

Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1327151  
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
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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: \_\_\_\_\_

1327151

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 <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  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: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
--	---

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Cobalt Energy LLC
Well Name	BINNS "A" 1-32
Doc ID	1327151

All Electric Logs Run

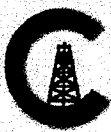
Dual Induction
Neutron-Density
Microlog
Sonic

Form	ACO1 - Well Completion
Operator	Cobalt Energy LLC
Well Name	BINNS "A" 1-32
Doc ID	1327151

Tops

Name	Top	Datum
Anhy	2415	636
Base Anhy	2433	618
Heebner	3935	-884
Lansing	3971	-920
Stark	4246	-1195
Marmaton	4362	-1311
Altamont	4384	-1333
Pawnee	4461	-1410
Ft Scott	4515	-1464
Cherokee	4542	-1491
Johnson	4587	-1536
Morrow	4652	-1601
Mississippian	4700	-1649





**CONSOLIDATED**  
Oil Well Services, LLC

6438  
6341

TICKET NUMBER 51537  
LOCATION Coker, KS  
FOREMAN Jerry

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

Invoice # 00841 KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
8-16-16	2180	Binas A 1-32	32	155	633W	Logan
CUSTOMER			TRUCK #			
MAILING ADDRESS			DRIVER			
CITY			TRUCK #			
STATE			DRIVER			
ZIP CODE			TRUCK #			
			DRIVER			

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 224 CASING SIZE & WEIGHT 8 7/8 23 1/2  
 CASING DEPTH 224 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 14.8 SLURRY VOL 1.24 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 20'  
 DISPLACEMENT 13 bbl DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Softly meeting string on Martin 21 break circulation mix 165 sks  
Surface bleed F which was displaced with 13 bbl fresh water & shut in.  
Circulated approx 4 bbl to pt

Cement did  
circulate

Thank you  
Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0450	1	PUMP CHARGE	1500.00	1500.00
CE0002	35	MILEAGE	7.5	262.50
CE0711	7.75	ten mileage delivery min	660.00	660.00
CC5870	165 sks	surface bleed F	220.00	3630.00
			subtotal	6040.25
			-452	2718.11
			subtotal	3322.14
			SALES TAX	159.72
			ESTIMATED TOTAL	3481.86

Ravin 9737

AUTHORIZATION [Signature] TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



CHARGE TO: **COBAT ENERGY**  
 ADDRESS  
 CITY, STATE, ZIP CODE

TICKET 29330

PAGE 1 OF 2

SERVICE LOCATIONS: 1. **Ness City, Ks**  
 WELL PROJECT NO: **1-32** LEASE: **BEANS "A"** COUNTY/PARISH: **LOGAN** STATE: **Ks** CITY: **LOGAN** DATE: **8-28-16** OWNER: **SAME**  
 TICKET TYPE:  SERVICE  SALES CONTRACTOR: **MORAN DRUG** RIG NAME/NO.: **21** SHIPPED VIA: **CR** DELIVERED TO: **LOGAN** ORDER NO.:  
 WELL TYPE: **OR** WELL CATEGORY: **Development** JOB PURPOSE: **5 1/2" 2-STAGE LONGSTROKE** WELL PERMIT NO.:  
 REFERRAL LOCATION: **OR** INVOICE INSTRUCTIONS:

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE	90	MI			5.00	450.00
579					Pump Charge - Two Stage	1	TOB	4785	FT	1700.00	1700.00
580					ADDITIONAL HOURS - CRUATE	0	HRS			200.00	
221					HEAD RCL	4	Gal			25.00	100.00
281					MUDFLUSH	500	Gal			1.25	625.00
403					CEMENT BASKETS	2	EA	5 1/2"		250.00	500.00
407					TRISERT FLOOR SHOE w/ AUTO FALL	1	EA			300.00	300.00
408					DV Tool - Plug Set	1	EA	2442	FT	3250.00	3250.00
409					TURBOIZERS	12	EA			75.00	900.00
417					DV LATCH DOWN PLUG - GATFE	1	EA			200.00	200.00
419					ROTARY HEAD RSTK	1	STKS			200.00	200.00

**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.

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

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL #	TOTAL
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				1	8025.00
WE UNDERSTOOD AND MET YOUR NEEDS?					
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				2	10428.60
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?					
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO			
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND					
<b>TOTAL</b>					<b>19580.70</b>

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS  
 DATE SIGNED: **8-28-16** TIME SIGNED: **0600**  
 SIGNED BY: **Ruby Kye**

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES  
 APPROVAL: **Dave Watson**

Thank You!





JOB LOG

SWIFT Services, Inc.

DATE 8-28-16 PAGE NO. 1

CUSTOMER		WELL NO.		LEASE		JOB TYPE		TICKET NO.	
CORAL ENERGY		1-32		BINNS "A"		5 1/2" 2-STAGE LOWSTAGE		29330	
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)		PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
			(BBL)	(GAL)	T	C	TUBING	CASING	
	0600								ON LOCATION
	0900								START 5 1/2" CASING IN WELL
									TD-4794 SET = 4785
									TP-4788 5 1/2" # 15.5
									ST-44'
									TURBOIZERS 1,2,7,8,9,10,11,12,13,14,15,54
									CMY BSRS-52,53
									DV TOOL = 2442' TOPST # 53
	1105								DROP BALL - CIRCULATE
	1212	6	12		✓		500		PUMP 500 GAL MUD FLUSH
	1215	6	20		✓		500		PUMP 20 BBS KCL FLUSH
	1220	4	36		✓		200		MIX CEMENT - 150 SKS EA-2 = 15.5 PAG
	1230								WASH OUT PUMP - LINES
	1230								RELEASE 1 <sup>ST</sup> STAGE LATCH DOWN PLUG
	1235	7	0		✓				DISPLACE PLUG
	1255	6	112.9				1500		PLUG DOWN - PST UP LATCH IN PLUG
	1300						OK		RELEASE PST - HELD
	1305								DROP DV OPENING PLUG
	1320				✓		1400		OPEN DV TOOL - CIRCULATE
	1315	6	20		✓		250		PUMP 20 BBS KCL FLUSH
	1330		7-5						PLUG RH & MH (30 SKS <sup>RH</sup> ), (20 SKS MH)
	1335	5	139		✓		150		MIX CEMENT - 250 SKS SMD = 11.2 PAG
	1400								WASH OUT PUMP - LINES
	1405								RELEASE DV CLOSING PLUG
	1405	6	0		✓				DISPLACE PLUG
	1415	5	58.1				1750		PLUG DOWN - PST UP CLOSE DV TOOL
	1420						OK		RELEASE PST - HELD
									CIRCULATED 25 SKS CEMENT TO PST
									WASH TRUCK
	1500								JOB COMPLETE

THANK YOU  
WAYNE, JASON, PRESTON, JOHN J.



## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy**

115 S Belmont #12  
Wichita, KS 67208

ATTN: Corey Baker

**Binns A #1-32**

**32 15s 33w Logan,KS**

Start Date: 2016.08.20 @ 18:29:00

End Date: 2016.08.21 @ 03:14:30

Job Ticket #: 65544                      DST #: 1

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

Printed: 2016.08.29 @ 09:33:26



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy

**32 15s 33w Logan, KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65544

**DST#: 1**

ATTN: Corey Baker

Test Start: 2016.08.20 @ 18:29:00

## GENERAL INFORMATION:

Formation: **Lwr Topeka - Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:46:30

Time Test Ended: 03:14:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 69

**Interval: 3878.00 ft (KB) To 3980.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 3980.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8845 Outside**

Press@RunDepth: 552.92 psig @ 3879.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.08.20

End Date:

2016.08.21

Last Calib.:

2016.08.21

Start Time: 18:29:05

End Time:

03:14:30

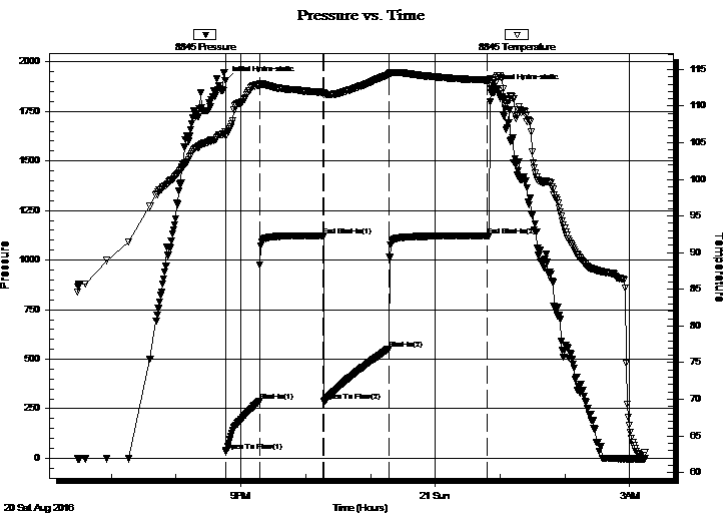
Time On Btm:

2016.08.20 @ 20:46:00

Time Off Btm:

2016.08.21 @ 00:52:00

TEST COMMENT: IF: BOB @ 7 min.  
IS: No return.  
FF: BOB @ 10 min.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1903.97	106.48	Initial Hydro-static
1	35.16	106.00	Open To Flow (1)
32	288.96	112.86	Shut-In(1)
90	1123.96	111.84	End Shut-In(1)
92	289.34	111.53	Open To Flow (2)
152	552.92	114.27	Shut-In(2)
242	1123.26	113.53	End Shut-In(2)
246	1865.56	112.70	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1070.00	mcw 10m 90w (oil spots)	12.52

## Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy

**32 15s 33w Logan, KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65544

**DST#: 1**

ATTN: Corey Baker

Test Start: 2016.08.20 @ 18:29:00

## GENERAL INFORMATION:

Formation: **Lwr Topeka - Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:46:30

Time Test Ended: 03:14:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 69

Interval: **3878.00 ft (KB) To 3980.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 3980.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365 Inside**

Press@RunDepth: psig @ 3879.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.08.20

End Date: 2016.08.21

Last Calib.: 2016.08.21

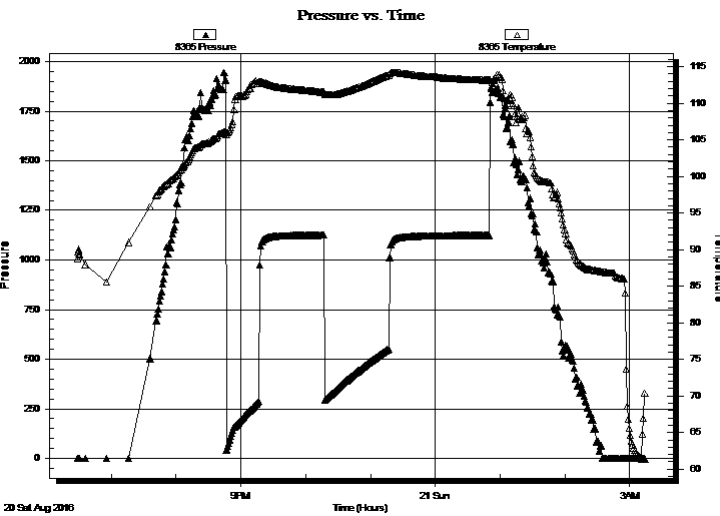
Start Time: 18:29:05

End Time: 03:14:30

Time On Btm:

Time Off Btm:

**TEST COMMENT:** IF: BOB @ 7 min.  
IS: No return.  
FF: BOB @ 10 min.  
FS: No return.



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
1070.00	mcw 10m 90w (oil spots)	12.52

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65544

**DST#: 1**

ATTN: Corey Baker

Test Start: 2016.08.20 @ 18:29:00

## Tool Information

Drill Pipe:	Length: 3585.00 ft	Diameter: 3.80 inches	Volume: 50.29 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 273.00 ft	Diameter: 2.25 inches	Volume: 1.34 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	3878.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	102.00 ft				
Tool Length:	129.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3852.00	
Shut In Tool	5.00			3857.00	
Hydraulic tool	5.00			3862.00	
Jars	5.00			3867.00	
Safety Joint	2.00			3869.00	
Packer	5.00			3874.00	27.00 Bottom Of Top Packer
Packer	4.00			3878.00	
Stubb	1.00			3879.00	
Recorder	0.00	8365	Inside	3879.00	
Recorder	0.00	8845	Outside	3879.00	
Perforations	2.00			3881.00	
Change Over Sub	0.50			3881.50	
Drill Pipe	95.00			3976.50	
Change Over Sub	0.50			3977.00	
Bullnose	3.00			3980.00	102.00 Bottom Packers & Anchor

**Total Tool Length: 129.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65544

**DST#: 1**

ATTN: Corey Baker

Test Start: 2016.08.20 @ 18:29:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

39000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2500.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1070.00	mcw 10m 90w (oil spots)	12.522

Total Length: 1070.00 ft      Total Volume: 12.522 bbl

Num Fluid Samples: 0

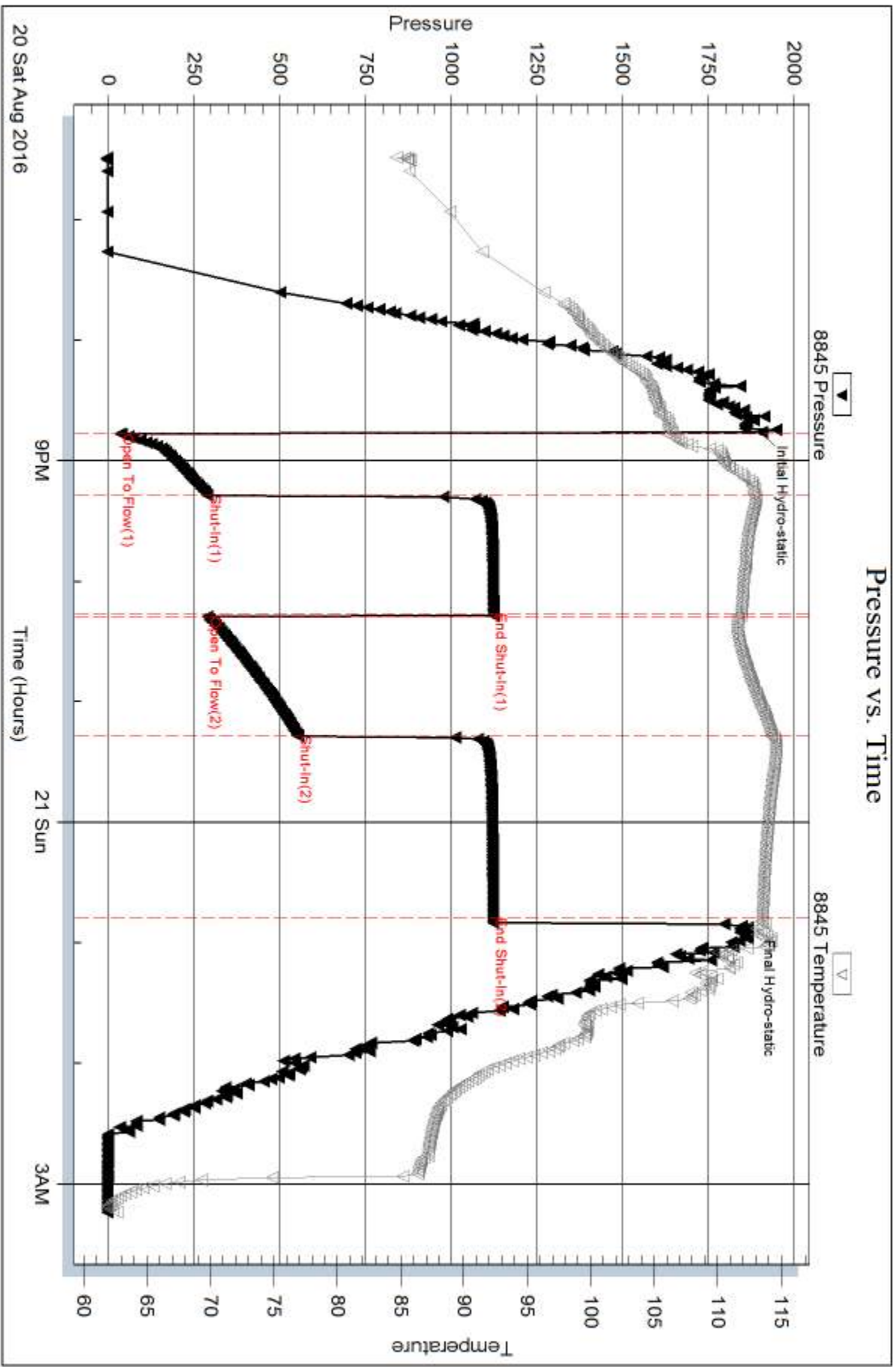
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .159 @ 69f = 39000ppm



