

Confidentiality Requested:

Yes No

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

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

Gas DH EOR

OG GSW

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 EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Recompletion Date _____ Date Reached TD _____ Completion Date or Recompletion Date _____

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
---	---	------------------------------------

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--

Form	ACO1 - Well Completion
Operator	Cobalt Energy LLC
Well Name	CAROLINE "A" 1-19
Doc ID	1334105

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3851-3855	1,250g 15%NE	
4	3837-3842	500g 15%MCA	



CONSOLIDATED
Oil Well Services, LLC

7287
7185

TICKET NUMBER 51657
LOCATION Oakley Ks
FOREMAN Jerry Y

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

FIELD TICKET & TREATMENT REPORT
CEMENT

Invoice # 809302 Ks

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY												
12-27-16	2180	Carolina "A" 1-19	19	65	25W	Graham												
CUSTOMER <u>Cobalt</u>			<table border="1"> <thead> <tr> <th>TRUCK #</th> <th>DRIVER</th> <th>TRUCK #</th> <th>DRIVER</th> </tr> </thead> <tbody> <tr> <td>731</td> <td>Cory D</td> <td></td> <td></td> </tr> <tr> <td>566</td> <td>Steve O</td> <td></td> <td></td> </tr> </tbody> </table>				TRUCK #	DRIVER	TRUCK #	DRIVER	731	Cory D			566	Steve O		
TRUCK #	DRIVER	TRUCK #	DRIVER															
731	Cory D																	
566	Steve O																	
MAILING ADDRESS <u>PO Box 8087</u>			<table border="1"> <thead> <tr> <th>CITY</th> <th>STATE</th> <th>ZIP CODE</th> </tr> </thead> <tbody> <tr> <td><u>Wichita</u></td> <td><u>KS</u></td> <td><u>67208</u></td> </tr> </tbody> </table>				CITY	STATE	ZIP CODE	<u>Wichita</u>	<u>KS</u>	<u>67208</u>						
CITY	STATE	ZIP CODE																
<u>Wichita</u>	<u>KS</u>	<u>67208</u>																

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 336 CASING SIZE & WEIGHT 8 5/8 24
 CASING DEPTH 336 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 14.8 SLURRY VOL 1.24 WATER gal/sk _____ CEMENT LEFT in CASING 20'
 DISPLACEMENT 2066l DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety meeting & rig up on Marfin 7 break circulation with rig mix 225 sks surface bleed II wash up & displace with 2066l fresh water & shot is found cement 10' down in collar

*Thank you
Jerry & crew*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE 0471 ✓	1	PUMP CHARGE	1150.00	1150.00
CE 0002 ✓	40	MILEAGE	7.15	286.00
CE 0710 ✓	10.58	ton mileage delivery	17.5	740.60
CC 5871 ✓	225 sks	surface bleed II	23.00	5175.00
CP 8556 ✓	2	8 5/8 centralizers	110.00	220.00
CC 5826 ✓	100#	salt	NO charge	
			Subtotal	7571.60
			-4.5% disc.	3407.23
			Subtotal	4164.37
			SALES TAX	222.54
			ESTIMATED TOTAL	4386.92

AVIN 3737 AUTHORIZATION Kelly Wilson TITLE Pusher DATE 12-27-16

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.



Services, Inc.

CHARGE TO: Cobalt

ADDRESS

CITY, STATE, ZIP CODE

TICKET 30126

PAGE 1 OF 2

1. SERVICE LOCATIONS: Well/Project No. 1-19 LEASE Cardine A COUNTY/PARISH Calmar STATE KS CITY Studley DATE 3 Jan 17 OWNER

2. TICKET TYPE CONTRACTOR RIG NAME NO. 7 SHIPPED VIA DELIVERED TO ORDER NO.

3. WELL TYPE WELL CATEGORY Development JOB PURPOSE cement long string

4. REFERRAL LOCATION INVOICE INSTRUCTIONS WELL PERMIT NO. LOCATION 19-6-25

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575		1			MILEAGE TRK 114	80	mi			5.00	400.00
579		1			Power Charge	1	ea			1700.00	1700.00
402		1			Centralizer	52	in	8	ea	60.00	480.00
403		1			Cement Baskets	52	in	4	ea	350.00	1820.00
404		1			latch open plug & bottle	52	in	1	ea	225.00	225.00
407		1			inset float shoe w/ spare PUL	52	in	1	ea	320.00	320.00

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.

JUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO PART OF WORK OR DELIVERY OF GOODS

DATE SIGNED: [Signature]

TIME SIGNED: [Signature]

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? YES NO

PAGE TOTAL: 4105.00

TOTAL: 11094.34

SWIFT OPERATOR

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

APPROVAL: [Signature]

Thank You!



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

TICKET CONTINUATION

TICKET No. 30126

CUSTOMER Cabot
WEST Carline A 1-19

DATE 3 Nov 17 PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY	U/M	QTY	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
330												
325						SMD cement	350	SK			15.75	5512.50
284						Standard cement (for 4x2)	150	SK			12.25	1837.50
283						colseal	700	lb	7	SK	30.00	21000
285						saft	750	lb			0.20	150.00
276						CFR-1	75	lb			4.50	337.50
281						Floccle	150	lb			2.85	337.50
221						Mud Flush	520	gal			1.25	625.00
290						KCK Liquid D-AIR	4	gal			25.00	100.00
							4				42.00	168.00
581						SERVICE CHARGE					1.50	750.00
583						MILEAGE CHARGE					0.75	1515.11
						TOTAL WEIGHT	56503					
						LOADED MILES	86					
						CUBIC FEET	30					
						TON MILES	2020.14					

CONTINUATION TOTAL 11519.11

JOB LOG

SWIFT Services, Inc.

DATE 3 Jan 17 PAGE NO.

CUSTOMER Cobelt WELL NO. 1-19 LEASE Caroline A JOB TYPE Cement long string TICKET NO. 30126

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								350sk SMD cement w/ 1/4" floccle
								150sk EA-2 cement w/ 1/4" floccle
								5 1/2" x 15.5" casing 92 joints - 3973'
								shoejt 42.92 TD= 3970'
								Centralizers 1,2,3,4,11, 39,61,67
								Baskets 11, 39, 61, 67 - Top to bottom cement -
	0200							on loc TRK 114
	0600							start 5 1/2" x 15.5" casing in well
	0815							Drop ball - circulate
	0925	5	12			300		Pump 500 gal mud flush
		5	20			300		Pump 20 bbl KCL flush
			8					Plug RH - MH 30sk 20sk
	0750	5	146			400		mix SMD cement 30sk @ 11.2 ppg
								@ 12.0
		5 1/2	36			400		mix EA-2 cement 150sk @ 15.3 ppg
	1050							Drop latch down plug
								- wash out pump & line
	1055	6				400		Displace plug
		5 1/2				1050		→ cement to surface ←
	1115	5 1/2	93			1700		land plug
								Release pressure to truck - dried up
								wash truck
	1150							job complete
								4 links
								Shore, Flint, 15000 # (4044)



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Larry Nicholson

Caroline A #1-19

19-6s-25w Graham,KS

Start Date: 2016.12.30 @ 19:35:54

End Date: 2016.12.31 @ 04:48:57

Job Ticket #: 64080 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.01.02 @ 10:20:25

Cobalt Energy LLC
19-6s-25w Graham,KS
Caroline A #1-19
DST # 1
LKC "B"
2016.12.30



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64080

DST#: 1

ATTN: Larry Nicholson

Test Start: 2016.12.30 @ 19:35:54

GENERAL INFORMATION:

Formation: **LKC "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:06:27

Time Test Ended: 04:48:57

Test Type: Conventional Bottom Hole (Initial)

Tester: Ray Schwager

Unit No: 77

Interval: 3708.00 ft (KB) To 3737.00 ft (KB) (TVD)

Reference Elevations: 2617.00 ft (KB)

Total Depth: 3737.00 ft (KB) (TVD)

2612.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8018

Inside

Press@RunDepth: 169.72 psig @ 3714.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.12.30

End Date:

2016.12.31

Last Calib.:

2016.12.31

Start Time:

19:35:54

End Time:

04:48:56

Time On Btm:

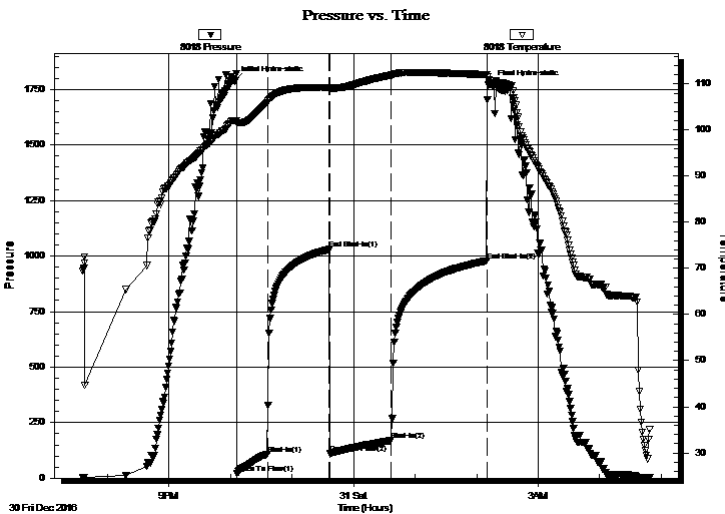
2016.12.30 @ 22:04:27

Time Off Btm:

2016.12.31 @ 02:13:56

TEST COMMENT: 30-IFP-w k to a fr bl 1/2" to 5 1/2" bl
60-ISIP-no bl
60-FFP-w k bl thru-out 1/4" to 3" bl
90-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1788.02	102.08	Initial Hydro-static
2	21.94	101.50	Open To Flow (1)
32	106.70	106.02	Shut-In(1)
92	1029.91	109.23	End Shut-In(1)
93	110.23	108.62	Open To Flow (2)
153	169.72	111.89	Shut-In(2)
246	978.41	112.02	End Shut-In(2)
250	1771.55	109.85	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
240.00	Water	1.73
90.00	MW 20%M80%W	1.26
1.00	CO	0.01

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy LLC

19-6s-25w Graham, KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

ATTN: Larry Nicholson

Job Ticket: 64080

DST#: 1

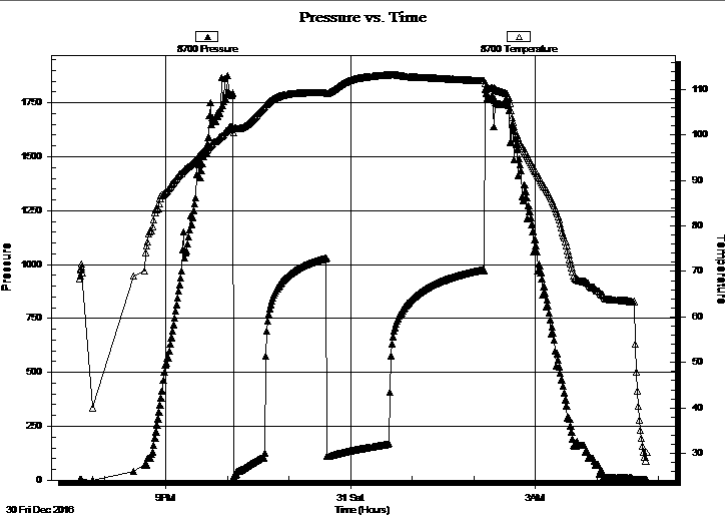
Test Start: 2016.12.30 @ 19:35:54

GENERAL INFORMATION:

Formation: **LKC "B"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 22:06:27
 Time Test Ended: 04:48:57
 Interval: **3708.00 ft (KB) To 3737.00 ft (KB) (TVD)**
 Total Depth: 3737.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ray Schwager
 Unit No: 77
 Reference Elevations: 2617.00 ft (KB)
 2612.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8700 Outside
 Press@RunDepth: psig @ 3714.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2016.12.30 End Date: 2016.12.31 Last Calib.: 2016.12.31
 Start Time: 19:35:57 End Time: 04:48:59 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IFP-w k to a fr bl 1/2" to 5 1/2" bl
 60-ISIP-no bl
 60-FFP-w k bl thru-out 1/4" to 3" bl
 90-FSIP-no bl



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
240.00	Water	1.73
90.00	MW 20%M80%W	1.26
1.00	CO	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy LLC

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64080

DST#: 1

ATTN: Larry Nicholson

Test Start: 2016.12.30 @ 19:35:54

Tool Information

Drill Pipe:	Length: 3523.00 ft	Diameter: 3.80 inches	Volume: 49.42 bbl	Tool Weight: 2200.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 50.31 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3708.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	29.00 ft			
Tool Length:	50.00 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			3688.00	
Shut In Tool	5.00			3693.00	
Hydraulic tool	5.00			3698.00	
Packer	5.00			3703.00	21.00 Bottom Of Top Packer
Packer	5.00			3708.00	
Stubb	1.00			3709.00	
Perforations	5.00			3714.00	
Recorder	0.00	8018	Inside	3714.00	
Recorder	0.00	8700	Outside	3714.00	
Perforations	20.00			3734.00	
Bullnose	3.00			3737.00	29.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64080

DST#: 1

ATTN: Larry Nicholson

Test Start: 2016.12.30 @ 19:35:54

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:

57000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.73 in³

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
240.00	Water	1.727
90.00	MW 20%M80%W	1.262
1.00	CO	0.014

Total Length: 331.00 ft Total Volume: 3.003 bbl

Num Fluid Samples: 0

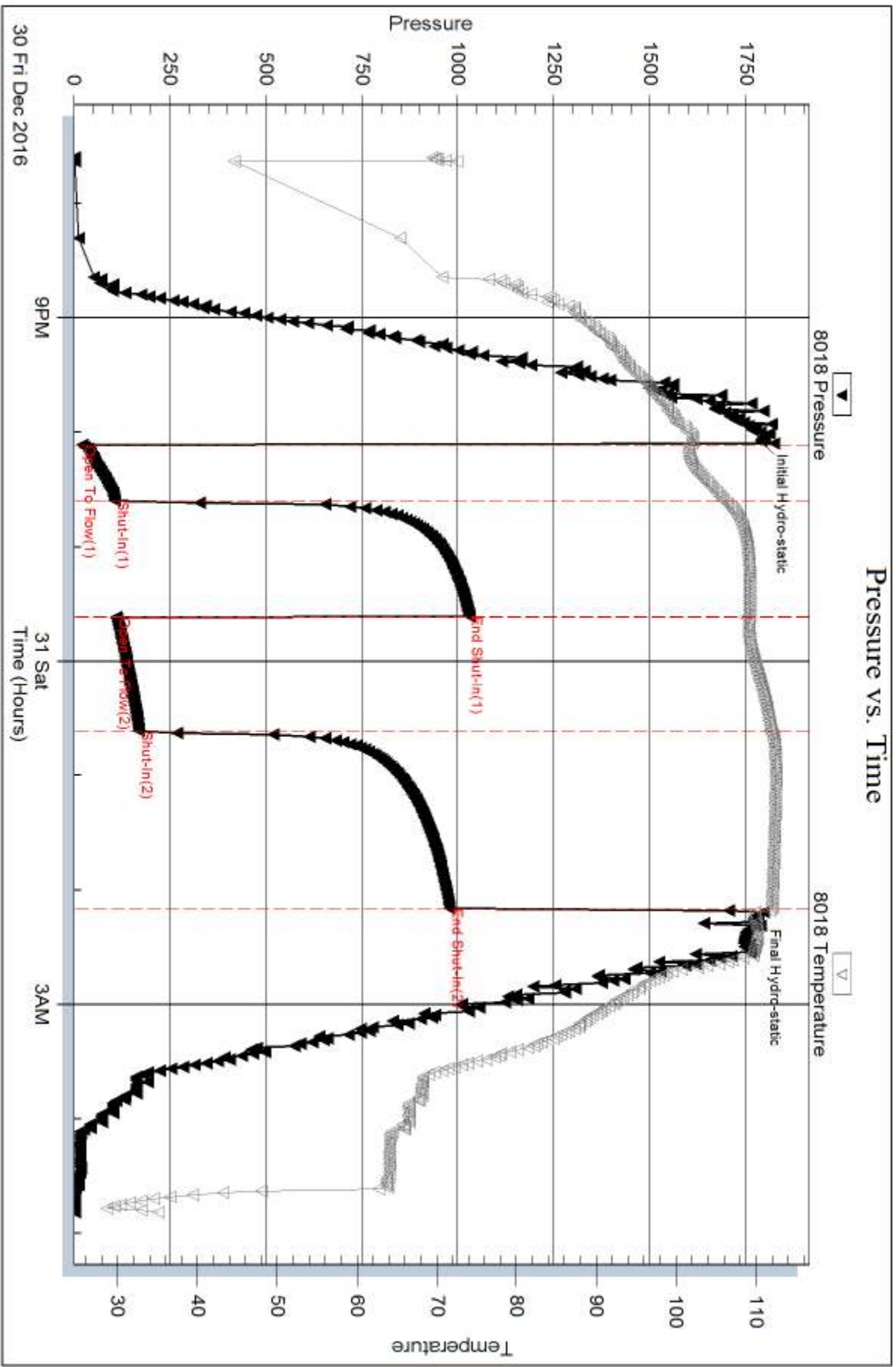
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .14@65F

