



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1207464  
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: \_\_\_\_\_

1207464

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> _____ <i>(Submit ACO-4)</i>	<b>PRODUCTION INTERVAL:</b> _____ _____
--	---	---



# ALLIED OIL & GAS SERVICES, LLC

45370  
063376  
465  
310

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:  
Daly, H

DATE <u>8/1/14</u>	SEC <u>18</u>	TWP <u>10</u>	RANGE <u>24</u>	CALLED OUT	ON LOCATION	JOB START <u>11:30</u>	JOB FINISH <u>12:00</u>
LEASE <u>Wright Trust A</u>	WELL # <u>1-18</u>		LOCATION <u>Wakona N 70 Graham Co Rd C</u>		COUNTY <u>Graham</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)			<u>Wto 170 N 70 E 1/2 W</u>				

CONTRACTOR <u>Southward</u>	OWNER <u>Same</u>
TYPE OF JOB <u>Sealback</u>	
HOLE SIZE <u>12 1/4</u>	T.D. <u>222'</u>
CASING SIZE <u>8 5/8</u>	DEPTH <u>222'</u>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG. <u>15'</u>	
PERFS.	
DISPLACEMENT <u>13.12 OBL</u>	

CEMENT AMOUNT ORDERED <u>165 10 mi 370 CC</u>	
	<u>2770 gal</u>
COMMON <u>165</u>	@ <u>17 30</u> <u>2853 50</u>
POZMIX	@ <u>40</u> <u>20</u>
GEL <u>3</u>	@ <u>23 00</u> <u>20 00</u>
CHLORIDE <u>6</u>	@ <u>64</u> <u>384</u>
ASC	@
	@
	@
	@
	@
	@
	@
	@
	@
	@
HANDLING <u>178 42</u>	@ <u>2 42</u> <u>712 42</u>
MILEAGE <u>247.7 mi</u>	@ <u>2.43 mi</u> <u>1587 89</u>
TOTALS <u>5438 07</u>	

EQUIPMENT	
PUMP TRUCK CEMENTER <u>Alex Ryan</u>	
# <u>423-221</u> HELPER <u>Darin Ryan</u>	
BULK TRUCK	
# <u>818</u> DRIVER <u>Alex (I/O)</u>	
BULK TRUCK	
#	DRIVER

REMARKS:  
Ann Cap Circulate, Mix Cement, Displace Cement, Sheet in  
Cement Dis Circulate  
Frank P. Alex Hair, Alex

SERVICE	
DEPTH OF JOB	
PUMP TRUCK CHARGE	<u>1512 25</u>
EXTRA FOOTAGE	@ <u>70</u> <u>577 50</u>
MILEAGE <u>25</u>	@ <u>4 40</u> <u>230 00</u>
MANIFOLD <u>12 Vehicle</u>	@ <u>25</u>
	@
TOTAL <u>2419 25</u>	

CHARGE TO: Cobalt  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

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.

SALES TAX (If Any) \_\_\_\_\_  
TOTAL CHARGES 7,857.82  
DISCOUNT 1,571.56 (20%) IF PAID IN 30 DAYS  
6,286.25 Net.

PRINTED NAME Darrell Yetis  
SIGNATURE Darrell Yetis



TICKET 25420

CHARGE TO: Cobalt Energy  
 ADDRESS: \_\_\_\_\_  
 CITY STATE ZIP CODE: \_\_\_\_\_

PAGE 1 OF 2

SERVICE LOCATIONS: 1. Hays, KS WELLPROJECT NO. 24-111-48 LEASE RT Unit COUNTY/PARISH Osborne STATE KS CITY \_\_\_\_\_ DATE 4-9-14 OWNER Sam  
 2. Ness City, KS TICKET TYPE SALES CONTRACTOR Southwind Drilling RIG NAME/NO. \_\_\_\_\_ SHIPPED VIA GT DELIVERED TO Location ORDER NO. \_\_\_\_\_  
 3. \_\_\_\_\_ WELLPURPOSE Development WELL CATEGORY Development JOB PURPOSE 2-stage WELLPERMIT NO. \_\_\_\_\_ WELL LOCATION \_\_\_\_\_  
 4. \_\_\_\_\_ REFERRAL LOCATION \_\_\_\_\_ INVOICE INSTRUCTIONS \_\_\_\_\_

PRICE REFERENCE	SECONDARY REFERENCE PART NUMBER	ACCOUNTING			DESCRIPTION	MILEAGE	QTY	UM	QTY	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
573												
579					Ramp Charge (2-stage)	70 mi					2000	140000
211					KCE	1 ea					2000	200000
281					MudPunch	4 ea					100	400000
290					D-Air	5 ea					100	500000
1102					Centrifuges	1 ea					70	700000
403					Baskets	2 ea					300	600000
1107					Insert Float Shoe a/FH	1 ea					375	375000
1108					DV Tool w/Blows	1 ea					350	350000
417					Mud D. Plug Bottle	1 ea					200	200000
419					Rotating Head	1 ea					200	200000

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.  
 MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS  
 DATE SIGNED 4-10-14 TIME SIGNED 05:30  
 A.M.  P.M.

REMIT PAYMENT TO:  
 SWIFT SERVICES, INC.  
 P.O. BOX 466  
 NESS CITY, KS 67560  
 785-798-2300

SURVEY  
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?  
 WE UNDERSTOOD AND MET YOUR NEEDS?  
 OUR SERVICE WAS PERFORMED WITHOUT DELAY?  
 WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?  
 ARE YOU SATISFIED WITH OUR SERVICE?  
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 1  
 SUBTOTAL 19627  
 G.P. TAX 7.15%  
 TOTAL 20690.03

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES: The customer hereby acknowledges receipt of the materials and services listed on this ticket.  
 SWIFT OPERATOR: \_\_\_\_\_ APPROVAL: \_\_\_\_\_  
 Thank You!



PO Box 466  
Ness City, KS 67560  
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 254920

CUSTOMER *Cohalt Energy* WELLS *HT Unit A 148* DATE *4-9-14* PAGE 2 OF 2

PHICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELLS				UNIT PRICE	AMOUNT			
		LOC	ACCT	DF			QTY	UM	QTY	UM					
325		2				Standard Cement		175	SKS			14	50	2537	500
330		2				SMD Cement		250	SKS			18	50	4625	900
27C		2				Floccle		100	#			2	50	250	125
283		2				Salt		900	#			10	0/0	20	180
284		2				Calced		8	SKS			5	0/0	35	280
282		2				Halad-1		800	HL			1/2	0/0	8	688
SERVICE CHARGE															
MILEAGE CHARGE															
581		2												2	850
583		2												1	1497
TOTAL WEIGHT															
LOADED MILES															
CUBIC FEET															
TON MILES															

CONTINUATION TOTAL 10899.50

**JOB LOG**

**SWIFT Services, Inc.**

DATE 4-9-10 PAGE NO. 1

CUSTOMER Cobalt Energy WELL NO. # 1-18 LEASE KT Unit "A" JOB TYPE 2-stage TICKET NO. 15420

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2115							on loc w/IF
								RTD 4050'
								5 1/2" x 15.5# x 4048' x 42'
								Cent 2, 4, 6, 8, 10, 12, 47
								Base, 13, 48
								D.V. 48 @ 2067'
	0030							Start IF
	0200							Break Circ
	0315	5	0			200		Start Preflush: <sup>500 gal Mud Plug</sup> 20 bbl KCL Flush
		5	32/0			200		Start EA-2 Cement 130 sks
	0330		31					End Cement
								Wash P&L
								Drop L.D. Plug
	0339	6	0			200		Start Displacement with
	0347	6	50			200		mud
	0352	5	79			250		KCL
	0355		95.3			700/1400		Load Plug
								Release Pressure
								Floral Hold
								Drop Opening Plug
	0415	2	7/4					Plug RHEMH w/ 30/155 sks K.A.L
						1100		Open D.V.
	0423	5	0			200		Start 250 sks SMD
	0453	5	140			200		End Cement
								Drop Closing Plug
	0459	6	0			200		Start Displacement
	0502	3	15			250		Circ Cement
	0515		49			450/1500		Load Plug
								Release Pressure
								D.V. Closed
								circ 50 sks topit.
								Thank you
								Mich, David E. & Isaac



## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037  
Wichita, KS 67208

ATTN: Corey Baker

### **KT Unit 'A' #1-18**

#### **18-10s-24w Graham,KS**

Start Date: 2014.04.05 @ 21:40:00

End Date: 2014.04.06 @ 06:21:15

Job Ticket #: 56985                      DST #: 1

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

Printed: 2014.04.10 @ 11:39:09





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56985

**DST#: 1**

ATTN: Corey Baker

Test Start: 2014.04.05 @ 21:40:00

## GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:07:30

Time Test Ended: 06:21:15

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

**Interval: 3792.00 ft (KB) To 3815.00 ft (KB) (TVD)**

Reference Elevations: 2478.00 ft (KB)

Total Depth: 3815.00 ft (KB) (TVD)

2469.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

## Serial #: 8671

Inside

Press@RunDepth: 165.76 psig @ 3793.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.05

End Date:

2014.04.06

Last Calib.:

2014.04.06

Start Time:

21:40:05

End Time:

06:21:15

Time On Btm:

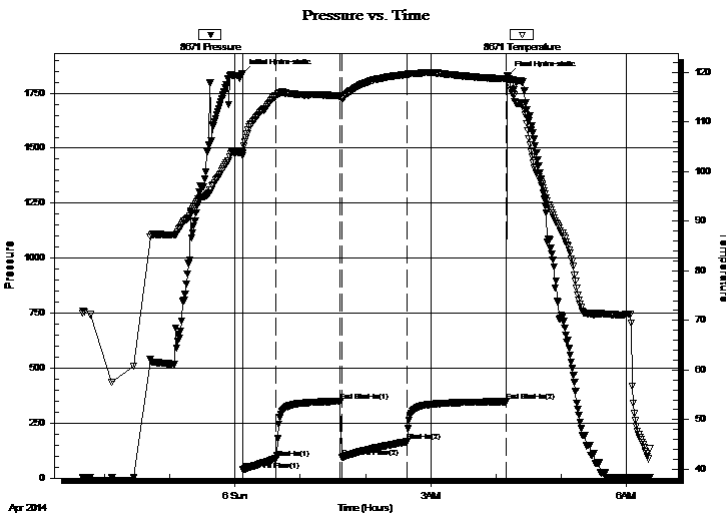
2014.04.06 @ 00:07:00

Time Off Btm:

2014.04.06 @ 04:11:15

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") in 3 1/2 min.  
60 - IS: Blow back built to 9 1/2"  
60 - FF: Blow built to BOB in 6 min.  
90 - FS: Blow back built to BOB at 26 min.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1840.39	103.71	Initial Hydro-static
1	37.69	103.69	Open To Flow (1)
31	88.82	115.31	Shut-In(1)
90	349.51	115.15	End Shut-In(1)
92	94.38	114.71	Open To Flow (2)
152	165.76	119.54	Shut-In(2)
243	348.03	118.64	End Shut-In(2)
245	1828.39	118.67	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
63.00	GOM 46%g, 33%m, 21%o	0.88
127.00	GMCO 49%o, 38%g, 13%m	1.78
190.00	CGO 52%o, 46%g, 2%m	2.67
10.00	CO 98%o, 2%g	0.14
0.00	GIP = 1575'	0.00

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Cobalt Energy, LLC  
PO Box 8037  
Wichita, KS 67208  
ATTN: Corey Baker

**18-10s-24w Graham,KS**

**KT Unit 'A' #1-18**

Job Ticket: 56985      **DST#: 1**  
Test Start: 2014.04.05 @ 21:40:00

**GENERAL INFORMATION:**

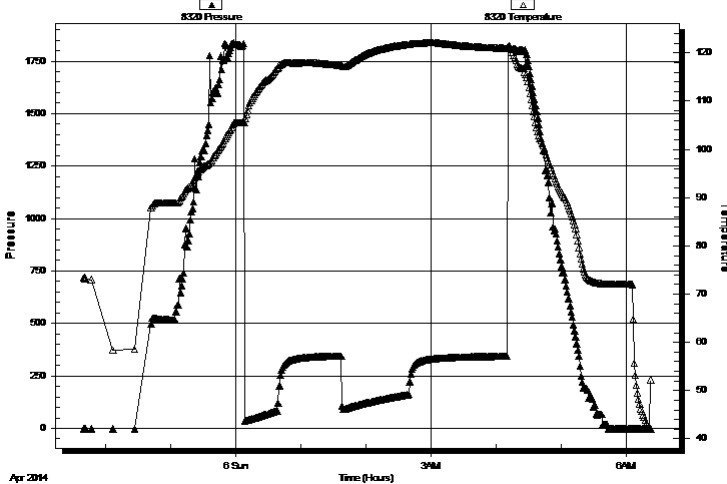
Formation: <b>LKC "C"</b>	Deviated: No Whipstock:      ft (KB)	Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 00:07:30	Time Test Ended: 06:21:15	Tester: James Winder
<b>Interval: 3792.00 ft (KB) To 3815.00 ft (KB) (TVD)</b>		Unit No: 57
Total Depth: 3815.00 ft (KB) (TVD)	Hole Diameter: 7.88 inches	Reference Elevations: 2478.00 ft (KB)
Hole Condition: Fair		2469.00 ft (CF)
		KB to GR/CF: 9.00 ft

**Serial #: 8320      Outside**

Press@RunDepth:      psig @      3793.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2014.04.05      End Date: 2014.04.06	Last Calib.: 2014.04.06
Start Time: 21:40:05      End Time: 06:22:15	Time On Btm:
	Time Off Btm:

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") in 3 1/2 min.  
60 - IS: Blow back built to 9 1/2"  
60 - FF: Blow built to BOB in 6 min.  
90 - FS: Blow back built to BOB at 26 min.