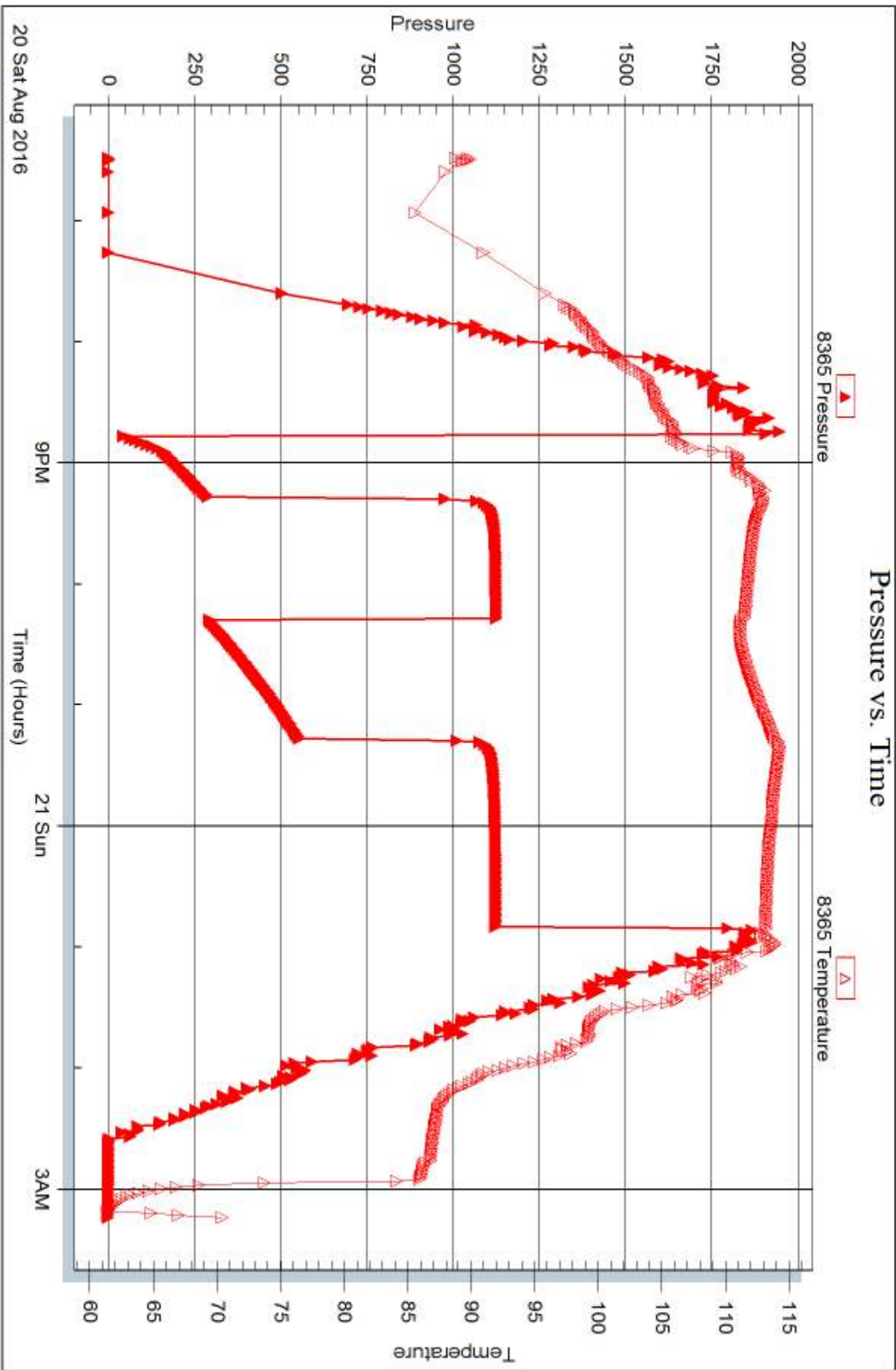
Serial #: 8365

Inside

Cobalt Energy

Binns A #1-32

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 65544

Printed: 2016.08.29 @ 09:33:28





## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy**

115 S Belmont #12  
Wichita, KS 67208

ATTN: Corey Baker

**Binns A #1-32**

**32 15s 33w Logan,KS**

Start Date: 2016.08.21 @ 15:00:00

End Date: 2016.08.21 @ 23:58:45

Job Ticket #: 65545                      DST #: 2

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

Printed: 2016.08.29 @ 09:32:42



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65545

**DST#: 2**

ATTN: Corey Baker

Test Start: 2016.08.21 @ 15:00:00

## GENERAL INFORMATION:

Formation: **LKC C - F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:40:30

Time Test Ended: 23:58:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4016.00 ft (KB) To 4100.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 4100.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8845 Outside**

Press@RunDepth: 329.10 psig @ 4017.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.08.21

End Date:

2016.08.21

Last Calib.:

2016.08.21

Start Time: 14:50:05

End Time:

23:48:45

Time On Btm:

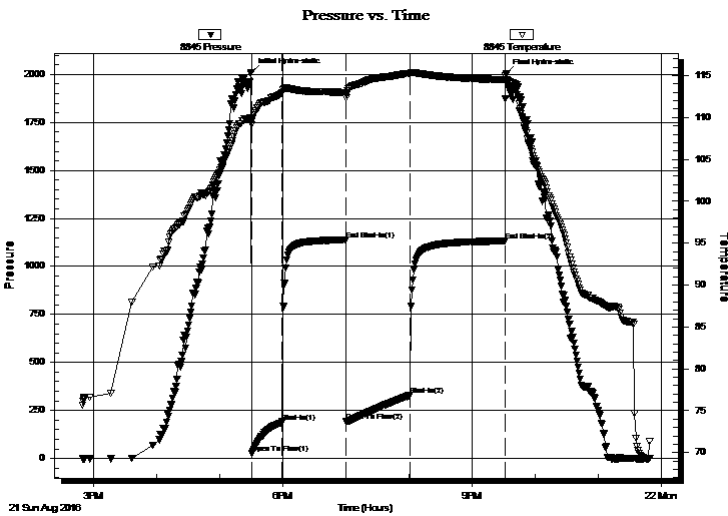
2016.08.21 @ 17:30:15

Time Off Btm:

2016.08.21 @ 21:32:45

TEST COMMENT: IF: BOB @ 21 min.  
IS: No return.  
FF: BOB @ 21 min.  
FS: No return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2010.60	110.00	Initial Hydro-static
1	24.53	109.16	Open To Flow (1)
30	186.44	112.94	Shut-In(1)
90	1138.43	112.98	End Shut-In(1)
91	191.83	112.40	Open To Flow (2)
151	329.10	115.26	Shut-In(2)
242	1132.47	114.52	End Shut-In(2)
243	2006.12	114.49	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
630.00	mcw 15m 85w (oil spots in tool)	6.35

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65545

**DST#: 2**

ATTN: Corey Baker

Test Start: 2016.08.21 @ 15:00:00

## GENERAL INFORMATION:

Formation: **LKC C - F**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:40:30

Time Test Ended: 23:58:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4016.00 ft (KB) To 4100.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 4100.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: psig @ 4017.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.08.21 End Date: 2016.08.21

Last Calib.: 2016.08.21

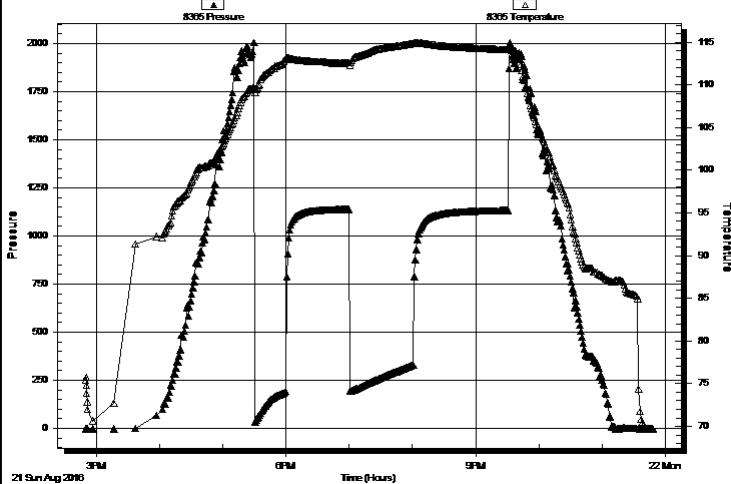
Start Time: 14:50:05 End Time: 23:48:00

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: BOB @ 21 min.  
IS: No return.  
FF: BOB @ 21 min.  
FS: No return.

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
630.00	mcw 15m 85w (oil spots in tool)	6.35

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65545

**DST#: 2**

ATTN: Corey Baker

Test Start: 2016.08.21 @ 15:00:00

## Tool Information

Drill Pipe:	Length: 3740.00 ft	Diameter: 3.80 inches	Volume: 52.46 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 273.00 ft	Diameter: 2.25 inches	Volume: 1.34 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	4016.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	84.00 ft			
Tool Length:	111.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3990.00	
Shut In Tool	5.00			3995.00	
Hydraulic tool	5.00			4000.00	
Jars	5.00			4005.00	
Safety Joint	2.00			4007.00	
Packer	5.00			4012.00	27.00 Bottom Of Top Packer
Packer	4.00			4016.00	
Stubb	1.00			4017.00	
Recorder	0.00	8365	Inside	4017.00	
Recorder	0.00	8845	Outside	4017.00	
Perforations	15.00			4032.00	
Change Over Sub	1.00			4033.00	
Drill Pipe	63.00			4096.00	
Change Over Sub	1.00			4097.00	
Bullnose	3.00			4100.00	84.00 Bottom Packers & Anchor

**Total Tool Length: 111.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65545

**DST#: 2**

ATTN: Corey Baker

Test Start: 2016.08.21 @ 15:00:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

24000 ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
630.00	mcw 15m 85w (oil spots in tool)	6.350

Total Length: 630.00 ft      Total Volume: 6.350 bbl

Num Fluid Samples: 0

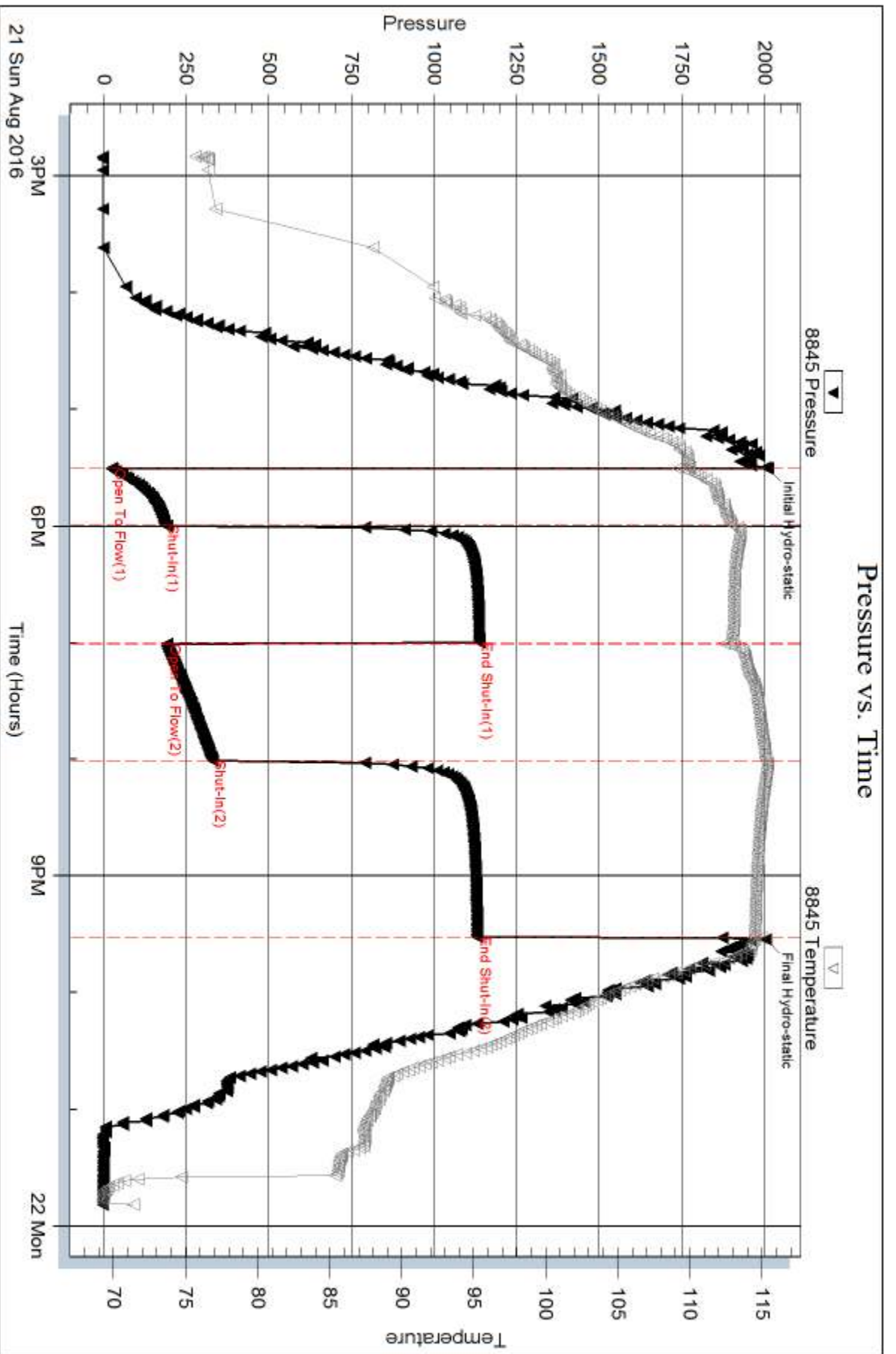
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .330 @ 63F = 24000ppm



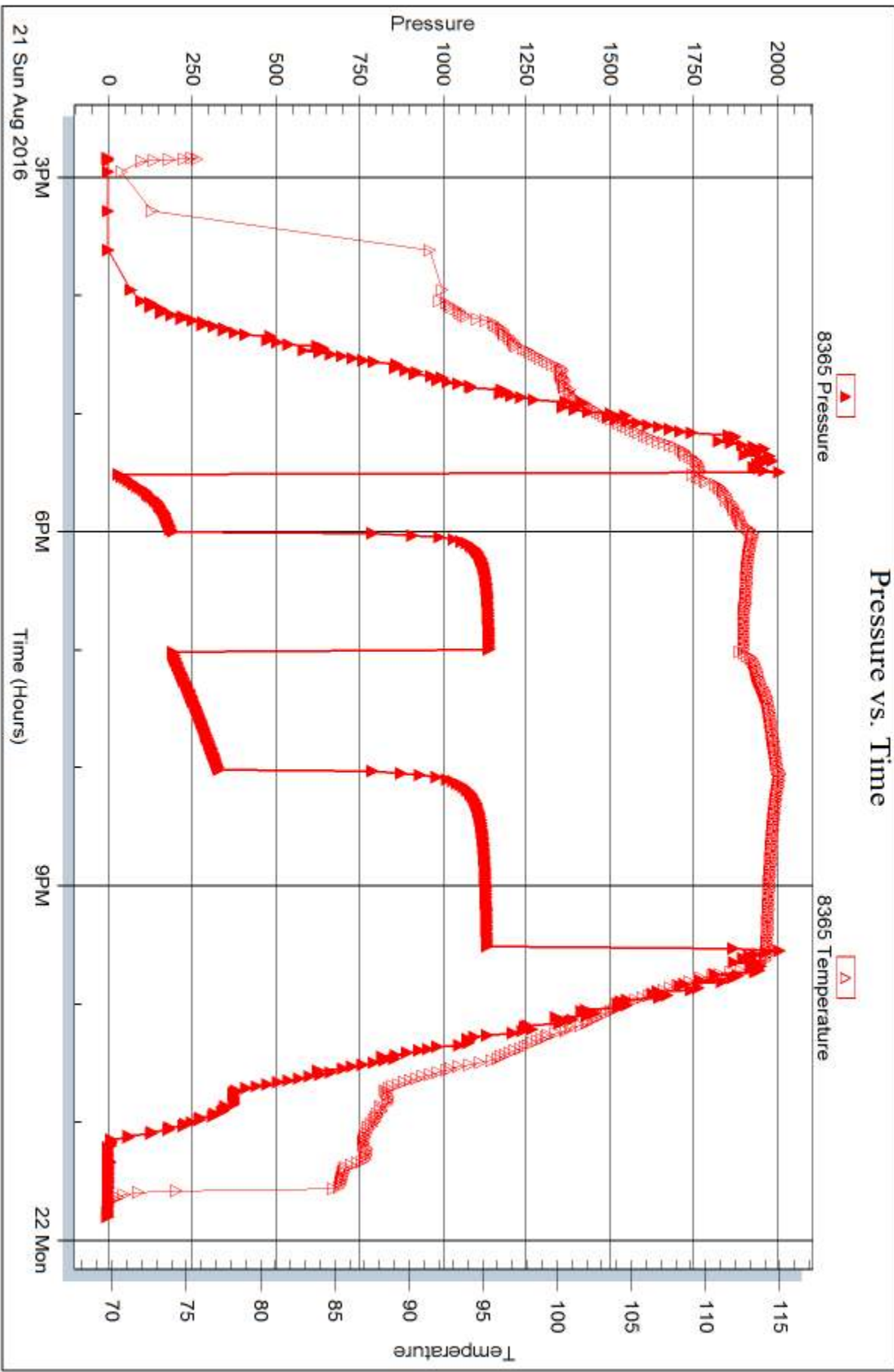
Serial #: 8365

Inside

Cobalt Energy

Binns A #1-32

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy**

115 S Belmont #12  
Wichita, KS 67208

ATTN: Corey Baker

### **Binns A #1-32**

#### **32 15s 33w Logan,KS**

Start Date: 2016.08.22 @ 13:43:00

End Date: 2016.08.22 @ 21:56:30

Job Ticket #: 65546                      DST #: 3

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

Printed: 2016.08.29 @ 09:31:14





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65546

**DST#: 3**

ATTN: Corey Baker

Test Start: 2016.08.22 @ 13:43:00

## GENERAL INFORMATION:

Formation: **LKC H-1**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:34:45

