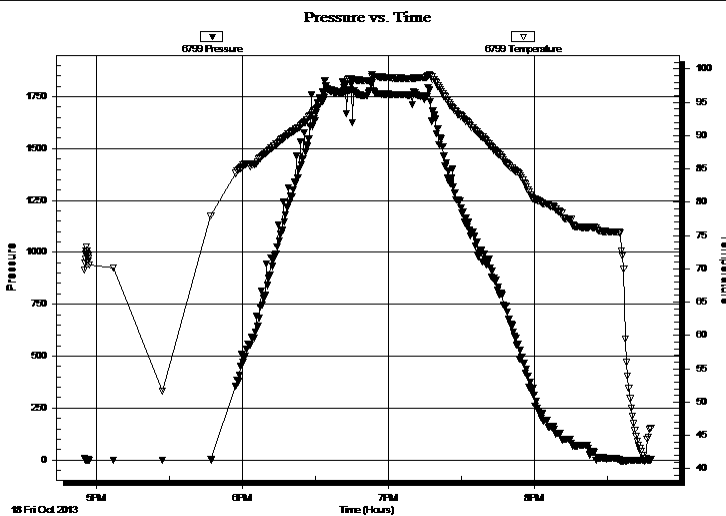
Last Calib.: 2013.10.18

Time On Btm:

Time Off Btm:

TEST COMMENT: Opened tool, packer failure, tried to reset 2 more times, pulled tool

### PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

### Recovery

Length (ft)	Description	Volume (bbl)
279.00	Mud, 100%M	2.82

### Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

Job Ticket: 54480

**DST#: 5**

ATTN: Justin Carter

Test Start: 2013.10.16 @ 09:12:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
279.00	Mud, 100%M	2.820

Total Length: 279.00 ft      Total Volume: 2.820 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Packer failure