Pressure vs. Time



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
63.00	GOM 46%g, 33%o, 21%o	0.88
127.00	GMCO 49%o, 38%g, 13%o	1.78
190.00	CGO 52%o, 46%g, 2%o	2.67
10.00	CO 98%o, 2%g	0.14
0.00	GIP = 1575'	0.00

**Gas Rates**

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56985

**DST#: 1**

ATTN: Corey Baker

Test Start: 2014.04.05 @ 21:40:00

## Tool Information

Drill Pipe:	Length: 3793.00 ft	Diameter: 3.80 inches	Volume: 53.21 bbl	Tool Weight:	2500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 53.21 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3792.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	23.00 ft				
Tool Length:	51.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments: Tool slid 2' before open - Chased 2' to bottom at open - very little mud loss

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3769.00	
Hydraulic tool	5.00			3774.00	
Jars	5.00			3779.00	
Safety Joint	3.00			3782.00	
Packer	5.00			3787.00	28.00 Bottom Of Top Packer
Packer	5.00			3792.00	
Stubb	1.00			3793.00	
Recorder	0.00	8671	Inside	3793.00	
Recorder	0.00	8320	Outside	3793.00	
Perforations	19.00			3812.00	
Bullnose	3.00			3815.00	23.00 Bottom Packers & Anchor

**Total Tool Length: 51.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56985

**DST#: 1**

ATTN: Corey Baker

Test Start: 2014.04.05 @ 21:40:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

38 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	GOM 46%g, 33%m, 21%o	0.884
127.00	GMCO 49%o, 38%g, 13%m	1.781
190.00	CGO 52%o, 46%g, 2%m	2.665
10.00	CO 98%o, 2%g	0.140
0.00	GIP = 1575'	0.000

Total Length: 390.00 ft      Total Volume: 5.470 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

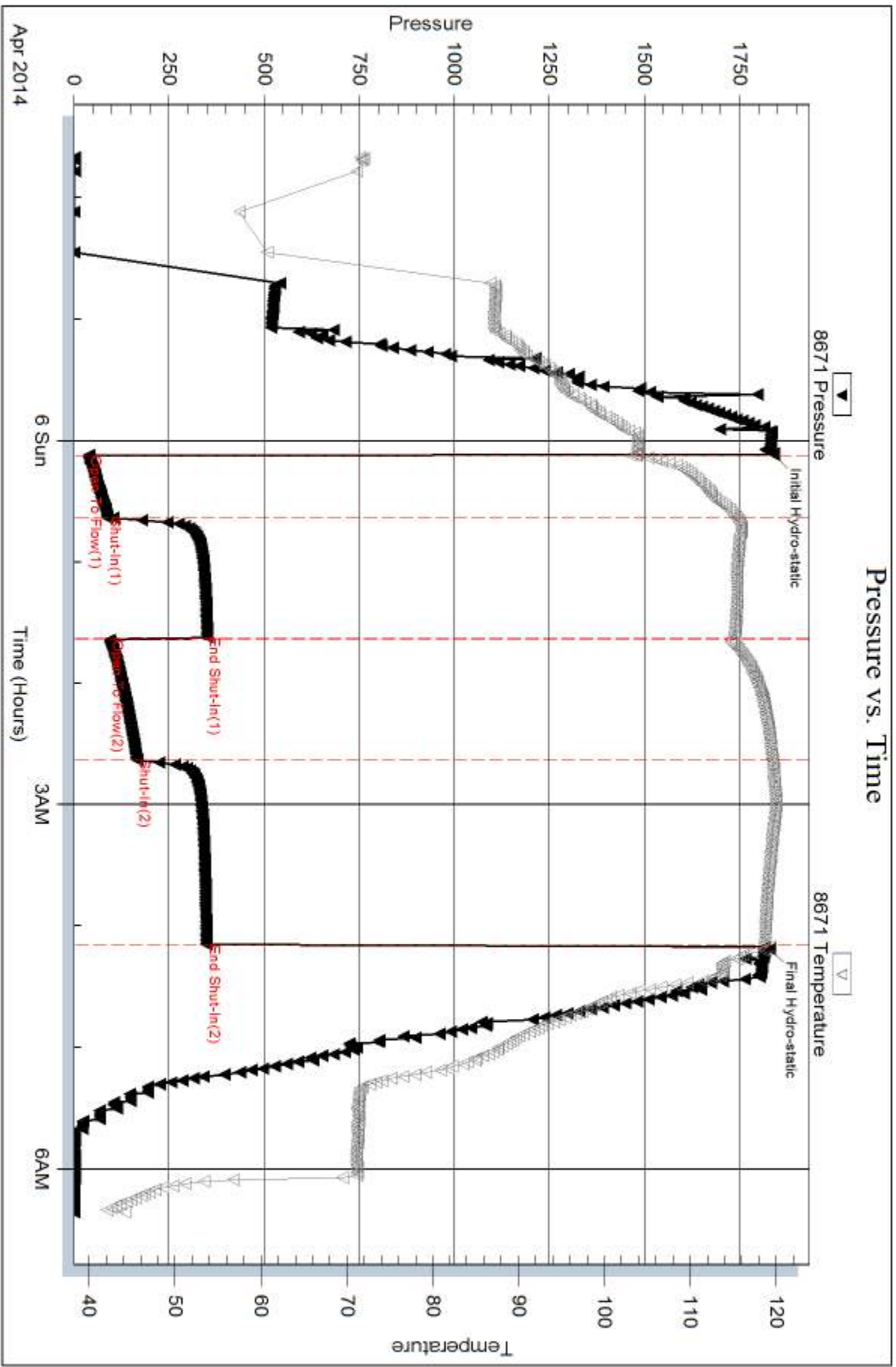
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 36.2 api @ 42 deg F

Corrcted Gravity = 38 api







## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037  
Wichita, KS 67208

ATTN: Corey Baker

### **KT Unit 'A' #1-18**

#### **18-10s-24w Graham,KS**

Start Date: 2014.04.06 @ 13:46:00

End Date: 2014.04.06 @ 21:48:15

Job Ticket #: 56986                      DST #: 2

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

Printed: 2014.04.10 @ 11:38:47



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56986

**DST#: 2**

ATTN: Corey Baker

Test Start: 2014.04.06 @ 13:46:00

## GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:45:30

Time Test Ended: 21:48:15

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 3816.00 ft (KB) To 3845.00 ft (KB) (TVD)**

Reference Elevations: 2478.00 ft (KB)

Total Depth: 3845.00 ft (KB) (TVD)

2469.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

## Serial #: 8671

Inside

Press@RunDepth: 100.28 psig @ 3817.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.06

End Date:

2014.04.06

Last Calib.:

2014.04.06

Start Time: 13:46:05

End Time:

21:48:14

Time On Btm:

2014.04.06 @ 15:44:00

Time Off Btm:

2014.04.06 @ 19:49:15

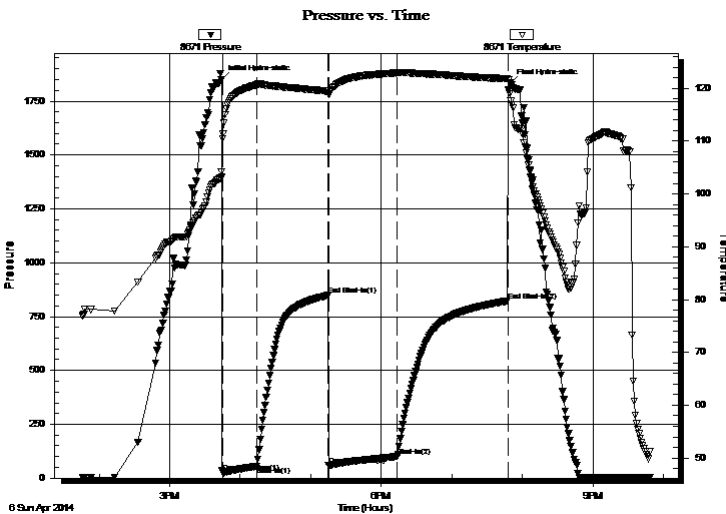
TEST COMMENT: 30 - IF: Blow built to BOB (11") in 8 3/4 min.

60 - IS: Blow back built to 3"

60 - FF: Blow built to BOB in 8 min.

90 - FS: Blow back built to 5"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1849.93	104.16	Initial Hydro-static
2	24.73	111.35	Open To Flow (1)
31	54.96	120.67	Shut-In(1)
91	848.01	119.43	End Shut-In(1)
92	58.09	118.96	Open To Flow (2)
150	100.28	122.93	Shut-In(2)
244	822.14	121.79	End Shut-In(2)
246	1833.47	119.01	Final Hydro-static

## Recovery

## Gas Rates

Length (ft)	Description	Volume (bbl)
45.00	SO/MCW 80%w , 15%m, 5%o	0.63
80.00	MWCGO 39%omix, 28%o, 18%g, 10%w , 1.12n	
53.00	SWCGO 80%omix, 15%g, 5%w	0.74
10.00	SWMCO 87%o, 7%m, 3%g, 3%w	0.14
15.00	CO 95%o, 4%g, 1%m	0.21
0.00	GIP = 820'	0.00

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56986

**DST#: 2**

ATTN: Corey Baker

Test Start: 2014.04.06 @ 13:46:00

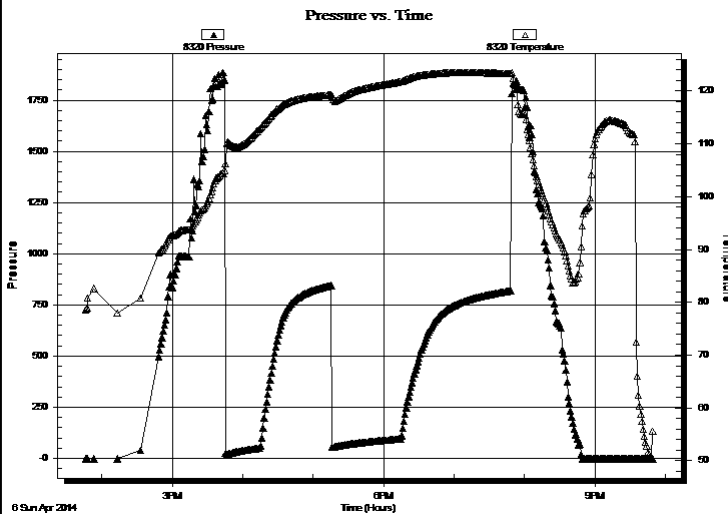
## GENERAL INFORMATION:

Formation: **LKC "D"**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Reset)  
 Time Tool Opened: 15:45:30 Tester: James Winder  
 Time Test Ended: 21:48:15 Unit No: 57  
**Interval: 3816.00 ft (KB) To 3845.00 ft (KB) (TVD)**  
 Reference Elevations: 2478.00 ft (KB)  
 Total Depth: 3845.00 ft (KB) (TVD) 2469.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 9.00 ft

## Serial #: 8320 Outside

Press@RunDepth: psig @ 3817.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2014.04.06 End Date: 2014.04.06 Last Calib.: 2014.04.06  
 Start Time: 13:46:05 End Time: 21:49:14 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") in 8 3/4 min.  
 60 - IS: Blow back built to 3"  
 60 - FF: Blow built to BOB in 8 min.  
 90 - FS: Blow back built to 5"



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
45.00	SO/MCW 80%w, 15%m, 5%o	0.63
80.00	MWCGO 39%omix, 28%o, 18%g, 10%w, 1.12n	
53.00	SWCGO 80%omix, 15%g, 5%w	0.74
10.00	SWMCO 87%o, 7%m, 3%g, 3%w	0.14
15.00	CO 95%o, 4%g, 1%m	0.21
0.00	GIP = 820'	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56986

**DST#: 2**

ATTN: Corey Baker

Test Start: 2014.04.06 @ 13:46:00

## Tool Information

Drill Pipe:	Length: 3793.00 ft	Diameter: 3.80 inches	Volume: 53.21 bbl	Tool Weight: 2500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: 53.21 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3816.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	57.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3793.00	
Hydraulic tool	5.00			3798.00	
Jars	5.00			3803.00	
Safety Joint	3.00			3806.00	
Packer	5.00			3811.00	28.00 Bottom Of Top Packer
Packer	5.00			3816.00	
Packer - Shale	0.00			3816.00	
Stubb	1.00			3817.00	
Recorder	0.00	8671	Inside	3817.00	
Recorder	0.00	8320	Outside	3817.00	
Perforations	25.00			3842.00	
Bullnose	3.00			3845.00	29.00 Bottom Packers & Anchor

**Total Tool Length: 57.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56986

**DST#: 2**

ATTN: Corey Baker

Test Start: 2014.04.06 @ 13:46:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 51.00 sec/qt  
Water Loss: 5.77 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 1000.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: 35.2 deg API  
Water Salinity: 72000 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	SO/MCW 80%w , 15%m, 5%o	0.631
80.00	MWCGO 39%omix, 28%o, 18%g, 10%w , 5%i	1.122
53.00	SWCGO 80%omix, 15%g, 5%w	0.743
10.00	SWMCO 87%o, 7%m, 3%g, 3%w	0.140
15.00	CO 95%o, 4%g, 1%m	0.210
0.00	GIP = 820'	0.000

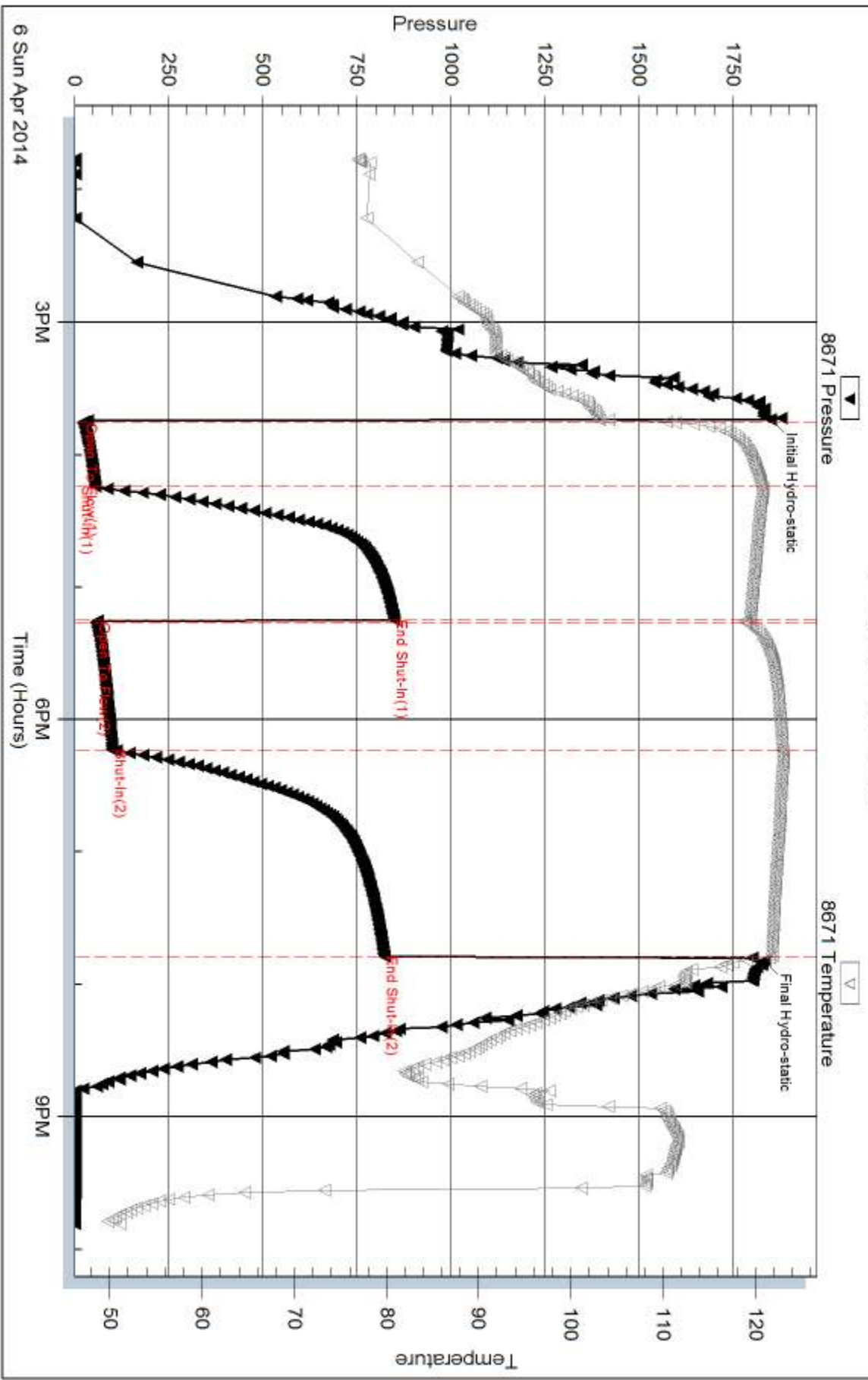
Total Length: 203.00 ft Total Volume: 2.846 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Gravity = 34.2 api @ 50 deg F Corrected Gravity = 35.2 api  
RW = .147 ohms @ 51 deg F Chlorides = 72,000 ppm

### Pressure vs. Time

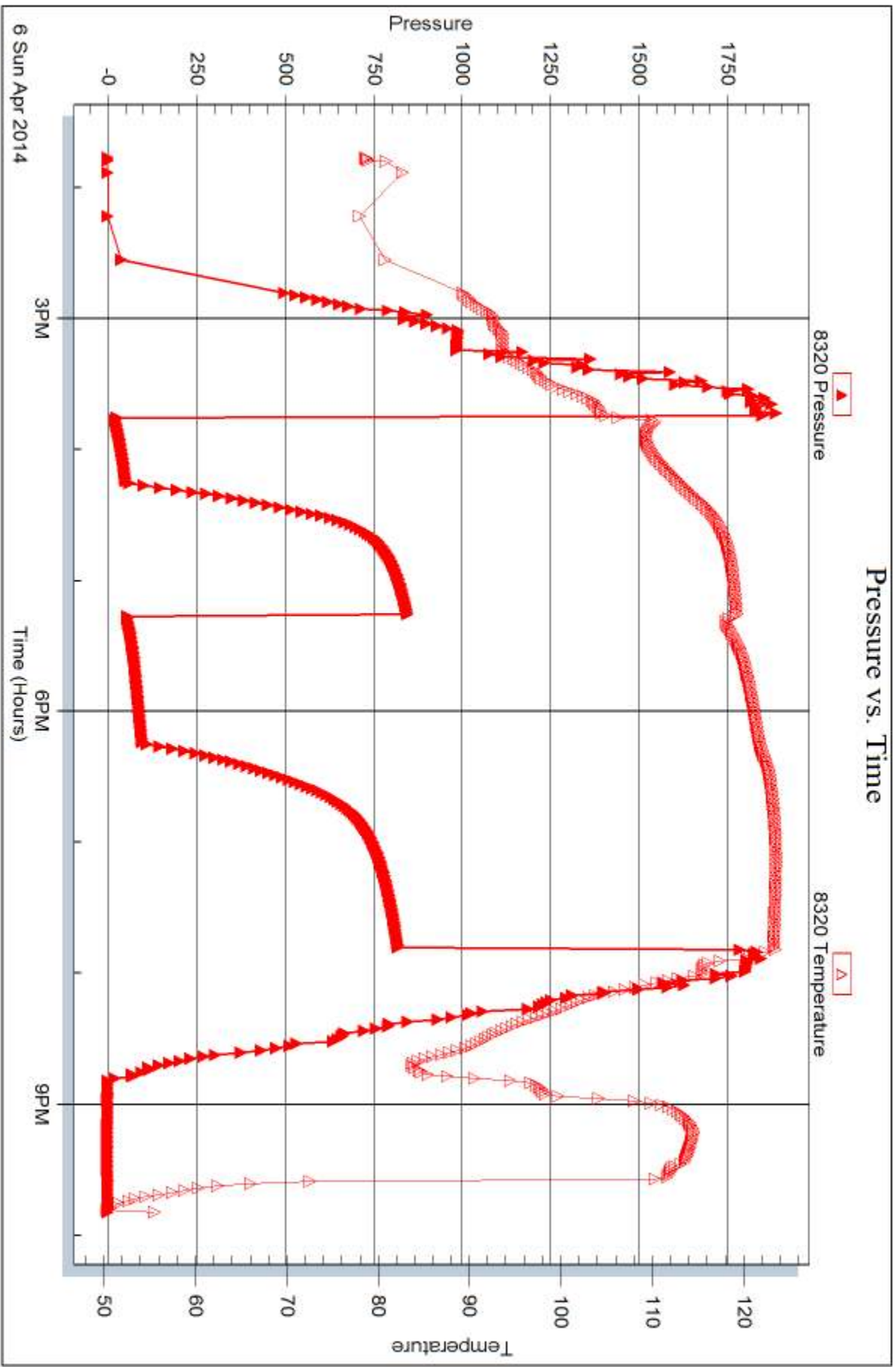


Serial #: 8320

Outside Cobalt Energy, LLC

KT Unit 'A' #1-18

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 56986

Printed: 2014.04.10 @ 11:38:49



## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037  
Wichita, KS 67208

ATTN: Corey Baker

### **KT Unit 'A' #1-18**

#### **18-10s-24w Graham,KS**

Start Date: 2014.04.07 @ 07:50:00

End Date: 2014.04.07 @ 15:59:30

Job Ticket #: 56987                      DST #: 3

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

Printed: 2014.04.10 @ 11:38:24



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56987

**DST#: 3**

ATTN: Corey Baker

Test Start: 2014.04.07 @ 07:50:00

## GENERAL INFORMATION:

Formation: **LKC "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:40:15

Time Test Ended: 15:59:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 3838.00 ft (KB) To 3865.00 ft (KB) (TVD)**

Reference Elevations: 2478.00 ft (KB)

Total Depth: 3865.00 ft (KB) (TVD)

2469.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 295.08 psig @ 3839.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.07

End Date:

2014.04.07

Last Calib.:

2014.04.07

Start Time:

07:50:05

End Time:

15:59:29

Time On Btm:

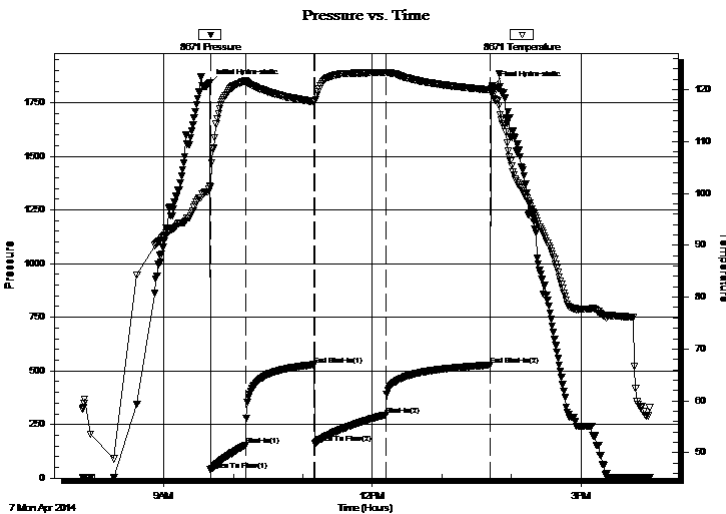
2014.04.07 @ 09:39:45

Time Off Btm:

2014.04.07 @ 13:44:00

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") in 6 3/4 min.  
60 - IS: Blow back built to 1/2"  
60 - FF: Blow built to BOB in 12 1/2 min.  
90 - FS: Blow back built to 1"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1840.18	101.37	Initial Hydro-static
1	38.27	101.29	Open To Flow (1)
31	154.06	121.63	Shut-In(1)
90	528.42	117.71	End Shut-In(1)
91	160.39	117.65	Open To Flow (2)
152	295.08	123.31	Shut-In(2)
242	526.73	119.94	End Shut-In(2)
245	1829.30	119.42	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	GMW 45%w, 45%m, 10%g	0.42
487.00	MCW w/trace oil 90%w, 8%m, 2%g	6.83
63.00	MCW w/Oil spots 65%w, 30%m, 4%g, 1%o	0.88
15.00	Oil 98%o, 2%m	0.21
0.00	GIP = 50'	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56987

**DST#: 3**

ATTN: Corey Baker

Test Start: 2014.04.07 @ 07:50:00

## GENERAL INFORMATION:

Formation: **LKC "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:40:15

Time Test Ended: 15:59:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 3838.00 ft (KB) To 3865.00 ft (KB) (TVD)**

Total Depth: 3865.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2478.00 ft (KB)

2469.00 ft (CF)

KB to GR/CF: 9.00 ft

**Serial #: 8320 Outside**

Press@RunDepth: psig @ 3839.00 ft (KB)

Start Date: 2014.04.07

End Date:

2014.04.07

Start Time: 07:50:05

End Time:

15:59:44

Capacity: 8000.00 psig

Last Calib.:

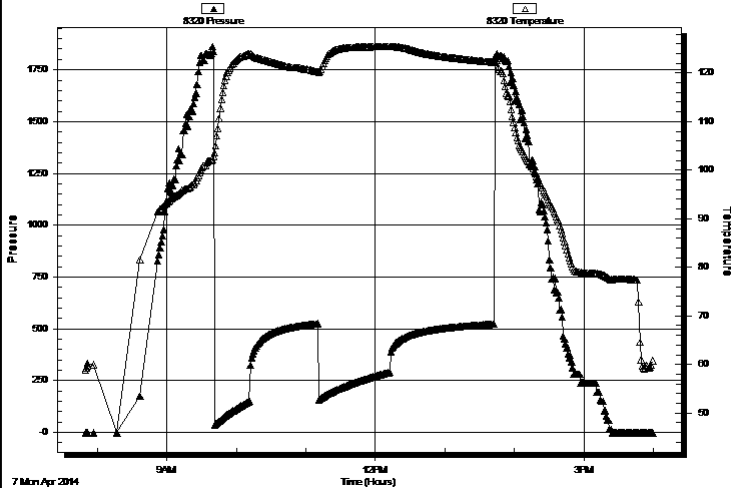
2014.04.07

Time On Btm:

Time Off Btm:

**TEST COMMENT:** 30 - IF: Blow built to BOB (11") in 6 3/4 min.  
60 - IS!: Blow back built to 1/2"  
60 - FF: Blow built to BOB in 12 1/2 min.  
90 - FS!: Blow back built to 1"

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
30.00	GMW 45%w , 45%m, 10%g	0.42
487.00	MCW w/trace oil 90%w , 8%m, 2%g	6.83
63.00	MCW w/Oil spots 65%w , 30%m, 4%g, 1%o	0.88
15.00	Oil 98%o, 2%m	0.21
0.00	GIP = 50'	0.00

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56987

**DST#: 3**

ATTN: Corey Baker

Test Start: 2014.04.07 @ 07:50:00

## Tool Information

Drill Pipe:	Length: 3825.00 ft	Diameter: 3.80 inches	Volume: 53.65 bbl	Tool Weight: 2500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 53.65 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 46000.00 lb
Depth to Top Packer:	3838.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3815.00	
Hydraulic tool	5.00			3820.00	
Jars	5.00			3825.00	
Safety Joint	3.00			3828.00	
Packer	5.00			3833.00	28.00 Bottom Of Top Packer
Packer	5.00			3838.00	
Stubb	1.00			3839.00	
Recorder	0.00	8671	Inside	3839.00	
Recorder	0.00	8320	Outside	3839.00	
Perforations	23.00			3862.00	
Bullnose	3.00			3865.00	27.00 Bottom Packers & Anchor

**Total Tool Length: 55.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56987

**DST#: 3**

ATTN: Corey Baker

Test Start: 2014.04.07 @ 07:50:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

12000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
30.00	GMW 45%w , 45%m, 10%g	0.421
487.00	MCW w /trace oil 90%w , 8%m, 2%g	6.831
63.00	MCW w /Oil spots 65%w , 30%m, 4%g, 1%o	0.884
15.00	Oil 98%o, 2%m	0.210
0.00	GIP = 50'	0.000

Total Length: 595.00 ft      Total Volume: 8.346 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

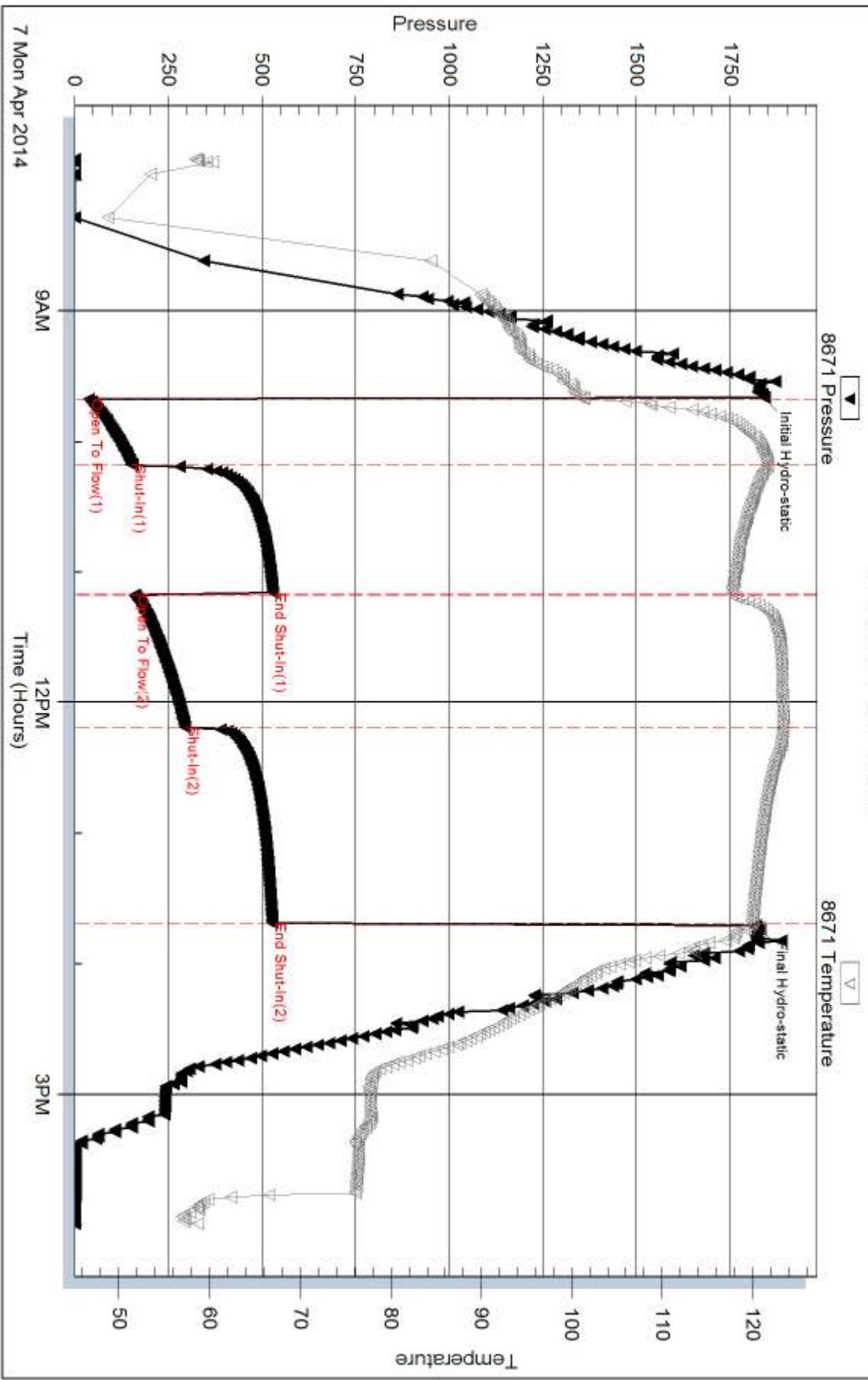
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 37 api @ 60 deg F