Time Test Ended: 21:56:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4144.00 ft (KB) To 4220.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 4220.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8845 Outside**

Press@RunDepth: 148.65 psig @ 4145.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.08.22

End Date:

2016.08.22

Last Calib.:

2016.08.22

Start Time: 13:43:05

End Time:

21:56:29

Time On Btm:

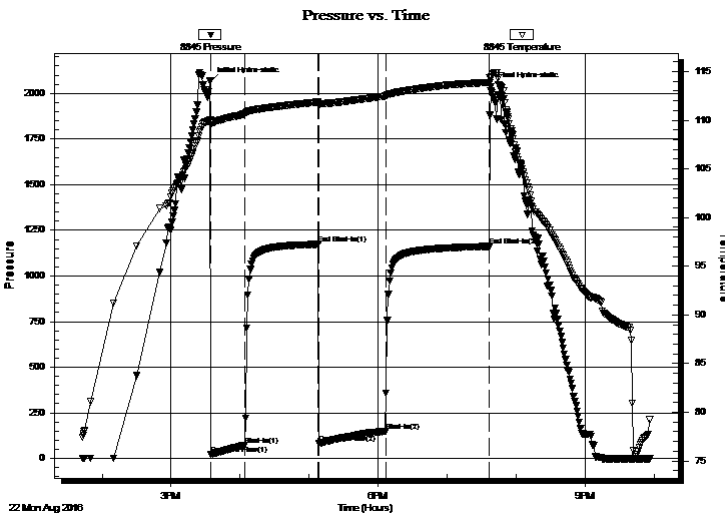
2016.08.22 @ 15:34:00

Time Off Btm:

2016.08.22 @ 19:38:00

TEST COMMENT: IF: 1 1/2" blow .  
IS: No return.  
FF: 1" blow .  
FS: No return..

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2066.15	110.08	Initial Hydro-static
1	22.02	109.57	Open To Flow (1)
30	72.88	110.67	Shut-In(1)
94	1174.09	111.88	End Shut-In(1)
95	81.46	111.44	Open To Flow (2)
153	148.65	112.47	Shut-In(2)
243	1162.40	113.89	End Shut-In(2)
244	2036.62	114.50	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	vsomcw 1o 19m 80w	0.59
110.00	ow cm 10o 40w 50m	0.54
20.00	free oil	0.10

## 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

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65546

**DST#: 3**

ATTN: Corey Baker

Test Start: 2016.08.22 @ 13:43:00

## Tool Information

Drill Pipe:	Length: 3866.00 ft	Diameter: 3.80 inches	Volume: 54.23 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 273.00 ft	Diameter: 2.25 inches	Volume: 1.34 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial	65000.00 lb
Depth to Top Packer:	4144.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	76.00 ft				
Tool Length:	103.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4118.00	
Shut In Tool	5.00			4123.00	
Hydraulic tool	5.00			4128.00	
Jars	5.00			4133.00	
Safety Joint	2.00			4135.00	
Packer	5.00			4140.00	27.00 Bottom Of Top Packer
Packer	4.00			4144.00	
Stubb	1.00			4145.00	
Recorder	0.00	8365	Inside	4145.00	
Recorder	0.00	8845	Outside	4145.00	
Perforations	7.00			4152.00	
Change Over Sub	1.00			4153.00	
Drill Pipe	63.00			4216.00	
Change Over Sub	1.00			4217.00	
Bullnose	3.00			4220.00	76.00 Bottom Packers & Anchor

**Total Tool Length: 103.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65546

**DST#: 3**

ATTN: Corey Baker

Test Start: 2016.08.22 @ 13:43:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

21 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

35000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4700.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	vsomcw 1o 19m 80w	0.590
110.00	ow cm 10o 40w 50m	0.541
20.00	free oil	0.098

Total Length: 250.00 ft      Total Volume: 1.229 bbl

Num Fluid Samples: 0

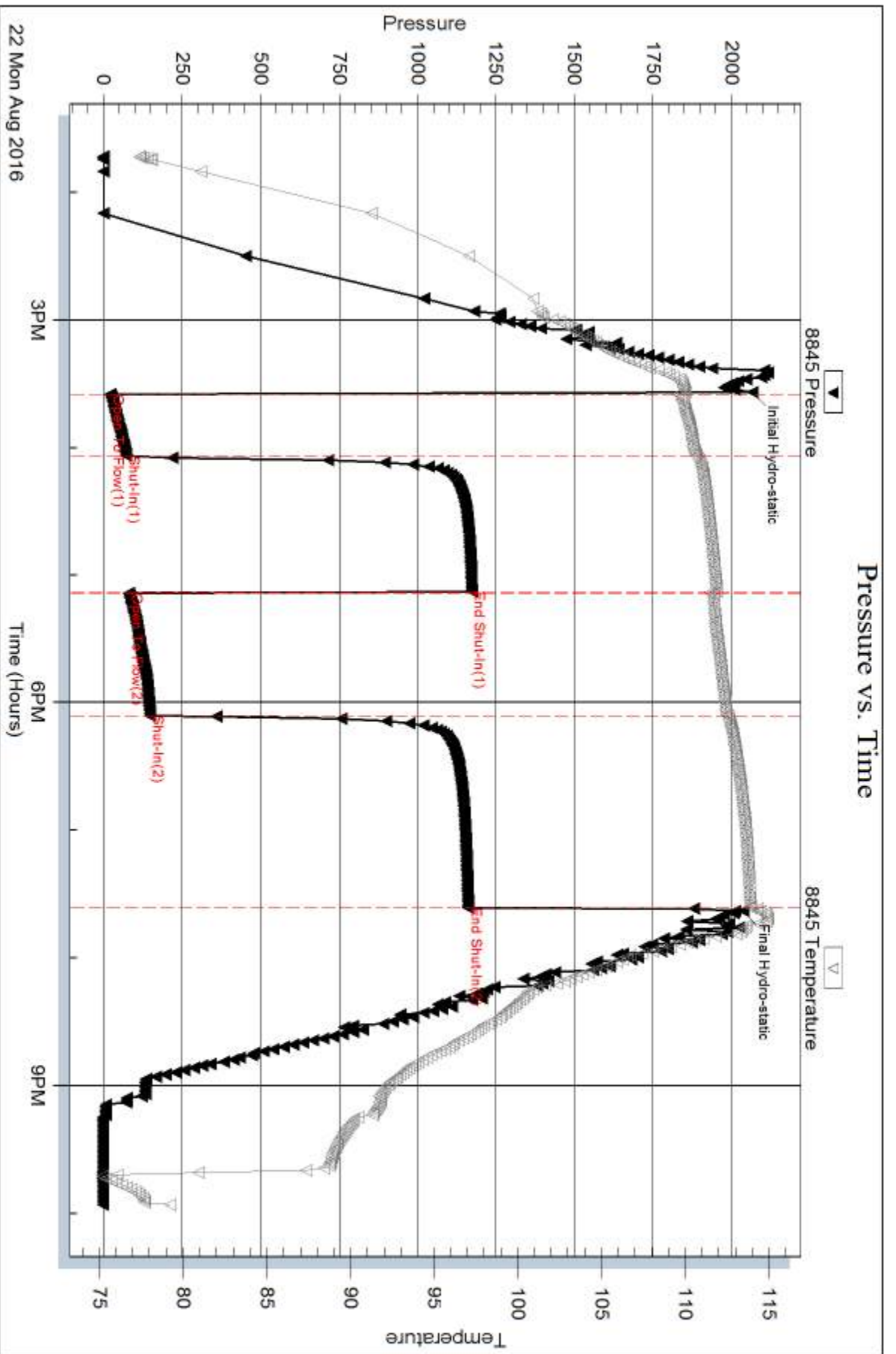
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .195 @ 71F = 35000ppm



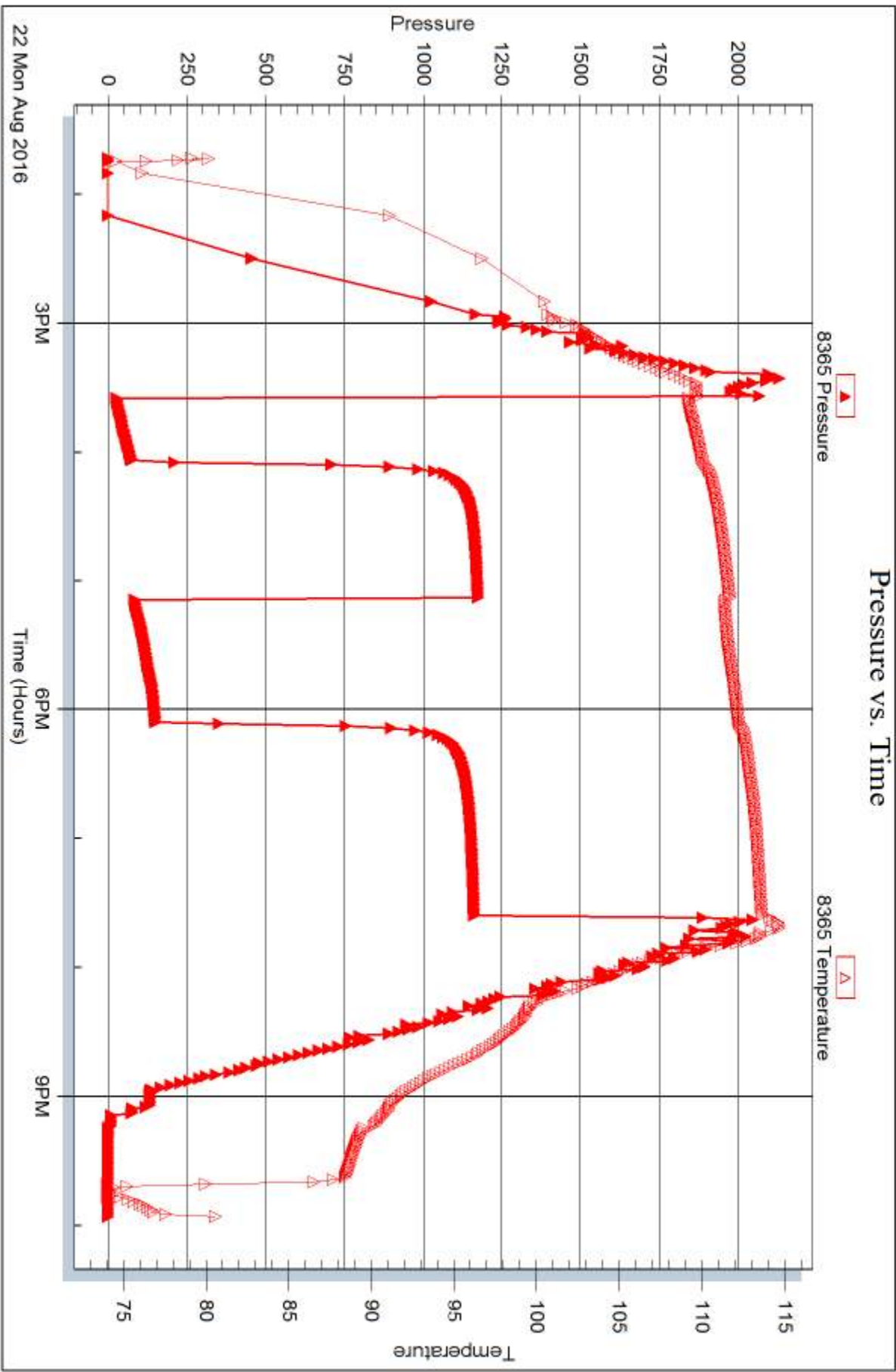
Serial #: 8365

Inside

Cobalt Energy

Binns A #1-32

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 65546

Printed: 2016.08.29 @ 09:31:16



## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy**

115 S Belmont #12  
Wichita, KS 67208

ATTN: Corey Baker

**Binns A #1-32**

**32 15s 33w Logan,KS**

Start Date: 2016.08.23 @ 11:20:00

End Date: 2016.08.23 @ 19:07:45

Job Ticket #: 65547                      DST #: 4

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

Printed: 2016.08.29 @ 09:30:49



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy

**32 15s 33w Logan, KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65547

**DST#: 4**

ATTN: Corey Baker

Test Start: 2016.08.23 @ 11:20:00

## GENERAL INFORMATION:

Formation: **LKC J - L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:42:00

Time Test Ended: 19:07:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4230.00 ft (KB) To 4320.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 4320.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 515.05 psig @ 4231.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.08.23

End Date:

2016.08.23

Last Calib.:

2016.08.23

Start Time: 11:20:05

End Time:

19:07:44

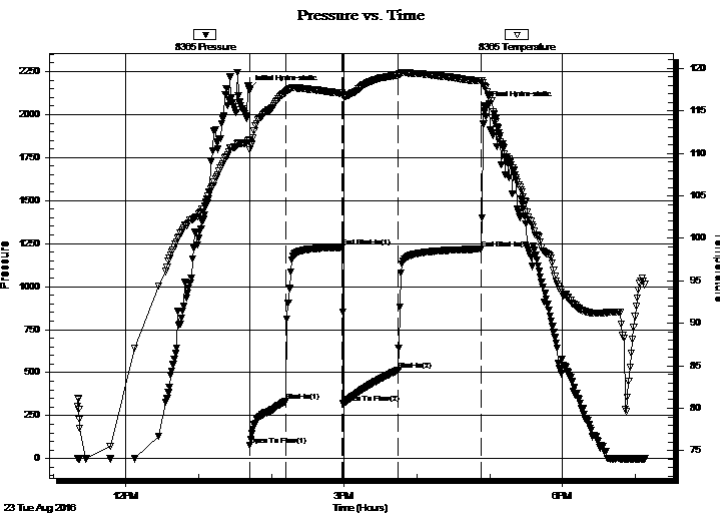
Time On Btm:

2016.08.23 @ 13:41:30

Time Off Btm:

2016.08.23 @ 16:55:15

**TEST COMMENT:** IF: BOB @ 7 min.  
IS: No return  
FF: BOB @ 10 min.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2147.81	111.55	Initial Hydro-static
1	77.15	110.47	Open To Flow (1)
31	334.92	117.23	Shut-In(1)
77	1228.55	117.08	End Shut-In(1)
78	320.60	116.75	Open To Flow (2)
123	515.05	119.20	Shut-In(2)
192	1218.70	118.53	End Shut-In(2)
194	2050.26	117.96	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
1100.00	mcw 5m 95w	12.94
0.00	oil specs on top and in tool	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

**32 15s 33w Logan, KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65547

**DST#: 4**

ATTN: Corey Baker

Test Start: 2016.08.23 @ 11:20:00

## GENERAL INFORMATION:

Formation: **LKC J - L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:42:00

Time Test Ended: 19:07:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4230.00 ft (KB) To 4320.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 4320.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8845**

**Outside**

Press@RunDepth: psig @ 4231.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.08.23

End Date: 2016.08.23

Last Calib.: 2016.08.23

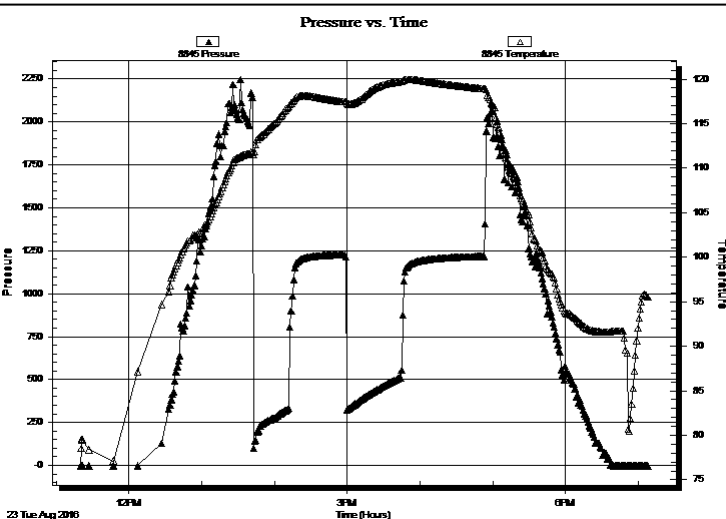
Start Time: 11:20:05

End Time: 19:07:44

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: BOB @ 7 min.  
IS: No return  
FF: BOB @ 10 min.  
FS: No return.