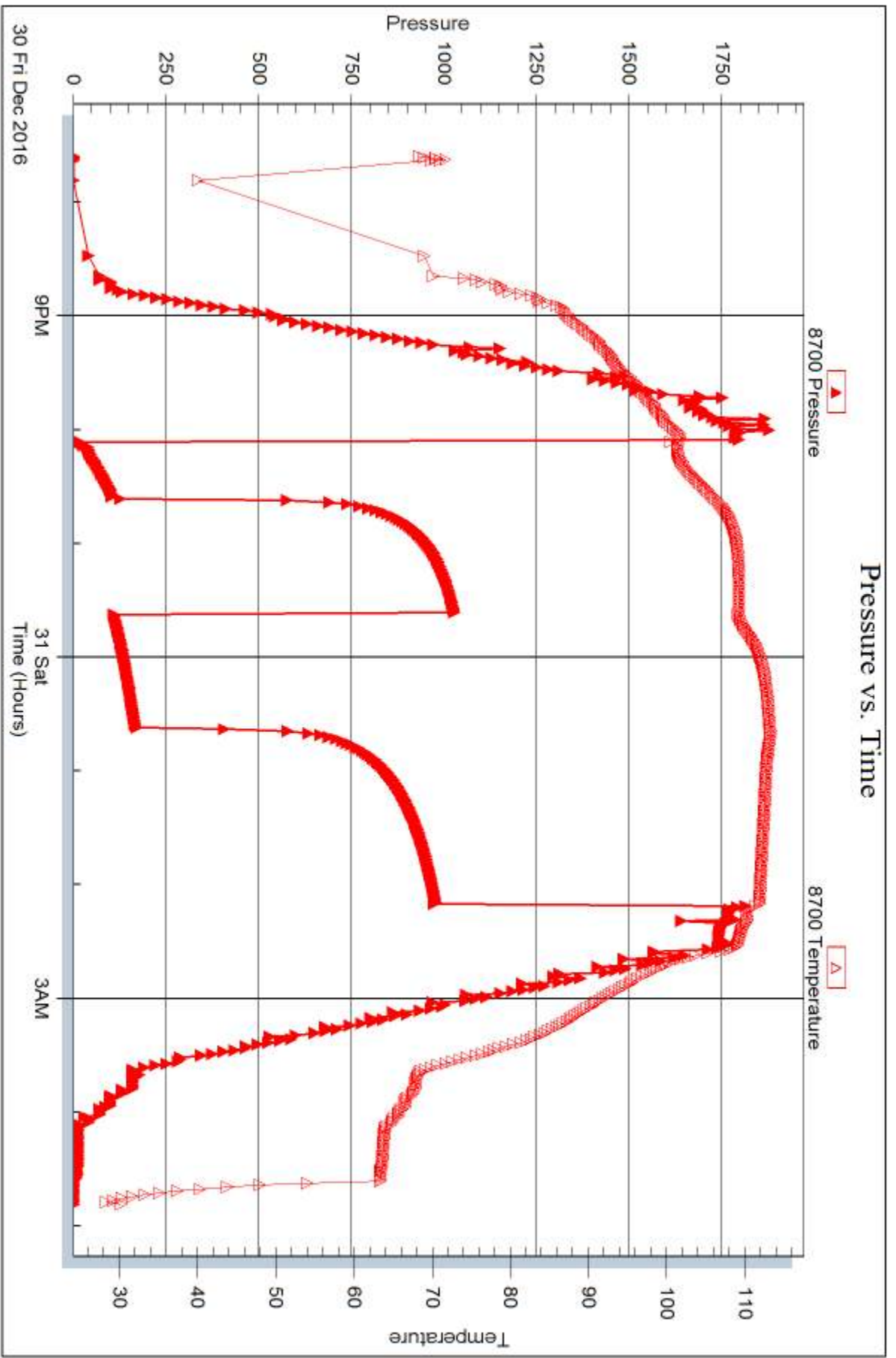


Serial #: 8700

Outside Cobalt Energy LLC

Caroline A #1-19

DST Test Number: 1



Tribble Testing, Inc

Ref. No: 64080

Printed: 2017.01.02 @ 10:20:26



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Larry Nicholson

Caroline A #1-19

19-6s-25w Graham,KS

Start Date: 2016.12.31 @ 13:55:20

End Date: 2016.12.31 @ 21:20:14

Job Ticket #: 64081 DST #: 2

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

Printed: 2017.01.02 @ 10:20:05



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64081

DST#: 2

ATTN: Larry Nicholson

Test Start: 2016.12.31 @ 13:55:20

GENERAL INFORMATION:

Formation: **LKC "C-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:10:00

Time Test Ended: 21:20:14

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

Interval: 3733.00 ft (KB) To 3782.00 ft (KB) (TVD)

Reference Elevations: 2617.00 ft (KB)

Total Depth: 3782.00 ft (KB) (TVD)

2612.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8018

Inside

Press@RunDepth: 44.34 psig @ 3746.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.12.31

End Date:

2016.12.31

Last Calib.: 2016.12.31

Start Time: 13:55:20

End Time:

21:20:14

Time On Btm: 2016.12.31 @ 16:08:00

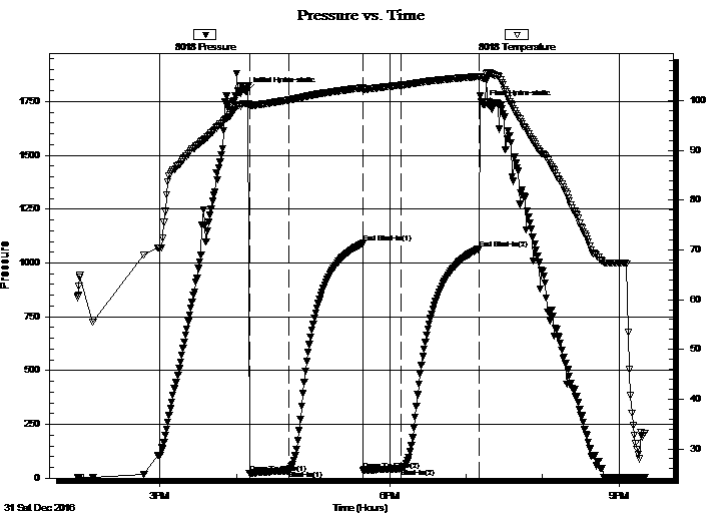
Time Off Btm: 2016.12.31 @ 19:13:29

TEST COMMENT: 30-IFP-w k bl thru-out 1/2" bl

60-ISIP-no bl

30-FFP-no bl

60-FSIP-no bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1796.70	99.40	Initial Hydro-static
2	22.38	99.00	Open To Flow (1)
33	34.84	100.15	Shut-In(1)
92	1091.19	102.59	End Shut-In(1)
92	37.71	102.12	Open To Flow (2)
121	44.34	103.11	Shut-In(2)
183	1065.81	104.86	End Shut-In(2)
186	1736.66	104.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	SOCM 1%O99%M	0.15

* Recovery from multiple tests

Gas Rates

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



DRILL STEM TEST REPORT

Cobalt Energy LLC

PO Box 8037
Wichita KS 67208

ATTN: Larry Nicholson

19-6s-25w Graham,KS

Caroline A #1-19

Job Ticket: 64081

DST#: 2

Test Start: 2016.12.31 @ 13:55:20

GENERAL INFORMATION:

Formation: **LKC "C-G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:10:00

Time Test Ended: 21:20:14

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

Interval: 3733.00 ft (KB) To 3782.00 ft (KB) (TVD)

Total Depth: 3782.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2617.00 ft (KB)

2612.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8700 Outside

Press@RunDepth: psig @ 3746.00 ft (KB)

Start Date: 2016.12.31

End Date:

2016.12.31

Capacity: 8000.00 psig

Last Calib.:

2016.12.31

Start Time: 13:55:41

End Time:

21:20:20

Time On Btm:

Time Off Btm:

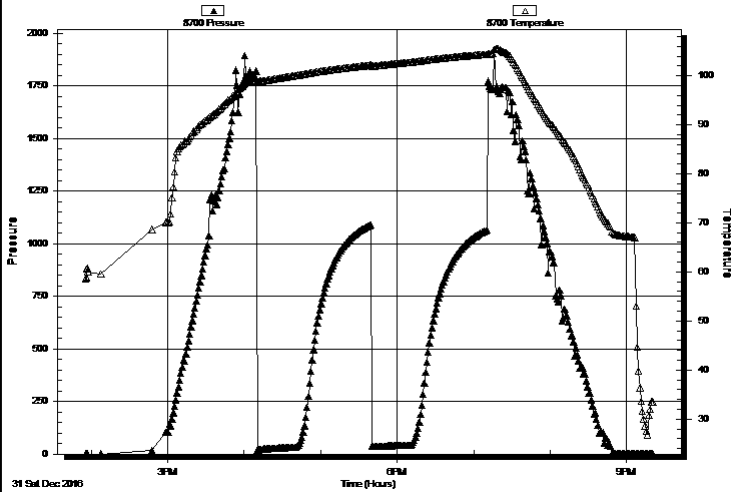
TEST COMMENT: 30-IFP-w k bl thru-out 1/2" bl

60-ISIP-no bl

30-FFP-no bl

60-FSIP-no bl

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
30.00	SOCM 1%O99%M	0.15

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

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64081

DST#: 2

ATTN: Larry Nicholson

Test Start: 2016.12.31 @ 13:55:20

Tool Information

Drill Pipe:	Length: 3555.00 ft	Diameter: 3.80 inches	Volume: 49.87 bbl	Tool Weight: 2200.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 50.76 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3733.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	49.00 ft			
Tool Length:	70.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

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

Change Over Sub	1.00			3713.00	
Shut In Tool	5.00			3718.00	
Hydraulic tool	5.00			3723.00	
Packer	5.00			3728.00	21.00 Bottom Of Top Packer
Packer	5.00			3733.00	
Stubb	1.00			3734.00	
Perforations	12.00			3746.00	
Recorder	0.00	8018	Inside	3746.00	
Recorder	0.00	8700	Outside	3746.00	
Blank Spacing	33.00			3779.00	
Bullnose	3.00			3782.00	49.00 Bottom Packers & Anchor

Total Tool Length: 70.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64081

DST#: 2

ATTN: Larry Nicholson

Test Start: 2016.12.31 @ 13:55:20

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: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.76 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	SOCM 1%O99%M	0.148