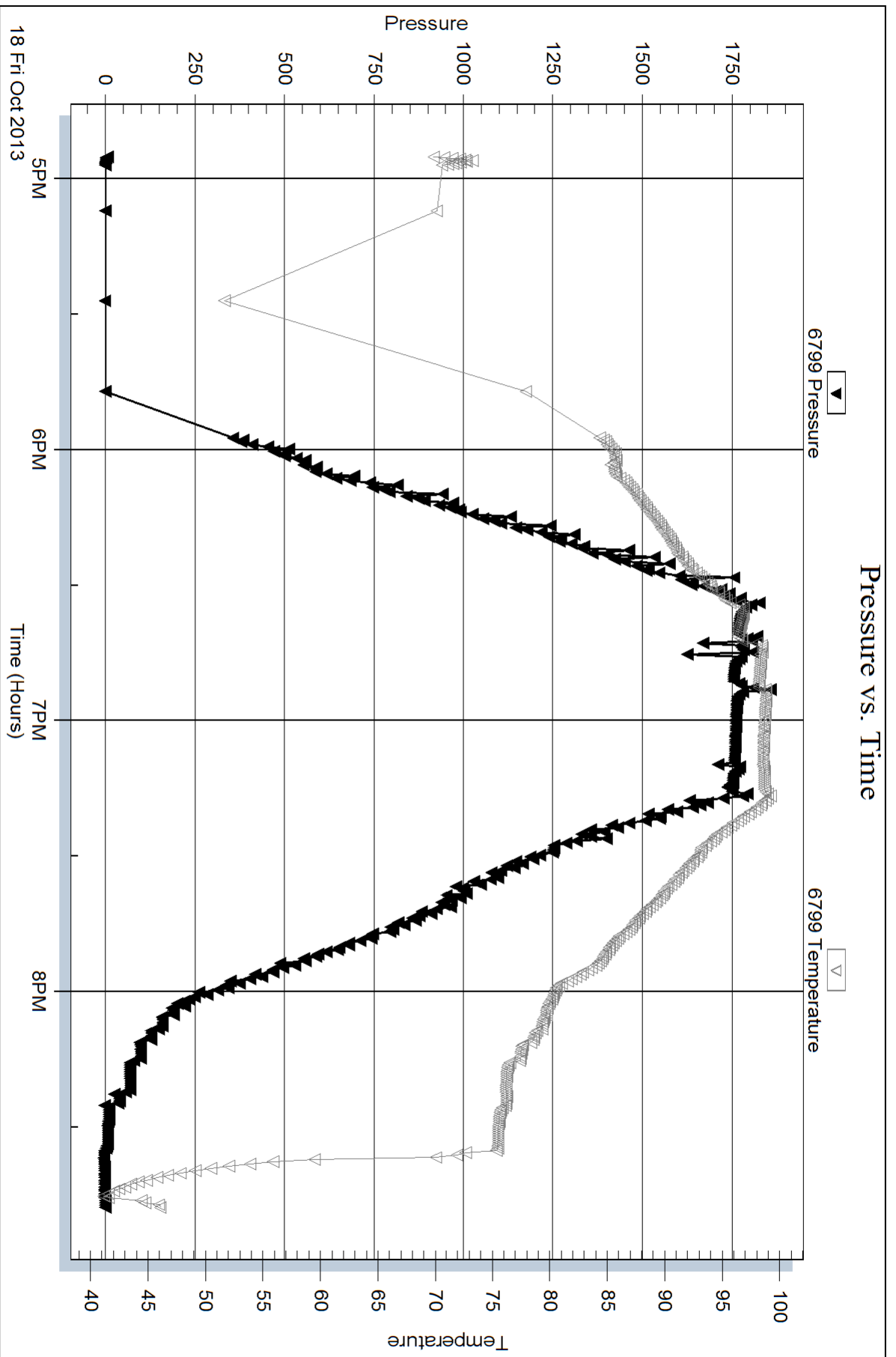
Serial #: 6799

Inside

Cholla Production

Patterson # 1-12

DST Test Number: 5





**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

ATTN: Justin Carter

Job Ticket: 54481

**DST#: 6**

Test Start: 2013.10.18 @ 21:07:00

## GENERAL INFORMATION:

Formation: **LKC "K"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 22:23:45  
 Time Test Ended: 03:32:45  
 Interval: **3668.00 ft (KB) To 3706.00 ft (KB) (TVD)**  
 Total Depth: 3706.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Cody Bloedorn  
 Unit No: 53  
 Reference Elevations: 2241.00 ft (KB)  
 2236.00 ft (CF)  
 KB to GR/CF: 5.00 ft

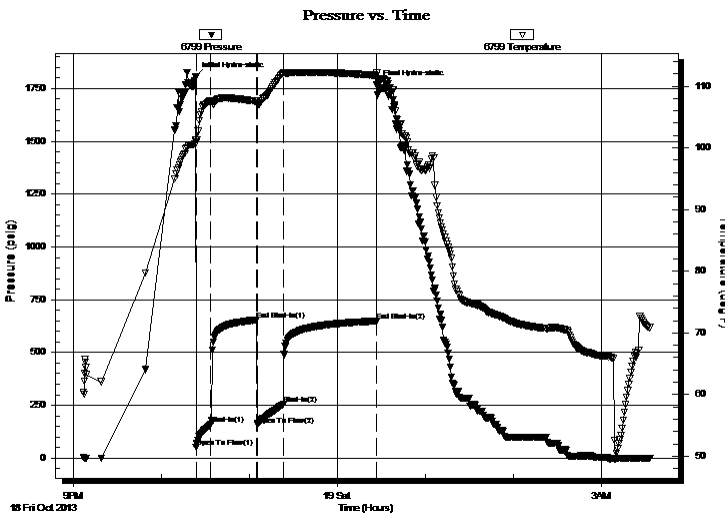
## Serial #: 6799

Inside

Press @ Run Depth: 254.08 psig @ 3703.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2013.10.18 End Date: 2013.10.19 Last Calib.: 2013.10.19  
 Start Time: 21:07:05 End Time: 03:32:44 Time On Btm: 2013.10.18 @ 22:23:30  
 Time Off Btm: 2013.10.19 @ 00:26:45