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
1100.00	mcw 5m 95w	12.94
0.00	oil specs on top and in tool	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

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65547

**DST#: 4**

ATTN: Corey Baker

Test Start: 2016.08.23 @ 11:20:00

## Tool Information

Drill Pipe:	Length: 3963.00 ft	Diameter: 3.80 inches	Volume: 55.59 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 273.00 ft	Diameter: 2.25 inches	Volume: 1.34 bbl	Weight to Pull Loose:	78000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	67000.00 lb
Depth to Top Packer:	4230.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	90.00 ft				
Tool Length:	117.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4204.00	
Shut In Tool	5.00			4209.00	
Hydraulic tool	5.00			4214.00	
Jars	5.00			4219.00	
Safety Joint	2.00			4221.00	
Packer	5.00			4226.00	27.00 Bottom Of Top Packer
Packer	4.00			4230.00	
Stubb	1.00			4231.00	
Recorder	0.00	8365	Inside	4231.00	
Recorder	0.00	8845	Outside	4231.00	
Perforations	22.00			4253.00	
Change Over Sub	0.50			4253.50	
Drill Pipe	63.00			4316.50	
Change Over Sub	0.50			4317.00	
Bullnose	3.00			4320.00	90.00 Bottom Packers & Anchor

**Total Tool Length: 117.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65547

**DST#: 4**

ATTN: Corey Baker

Test Start: 2016.08.23 @ 11:20:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

57000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1100.00	mcw 5m 95w	12.943
0.00	oil specs on top and in tool	0.000

Total Length: 1100.00 ft      Total Volume: 12.943 bbl

Num Fluid Samples: 0

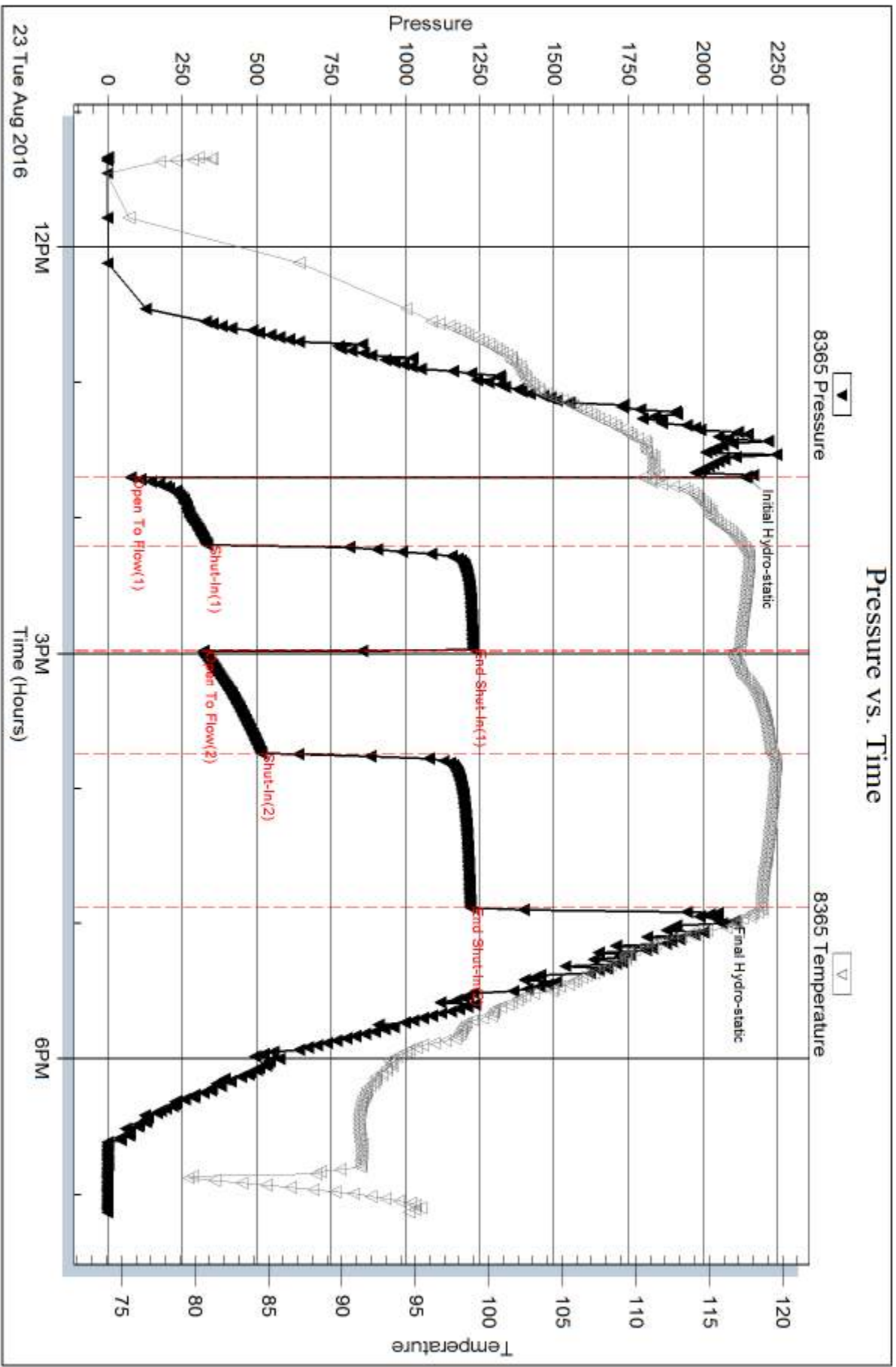
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .117 @ 81F = 57000

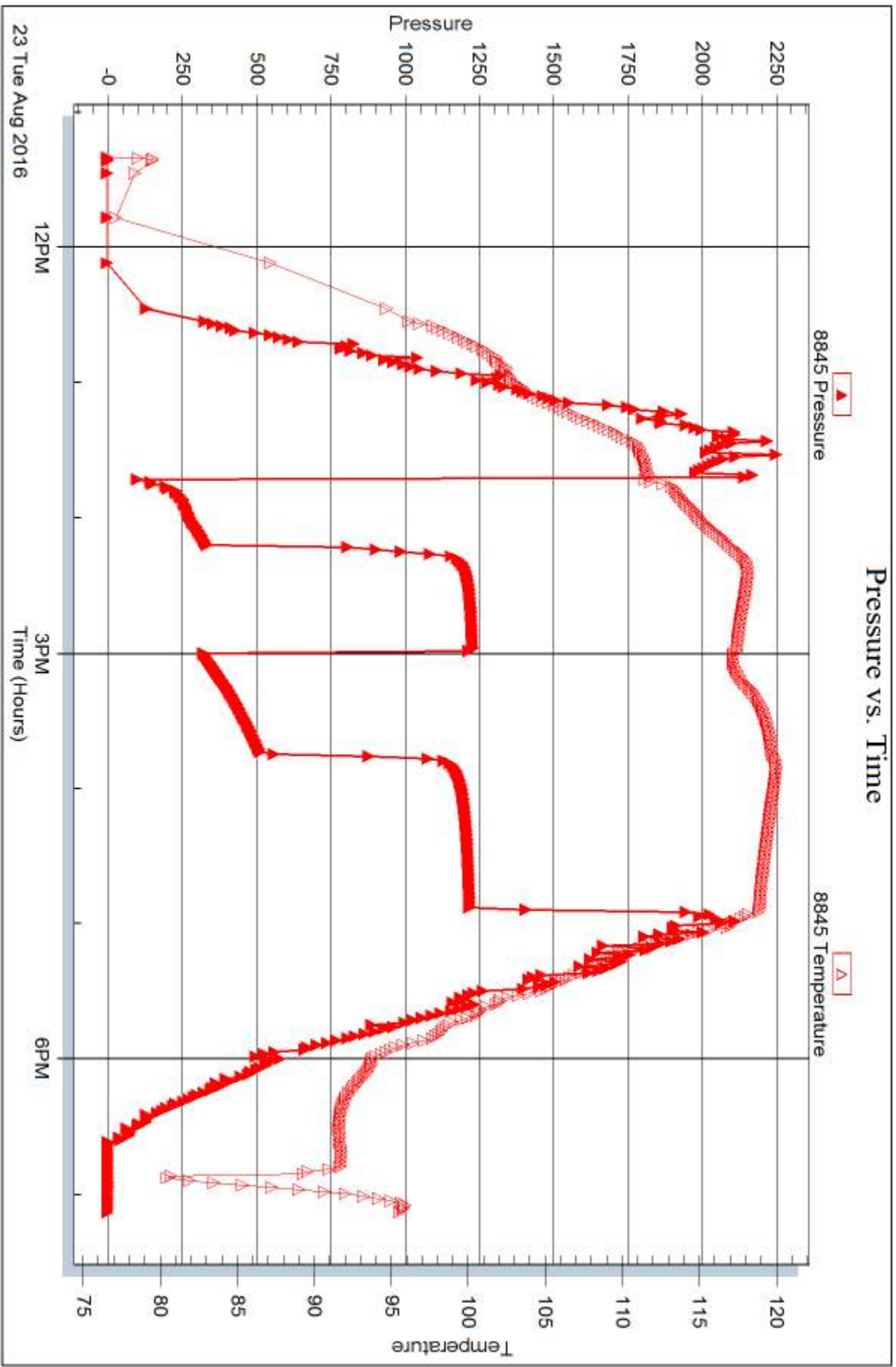


Serial #: 8845

Outside Cobalt Energy

Binns A #1-32

DST Test Number: 4





## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy**

115 S Belmont #12  
Wichita, KS 67208

ATTN: Corey Baker

### **Binns A #1-32**

### **32 15s 33w Logan,KS**

Start Date: 2016.08.24 @ 03:09:00

End Date: 2016.08.24 @ 11:51:15

Job Ticket #: 65549                      DST #: 5

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

Printed: 2016.08.29 @ 09:30:25



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy

**32 15s 33w Logan, KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65549

**DST#: 5**

ATTN: Corey Baker

Test Start: 2016.08.24 @ 03:09:00

## GENERAL INFORMATION:

Formation: **Pleasanton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:08:00

Time Test Ended: 11:51:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4224.00 ft (KB) To 4350.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 4350.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365 Inside**

Press@RunDepth: 293.40 psig @ 4325.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.08.24

End Date:

2016.08.24

Last Calib.:

2016.08.24

Start Time: 03:09:05

End Time:

11:51:15

Time On Btm:

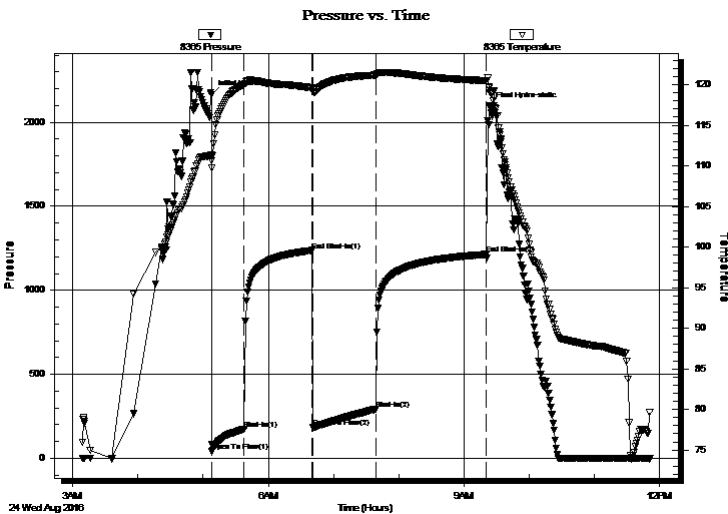
2016.08.24 @ 05:07:30

Time Off Btm:

2016.08.24 @ 09:23:00

**TEST COMMENT:** IF: BOB @ 12 min.  
IS: 1/4" return died @ 40 minutes.  
FF: BOB @ 30 min.  
FSI 1/2" return, receded to a surface blow.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2165.76	111.31	Initial Hydro-static
1	40.98	110.64	Open To Flow (1)
31	173.55	119.97	Shut-In(1)
93	1236.65	119.62	End Shut-In(1)
94	181.80	119.20	Open To Flow (2)
152	293.40	121.16	Shut-In(2)
253	1213.47	120.47	End Shut-In(2)
256	2095.97	119.57	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
500.00	somcw 1o 15m 84w	4.53
150.00	go 25g 75o	2.10
0.00	369' GIP	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

**32 15s 33w Logan, KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65549

**DST#: 5**

ATTN: Corey Baker

Test Start: 2016.08.24 @ 03:09:00

### GENERAL INFORMATION:

Formation: **Pleasanton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:08:00

Time Test Ended: 11:51:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

Interval: **4224.00 ft (KB) To 4350.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 4350.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8845** Outside

Press@RunDepth: psig @ 4325.00 ft (KB)

Start Date: 2016.08.24

End Date: 2016.08.24

Start Time: 03:09:05

End Time: 11:51:15

Capacity: 8000.00 psig

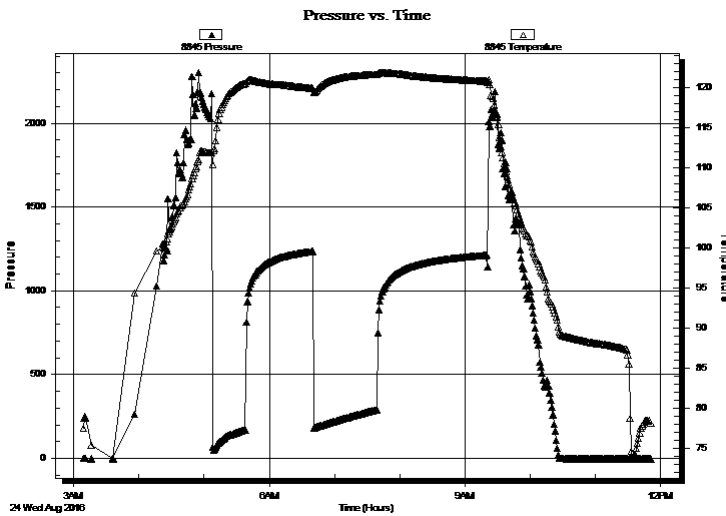
Last Calib.: 2016.08.24

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: BOB @ 12 min.  
IS: 1/4" return died @ 40 minutes.  
FF: BOB @ 30 min.  
FSI 1/2" return, receded to a surface blow.