RW = .617 ohms @ 62.1 deg F Chlorides = 12,000 ppm

### Pressure vs. Time

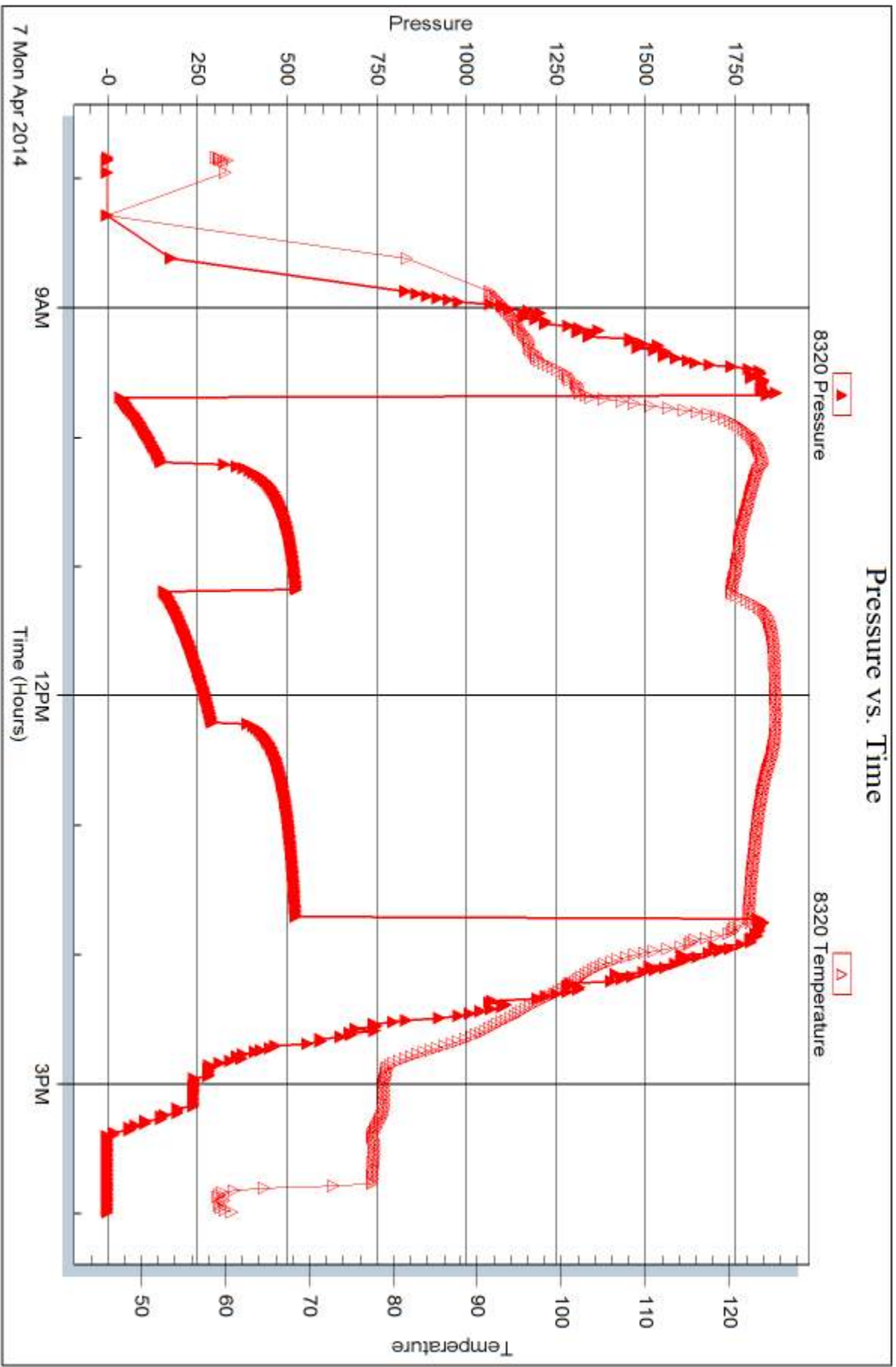


Serial #: 8320

Outside Cobalt Energy, LLC

KT Unit 'A' #1-18

DST Test Number: 3



Tribble Testing, Inc

Ref. No: 56987

Printed: 2014.04.10 @ 11:38:27



## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037  
Wichita, KS 67208

ATTN: Corey Baker

### **KT Unit 'A' #1-18**

#### **18-10s-24w Graham,KS**

Start Date: 2014.04.08 @ 01:25:00

End Date: 2014.04.08 @ 09:18:00

Job Ticket #: 56988                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2014.04.10 @ 11:37:40



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56988

**DST#: 4**

ATTN: Corey Baker

Test Start: 2014.04.08 @ 01:25:00

## GENERAL INFORMATION:

Formation: **LKC "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:16:45

Time Test Ended: 09:18:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 3890.00 ft (KB) To 3920.00 ft (KB) (TVD)**

Reference Elevations: 2478.00 ft (KB)

Total Depth: 3920.00 ft (KB) (TVD)

2469.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 22.62 psig @ 3891.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.08

End Date:

2014.04.08

Last Calib.:

2014.04.08

Start Time: 01:25:05

End Time:

09:17:59

Time On Btm:

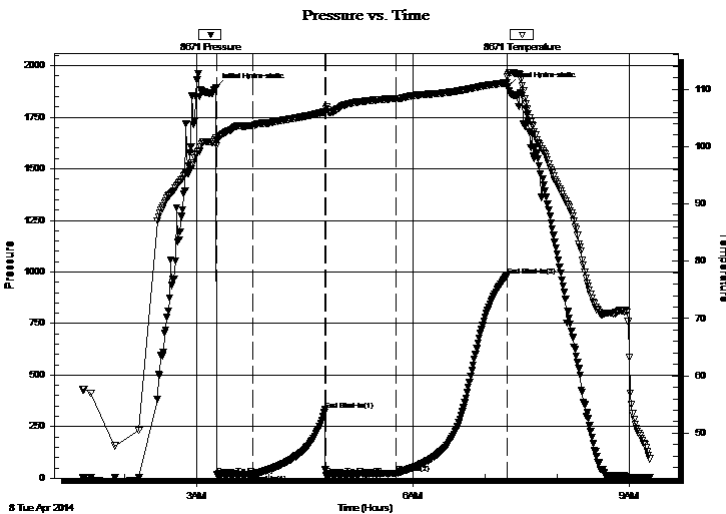
2014.04.08 @ 03:16:15

Time Off Btm:

2014.04.08 @ 07:19:00

**TEST COMMENT:** 30 - IF: Blow built to 3"  
60 - IS: No blow back  
60 - FF: 4" Surge at open, bled off, blow built to 4 3/4"  
90 - FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1894.73	101.45	Initial Hydro-static
1	16.11	100.19	Open To Flow (1)
31	18.76	103.71	Shut-In(1)
91	331.62	106.09	End Shut-In(1)
92	15.14	106.66	Open To Flow (2)
150	22.62	108.34	Shut-In(2)
242	979.80	111.13	End Shut-In(2)
243	1900.30	112.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	MO 50%o, 45%m, 5%g	0.28
0.00	GIP = 45'+	0.00

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy, LLC

**18-10s-24w Graham, KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56988

**DST#: 4**

ATTN: Corey Baker

Test Start: 2014.04.08 @ 01:25:00

## GENERAL INFORMATION:

Formation: **LKC "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:16:45

Time Test Ended: 09:18:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

Interval: **3890.00 ft (KB) To 3920.00 ft (KB) (TVD)**

Reference Elevations: 2478.00 ft (KB)

Total Depth: 3920.00 ft (KB) (TVD)

2469.00 ft (CF)

Hole Diameter: 7.88 inches

Hole Condition: Fair

KB to GR/CF: 9.00 ft

## Serial #: 8320

**Outside**

Press@RunDepth: psig @ 3891.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.08

End Date: 2014.04.08

Last Calib.: 2014.04.08

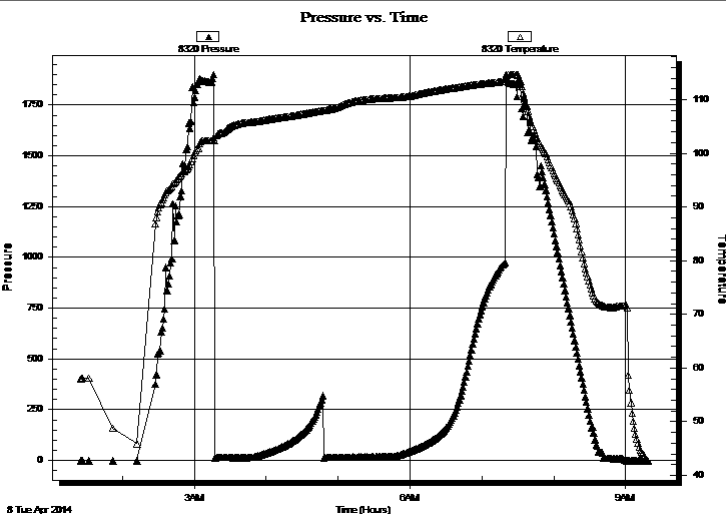
Start Time: 01:25:05

End Time: 09:18:44

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to 3"  
60 - ISI: No blow back  
60 - FF: 4" Surge at open, bled off, blow built to 4 3/4"  
90 - FSI: No blow back



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	MO 50%o, 45%m, 5%g	0.28
0.00	GIP = 45'+	0.00

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56988

**DST#: 4**

ATTN: Corey Baker

Test Start: 2014.04.08 @ 01:25:00

## Tool Information

Drill Pipe:	Length: 3888.00 ft	Diameter: 3.80 inches	Volume: 54.54 bbl	Tool Weight: 2500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 46000.00 lb
			<u>Total Volume: 54.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3890.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3867.00	
Hydraulic tool	5.00			3872.00	
Jars	5.00			3877.00	
Safety Joint	3.00			3880.00	
Packer	5.00			3885.00	28.00 Bottom Of Top Packer
Packer	5.00			3890.00	
Stubb	1.00			3891.00	
Recorder	0.00	8671	Inside	3891.00	
Recorder	0.00	8320	Outside	3891.00	
Perforations	26.00			3917.00	
Bullnose	3.00			3920.00	30.00 Bottom Packers & Anchor

**Total Tool Length: 58.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56988

**DST#: 4**

ATTN: Corey Baker

Test Start: 2014.04.08 @ 01:25:00

### 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: 5.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1100.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	MO 50%o, 45%m, 5%g	0.281
0.00	GIP = 45'+	0.000

Total Length: 20.00 ft      Total Volume: 0.281 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

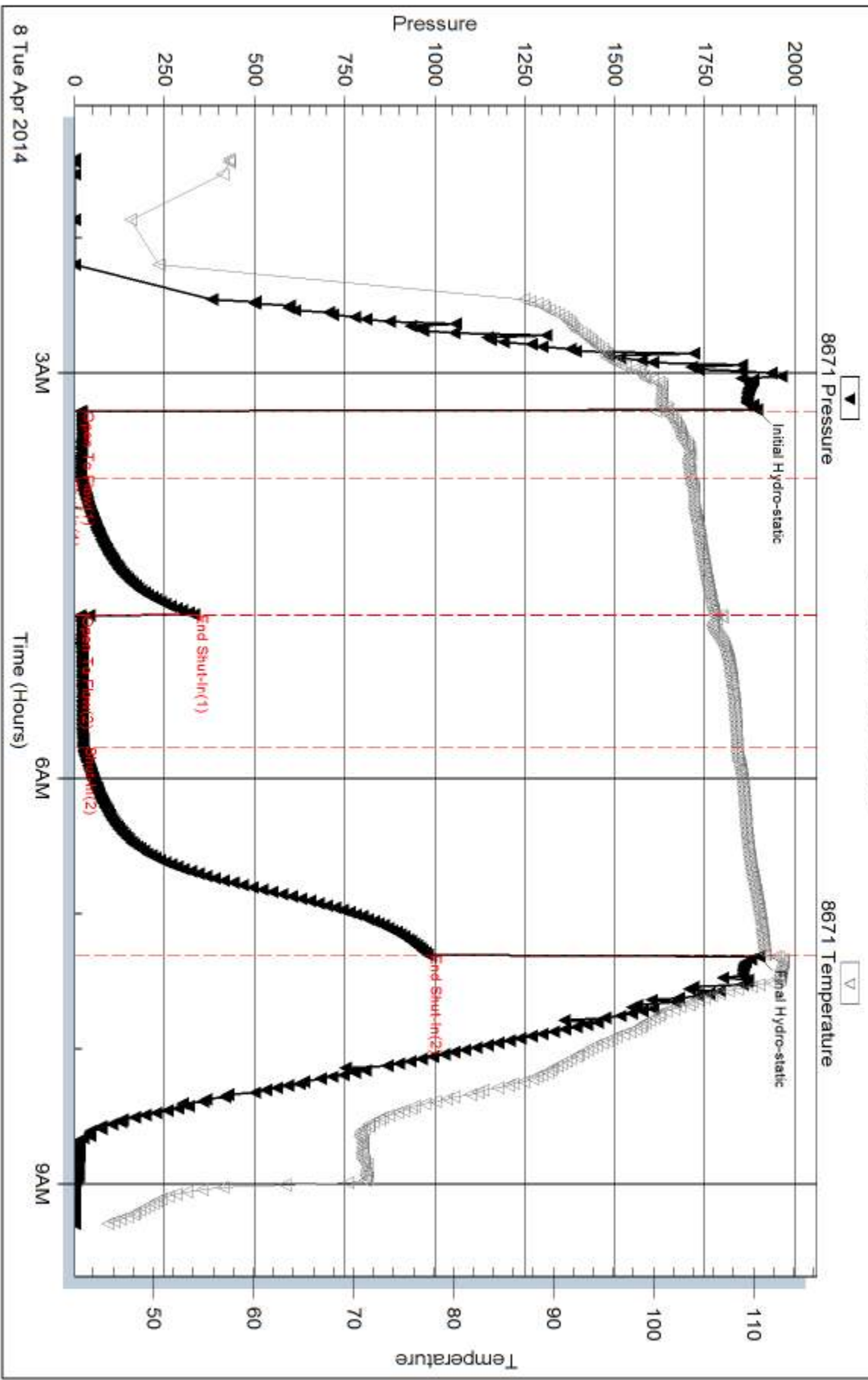
Serial #:

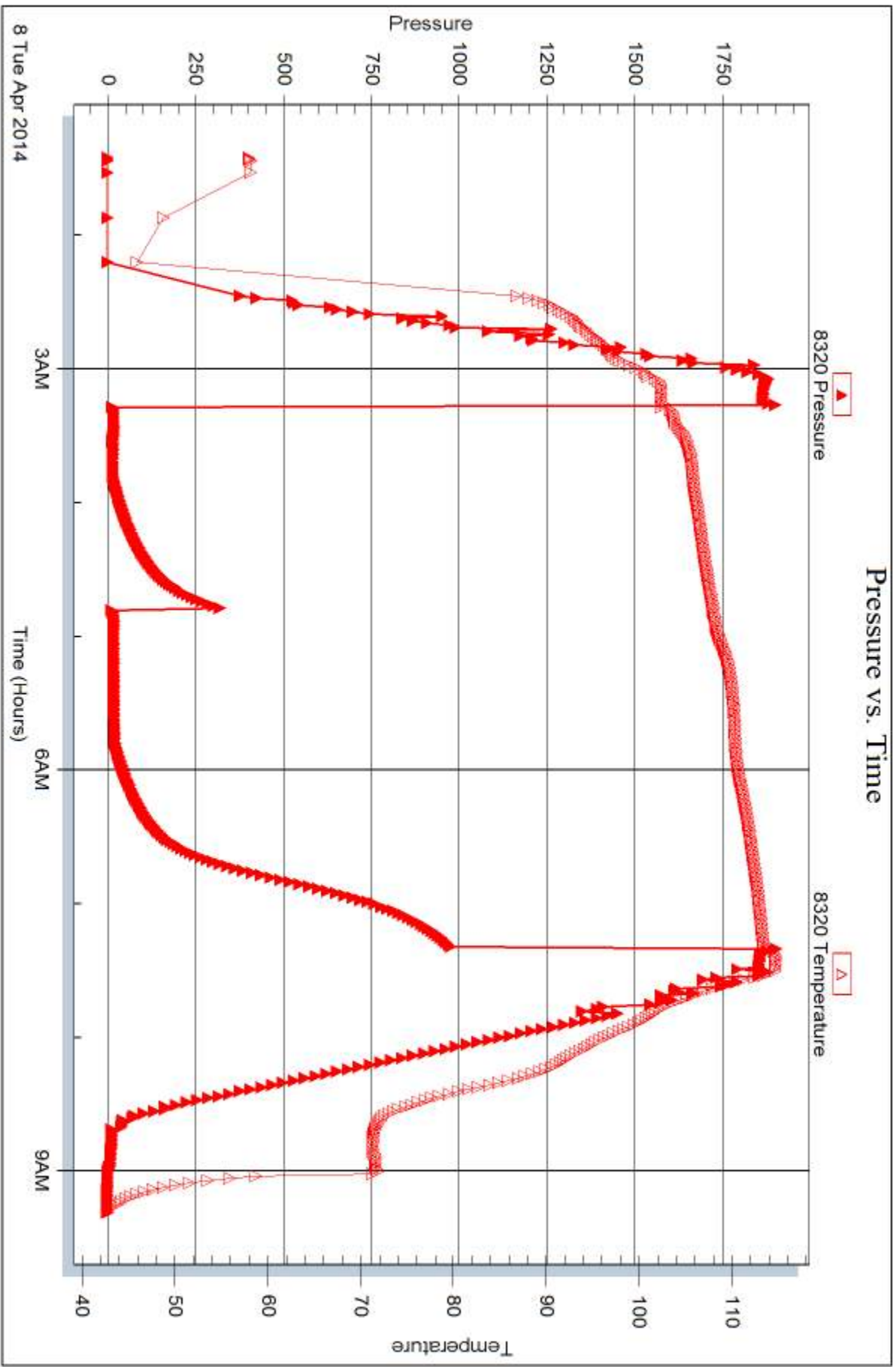
Laboratory Name:

Laboratory Location:

Recovery Comments:

### Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037  
Wichita, KS 67208

ATTN: Corey Baker

### **KT Unit 'A' #1-18**

#### **18-10s-24w Graham,KS**

Start Date: 2014.04.08 @ 18:34:00

End Date: 2014.04.08 @ 23:17:00

Job Ticket #: 56989                      DST #: 5

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

Printed: 2014.04.10 @ 11:37:12



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

ATTN: Corey Baker

Job Ticket: 56989

**DST#: 5**

Test Start: 2014.04.08 @ 18:34:00

## GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:19:45

Time Test Ended: 23:17:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 3924.00 ft (KB) To 3958.00 ft (KB) (TVD)**

Reference Elevations: 2478.00 ft (KB)

Total Depth: 3958.00 ft (KB) (TVD)

2469.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

**Serial #: 8671**

**Inside**

Press@RunDepth: 19.92 psig @ 3925.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.08

End Date:

2014.04.08

Last Calib.:

2014.04.08

Start Time:

18:34:05

End Time:

23:16:59

Time On Btm:

2014.04.08 @ 20:19:30

Time Off Btm:

2014.04.08 @ 21:52:15

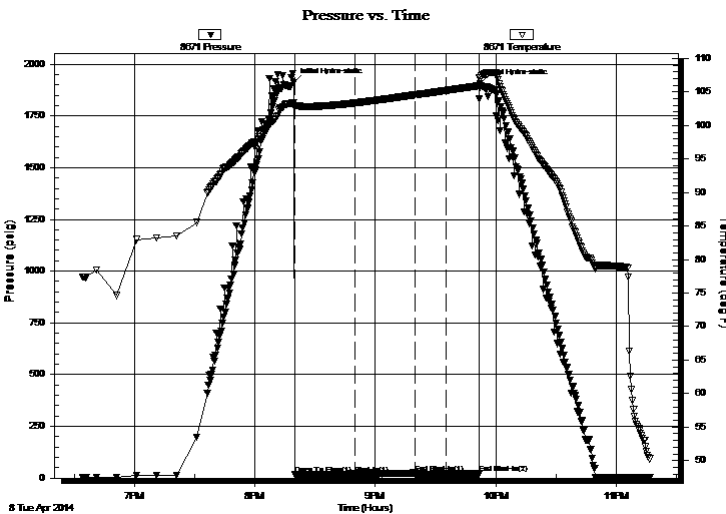
**TEST COMMENT:** 30 - IF: Blow built to 1/4"+, slowly died back, dead at 30 min.

30 - ISI: No blow back

15 - FF: No blow

15 - FSI: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1911.71	103.42	Initial Hydro-static
1	18.74	102.71	Open To Flow (1)
31	19.82	103.36	Shut-In(1)
61	24.71	104.58	End Shut-In(1)
61	19.45	104.58	Open To Flow (2)
76	19.92	105.23	Shut-In(2)
92	21.52	105.92	End Shut-In(2)
93	1904.74	107.07	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud w /Oil spots 98%m, 2%o	0.01

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56989

**DST#: 5**

ATTN: Corey Baker

Test Start: 2014.04.08 @ 18:34:00

## GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:19:45

Time Test Ended: 23:17:00

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 57

**Interval: 3924.00 ft (KB) To 3958.00 ft (KB) (TVD)**

Reference Elevations: 2478.00 ft (KB)

Total Depth: 3958.00 ft (KB) (TVD)

2469.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

**Serial #: 8320 Outside**

Press@RunDepth: psig @ 3925.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.08

End Date: 2014.04.08

Last Calib.: 2014.04.08

Start Time: 18:34:05

End Time: 23:16:59

Time On Btm:

Time Off Btm:

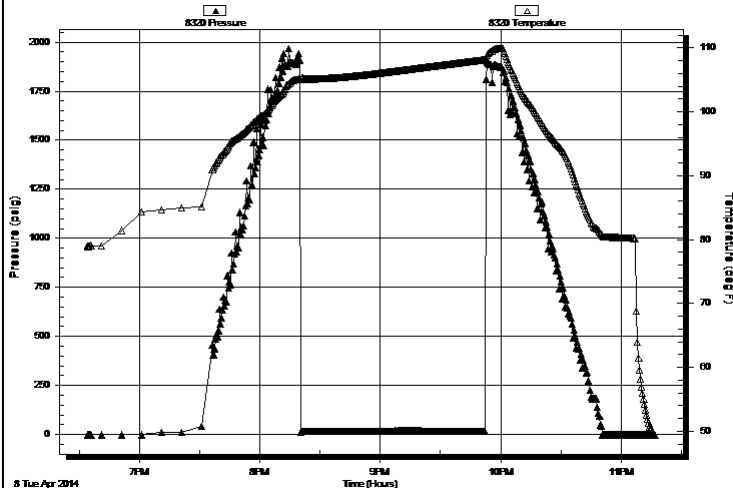
**TEST COMMENT:** 30 - IF: Blow built to 1/4"+, slowly died back, dead at 30 min.

30 - ISI: No blow back

15 - FF: No blow

15 - FSI: No blow back

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud w /Oil spots 98%m, 2%o	0.01

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56989

**DST#: 5**

ATTN: Corey Baker

Test Start: 2014.04.08 @ 18:34:00

## Tool Information

Drill Pipe:	Length: 3920.00 ft	Diameter: 3.80 inches	Volume: 54.99 bbl	Tool Weight:	2500.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	48000.00 lb
			<u>Total Volume: 54.99 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3924.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	34.00 ft				
Tool Length:	62.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3901.00	
Hydraulic tool	5.00			3906.00	
Jars	5.00			3911.00	
Safety Joint	3.00			3914.00	
Packer	5.00			3919.00	28.00 Bottom Of Top Packer
Packer	5.00			3924.00	
Stubb	1.00			3925.00	
Recorder	0.00	8671	Inside	3925.00	
Recorder	0.00	8320	Outside	3925.00	
Perforations	30.00			3955.00	
Bullnose	3.00			3958.00	34.00 Bottom Packers & Anchor

**Total Tool Length: 62.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Cobalt Energy, LLC

**18-10s-24w Graham,KS**

PO Box 8037  
Wichita, KS 67208

**KT Unit 'A' #1-18**

Job Ticket: 56989

**DST#: 5**

ATTN: Corey Baker

Test Start: 2014.04.08 @ 18:34:00

### 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: 5.39 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud w /Oil spots 98%m, 2%o	0.014

Total Length: 1.00 ft      Total Volume: 0.014 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

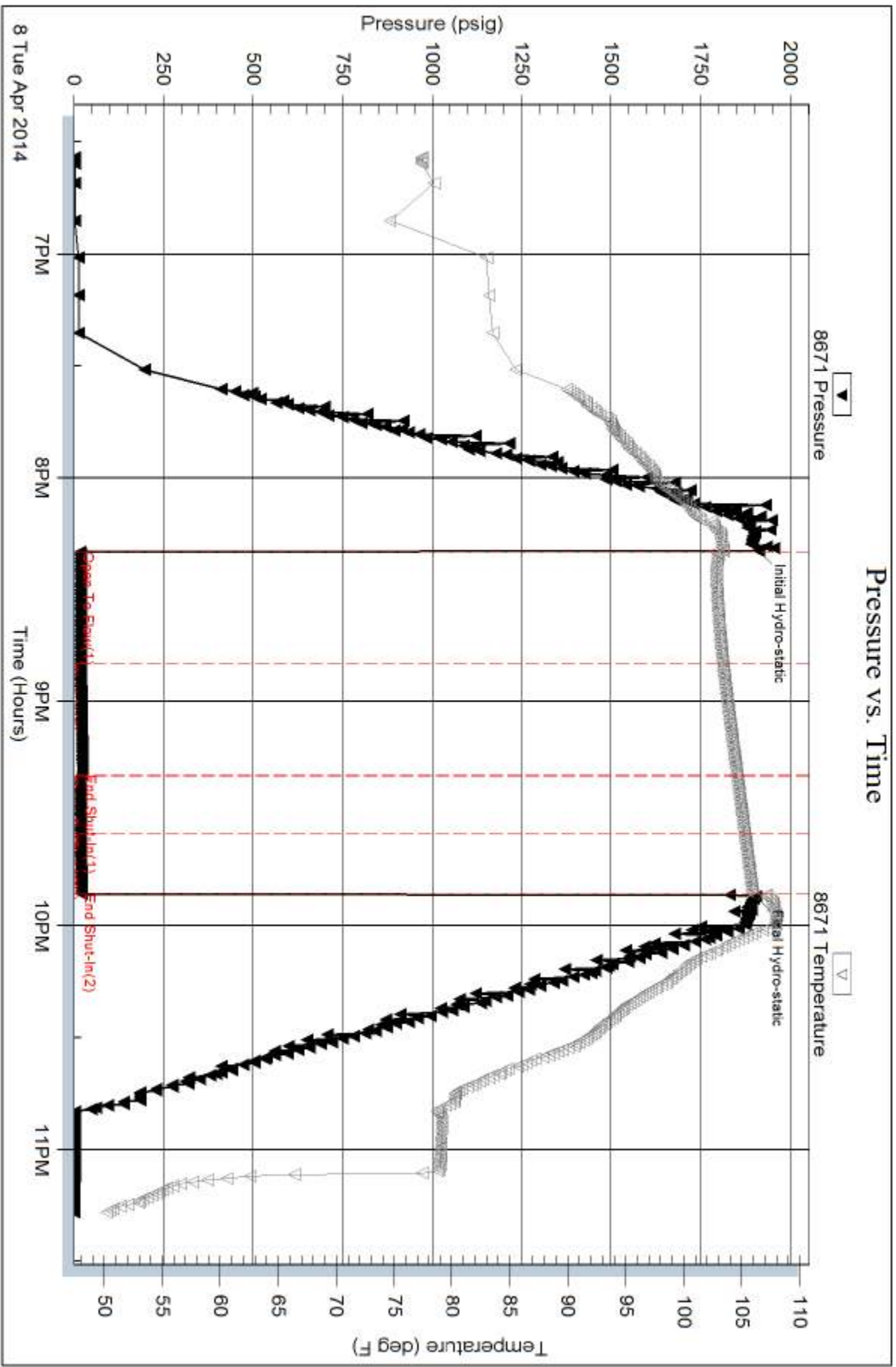
Serial #:

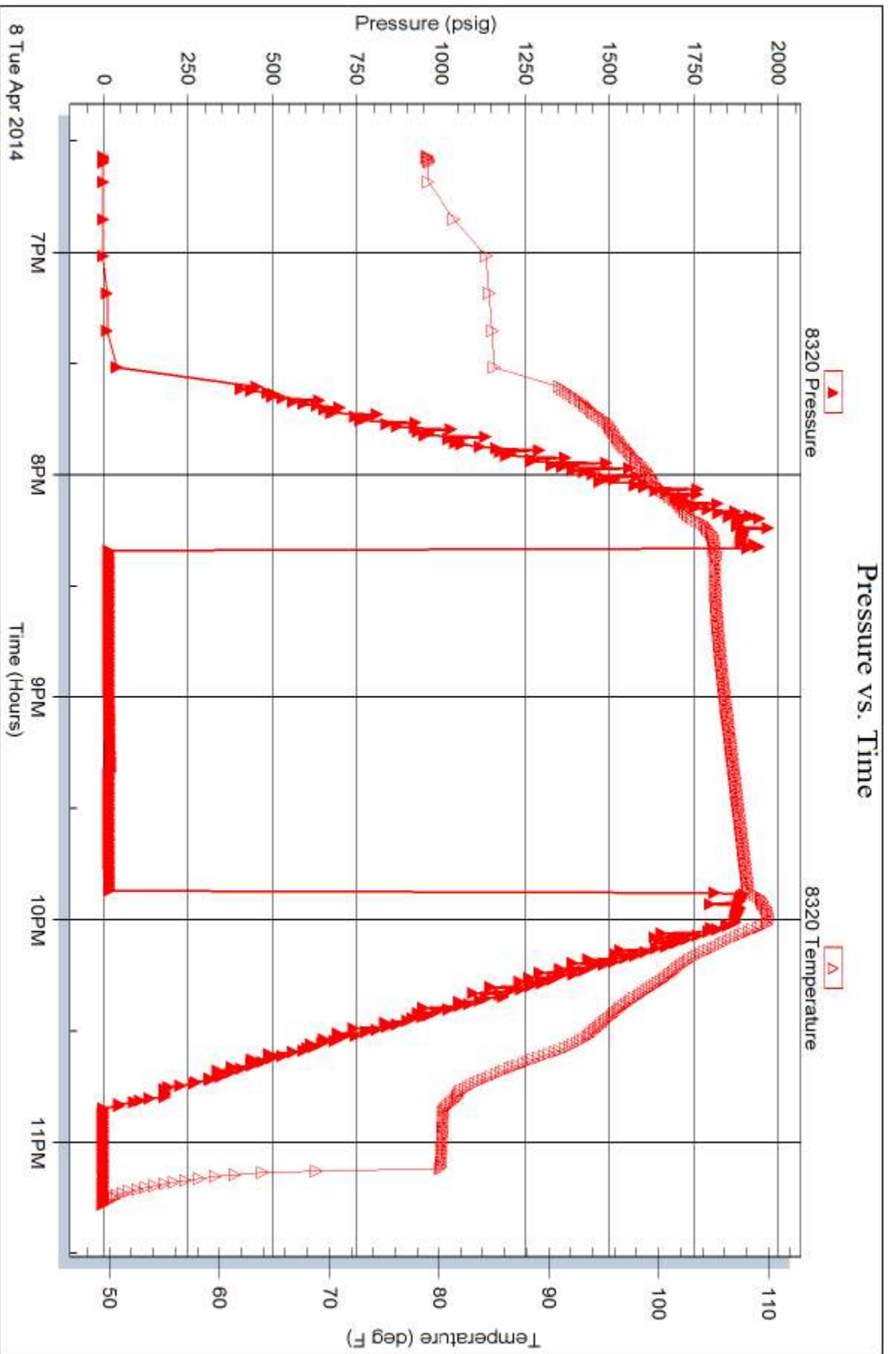
Laboratory Name:

Laboratory Location:

Recovery Comments:









# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56985

4/10

Well Name & No. KT Unit 'A' #1-18 Test No. 1 Date 4-5-14  
 Company Cobalt Energy LLC Elevation 2478 KB 2469 GL  
 Address 115 S Belmont #12 PO Box 8037 Wichita, KS 67208  
 Co. Rep / Geo. Cory Baker Rig Southwind #8  
 Location: Sec. 18 Twp. 10s Rge. 24w Co. Graham State KS

Interval Tested 3792 - 3815 Zone Tested LKC "C"  
 Anchor Length 23 Drill Pipe Run 3793 Mud Wt. 8.8  
 Top Packer Depth 3787 Drill Collars Run - Vis 54  
 Bottom Packer Depth 3792 Wt. Pipe Run - WL 5.8  
 Total Depth 3815 Chlorides 900 ppm System LCM 2  
 Blow Description IF: Blow built to BOB (11") in 3 1/2 min.  
ISI: Blowback built to 9 1/2"  
FF: Blow built to BOB in 6 min.  
FSI: Blowback built to BOB at 26 min.

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>CO</u>	<u>-</u>	<u>98</u>	<u>-</u>	<u>2</u>
<u>100/90</u>	<u>C60</u>	<u>46</u>	<u>52</u>	<u>-</u>	<u>2</u>
<u>127</u>	<u>6MCO</u>	<u>38</u>	<u>49</u>	<u>-</u>	<u>13</u>
<u>63</u>	<u>50M</u>	<u>46</u>	<u>21</u>	<u>-</u>	<u>33</u>
<u>Rec</u>	<u>Feet of GIP=1575'</u>	<u>%gas</u>	<u>%oil</u>	<u>%water</u>	<u>%mud</u>

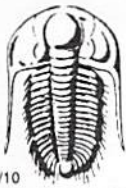
Rec Total 390 BHT 119 Gravity 38 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 1840  Test 1150 T-On Location 20:00 4/5  
 (B) First Initial Flow 38  Jars 250 T-Started 21:40  
 (C) First Final Flow 89  Safety Joint 75 T-Open 00:07  
 (D) Initial Shut-In 350  Circ Sub \_\_\_\_\_ T-Pulled 4:09  
 (E) Second Initial Flow 94  Hourly Standby \_\_\_\_\_ T-Out 6:15 4/6  
 (F) Second Final Flow 166  Mileage 140RT 217 Comments \_\_\_\_\_  
 (G) Final Shut-In 348  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1828  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 90

Sub Total 1692 Total 1692 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative James Winder  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56986

Well Name & No. KT Unit 'A' #1-18 Test No. 2 Date 4-6-14  
 Company Cobalt Energy LLC Elevation 2478 KB 2469 GL  
 Address 115 S Belmont #12 PO Box 8037 Wichita, KS 67208  
 Co. Rep / Geo. Cory Baker Rig Southwind #8  
 Location: Sec. 18 Twp. 10s Rge. 24w Co. Graham State KS

Interval Tested 3816 - 3845 Zone Tested LKC "D"  
 Anchor Length 29 Drill Pipe Run 3793 Mud Wt. 9.0  
 Top Packer Depth 3811 Drill Collars Run - Vis 51  
 Bottom Packer Depth 3816 (shale) Wt. Pipe Run - WL 5.8  
 Total Depth 3845 Chlorides 1000 ppm System LCM 2  
 Blow Description IF: Blow built to BOB (11") in 8 3/4 min.  
ISI: Blowback built to 3"  
FF: Blow built to BOB in 8 min.  
FSI: Blowback built to 5"

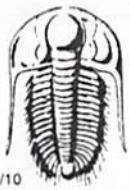
Rec	Feet of	%gas	%oil	%water	%mud
15	CO	4	95	-	1
10	SWMCO	3	87	3	7
53	SWCGO	15	80 mix	5	-
80	MWC50	18	28 clean 39 mix	10	5
45	50/mcw	-	5	80	15

Rec Total 203 Fluid 820 6IP BHT 122 Gravity 35.2 API RW 147 @ 51 °F Chlorides 72000 ppm

(A) Initial Hydrostatic <u>1850</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>13:20</u>
(B) First Initial Flow <u>25</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>13:46</u>
(C) First Final Flow <u>55</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>15:45</u>
(D) Initial Shut-In <u>848</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>19:47</u>
(E) Second Initial Flow <u>58</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>21:45</u>
(F) Second Final Flow <u>100</u>	<input checked="" type="checkbox"/> Mileage <u>140RT</u> <u>217</u>	Comments _____
(G) Final Shut-In <u>822</u>	<input type="checkbox"/> Sampler	_____
(H) Final Hydrostatic <u>1833</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby _____	Total <u>1942</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1942</u>	

Approved By \_\_\_\_\_ Our Representative James Winder

TriLOBITE Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56987

Well Name & No. KT Unit 'A' #1-18 Test No. 3 Date 4-7-14  
 Company Cobalt Energy LLC Elevation 2478 KB 2469 GL  
 Address 115 S Belmont #12 PO Box 8037 Wichita, KS 67208  
 Co. Rep / Geo. Cory Baker Rig Southwind #8  
 Location: Sec. 18 Twp. 10s Rge. 24w Co. Graham State KS

Interval Tested 3838-3865 Zone Tested LKC "F"  
 Anchor Length 27 Drill Pipe Run 3825 Mud Wt. 9.1  
 Top Packer Depth 3833 Drill Collars Run - Vis 52  
 Bottom Packer Depth 3838 Wt. Pipe Run - WL 6.0  
 Total Depth 3865 Chlorides 1100 ppm System LCM 2

Blow Description IF: Blow built to BOB(11") in 6 3/4 min.  
ISI: Blowback built to 1/2"  
FF: Blow built to BOB in 12 1/2 min.  
FSI: Blowback built to 1"

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Oil</u>	<u>-</u>	<u>98</u>	<u>-</u>	<u>2</u>
<u>63</u>	<u>MCW w/oil spots</u>	<u>4</u>	<u>1</u>	<u>65</u>	<u>30</u>
<u>487</u>	<u>MCW w/trace oil</u>	<u>2</u>	<u>trace</u>	<u>90</u>	<u>8</u>
<u>30</u>	<u>GMW w/trace oil</u>	<u>10</u>	<u>trace</u>	<u>45</u>	<u>45</u>
<u>        </u>	<u>GIP=50'</u>	<u>        </u>	<u>        </u>	<u>        </u>	<u>        </u>