Total Length: 30.00 ft Total Volume: 0.148 bbl

Num Fluid Samples: 0

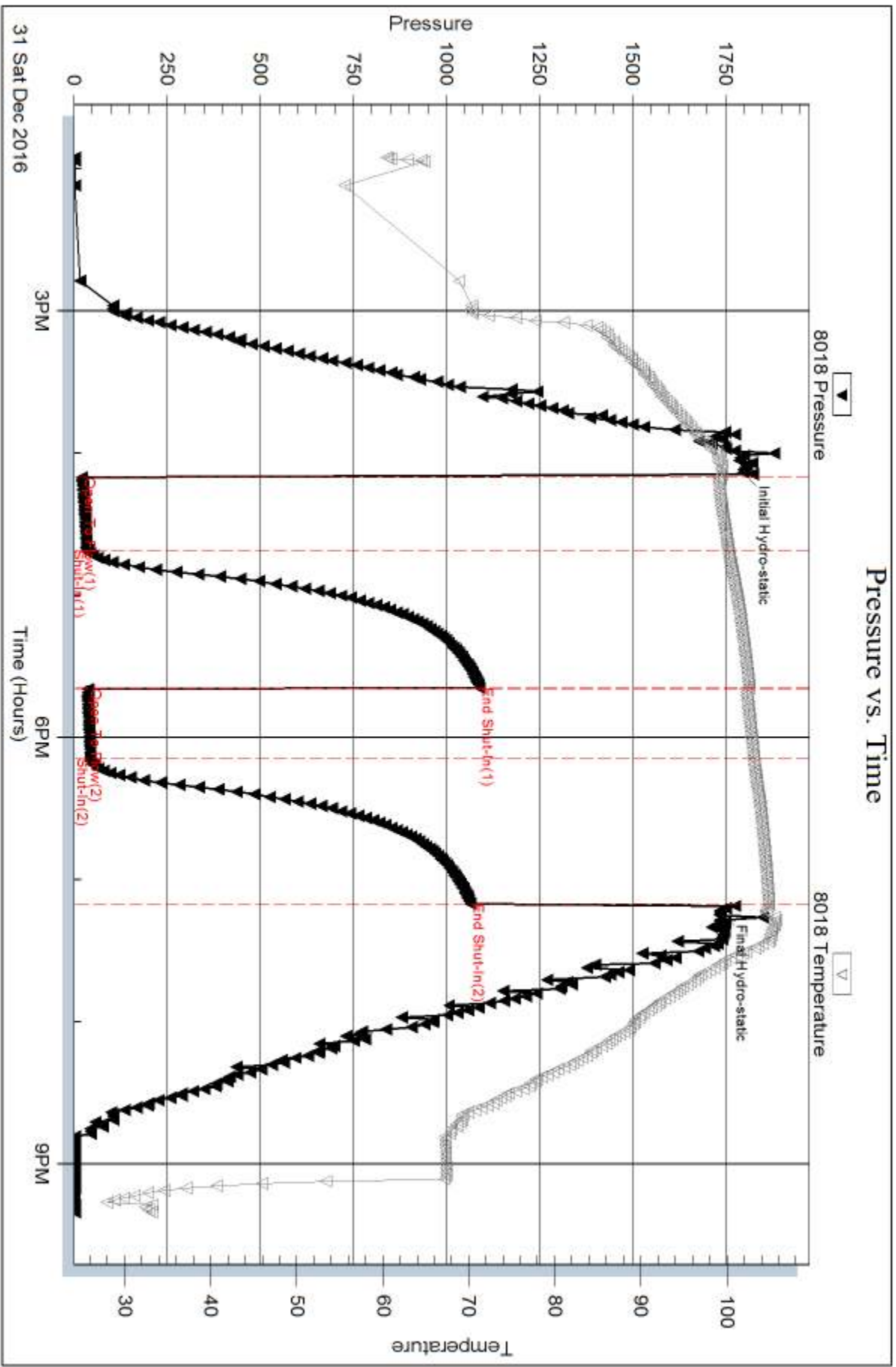
Num Gas Bombs: 0

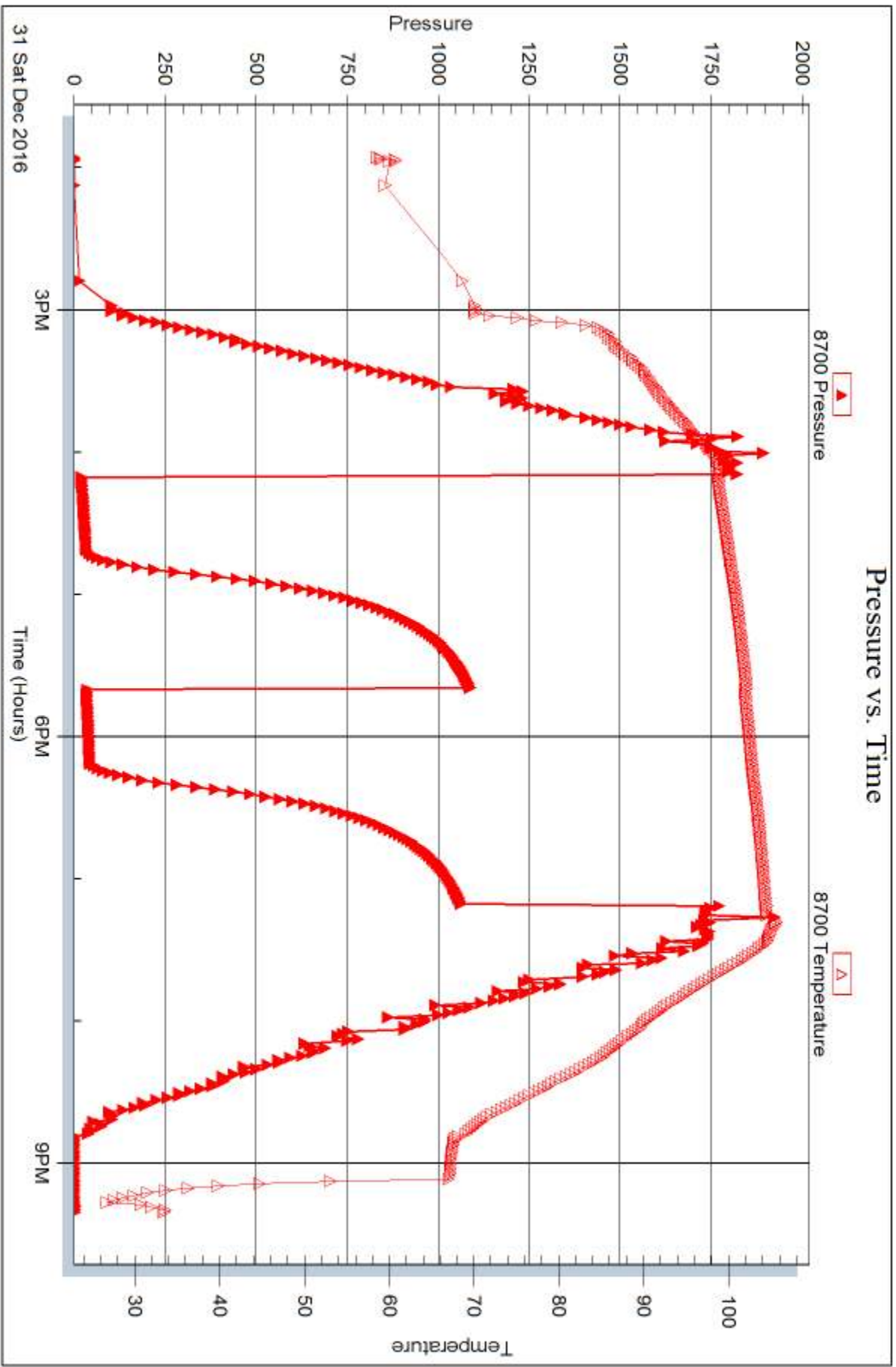
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Larry Nicholson

Caroline A #1-19

19-6s-25w Graham,KS

Start Date: 2017.01.01 @ 07:35:40

End Date: 2017.01.01 @ 17:05:20

Job Ticket #: 64082 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.01.02 @ 11:00:18



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Cobalt Energy LLC

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64082

DST#: 3

ATTN: Larry Nicholson

Test Start: 2017.01.01 @ 07:35:40

GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:45:05

Time Test Ended: 17:05:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

Interval: 3825.00 ft (KB) To 3855.00 ft (KB) (TVD)

Reference Elevations: 2617.00 ft (KB)

Total Depth: 3855.00 ft (KB) (TVD)

2612.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8018

Inside

Press@RunDepth: 697.58 psig @ 3831.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.01.01

End Date:

2017.01.01

Last Calib.: 2017.01.01

Start Time: 07:35:40

End Time:

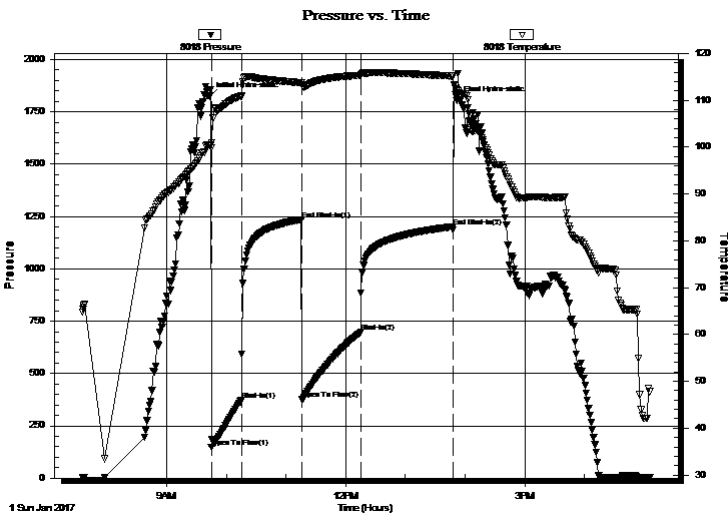
17:05:20

Time On Btm: 2017.01.01 @ 09:42:50

Time Off Btm: 2017.01.01 @ 13:51:34

TEST COMMENT: 30-IFP-BOB in 1min
60-ISIP-BOB in 56 min
60-FFP-BOB thru-out
90-FSIP-6 " bl bk

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1824.58	100.41	Initial Hydro-static
3	148.90	99.80	Open To Flow (1)
33	372.83	110.89	Shut-In(1)
93	1235.67	113.73	End Shut-In(1)
94	378.44	113.30	Open To Flow (2)
153	697.58	115.32	Shut-In(2)
245	1199.53	115.15	End Shut-In(2)
249	1804.81	112.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
150.00	MGO 20%G20%M60%O	0.74
1740.00	CO	24.13
0.00	960' 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 LLC

19-6s-25w Graham, KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

ATTN: Larry Nicholson

Job Ticket: 64082

DST#: 3

Test Start: 2017.01.01 @ 07:35:40

GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:45:05

Time Test Ended: 17:05:20

Interval: 3825.00 ft (KB) To 3855.00 ft (KB) (TVD)