### PRESSURE SUMMARY



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

### Recovery

Length (ft)	Description	Volume (bbl)
500.00	somcw 1o 15m 84w	4.53
150.00	go 25g 75o	2.10
0.00	369' GIP	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

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65549

**DST#: 5**

ATTN: Corey Baker

Test Start: 2016.08.24 @ 03:09:00

## Tool Information

Drill Pipe:	Length: 4055.00 ft	Diameter: 3.80 inches	Volume: 56.88 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 273.00 ft	Diameter: 2.25 inches	Volume: 1.34 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume:</u> - bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	65000.00 lb
Depth to Top Packer:	4324.00 ft			Final	65000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	26.00 ft				
Tool Length:	53.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4298.00	
Shut In Tool	5.00			4303.00	
Hydraulic tool	5.00			4308.00	
Jars	5.00			4313.00	
Safety Joint	2.00			4315.00	
Packer	5.00			4320.00	27.00 Bottom Of Top Packer
Packer	4.00			4324.00	
Stubb	1.00			4325.00	
Recorder	0.00	8365	Inside	4325.00	
Recorder	0.00	8845	Outside	4325.00	
Perforations	22.00			4347.00	
Bullnose	3.00			4350.00	26.00 Bottom Packers & Anchor

**Total Tool Length: 53.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65549

**DST#: 5**

ATTN: Corey Baker

Test Start: 2016.08.24 @ 03:09:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

23 deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

41000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
500.00	somcw 1o 15m 84w	4.527
150.00	go 25g 75o	2.104
0.00	369' GIP	0.000

Total Length: 650.00 ft      Total Volume: 6.631 bbl

Num Fluid Samples: 0

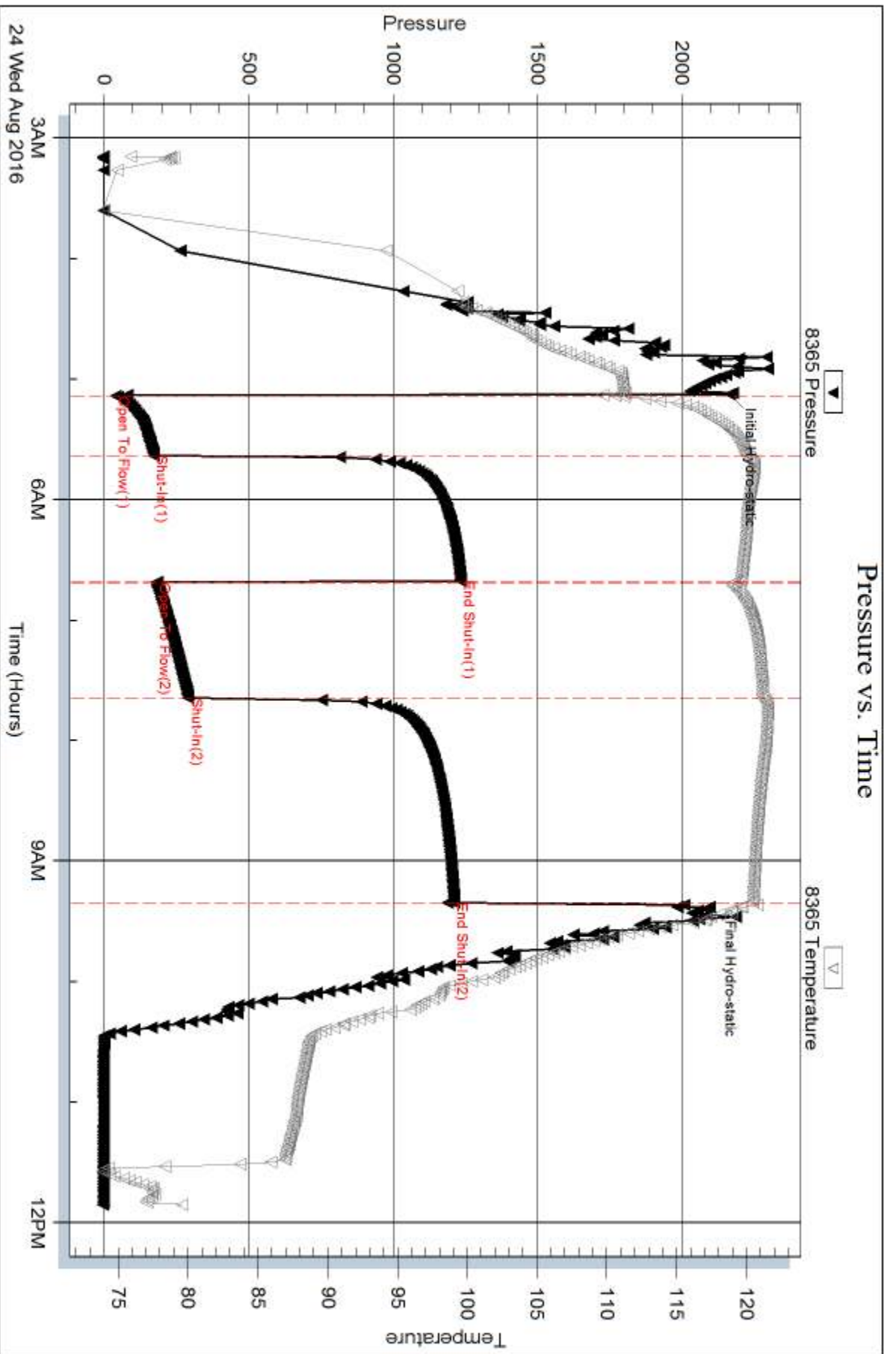
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW IS .170 @ 72f = 41000PPM

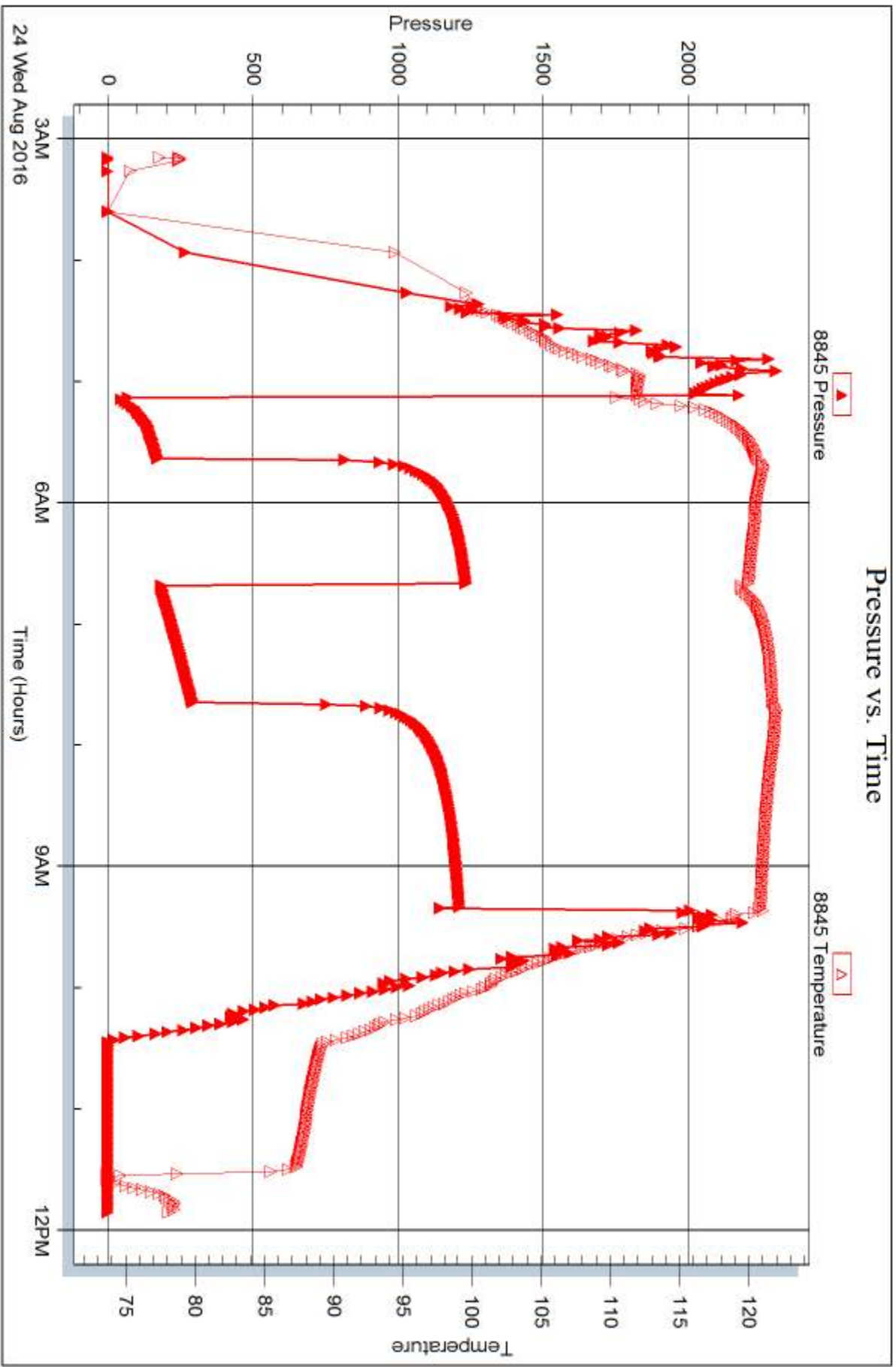


Serial #: 8845

Outside Cobalt Energy

Binns A #1-32

DST Test Number: 5





## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy**

115 S Belmont #12  
Wichita, KS 67208

ATTN: Corey Baker

**Binns A #1-32**

**32 15s 33w Logan,KS**

Start Date: 2016.08.24 @ 21:44:00

End Date: 2016.08.25 @ 06:30:15

Job Ticket #: 65550                      DST #: 6

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

Printed: 2016.08.29 @ 09:29:57



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Cobalt Energy

**32 15s 33w Logan, KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65550

**DST#: 6**

ATTN: Corey Baker

Test Start: 2016.08.24 @ 21:44:00

## GENERAL INFORMATION:

Formation: **Marmaton - Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:10:15

Time Test Ended: 06:30:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4370.00 ft (KB) To 4410.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 4410.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 118.38 psig @ 4371.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.08.24

End Date:

2016.08.25

Last Calib.:

2016.08.25

Start Time: 21:44:05

End Time:

06:30:15

Time On Btm:

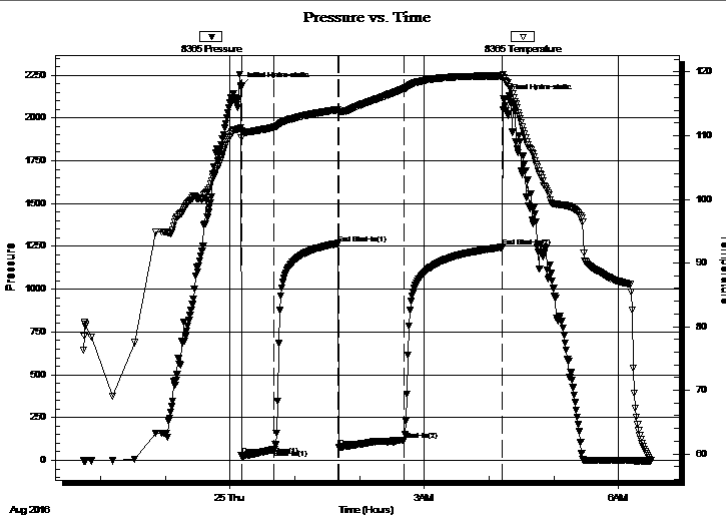
2016.08.25 @ 00:10:00

Time Off Btm:

2016.08.25 @ 04:13:30

TEST COMMENT: IF: 6" blow.  
IS: No return.  
FF: 5" blow.  
FS: Surface return.

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2180.94	111.32	Initial Hydro-static
1	27.17	109.72	Open To Flow (1)
31	63.17	111.33	Shut-In(1)
90	1266.81	114.09	End Shut-In(1)
91	75.55	113.79	Open To Flow (2)
151	118.38	117.33	Shut-In(2)
242	1244.49	119.38	End Shut-In(2)
244	2110.68	119.10	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
60.00	gmco 20g 30m 50o	0.30
240.00	go 25g 75o	1.43
0.00	130' GIP	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

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65550

**DST#: 6**

ATTN: Corey Baker

Test Start: 2016.08.24 @ 21:44:00

## Tool Information

Drill Pipe:	Length: 4088.00 ft	Diameter: 3.80 inches	Volume: 57.34 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 273.00 ft	Diameter: 2.25 inches	Volume: 1.34 bbl	Weight to Pull Loose:	75000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial	65000.00 lb
Depth to Top Packer:	4370.00 ft			Final	75000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	40.00 ft				
Tool Length:	67.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4344.00	
Shut In Tool	5.00			4349.00	
Hydraulic tool	5.00			4354.00	
Jars	5.00			4359.00	
Safety Joint	2.00			4361.00	
Packer	5.00			4366.00	27.00 Bottom Of Top Packer
Packer	4.00			4370.00	
Stubb	1.00			4371.00	
Recorder	0.00	8365	Inside	4371.00	
Recorder	0.00	8845	Outside	4371.00	
Perforations	3.00			4374.00	
Change Over Sub	0.50			4374.50	
Drill Pipe	32.00			4406.50	
Change Over Sub	0.50			4407.00	
Bullnose	3.00			4410.00	40.00 Bottom Packers & Anchor

**Total Tool Length: 67.00**





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65550

**DST#: 6**

ATTN: Corey Baker

Test Start: 2016.08.24 @ 21:44:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

24 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	gmco 20g 30m 50o	0.295
240.00	go 25g 75o	1.426
0.00	130' GIP	0.000

Total Length: 300.00 ft      Total Volume: 1.721 bbl

Num Fluid Samples: 0

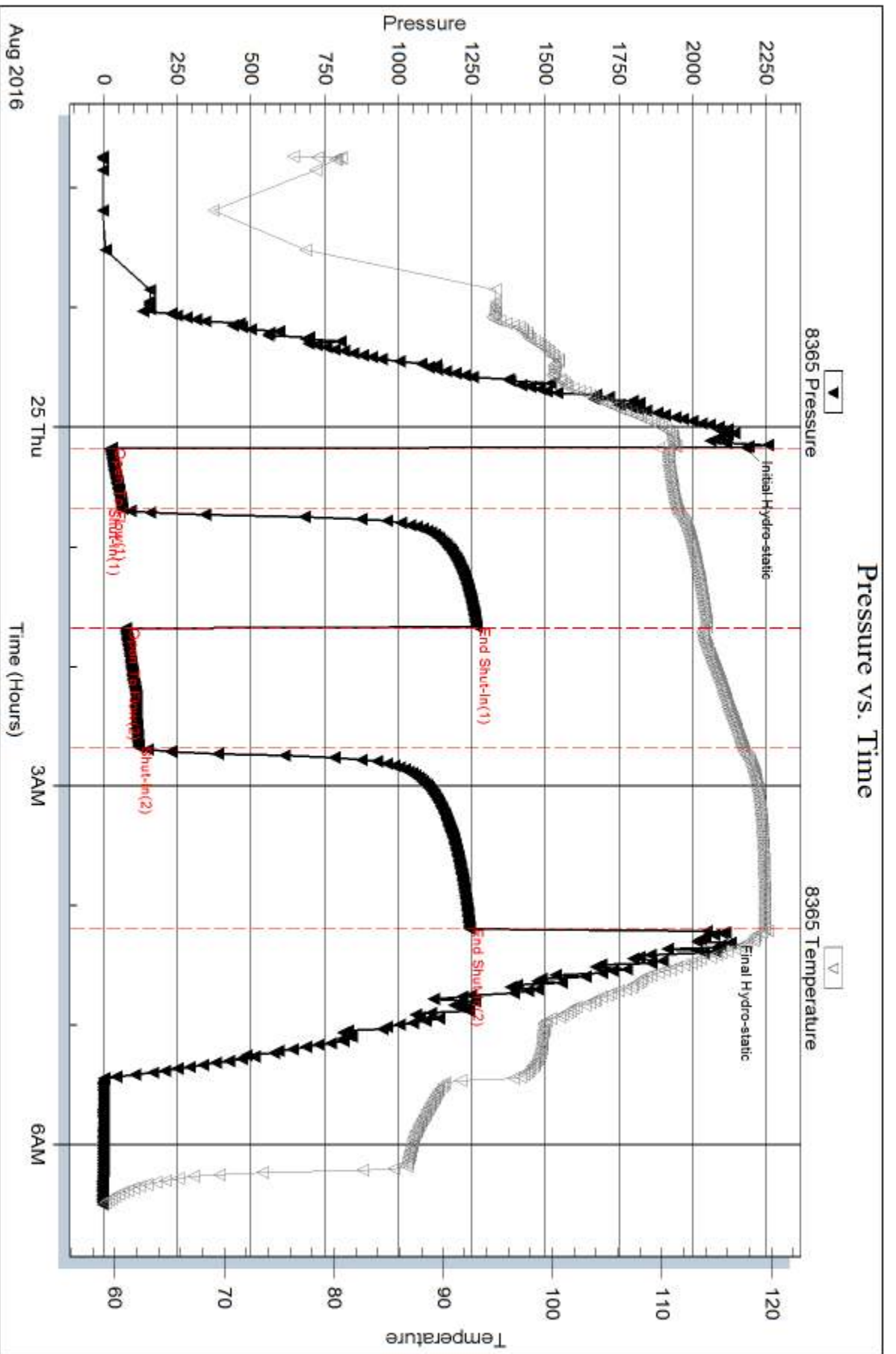
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