Rec Total 595 BHT 120 Gravity 37 API RW .617 @ 62.1 °F Chlorides 12,000 ppm

(A) Initial Hydrostatic 1840  Test 1150 T-On Location 7:15  
 (B) First Initial Flow 38  Jars 250 T-Started 7:50  
 (C) First Final Flow 154  Safety Joint 75 T-Open 9:40  
 (D) Initial Shut-In 528  Circ Sub \_\_\_\_\_ T-Pulled 13:41  
 (E) Second Initial Flow 160  Hourly Standby \_\_\_\_\_ T-Out 15:55  
 (F) Second Final Flow 295  Mileage 140RT 217 Comments \_\_\_\_\_  
 (G) Final Shut-In 527  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1829  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 60  
 Final Flow 60  
 Final Shut-In 90  
 Sub Total 1692  
 Total 1692  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative James Winder

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56988

4/10

Well Name & No. KT Unit 'A' #1-18 Test No. 4 Date 4-8-14  
 Company Cobalt Energy LLC Elevation 2478 KB 2469 GL  
 Address 115 S. Belmont #12 PO Box 8037 Wichita, KS 67208  
 Co. Rep / Geo. Cory Baker Rig Southwind #8  
 Location: Sec. 18 Twp. 10s Rge. 24w Co. Graham State KS

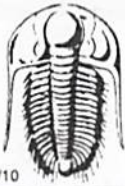
Interval Tested 3890 - 3920 Zone Tested LKC "H"  
 Anchor Length 30 Drill Pipe Run 3888 Mud Wt. 9.1  
 Top Packer Depth 3885 Drill Collars Run - Vis 60  
 Bottom Packer Depth 3890 Wt. Pipe Run - WL 6.0  
 Total Depth 3920 Chlorides 1100 ppm System LCM 2  
 Blow Description IF: Blow built to 3"  
ISI: No blowback  
FF: 4" surge at open, bled off, blow built to 4 3/4"  
FSI:

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>MO</u>	<u>5</u>	<u>50</u>	<u>-</u>	<u>45</u>
Rec	Feet of <u>GIP=45'</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 111 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1895</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1:00</u>
(B) First Initial Flow <u>16</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1:25</u>
(C) First Final Flow <u>19</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>3:16</u>
(D) Initial Shut-In <u>332</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>7:18</u>
(E) Second Initial Flow <u>15</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>9:15</u>
(F) Second Final Flow <u>23</u>	<input checked="" type="checkbox"/> Mileage <u>140 RT 217</u>	Comments
(G) Final Shut-In <u>980</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1900</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1692</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1692</u>	

Approved By \_\_\_\_\_ Our Representative James Winder  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 56989

Well Name & No. KT Unit 'A' #1-18 Test No. 5 Date 4-8-14  
 Company Cobalt Energy LLC Elevation 2478 KB 2469 GL  
 Address 115 S. Belmont #12 PO Box 8037 Wichita, KS 67208  
 Co. Rep / Geo. Cory Baker Rig Southwind #8  
 Location: Sec. 18 Twp. 10s Rge. 24w Co. Graham State KS

Interval Tested 3924 - 3958 Zone Tested LKC "I-J"  
 Anchor Length 34 Drill Pipe Run 3920 Mud Wt. 9.3  
 Top Packer Depth 3919 Drill Collars Run - Vis 60  
 Bottom Packer Depth 3924 Wt. Pipe Run - WL 5.4  
 Total Depth 3958 Chlorides 1700 ppm System LCM 2  
 Blow Description IF: Blow built to '4" +, slowly died back, dead at 30 min.  
TSI: No blowback  
FF: No blow  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>mud w/oil spots</u>	<u>-</u>	<u>2</u>	<u>-</u>	<u>98</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1 BHT 106 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1912</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>17:35</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>18:34</u>
(C) First Final Flow <u>20</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>20:19</u>
(D) Initial Shut-In <u>25</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>21:51</u>
(E) Second Initial Flow <u>19</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>23:10</u>
(F) Second Final Flow <u>20</u>	<input checked="" type="checkbox"/> Mileage <u>140RTx2</u> 434	Comments <u>loaded tools 4/9</u>
(G) Final Shut-In <u>22</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1905</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>15</u>	<input type="checkbox"/> Extra Recorder	Total <u>1909</u>
Final Shut-In <u>15</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1909</u>	

Approved By \_\_\_\_\_ Our Representative James Winder

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



GEOLOGIST'S REPORT  
DRILL TIME &  
SAMPLE LOG

COMPANY **COBALT ENERGY, LLC**  
LEASE **KT Unit 'A' #1-18**  
FIELD **High Hill North-west**

LOCATION **864' FNL & 1290' FEL**  
SEC. **18** TWP **10S** RGE **24W**  
COUNTY **Graham** STATE **KS**

CONTRACTOR **Southwind Drilling, RTD #8**  
SPUD **4/11/14** COMP **4/10/14**  
RTD **4090'** TYPE LTD **4049'**  
MUD UP **3451'** TYPE MUD **Chemical**

SAMPLES SAVED FROM **3600'** TO **RTD**  
DRILLING TIME KEPT FROM **3600'** TO **RTD**  
SAMPLES EXAMINED FROM **3600'** TO **RTD**

GEOLOGICAL SUPERVISION FROM **3600'** TO **RTD**  
GEOLOGIST ON WELL **Corey N. Baker**

FORMATION TOPS **ELECTRIC LOG**  
Anhydrite **2096 (+369)**  
Base of Anhydrite **2131 (+334)**  
Heebner **3736 (-1274)**  
Lansing **3774 (-1308)**  
Stark **3967 (-1497)**  
BKC **4002 (-1537)**  
LTD **4049 (-1584)**

SAMPLE **2096 (+369)**  
2131 (+334)  
3736 (-1274)  
3774 (-1308)  
3967 (-1497)  
4002 (-1537)  
4049 (-1584)

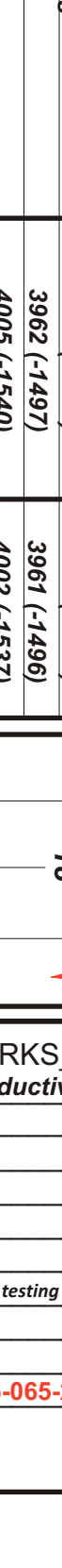
GL **246'**  
From **KB**  
Measurements are All  
From **KB**

CASING  
Conductor **NA**  
Surface **8 5/8" @ 221'**  
Production **5 7/8" @ 4045'**

Electrical Surveys/  
Dial Induction/Neutron Density

Microlog  
Present Wireline

Section



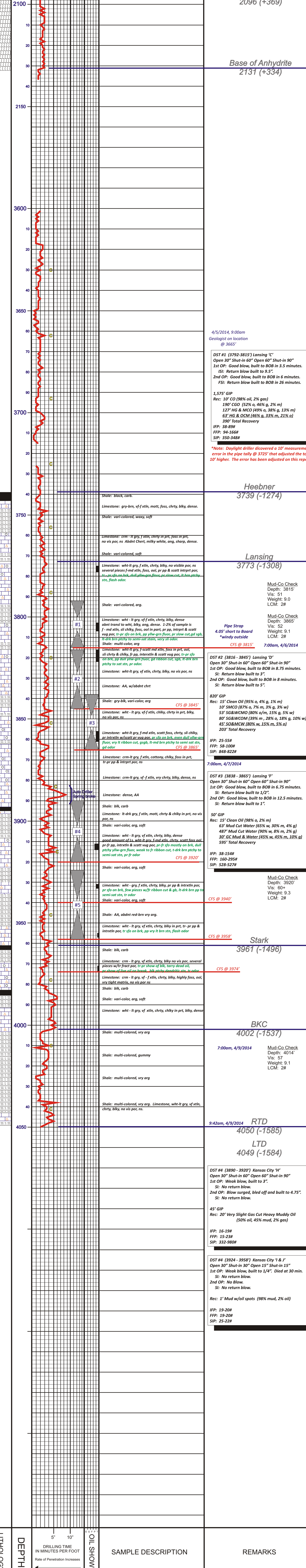
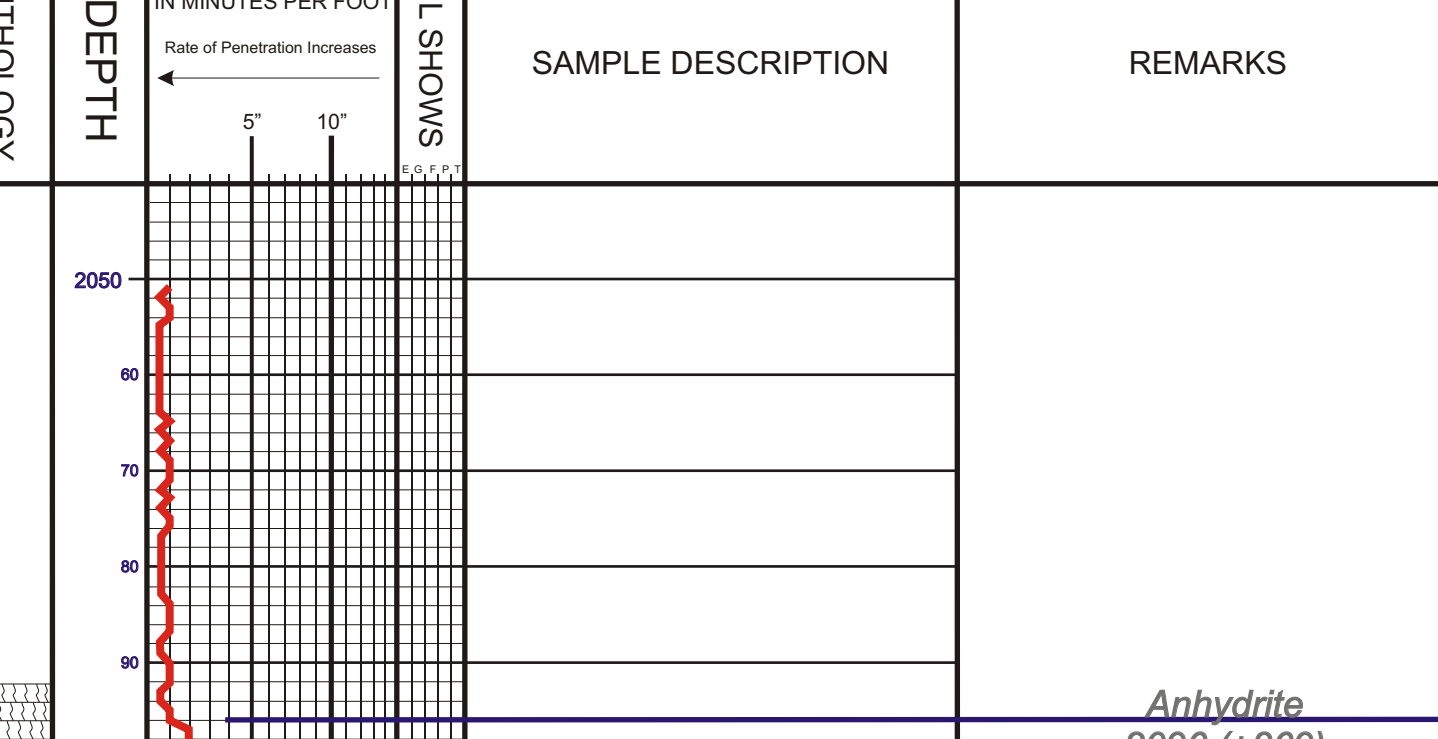
REMARKS **Due to the results of DST #1 & 2, it was recommended to run production casing to further test the productive potential of the KT Unit 'A' #1-18.**

Respectfully Submitted,  
**Corey Baker**  
Vice President - Exploration

Drill Stem testing done by James Winder of Trilobite Testing.

API #15-065-24022-00-00

LEGEND



Company **COBALT ENERGY, LLC** Elevation **2465' KB**  
Lease **KT Unit 'A' #1-18**  
Location **864' FNL & 1290' FEL** SEC. **18** TWP **10S** RGE **24W**  
County **Graham** State **Kansas**