Total Depth: 3855.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

Reference Elevations: 2617.00 ft (KB)

2612.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8700 Outside

Press@RunDepth: psig @ 3831.00 ft (KB)

Start Date: 2017.01.01

End Date: 2017.01.01

Start Time: 07:35:56

End Time: 17:05:36

Capacity: 8000.00 psig

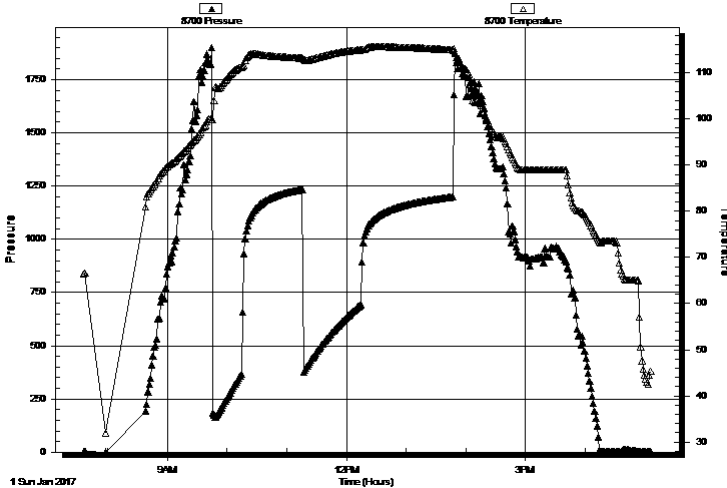
Last Calib.: 2017.01.01

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IFP-BOB in 1min
60-ISIP-BOB in 56 min
60-FFP-BOB thru-out
90-FSIP-6 " bl bk

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
150.00	MGO 20%G20%M60%O	0.74
1740.00	CO	24.13
0.00	960' GIP	0.00

* 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 LLC

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64082

DST#: 3

ATTN: Larry Nicholson

Test Start: 2017.01.01 @ 07:35:40

Tool Information

Drill Pipe:	Length: 3650.00 ft	Diameter: 3.80 inches	Volume: 51.20 bbl	Tool Weight: 2200.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 52.09 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 54000.00 lb
Depth to Top Packer:	3825.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	51.00 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			3805.00	
Shut In Tool	5.00			3810.00	
Hydraulic tool	5.00			3815.00	
Packer	5.00			3820.00	21.00 Bottom Of Top Packer
Packer	5.00			3825.00	
Stubb	1.00			3826.00	
Perforations	5.00			3831.00	
Recorder	0.00	8018	Inside	3831.00	
Recorder	0.00	8700	Outside	3831.00	
Perforations	21.00			3852.00	
Bullnose	3.00			3855.00	30.00 Bottom Packers & Anchor

Total Tool Length: 51.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64082

DST#: 3

ATTN: Larry Nicholson

Test Start: 2017.01.01 @ 07:35:40

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.73 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1900.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
150.00	MGO 20%G20%M60%O	0.738
1740.00	CO	24.134
0.00	960' GIP	0.000

Total Length: 1890.00 ft Total Volume: 24.872 bbl

Num Fluid Samples: 0

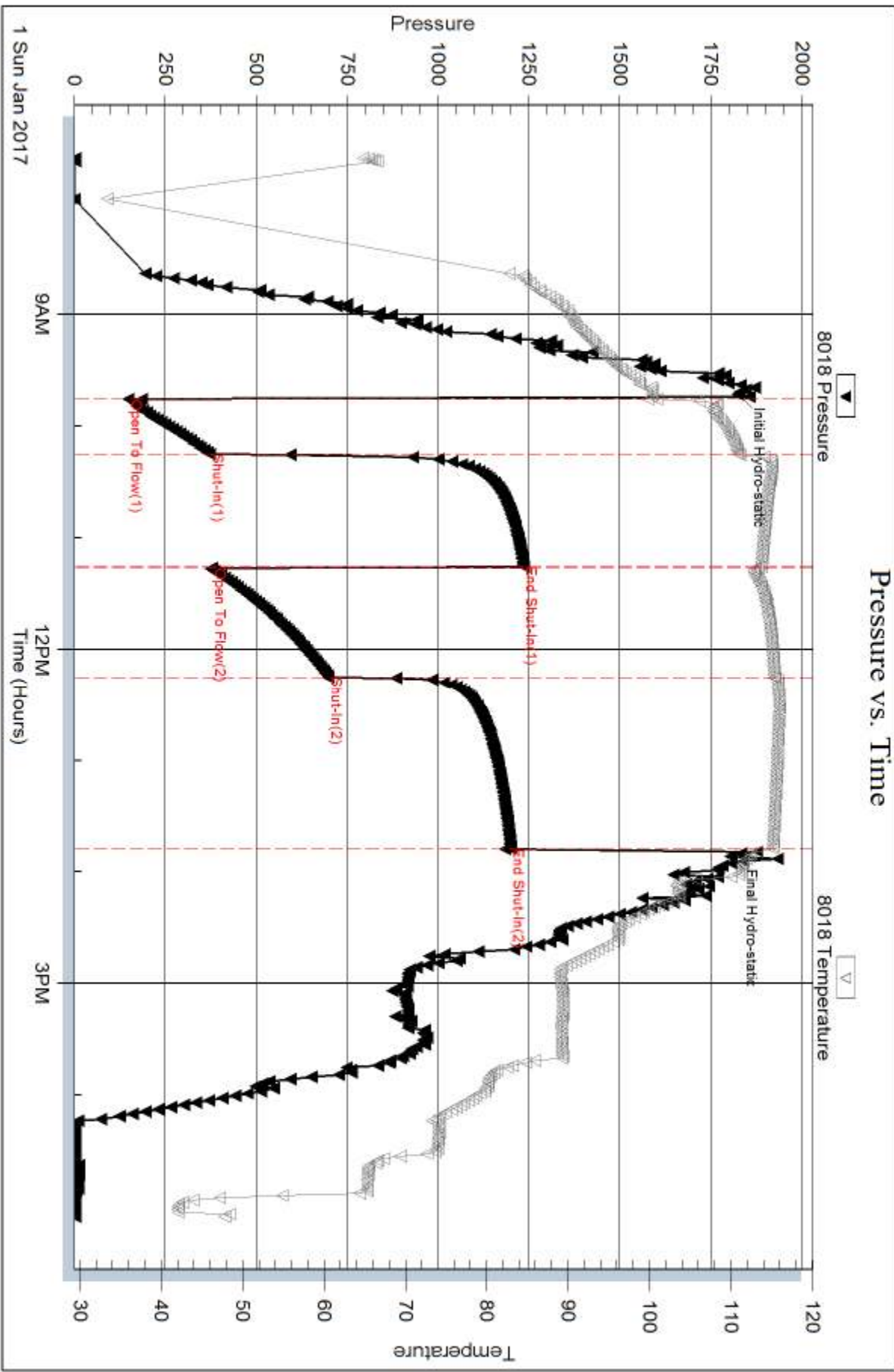
Num Gas Bombs: 0

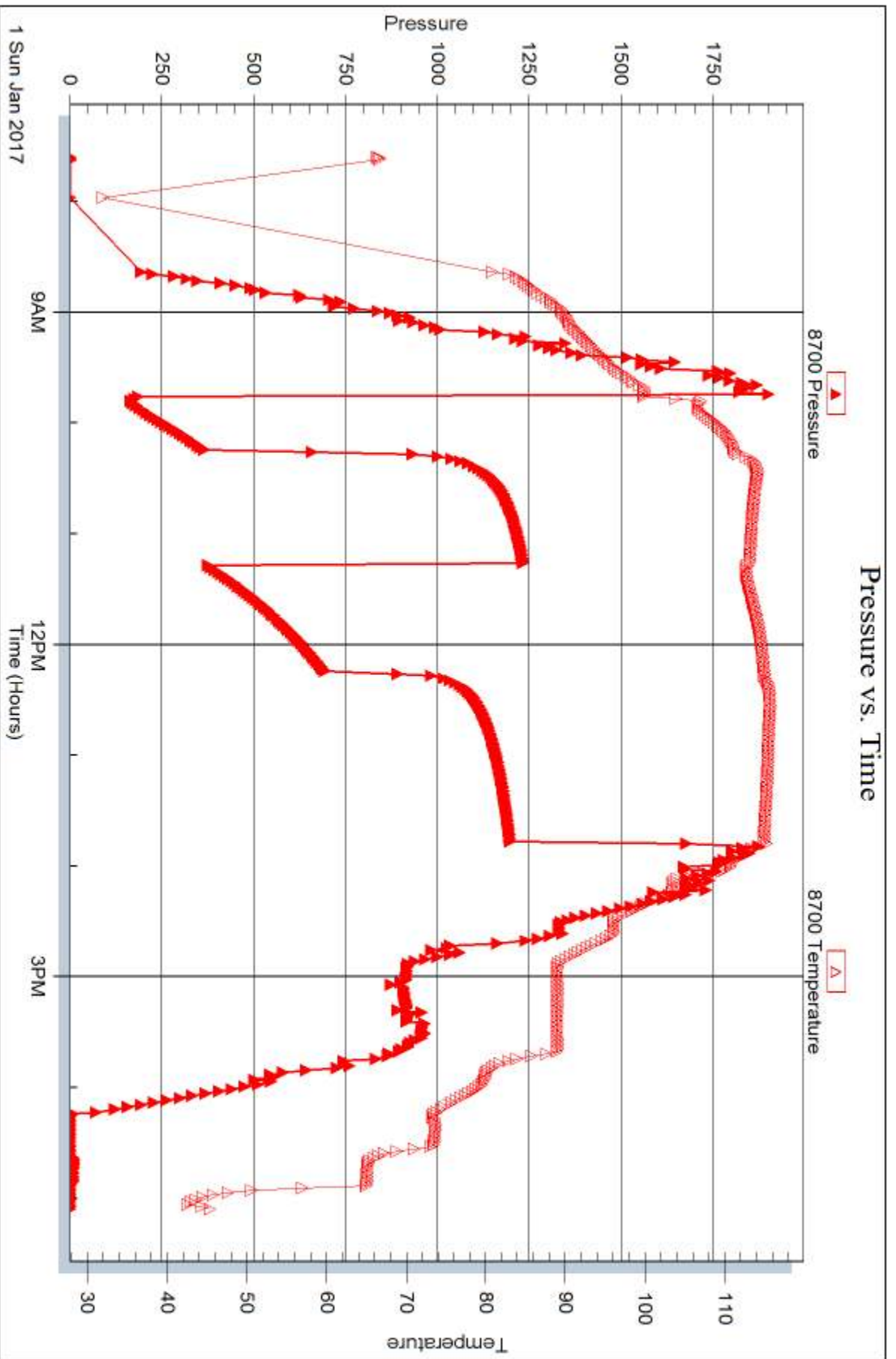
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy LLC**