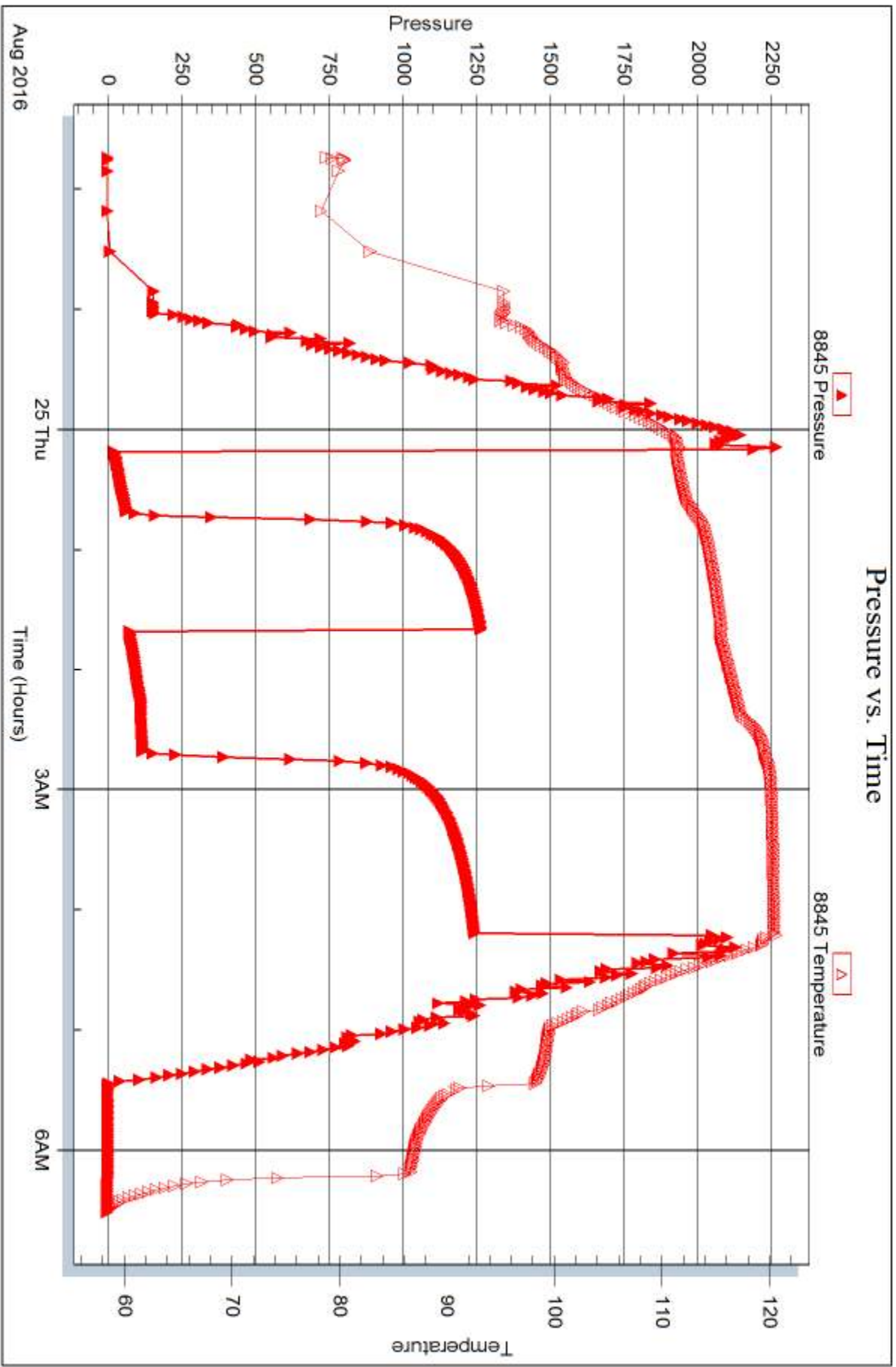


Serial #: 8845

Outside Cobalt Energy

Binns A #1-32

DST Test Number: 6



Trilobite Testing, Inc

Ref. No: 65550

Printed: 2016.08.29 @ 09:30:00



## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy**

115 S Belmont #12  
Wichita, KS 67208

ATTN: Corey Baker

### **Binns A #1-32**

### **32 15s 33w Logan,KS**

Start Date: 2016.08.25 @ 16:28:00

End Date: 2016.08.25 @ 22:31:45

Job Ticket #: 65551                      DST #: 7

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

Printed: 2016.08.29 @ 09:29:33



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Cobalt Energy

**32 15s 33w Logan, KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65551

**DST#: 7**

ATTN: Corey Baker

Test Start: 2016.08.25 @ 16:28:00

## GENERAL INFORMATION:

Formation: **Altamont B-C**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:30:00

Time Test Ended: 22:31:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4412.00 ft (KB) To 4460.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 4460.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 18.91 psig @ 4413.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.08.25

End Date:

2016.08.25

Last Calib.:

2016.08.25

Start Time: 16:28:05

End Time:

22:31:44

Time On Btm:

2016.08.25 @ 18:29:00

Time Off Btm:

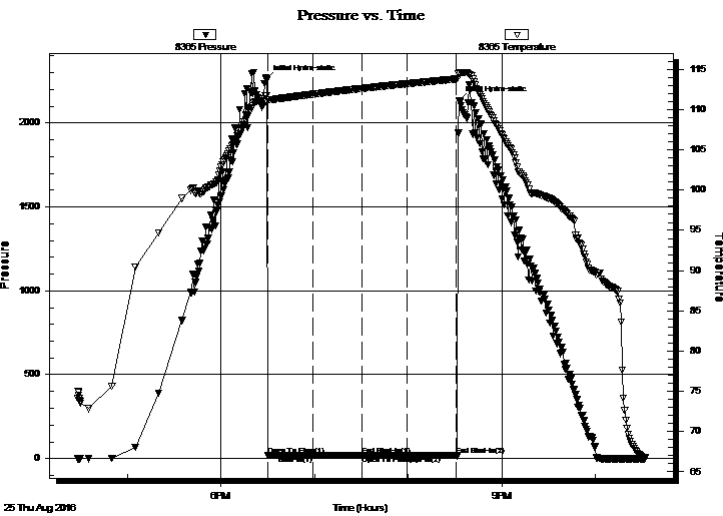
2016.08.25 @ 20:32:45

TEST COMMENT: IF: Surface blow, Died @ 15 minutes.

IS: No return.

FF: No blow.

FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2261.54	111.73	Initial Hydro-static
1	19.16	111.20	Open To Flow (1)
30	19.69	111.92	Shut-In(1)
61	20.42	112.62	End Shut-In(1)
62	18.75	112.63	Open To Flow (2)
90	18.91	113.22	Shut-In(2)
122	19.17	113.80	End Shut-In(2)
124	2134.00	114.63	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud 100m (oil specs)	0.01

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65551

**DST#: 7**

ATTN: Corey Baker

Test Start: 2016.08.25 @ 16:28:00

## Tool Information

Drill Pipe:	Length: 4120.00 ft	Diameter: 3.80 inches	Volume: 57.79 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 273.00 ft	Diameter: 2.25 inches	Volume: 1.34 bbl	Weight to Pull Loose:	79000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial	68000.00 lb
Depth to Top Packer:	4412.00 ft			Final	68000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	48.00 ft				
Tool Length:	75.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4386.00	
Shut In Tool	5.00			4391.00	
Hydraulic tool	5.00			4396.00	
Jars	5.00			4401.00	
Safety Joint	2.00			4403.00	
Packer	5.00			4408.00	27.00 Bottom Of Top Packer
Packer	4.00			4412.00	
Stubb	1.00			4413.00	
Recorder	0.00	8365	Inside	4413.00	
Recorder	0.00	8845	Outside	4413.00	
Perforations	11.00			4424.00	
Change Over Sub	0.50			4424.50	
Drill Pipe	32.00			4456.50	
Change Over Sub	0.50			4457.00	
Bullnose	3.00			4460.00	48.00 Bottom Packers & Anchor

**Total Tool Length: 75.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65551

**DST#: 7**

ATTN: Corey Baker

Test Start: 2016.08.25 @ 16:28:00

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud 100m (oil specs)	0.015

Total Length: 3.00 ft      Total Volume: 0.015 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

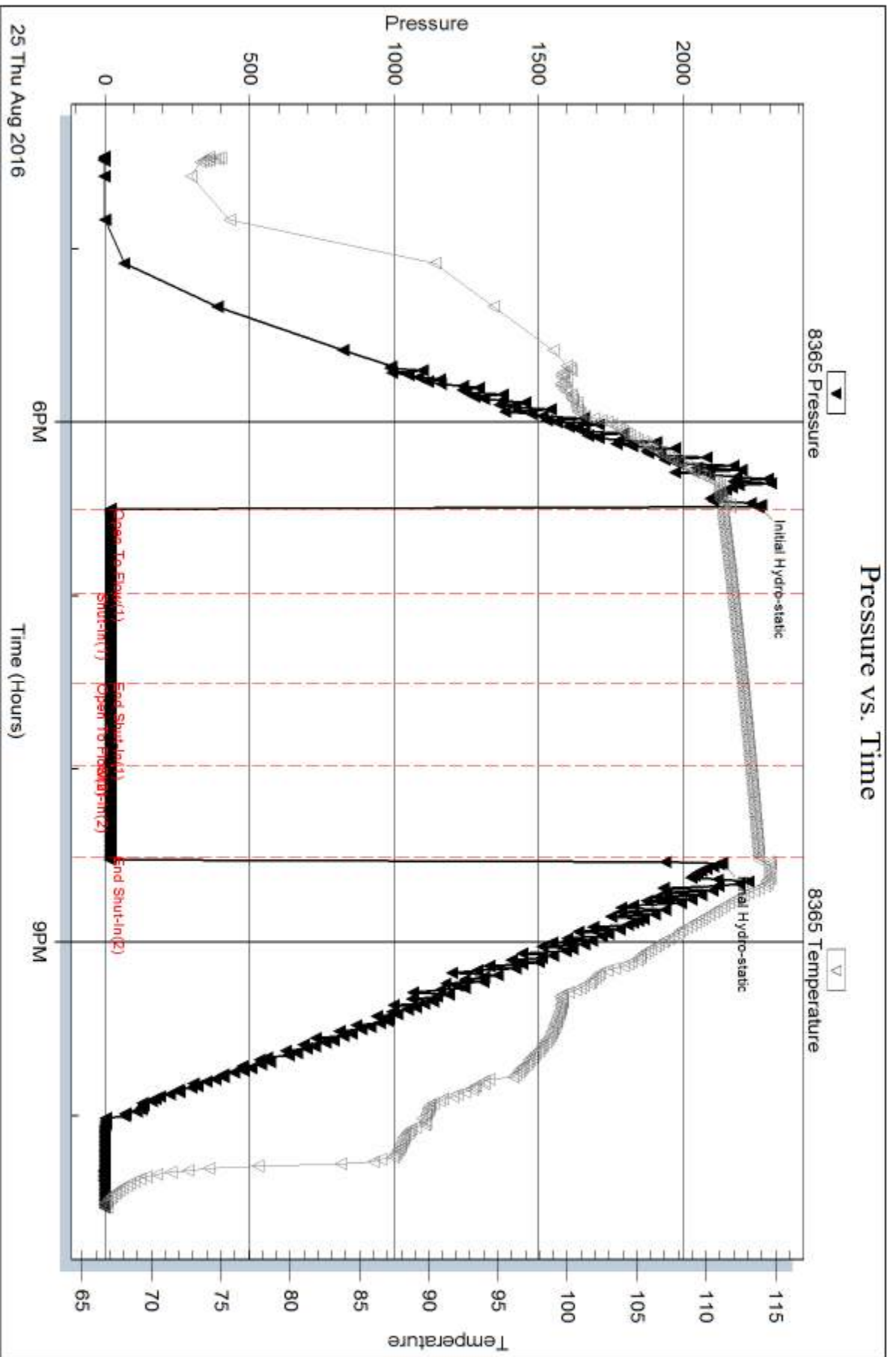
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



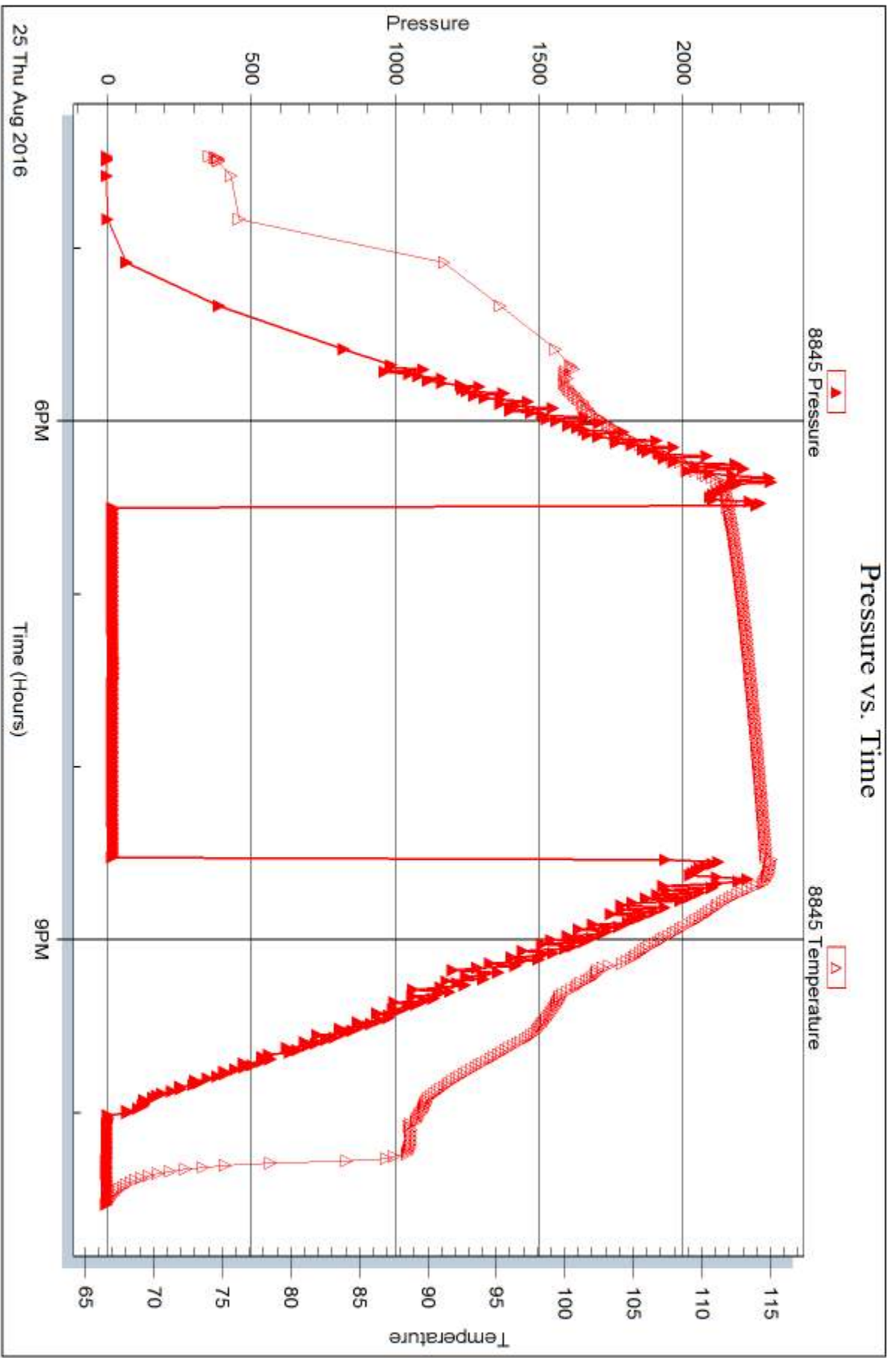


Serial #: 8845

Outside Cobalt Energy

Binns A #1-32

DST Test Number: 7



Trilobite Testing, Inc

Ref. No: 65551

Printed: 2016.08.29 @ 09:29:35



## DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy**

115 S Belmont #12  
Wichita, KS 67208

ATTN: Corey Baker

**Binns A #1-32**

**32 15s 33w Logan,KS**

Start Date: 2016.08.26 @ 17:30:00

End Date: 2016.08.27 @ 00:43:15

Job Ticket #: 65552                      DST #: 8

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

Printed: 2016.08.29 @ 09:24:36

Cobalt Energy

32 15s 33w Logan,KS

Binns A #1-32

DST # 8

Cherokee Lime - John

2016.08.26



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Cobalt Energy

**32 15s 33w Logan, KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65552

**DST#: 8**

ATTN: Corey Baker

Test Start: 2016.08.26 @ 17:30:00

## GENERAL INFORMATION:

Formation: **Cherokee Lime - John**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:18:30

Time Test Ended: 00:43:15

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 69

**Interval: 4544.00 ft (KB) To 4655.00 ft (KB) (TVD)**

Reference Elevations: 3056.00 ft (KB)

Total Depth: 4655.00 ft (KB) (TVD)

3045.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 11.00 ft

**Serial #: 8365**

**Inside**

Press@RunDepth: 43.22 psig @ 4545.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.08.26

End Date:

2016.08.27

Last Calib.:

2016.08.27

Start Time: 17:30:05

End Time:

00:43:14

Time On Btm:

2016.08.26 @ 20:18:15

Time Off Btm:

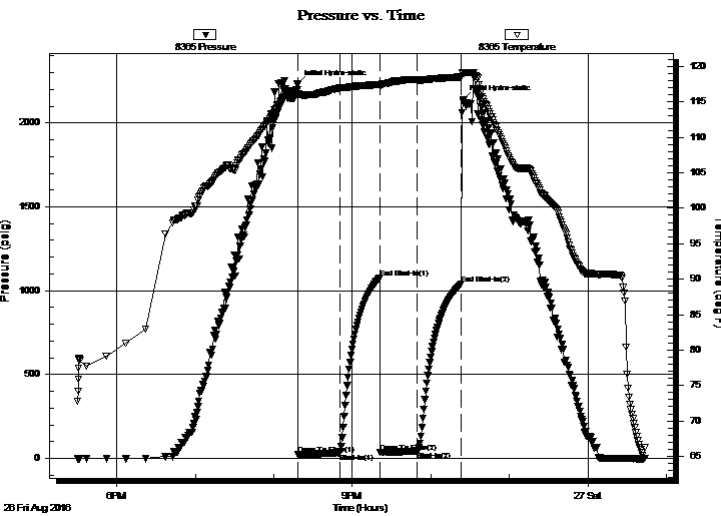
2016.08.26 @ 22:24:45

TEST COMMENT: IF: Surface blow, Died @ 15 min.