TEST COMMENT: 10 - IF- B.O.B. in 3 minutes  
 30 - IS- No return  
 20 - FF- B.O.B. in 3 minutes  
 60 - FS- Surface return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1808.78	101.31	Initial Hydro-static
1	52.17	100.90	Open To Flow (1)
11	160.32	107.61	Shut-In(1)
42	654.05	107.54	End Shut-In(1)
42	158.07	107.29	Open To Flow (2)
60	254.08	112.03	Shut-In(2)
123	649.20	111.74	End Shut-In(2)
124	1769.27	112.15	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
310.00	GO, 20%G, 80%O	3.26
216.00	GHOCM, 40%M, 40%O, 20%G	3.03
0.00	310' of G.I.P.	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

Job Ticket: 54481

**DST#: 6**

ATTN: Justin Carter

Test Start: 2013.10.18 @ 21:07:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
310.00	GO, 20%G, 80%O	3.255
216.00	GHOCM, 40%M, 40%O, 20%G	3.030
0.00	310' of G.I.P.	0.000

Total Length: 526.00 ft      Total Volume: 6.285 bbl

Num Fluid Samples: 0

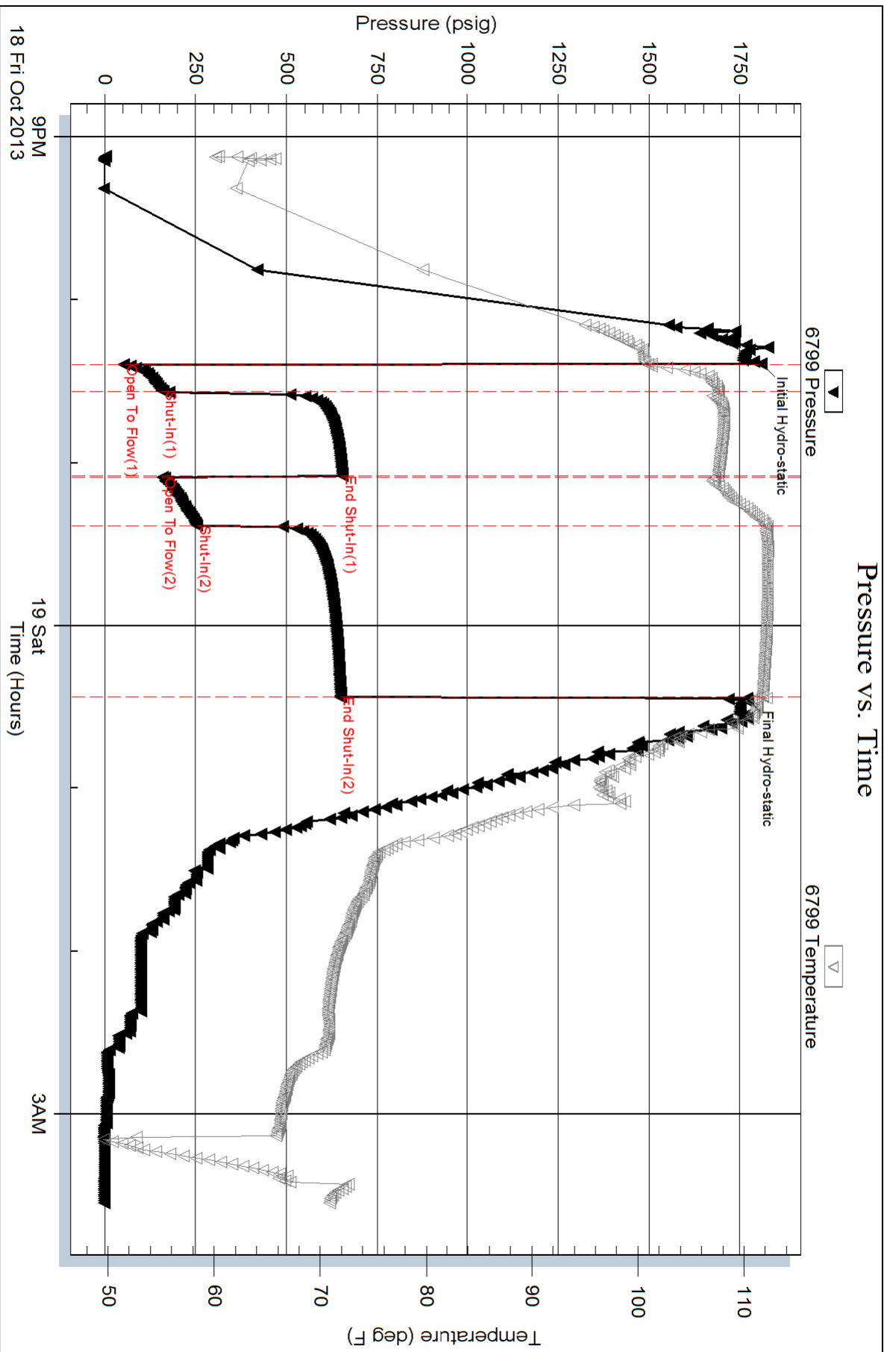
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler: 400ml Mud, 1600ml Oil, PSI: 300  
Gravity = 32