PO Box 8037
Wichita KS 67208

ATTN: Larry Nicholson

Caroline A #1-19

19-6s-25w Graham,KS

Start Date: 2017.01.02 @ 01:05:17

End Date: 2017.01.02 @ 08:55:26

Job Ticket #: 64083 DST #: 4

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

Printed: 2017.01.02 @ 10:19:01



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Cobalt Energy LLC

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64083

DST#: 4

ATTN: Larry Nicholson

Test Start: 2017.01.02 @ 01:05:17

GENERAL INFORMATION:

Formation: **LKC "K-L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:02:27

Time Test Ended: 08:55:26

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

Interval: 3853.00 ft (KB) To 3890.00 ft (KB) (TVD)

Reference Elevations: 2617.00 ft (KB)

Total Depth: 3890.00 ft (KB) (TVD)

2612.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8018

Inside

Press@RunDepth: 20.30 psig @ 3860.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.01.02

End Date:

2017.01.02

Last Calib.:

2017.01.02

Start Time: 01:05:17

End Time:

08:55:26

Time On Btm:

2017.01.02 @ 04:00:12

Time Off Btm:

2017.01.02 @ 07:09:41

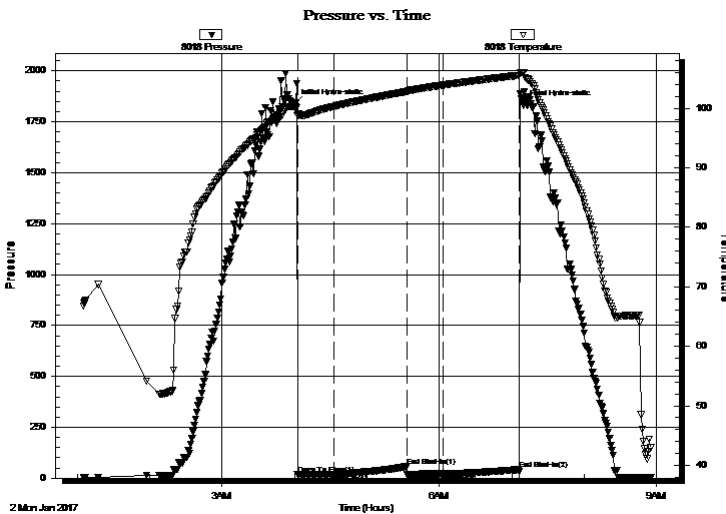
TEST COMMENT: 30-IFP-w k surface bl thru-out

60-ISIP-no bl

30-FFP-no bl

60-FSIP-no bl

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1841.17	100.20	Initial Hydro-static
3	18.22	98.73	Open To Flow (1)
33	18.23	100.33	Shut-In(1)
93	56.68	102.80	End Shut-In(1)
94	19.58	102.81	Open To Flow (2)
123	20.30	103.88	Shut-In(2)
186	42.29	105.52	End Shut-In(2)
190	1831.98	106.02	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud w/show of oil	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

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64083

DST#: 4

ATTN: Larry Nicholson

Test Start: 2017.01.02 @ 01:05:17

GENERAL INFORMATION:

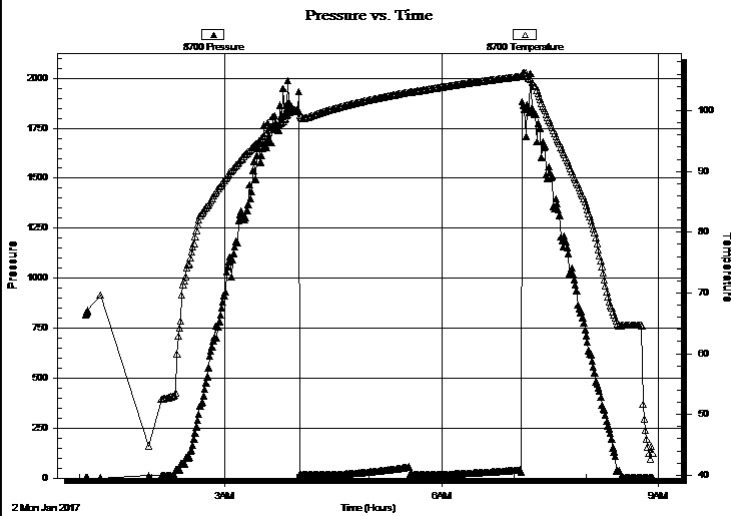
Formation: **LKC "K-L"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 04:02:27
 Tester: Ray Schwager
 Time Test Ended: 08:55:26
 Unit No: 77
Interval: 3853.00 ft (KB) To 3890.00 ft (KB) (TVD)
 Reference Elevations: 2617.00 ft (KB)
 Total Depth: 3890.00 ft (KB) (TVD)
 2612.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 5.00 ft

Serial #: 8700

Outside

Press@RunDepth: psig @ 3860.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.01.02 End Date: 2017.01.02 Last Calib.: 2017.01.02
 Start Time: 01:05:12 End Time: 08:55:21 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IFP-w k surface bl thru-out
 60-ISIP-no bl
 30-FFP-no bl
 60-FSIP-no bl



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Mud w/show of oil	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 LLC

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64083

DST#: 4

ATTN: Larry Nicholson

Test Start: 2017.01.02 @ 01:05:17

Tool Information

Drill Pipe:	Length: 3682.00 ft	Diameter: 3.80 inches	Volume: 51.65 bbl	Tool Weight: 2200.00 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: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 52.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3853.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 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
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3833.00	
Shut In Tool	5.00			3838.00	
Hydraulic tool	5.00			3843.00	
Packer	5.00			3848.00	21.00 Bottom Of Top Packer
Packer	5.00			3853.00	
Stubb	1.00			3854.00	
Perforations	6.00			3860.00	
Recorder	0.00	8018	Inside	3860.00	
Recorder	0.00	8700	Outside	3860.00	
Perforations	27.00			3887.00	
Bullnose	3.00			3890.00	37.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy LLC

19-6s-25w Graham,KS

PO Box 8037
Wichita KS 67208

Caroline A #1-19

Job Ticket: 64083

DST#: 4

ATTN: Larry Nicholson

Test Start: 2017.01.02 @ 01:05:17

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: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Mud w/show of oil	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