IS: No return.

FF: No blow.

FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2231.28	116.74	Initial Hydro-static
1	26.19	115.90	Open To Flow (1)
32	32.72	116.98	Shut-In(1)
63	1077.16	117.45	End Shut-In(1)
63	36.78	117.26	Open To Flow (2)
92	43.22	118.08	Shut-In(2)
125	1041.49	118.51	End Shut-In(2)
127	2138.87	119.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud 100m oil spots	0.10

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65552

**DST#: 8**

ATTN: Corey Baker

Test Start: 2016.08.26 @ 17:30:00

## Tool Information

Drill Pipe:	Length: 4276.00 ft	Diameter: 3.80 inches	Volume: 59.98 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 273.00 ft	Diameter: 2.25 inches	Volume: 1.34 bbl	Weight to Pull Loose:	80000.00 lb
			<u>Total Volume: 61.32 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	4544.00 ft			Final	70000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	111.00 ft				
Tool Length:	138.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4518.00	
Shut In Tool	5.00			4523.00	
Hydraulic tool	5.00			4528.00	
Jars	5.00			4533.00	
Safety Joint	2.00			4535.00	
Packer	5.00			4540.00	27.00 Bottom Of Top Packer
Packer	4.00			4544.00	
Stubb	1.00			4545.00	
Recorder	0.00	8365	Inside	4545.00	
Recorder	0.00	8845	Outside	4545.00	
Perforations	11.00			4556.00	
Change Over Sub	0.50			4556.50	
Drill Pipe	95.00			4651.50	
Change Over Sub	0.50			4652.00	
Bullnose	3.00			4655.00	111.00 Bottom Packers & Anchor

**Total Tool Length: 138.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Cobalt Energy

**32 15s 33w Logan,KS**

115 S Belmont #12  
Wichita, KS 67208

**Binns A #1-32**

Job Ticket: 65552

**DST#: 8**

ATTN: Corey Baker

Test Start: 2016.08.26 @ 17:30:00

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5300.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud 100m oil spots	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

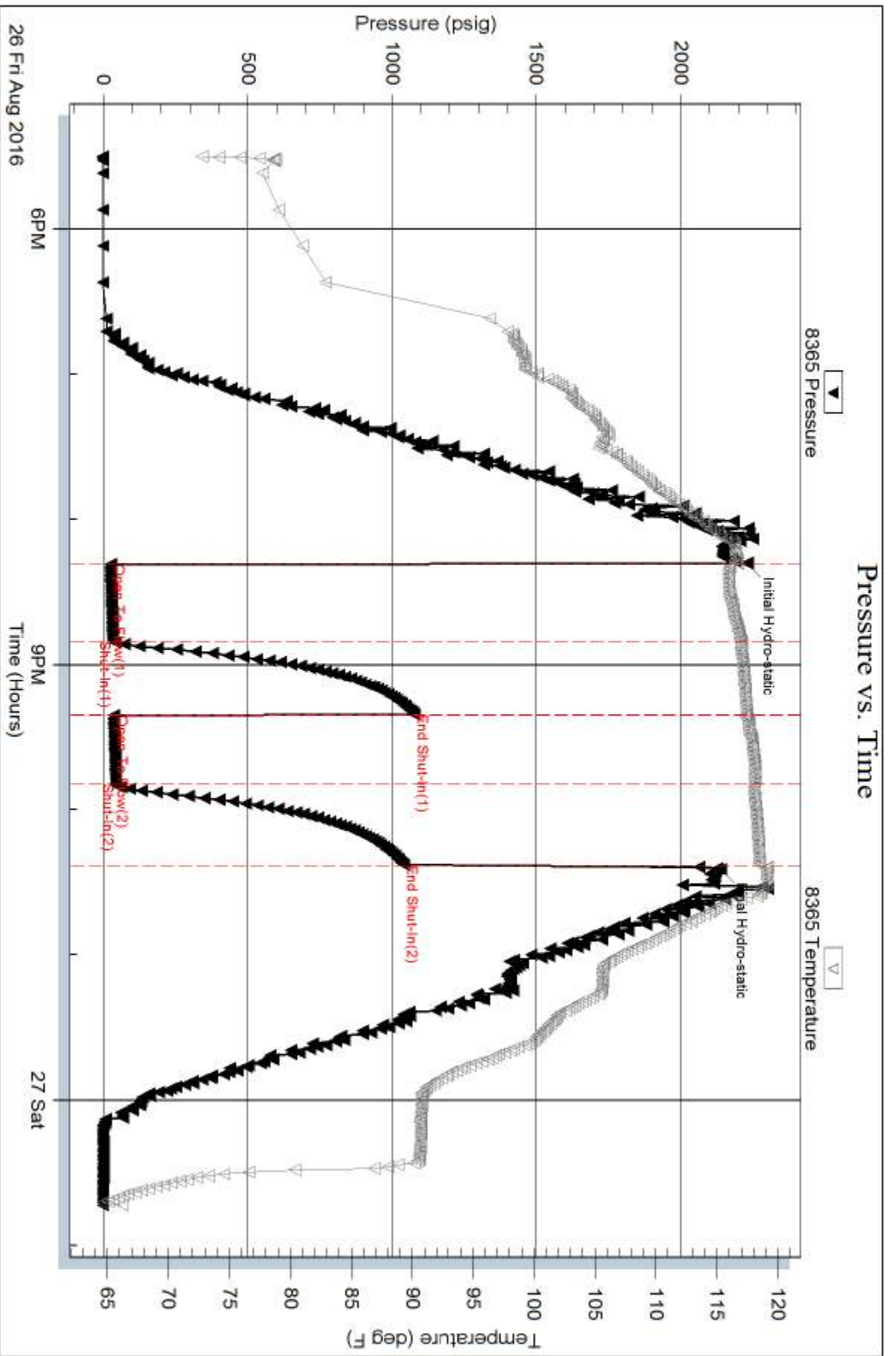
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



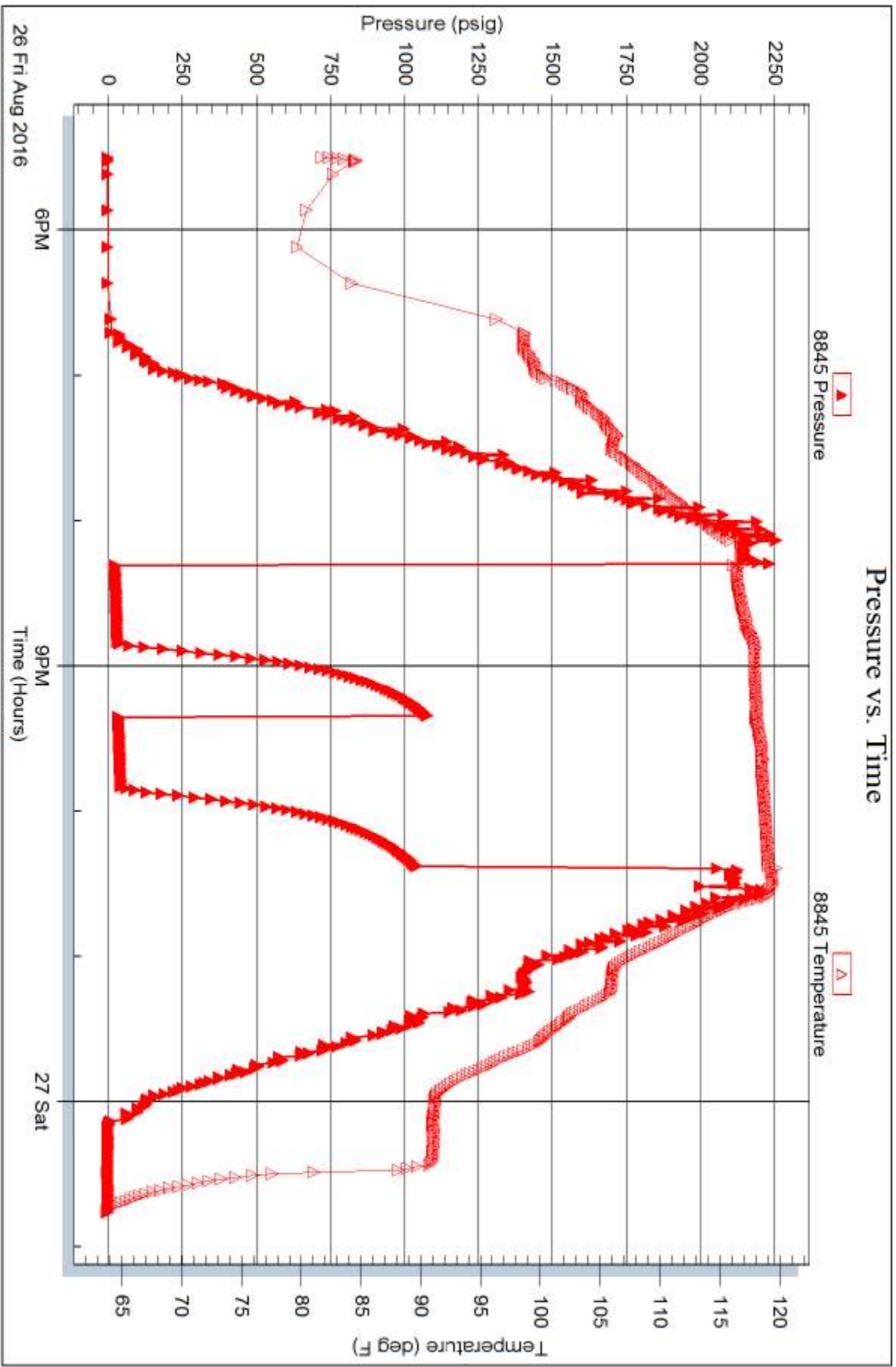


Serial #: 8845

Outside Cobalt Energy

Binns A #1-32

DST Test Number: 8



Trilobite Testing, Inc

Ref. No: 65552

Printed: 2016.08.29 @ 09:24:38



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65545**

Well Name & No. Bunn A 1-32 Test No. 1 Date 8/21/2016  
 Company Cobalt Energy Elevation 3056 KB 3045 GL  
 Address 115 S Belmont # 12 Wichita, KS 67208  
 Co. Rep / Geo. Corey Baker Rig Muffin 21  
 Location: Sec. 32 Twp. 15S Rge. 33W Co. Logan State KS

Interval Tested 3878-3980 Zone Tested Lwo Topoka - Toronto  
 Anchor Length 102 Drill Pipe Run 3585 Mud Wt. 9.2  
 Top Packer Depth 3873 Drill Collars Run 273 Vis 50  
 Bottom Packer Depth 3878 Wt. Pipe Run Ø WL 7.2  
 Total Depth 3980 Chlorides 2500 ppm System LCM 2<sup>#</sup>  
 Blow Description IF BOB @ 7min.  
ISI No return.  
FF BOB @ 10min.  
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1070</u>	<u>MCW (OIL SPOTS)</u>			<u>90</u>	<u>10</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 1070 BHT 114 Gravity — API RW 159 @ 69 °F Chlorides 39000 ppm

(A) Initial Hydrostatic <u>1070 1904</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>1730</u>
(B) First Initial Flow <u>35</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1829</u>
(C) First Final Flow <u>289</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2047</u>
(D) Initial Shut-In <u>1124</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>0047</u>
(E) Second Initial Flow <u>289</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0314</u>
(F) Second Final Flow <u>553</u>	<input checked="" type="checkbox"/> Mileage <u>45 RT 33.75</u>	Comments
(G) Final Shut-In <u>1123</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1866</u>	<input type="checkbox"/> Straddle	
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1408.75</u>
	Sub Total <u>1408.75</u>	MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65546**

Well Name & No. Binns A 1-32 Test No. 2 Date 8/21/2016  
 Company Cobalt Energy Elevation 3056 KB 3045 GL  
 Address us s Belmont #12 Wichita, KS 67208  
 Co. Rep / Geo. Corey Baker Rig Muckin 21  
 Location: Sec. 32 Twp. 15s Rge. 33w Co. Logan State ks

Interval Tested 4016 4100 Zone Tested LKC C-F  
 Anchor Length 84 Drill Pipe Run 3740 Mud Wt. 9.3  
 Top Packer Depth 4011 Drill Collars Run 273 Vis 58  
 Bottom Packer Depth 4016 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4100 Chlorides 4000 ppm System LCM 4#

Blow Description IF: BOB @ 21 min  
ISI: No return  
FF: BOB @ 21 min.  
FSI: No return.

Rec	Feet of	Oil Spots In Tool	%gas	%oil	%water	%mud
<u>630</u>	<u>MCW</u>	<u>OIL spots in tool</u>		<u>85</u>	<u>15</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 630 BHT 115 Gravity ✓ API RW 133 @ 63 °F Chlorides 24,000 ppm

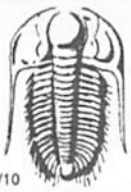
(A) Initial Hydrostatic 2011  Test 1150 T-On Location 1445  
 (B) First Initial Flow 25  Jars 250 T-Started 1500  
 (C) First Final Flow 186  Safety Joint 75 T-Open 1730  
 (D) Initial Shut-In 1138  Circ Sub N/C T-Pulled 2130  
 (E) Second Initial Flow 192  Hourly Standby \_\_\_\_\_ T-Out 2348  
 (F) Second Final Flow 329  Mileage 45 RT 33.75  
 (G) Final Shut-In 1132  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2006  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Initial Open 30  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 60  Ruined Packer \_\_\_\_\_  
 Final Flow 60  Extra Copies \_\_\_\_\_  
 Final Shut-In 90 Sub Total 0  
 Total 1408.75  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1408.75

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65547**

Well Name & No. Binns A 1-32 Test No. 3 Date 8/22/2016  
 Company Cobalt Energy Elevation 3056 KB 3045 GL  
 Address 115 S Belmont St #12 Wichita, Ks 67208  
 Co. Rep / Geo. Corey Baker Rig Martin 21  
 Location: Sec. 32 Twp. 15S Rge. 33W Co. Logan State Ks

Interval Tested 4144 - 4220 Zone Tested LKC H&I  
 Anchor Length 76 Drill Pipe Run 3866 Mud Wt. 9.3  
 Top Packer Depth 4139 Drill Collars Run 273 Vis 55  
 Bottom Packer Depth 4144 Wt. Pipe Run 0 WL 8.8  
 Total Depth 4220 Chlorides 4700 ppm System LCM 2#  
 Blow Description IF: 1 1/2" blow.  
ISI: No return  
FF: 1" blow  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>OIL</u>	<u>100</u>			
<u>110</u>	<u>OWCM</u>	<u>10</u>	<u>40</u>	<u>50</u>	
<u>120</u>	<u>SOMCW</u>	<u>1</u>	<u>80</u>	<u>19</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 250 BHT 114 Gravity 21 API RW 195@ 71 °F Chlorides 35,000 ppm

(A) Initial Hydrostatic <u>2066</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1300</u>
(B) First Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1343</u>
(C) First Final Flow <u>73</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1534</u>
(D) Initial Shut-In <u>1174</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1934</u>
(E) Second Initial Flow <u>81</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>2157</u>
(F) Second Final Flow <u>149</u>	<input checked="" type="checkbox"/> Mileage <u>45 AT</u> <u>33.75</u>	Comments
(G) Final Shut-In <u>1162</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2037</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>1408.75</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1408.75</u>	