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

ATTN: Justin Carter

Job Ticket: 54482

**DST#: 7**

Test Start: 2013.10.19 @ 19:58:00

## GENERAL INFORMATION:

Formation: **Pawnee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:40:30

Time Test Ended: 03:09:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Cody Bloedorn

Unit No: 53

**Interval: 3844.00 ft (KB) To 3860.00 ft (KB) (TVD)**

Reference Elevations: 2241.00 ft (KB)

Total Depth: 2869.00 ft (KB) (TVD)

2236.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6799 Inside**

Press @ Run Depth: 9.85 psig @ 3847.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.19 End Date: 2013.10.20

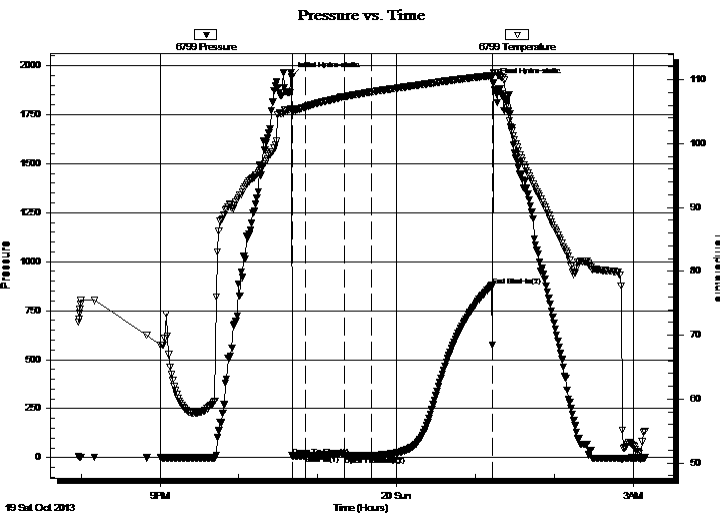
Last Calib.: 2013.10.20

Start Time: 19:58:05 End Time: 03:09:14

Time On Btm: 2013.10.19 @ 22:40:15

Time Off Btm: 2013.10.20 @ 01:13:30

**TEST COMMENT:** 10 - IF- Surface blow  
30 - IS- No return  
20 - FF- No blow  
90 - FS- No return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1944.29	105.52	Initial Hydro-static
1	9.86	105.06	Open To Flow (1)
11	10.40	105.74	Shut-In(1)
40	23.79	107.38	End Shut-In(1)
40	9.62	107.39	Open To Flow (2)
61	9.85	108.09	Shut-In(2)
153	878.31	110.66	End Shut-In(2)
154	1914.74	111.16	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cholla Production

**12-11s-23w Trego**

10290 Bradford Rd  
Littleton CO, 80127

**Patterson # 1-12**

Job Ticket: 54482

**DST#: 7**

ATTN: Justin Carter

Test Start: 2013.10.19 @ 19:58:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in<sup>3</sup>

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

Total Length:                      ft      Total Volume:                      bbl

Num Fluid Samples: 0                      Num Gas Bombs: 0                      Serial #:

Laboratory Name:                      Laboratory Location:

Recovery Comments: Fluid made it to top of hydraulic tool. Nothing in sampler.

# Pressure vs. Time