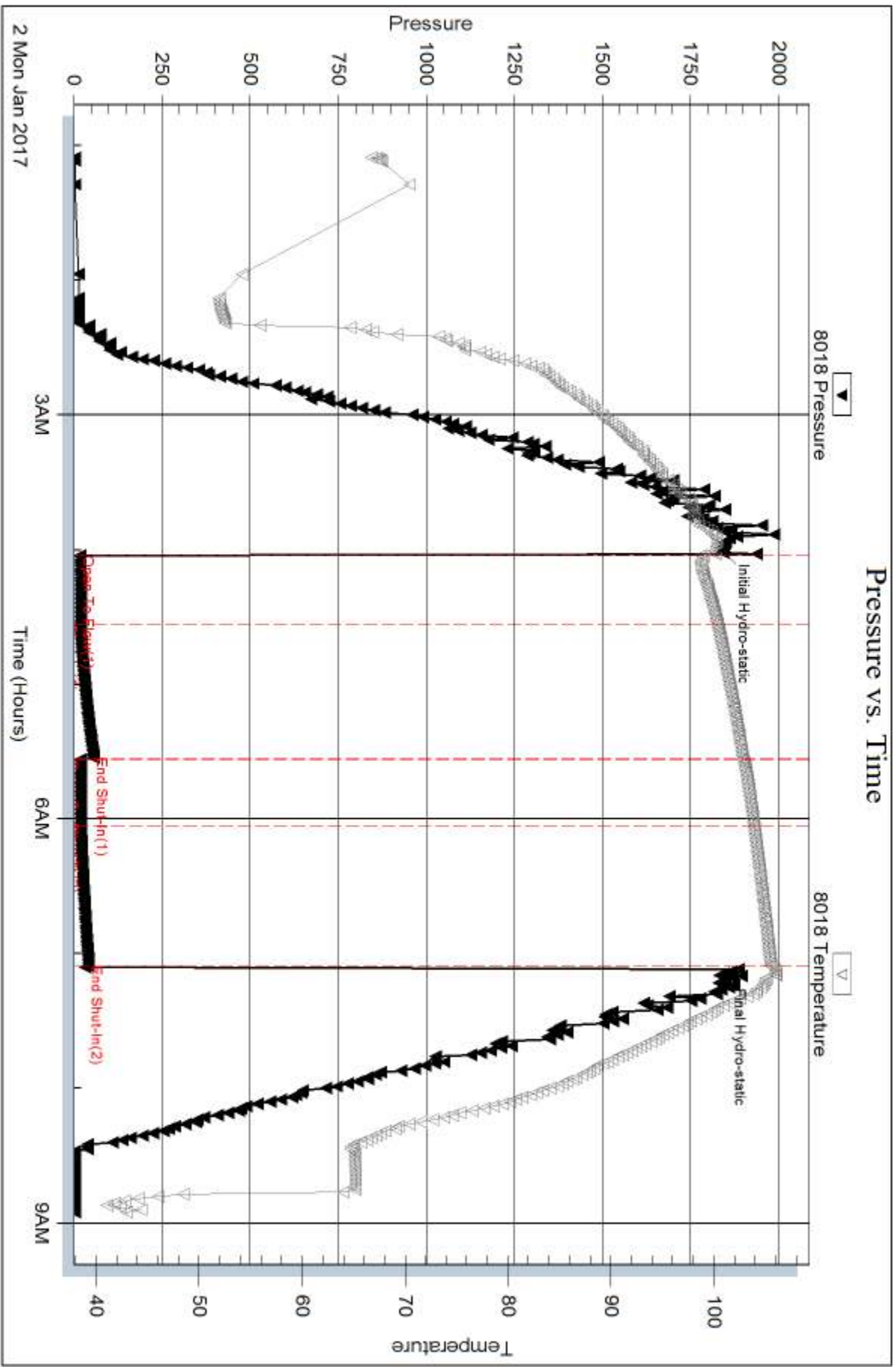
Num Gas Bombs: 0

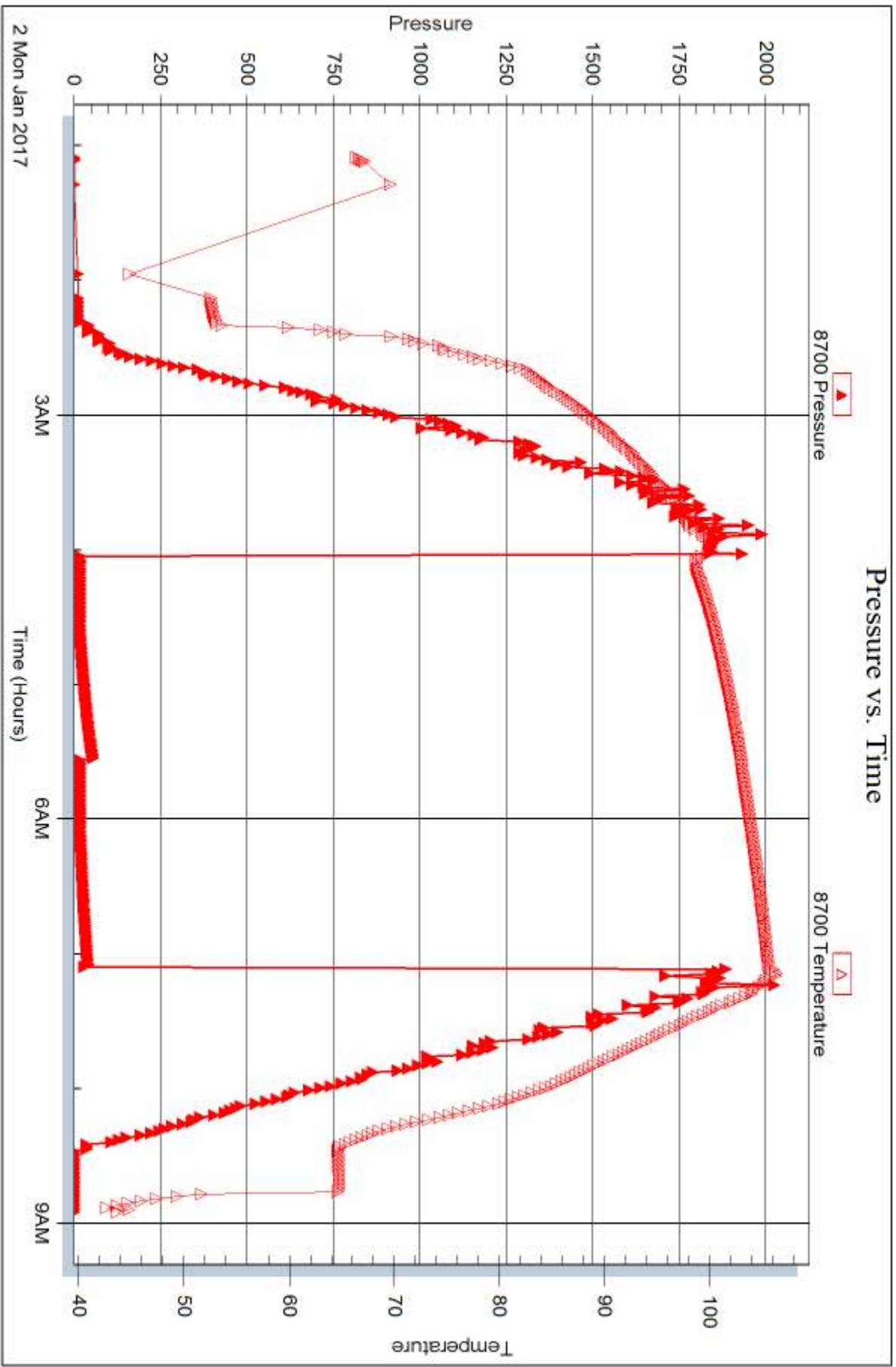
Serial #:

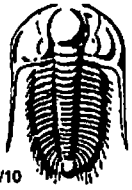
Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64080

Well Name & No. CAROLINE "A" 1-19 Test No. 1 Date 12-30-16
 Company Cobalt Energy LLC Elevation 2617 KB 2612 GL
 Address 115 S. BELMONT #12 POBOX 8037 WICHITA, KS 67208
 Co. Rep / Geo. LARRY NICHOLSON Rig MURFIN RIG 7
 Location: Sec. 19 Twp. 6^s Rge. 25^w Co. GRAHAM State Ks

Interval Tested 3708-3737 Zone Tested LKC "B"
 Anchor Length 29 Drill Pipe Run 3523 Mud Wt. 8.8
 Top Packer Depth 3703 Drill Collars Run 180 Vis 60
 Bottom Packer Depth 3208 Wt. Pipe Run - WL 6.8
 Total Depth 3737 Chlorides 900 ppm System LCM 6#

Blow Description TEF - WEAK TO A FAIR BLOW 1/2" TO 5 1/2" BLOW
ISIF - NO BLOW
FFP - WEAK BLOW THRU-OUT 1/4" TO 3" BLOW
FSTP - NO BLOW

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Oil</u>				
<u>90</u>	<u>MW</u>				
<u>240</u>	<u>WATER</u>				

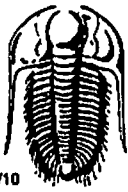
Rec Total 331 BHT 112 Gravity - API RW .14 @ 65 ° F Chlorides 57000 ppm
 (A) Initial Hydrostatic 1788 Test 1050 T-On Location 1840
 (B) First Initial Flow 21 Jars _____ T-Started 1935
 (C) First Final Flow 106 Safety Joint _____ T-Open 2205
 (D) Initial Shut-In 1029 Circ Sub _____ T-Pulled 0205
 (E) Second Initial Flow 110 Hourly Standby _____ T-Out 0448
 (F) Second Final Flow 169 Mileage 175RT 122ft 91.50
 (G) Final Shut-In 978 Sampler _____
 (H) Final Hydrostatic 1771 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1141.50

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

Comments _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1141.50
 MP/DST Disc't _____

Approved By _____ Our Representative RAY SCHWAGN *Thank you*

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. 64081

Well Name & No. CAROLINE 'A' 1-19 Test No. 2 Date 12-31-16
 Company Cobalt Energy LLC Elevation 2617 KB 2612 GL
 Address 115 S. Belmont #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. LARRY NICHOLSON Rig MURFIN 197
 Location: Sec. 19 Twp. 6^s Rge. 25^w Co. GRAHAM State Ks

Interval Tested 3733-3782 Zone Tested LKC C-6
 Anchor Length 49 Drill Pipe Run 3555 Mud Wt. 9
 Top Packer Depth 3728 Drill Collars Run 180 Vis 58
 Bottom Packer Depth 3733 Wt. Pipe Run - WL 6.8
 Total Depth 3782 Chlorides 1900 ppm System LCM 5#

Blow Description IFP - WEAK Blow thru-out 1/2" Blow
ISIP - NO Blow
FFP - NO Blow
FSIP - NO Blow

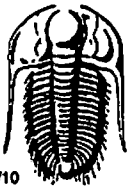
Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>50CM</u>	<u>1</u>		<u>99</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 105 Gravity - API RW - @ - F Chlorides - ppm

(A) Initial Hydrostatic 1796 Test 1050 T-On Location 1330
 (B) First Initial Flow 22 Jars - T-Started 1355
 (C) First Final Flow 34 Safety Joint - T-Open 1610
 (D) Initial Shut-In 1091 Circ Sub - T-Pulled 1910
 (E) Second Initial Flow 37 Hourly Standby - T-Out 2120
 (F) Second Final Flow 44 Mileage 91.50 Comments -
 (G) Final Shut-In 1065 Sampler -
 (H) Final Hydrostatic 1736 Straddle - Ruined Shale Packer -
 Shale Packer - Ruined Packer -
 Extra Packer - Extra Copies -
 Extra Recorder - Sub Total 0
 Day Standby - Total 1141.50
 Accessibility - MP/DST Disc't -
 Sub Total 1141.50