Approved By \_\_\_\_\_ Our Representative

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65548**

Well Name & No. Binns A 1-32 Test No. 4 Date 8/23/2016  
 Company Cobalt Energy Elevation 3056 KB 3045 GL  
 Address 115 Belmont #12 Wichita, KS 67208  
 Co. Rep / Geo. Corey Baker Rig Mudwin 21  
 Location: Sec. 32 Twp. 15s Rge. 33w Co. Logan State Ks

Interval Tested 4230 4320 Zone Tested LKC J-L  
 Anchor Length 90 Drill Pipe Run 3963 Mud Wt. 9.3  
 Top Packer Depth 4225 Drill Collars Run 275 Vis 56  
 Bottom Packer Depth 4230 Wt. Pipe Run Ø WL 9.6  
 Total Depth 4320 Chlorides 5,000 ppm System LCM 1#

Blow Description IF : BOB @ 7 min  
ISI : No return  
PF : BOB @ 10 min  
PSI : No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>1100</u>	<u>MCAW</u>		<u>95</u>	<u>5</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of <u>Oil spots in Tool</u>	%gas	%oil	%water	%mud
Rec	Feet of <u>and on top</u>	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1100 BHT 117 Gravity — API RW 117 @ 81 °F Chlorides 57000 ppm

(A) Initial Hydrostatic <u>2148</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1100</u>
(B) First Initial Flow <u>77</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1344 1120</u>
(C) First Final Flow <u>335</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1344</u>
(D) Initial Shut-In <u>1229</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1644</u>
(E) Second Initial Flow <u>321</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1908</u>
(F) Second Final Flow <u>515</u>	<input checked="" type="checkbox"/> Mileage <u>45 RT</u> <u>33.75</u>	Comments
(G) Final Shut-In <u>1219</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2050</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>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>66</u>	<input type="checkbox"/> Day Standby	Total <u>1408.75</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1408.75</u>	

Approved By \_\_\_\_\_ Our Representative

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65549**

Well Name & No. Binns A 1-32 Test No. 5 Date 8/24/2016  
 Company Cobalt Energy Elevation 3056 KB 3045 GL  
 Address 115 Belmont #12 Wichita, KS 67208  
 Co. Rep / Geo. Corey Baker Rig Modern 21  
 Location: Sec. 32 Twp. 15S Rge. 33W Co. Logan State KS

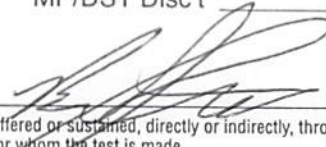
Interval Tested 4324 - 4350 Zone Tested Pleaseaton  
 Anchor Length 26' Drill Pipe Run 4055 Mud Wt. 9.3  
 Top Packer Depth 4319 Drill Collars Run 273 Vis 56  
 Bottom Packer Depth 4324 Wt. Pipe Run Ø WL 8.8  
 Total Depth 4350 Chlorides 5500 ppm System LCM 2#

Blow Description TF: BOB @ 12 min  
ISI: ¼ return died @ 40 min.  
FF: BOB @ 30 min.  
FSJ: ½ return, receded to a surface blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>60</u>	<u>25</u>	<u>75</u>		
<u>300</u>	<u>50 mcw</u>		<u>1</u>	<u>84</u>	<u>15</u>
	<u>360' GIP</u>				

Rec Total 650 BHT 117 Gravity 23 API RW 170 @ 71 °F Chlorides 41,000 ppm

(A) Initial Hydrostatic <u>2166</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0230</u>
(B) First Initial Flow <u>41</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>309</u>
(C) First Final Flow <u>174</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0508</u>
(D) Initial Shut-In <u>1237</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>0908</u>
(E) Second Initial Flow <u>182</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1151</u>
(F) Second Final Flow <u>293</u>	<input checked="" type="checkbox"/> Mileage <u>46 RT</u> <u>33.75</u>	Comments
(G) Final Shut-In <u>1213</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2096</u>	<input type="checkbox"/> Straddle	
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Recorder	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Day Standby	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility	Total <u>1408.75</u>
	Sub Total <u>1408.75</u>	MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative 

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65550**

Well Name & No. Binnas A 1-32 Test No. 6 Date 8/25/2016  
 Company Cobalt Energy Elevation 3056 KB 3045 GL  
 Address 115 Belmont #12 Wichita, Ks 67208  
 Co. Rep / Geo. Corey Baker Rig Martin 21  
 Location: Sec. 32 Twp. 15s Rge. 33w Co. Logan State Ks

Interval Tested 4370 - 4410 Zone Tested Martaton Altamont A  
 Anchor Length 40' Drill Pipe Run 4088 Mud Wt. 9.2  
 Top Packer Depth 4365 Drill Collars Run 273 Vis 56  
 Bottom Packer Depth 4370 Wt. Pipe Run Ø WL 8.8  
 Total Depth 4410 Chlorides 5500 ppm System LCM 2#  
 Blow Description IF: 6" blow  
IST: No return.  
FF: 5" blow  
FST: Surface return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>240</u>	<u>60</u>	<u>25</u>	<u>75</u>		
<u>60</u>	<u>6 MCD</u>	<u>20</u>	<u>50</u>		<u>30</u>
	<u>130' @ IP</u>				

Rec Total 300 BHT 117 Gravity 24 API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic —  Test 1150 T-On Location 2100  
 (B) First Initial Flow —  Jars 250 T-Started 2144  
 (C) First Final Flow —  Safety Joint 75 T-Open 0010  
 (D) Initial Shut-In —  Circ Sub N/C T-Pulled 0410  
 (E) Second Initial Flow —  Hourly Standby — T-Out 0631  
 (F) Second Final Flow —  Mileage 45 RT 33.75 Comments —  
 (G) Final Shut-In —  Sampler —  
 (H) Final Hydrostatic —  Straddle —  Ruined Shale Packer —  
 Shale Packer —  Ruined Packer —  
 Extra Packer —  Extra Copies —  
 Extra Recorder — Sub Total 0  
 Day Standby — Total 1408.75  
 Accessibility — MP/DST Disc't —  
 Sub Total 1408.75

Approved By \_\_\_\_\_ Our Representative [Signature]

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. **65551**

Well Name & No. Binas A 1-32 Test No. 7 Date 8/25/2016  
 Company Cobalt Energy Elevation 3056 KB 3045 GL  
 Address US Belmont #12 Wichita, KS 67208  
 Co. Rep / Geo. Corey Baker Rig Martin 21  
 Location: Sec. 32 Twp. 15s Rge. 33w Co. Logan State KS

Interval Tested 4412 - 4460 Zone Tested Altamont B&C  
 Anchor Length 48' Drill Pipe Run 4120 Mud Wt. 9.2  
 Top Packer Depth 4407 Drill Collars Run 273 Vis 60  
 Bottom Packer Depth 4412 Wt. Pipe Run 0 WL 7.6  
 Total Depth 4460 Chlorides 5,000 ppm System LCM 2#

Blow Description IF: Surface blow, died @ 15 min.  
ISI: No return.  
FF: No blow  
FSI: No return.

Rec	Feet of		%gas	%oil	%water	%mud
<u>3</u>	<u>MUD</u>	<u>OIL specks</u>			<u>100</u>	
Rec	Feet of		%gas	%oil	%water	%mud
Rec	Feet of		%gas	%oil	%water	%mud
Rec	Feet of		%gas	%oil	%water	%mud

Rec Total 3 BHT 114 Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic 2262  Test 1150 T-On Location 1530  
 (B) First Initial Flow 19  Jars 250 T-Started 1629  
 (C) First Final Flow 20  Safety Joint 75 T-Open 1838  
 (D) Initial Shut-In 20  Circ Sub N/C T-Pulled 2038  
 (E) Second Initial Flow 19  Hourly Standby \_\_\_\_\_ T-Out 2232  
 (F) Second Final Flow 19  Mileage 45 RT 33.75  
 (G) Final Shut-In 19  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 21 34  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Sub Total 1408.75

Comments \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1408.75  
 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative 

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. **65552**

Well Name & No. Bugs A 1-32 Test No. 8 Date 8/24/2016  
 Company Cobalt Energy Elevation 3056 KB 3045 GL  
 Address 115 Belmont #12 Wichita, KS 67208  
 Co. Rep / Geo. Corey Baker Rig Martin 21  
 Location: Sec. 32 Twp. 15S Rge. 33W Co. Logan State KS

Interval Tested 4544 - 4655 Zone Tested Cherokee Lime - Johnson  
 Anchor Length 111 Drill Pipe Run 4274 Mud Wt. 9.2  
 Top Packer Depth 4539 Drill Collars Run 273 Vis 54  
 Bottom Packer Depth 4544 Wt. Pipe Run 0 WL 8.0  
 Total Depth 4655 Chlorides 5300 ppm System LCM 2#

Blow Description IF: Surface blow no ret. died @ 15 min.  
ISI: No return.  
FF: No blow  
FBI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>mud</u>			<u>100</u>	
	<u>OIL SPOTS</u>				

Rec Total 20 BHT 119 Gravity — API RW — @ — F Chlorides — ppm

(A) Initial Hydrostatic <u>2231</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1830</u>
(B) First Initial Flow <u>24</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1730</u>
(C) First Final Flow <u>33</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2005</u>
(D) Initial Shut-In <u>1077</u>	<input checked="" type="checkbox"/> Circ Sub <u>1/2</u>	T-Pulled <u>2205</u>
(E) Second Initial Flow <u>37</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0043</u>
(F) Second Final Flow <u>43</u>	<input checked="" type="checkbox"/> Mileage <u>45RT</u> <u>33.75</u>	Comments
(G) Final Shut-In <u>1041</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2139</u>	<input type="checkbox"/> Straddle	
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>1408.75</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1408.75</u>	

Approved By \_\_\_\_\_ Our Representative 

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GEOLOGIST'S REPORT  
DRILL TIME &  
SAMPLE LOG

COMPANY: COBALT ENERGY, LLC  
LEASE: Binns 'A' #1-32  
FIELD: Windfall

LOCATION: 1067' FSL & 1032' FEL  
SEC: 32 TWP: 15S RGE: 33W  
COUNTY: Logan STATE: KS  
CONTRACTOR: Martin Drilling Co., Rig #21  
SPUD: 08/16/16 COMP: 08/28/16  
RTD: 4/29/17 TYPE: LTD 4794'  
MUD: 3415' TYPE: MUD Chemical  
SAMPLES SAVED FROM: 3800' TO RTD  
DRILLING TIME KEPT FROM: 3500' TO RTD  
SAMPLING EXAMINED FROM: 3800' TO RTD

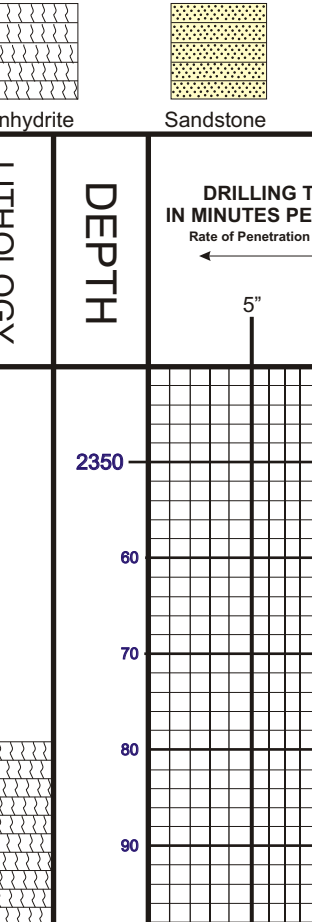
GEOLOGICAL SUPERVISION FROM: 3550' to RTD  
GEOLOGIST ON WELL: Corey N. Baker  
Pioneer Energy Services

FORMATION TOPS: ELECTRIC LOG  
Anhydrite: 2415 (+636)  
Base of Anhydrite: 2433 (+618)  
Heebner: 3935 (+884)  
Lansing: 3971 (+920)  
Stark: 4266 (+1291)  
Cherokee Shale: 4587 (+1589)

FORMATION TOPS: SAMPLE  
Anhydrite: 2416 (+635)  
Base of Anhydrite: 2436 (+615)  
Heebner: 3940 (+889)  
Lansing: 3975 (+924)  
Stark: 4262 (+1291)  
Cherokee Shale: 4592 (+1589)

FORMATION TOPS: SAMPLE  
Anhydrite: 4587 (+1589)  
Base of Anhydrite: 4700 (+1649)  
Heebner: 4734 (+1743)  
Lansing: 4798 (+1748)

FORMATION TOPS: SAMPLE  
Anhydrite: 4587 (+1589)  
Base of Anhydrite: 4700 (+1649)  
Heebner: 4734 (+1743)  
Lansing: 4798 (+1748)

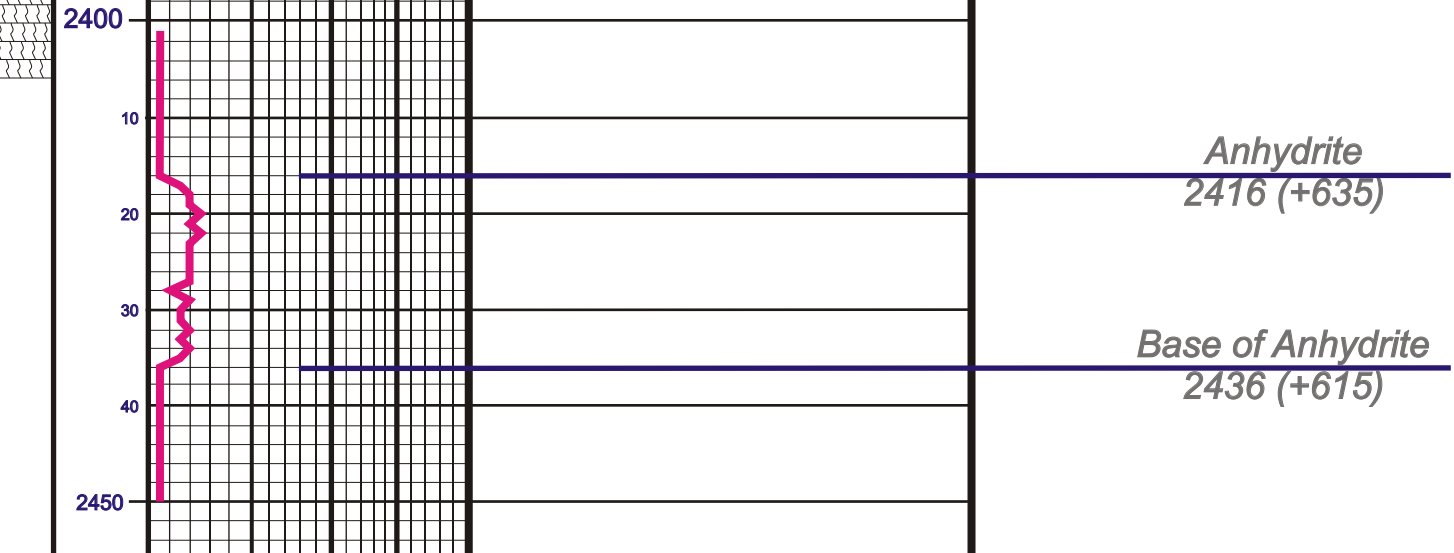


REMARKS The Binns 'A' #1-32 well had a positive drill stem test in the Marmaton (DST #6). 5.5" production casing will be run to test this well through perforations.

Respectfully Submitted,  
Corey Baker  
Vice President - Exploration  
Cobalt Energy, LLC

API #15-109-21454-00-00

LEGEND



Main log table with columns: DEPTH, DRILLING TIME, OIL SHOWS, SAMPLE DESCRIPTION, REMARKS. Includes lithology logs and sample descriptions for various depths.

Company: COBALT ENERGY, LLC Elevation: 3051' KB  
Lease: Binns 'A' #1-32  
Location: 1067' FSL & 1032' FEL SEC. 32 TWP 15S RGE 33W  
County: Logan State: Kansas



Conservation Division  
266 N. Main St., Ste. 220  
Wichita, KS 67202-1513



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Jay Scott Emler, Chairman  
Shari Feist Albrecht, Commissioner  
Pat Apple, Commissioner

Sam Brownback, Governor

January 12, 2017

Nicholas Hess  
Cobalt Energy LLC  
115 S. BELMONT #12  
PO BOX 8037  
WICHITA, KS 67208

Re: ACO-1  
API 15-109-21454-00-00  
BINNS "A" 1-32  
SW/4 Sec.32-15S-33W  
Logan County, Kansas

Dear Nicholas Hess:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 08/16/2016 and the ACO-1 was received on January 12, 2017 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department