Approved By _____ Our Representative Ray Schwager *Thank you*

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. 64082

Well Name & No. CAROLINE "A" 1-19 Test No. 3 Date 1-1-2017
 Company Cobalt Energy LLC Elevation 2617 KB 2612 GL
 Address 115 S. Belmont #12 PO Box 8037 WICHITA, KS 67208
 Co. Rep / Geo. Larry Nicholson Rig MURFIN rig?
 Location: Sec. 19 Twp. 6^s Rge. 25^w Co. GRAHAM State Ks

Interval Tested 3825-3855 Zone Tested LKC "J"
 Anchor Length 30 Drill Pipe Run 3650 Mud Wt. 9.1
 Top Packer Depth 3820 Drill Collars Run 180 Vis 59
 Bottom Packer Depth 3825 Wt. Pipe Run - WL 6.8
 Total Depth 3855 Chlorides 1900 ppm System LCM 6#

Blow Description JFP - BOB IN 1 MIN
ISTP - BOB IN 66 MIN
FFP - STRONG THRU-OUT
FSIP - 6" Blow Back

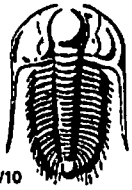
Rec	Feet of	%gas	%oil	%water	%mud
<u>960</u>	<u>GIP</u>				
<u>1740</u>	<u>CO</u>				
<u>150</u>	<u>MGO</u>	<u>20</u>	<u>60</u>		<u>20</u>

Rec Total 1890 BHT 115 Gravity 35 API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic <u>1824</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>0650</u>
(B) First Initial Flow <u>148</u>	<input type="checkbox"/> Jars	T-Started <u>0735</u>
(C) First Final Flow <u>372</u>	<input type="checkbox"/> Safety Joint	T-Open <u>0945</u>
(D) Initial Shut-In <u>1235</u>	<input checked="" type="checkbox"/> Circ Sub <u>50</u>	T-Pulled <u>1345</u>
(E) Second Initial Flow <u>378</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1705</u>
(F) Second Final Flow <u>998 696</u>	<input checked="" type="checkbox"/> Mileage <u>91.50</u>	Comments
(G) Final Shut-In <u>1199</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1804</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>1191.50</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1191.50</u>	

Approved By _____ Our Representative Ray Schwager Thank you

Triobite 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. 64083

Well Name & No. Caroline "A" 1-19 Test No. 4 Date 1-2-2017
 Company Cobalt Energy LLC Elevation 2617 KB 2612 GL
 Address 115 S. Belmont #12 PO Box 8037 Wichita, Ks 67208
 Co. Rep / Geo. LARRY Nicholson Rig Murfin rig 7
 Location: Sec. 19 Twp. 6 Rge. 25 Co. GRAHAM State Ks

Interval Tested 3853-3890 Zone Tested LKC K-2
 Anchor Length 37 Drill Pipe Run 3682 Mud Wt. 9
 Top Packer Depth 3848 Drill Collars Run 180 Vis 60
 Bottom Packer Depth 3853 Wt. Pipe Run - WL 7.2
 Total Depth 3890 Chlorides 1300 ppm System LCM 8 #

Blow Description IFP - WEAK SURFACE Blow then out
ISIP - NO Blow
FFP - NO Blow
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>Mud</u>				
	<u>w/show gas</u>				

Rec Total 2 BHT 10.5 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic 1841
 (B) First Initial Flow 18
 (C) First Final Flow 18
 (D) Initial Shut-In 56
 (E) Second Initial Flow 19
 (F) Second Final Flow 20
 (G) Final Shut-In 42
 (H) Final Hydrostatic 1831

Test 1050
 Jars
 Safety Joint
 Circ Sub
 Hourly Standby
 Mileage 91.50
 Sampler
 Straddle
 Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility
 Sub Total 1141.50

T-On Location 0000
 T-Started 0105
 T-Open 0405
 T-Pulled 0705
 T-Out 0855
 Comments
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1141.50
 MP/DST Disc't

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

Approved By _____ Our Representative Ray Schwager Thank you

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.

GEOLOGICAL REPORT

Larry A. Nicholson

NAD 83
39.52162975
-100.1467365

COMPANY & WELL Cobalt Energy, Caroline "A" #1-19

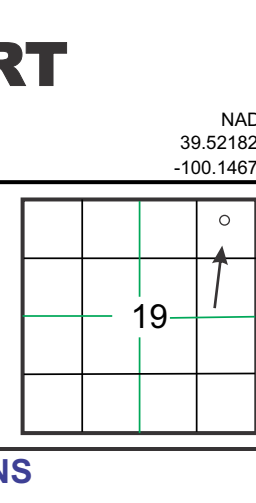
LOCATION 570 FNL 743 FEL
SEC 19 TWP 6S RGE 25W
COUNTY Graham STATE Ks

COMPANY Cobalt Energy, LLC
API # 15-065-24123 FIELD _____
LEASE Caroline WELL # "A" #1-19
LOCATION _____
SURVEY 570 FNL 743 FEL
SECTION 19 TWP 6S RGE 25W
COUNTY Graham STATE Kansas

CONTRACTOR Murfin Drilling Company, Inc. Rig # 7
SPUD 12:30 pm 12-27-2016 COMP _____
RTD 3:970 2:24 pm 01-02-16 LTD 3,970
MUD UP AT 3137 displace 700 bbl
MUD TYPE Chemical MudCo

SAMPLES SAVED FROM 3400 TO RTD
DRILLING TIME FROM 3400 TO RTD
SAMPLES EXAMINED FROM 3400 TO RTD
GEOLOGICAL SUPERVISION FROM 3400 TO RTD
WELLSITE GEOLOGIST LARRY A. NICHOLSON

ELECTRICAL SURVEYS Pioneer, Den, Neu, Dual, Micro



ELEVATIONS

K.B. 2617
D.F. _____
G.L. 2612
All measurements from K.B. 2617

CASING RECORD

Conductor of _____ w/ _____ sx
Surface 336 of 8.5/8 23# w/ 225 sx
Production of _____ w/ _____ sx

FORMATION TOPS & STRUCTURAL POSITION

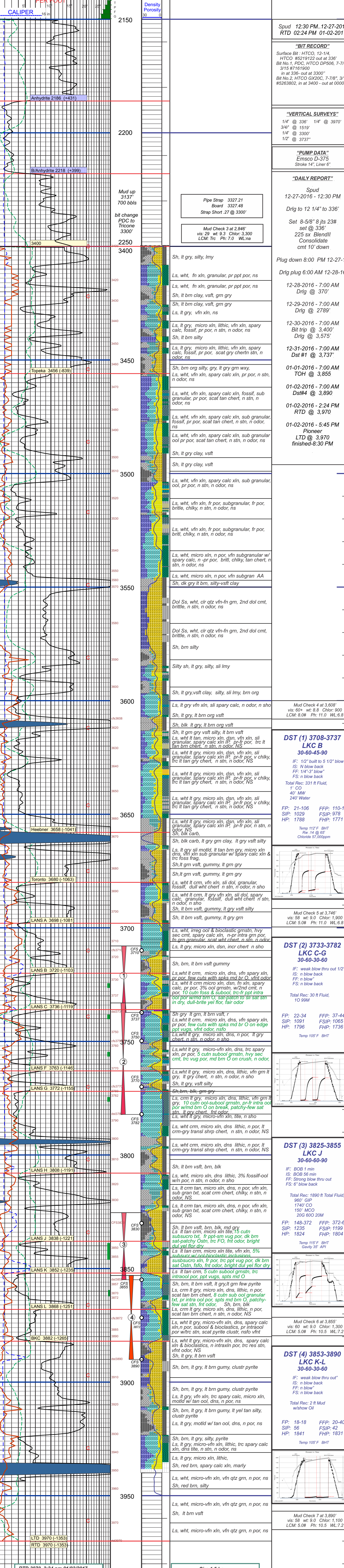
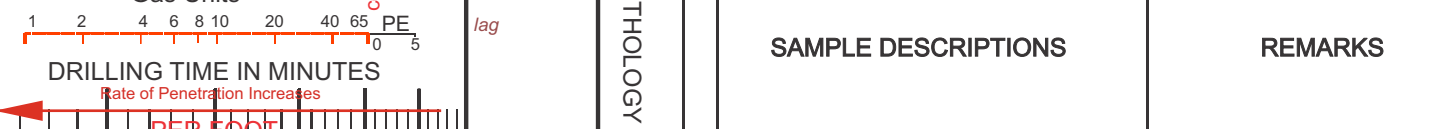
FORMATION	SAMPLE TOPS	SUBSEA DATUM	ELEC LOG TOPS	SUBSEA DATUM	REFERENCE WELL
					A B
Anhydrite			2186	+431	
B/Anhydrite			2218	+399	
Topeka			3456	-839	
Heebner			3658	-1041	
LANS A			3698	-1081	
LANS G			3772	-1155	
LANS H			3808	-1191	
LANS J			3838	-1221	
LANS K			3852	-1235	
LANS L			3868	-1251	
BKC			3882	-1265	
RTD			3970	-1353	
LTD			3970	-1353	

REFERENCE WELLS A: _____
B: _____

REMARKS & RECOMMENDATIONS:
Based on sample shows, dst recovery & pressures, 5 1/2 csg was run

LAN 7/92, Modified 5/05, 11/11, 4/12 Hanover, KS 66945 1inch = 25.4mm 8.5 x 9.75 216 mm x 2460 mm

LEGEND



RTD 3970 2:24 pm 01/02/2017 LTD 3970

Circ 1.5 hr TOH for Logs

COMPANY Cobalt Energy, LLC
LEASE Caroline "A" #1-19
LOCATION 570 FNL 743 FEL SEC. 19 TWP 6S RGE 25W
COUNTY Graham STATE Ks

ELEVATIONS
K.B. 2617
D.F. _____
G.L. 2612
All measurements from K.B. 2617