

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 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) (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:	
----------------	-------	---------	------------	--



DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Radnor "A" #1-30

30-15S-33W Logan,KS

Start Date: 2018.03.31 @ 08:35:48

End Date: 2018.03.31 @ 15:11:24

Job Ticket #: 63420 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.04.09 @ 12:02:44



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Cobalt Energy, LLC

30-15S-33W Logan, KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

ATTN: Corey Baker

Job Ticket: 63420

DST#: 1

Test Start: 2018.03.31 @ 08:35:48

GENERAL INFORMATION:

Formation: **LKC "D-F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:01:24

Time Test Ended: 15:11:24

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3912.00 ft (KB) To 3985.00 ft (KB) (TVD)

Reference Elevations: 2930.00 ft (KB)

Total Depth: 3985.00 ft (KB) (TVD)

2925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 363.83 psig @ 3917.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.03.31

End Date:

2018.03.31

Last Calib.:

2018.03.31

Start Time: 08:35:49

End Time:

15:11:24

Time On Btm:

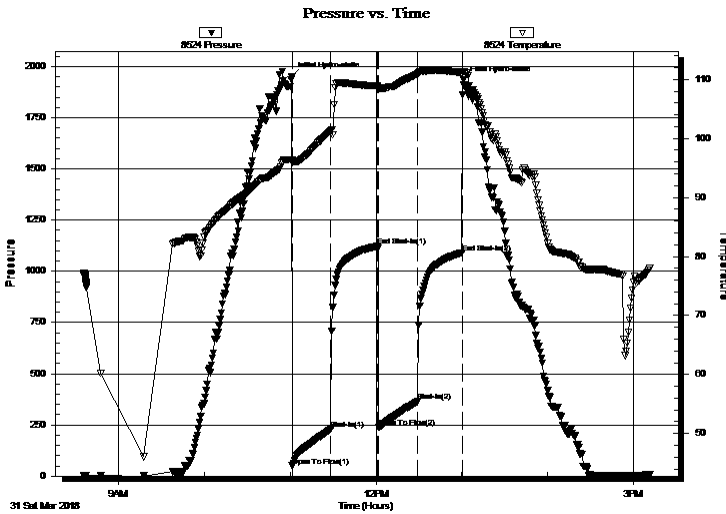
2018.03.31 @ 11:01:09

Time Off Btm:

2018.03.31 @ 13:00:54

TEST COMMENT: 30- IF- BOB 6 mins
30- IS- No blow
30- FF- BOB 8 mins
30- FS- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1950.33	96.42	Initial Hydro-static
1	49.62	95.92	Open To Flow (1)
28	228.67	101.24	Shut-In(1)
60	1121.96	108.83	End Shut-In(1)
61	238.55	108.56	Open To Flow (2)
88	363.83	110.88	Shut-In(2)
119	1090.88	111.15	End Shut-In(2)
120	1932.81	111.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
730.00	MW, 40%M 60%W	9.01

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Cobalt Energy, LLC

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63420

DST#: 1

ATTN: Corey Baker

Test Start: 2018.03.31 @ 08:35:48

Tool Information

Drill Pipe:	Length: 3770.00 ft	Diameter: 3.82 inches	Volume: 53.44 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: 144.00 ft	Diameter: 2.25 inches	Volume: 0.71 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	3912.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	73.00 ft			
Tool Length:	101.00 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			3885.00	
Shut In Tool	5.00			3890.00	
Hydraulic tool	5.00			3895.00	
Jars	5.00			3900.00	
Safety Joint	3.00			3903.00	
Packer	5.00			3908.00	28.00 Bottom Of Top Packer
Packer	4.00			3912.00	
Stubb	1.00			3913.00	
Perforations	4.00			3917.00	
Recorder	0.00	6771	Inside	3917.00	
Recorder	0.00	8524	Outside	3917.00	
Change Over Sub	1.00			3918.00	
Drill Pipe	63.00			3981.00	
Change Over Sub	1.00			3982.00	
Bullnose	3.00			3985.00	73.00 Bottom Packers & Anchor

Total Tool Length: 101.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63420

DST#: 1

ATTN: Corey Baker

Test Start: 2018.03.31 @ 08:35:48

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:

50000 ppm

Viscosity: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.37 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
730.00	MW, 40%M 60%W	9.015

Total Length: 730.00 ft Total Volume: 9.015 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

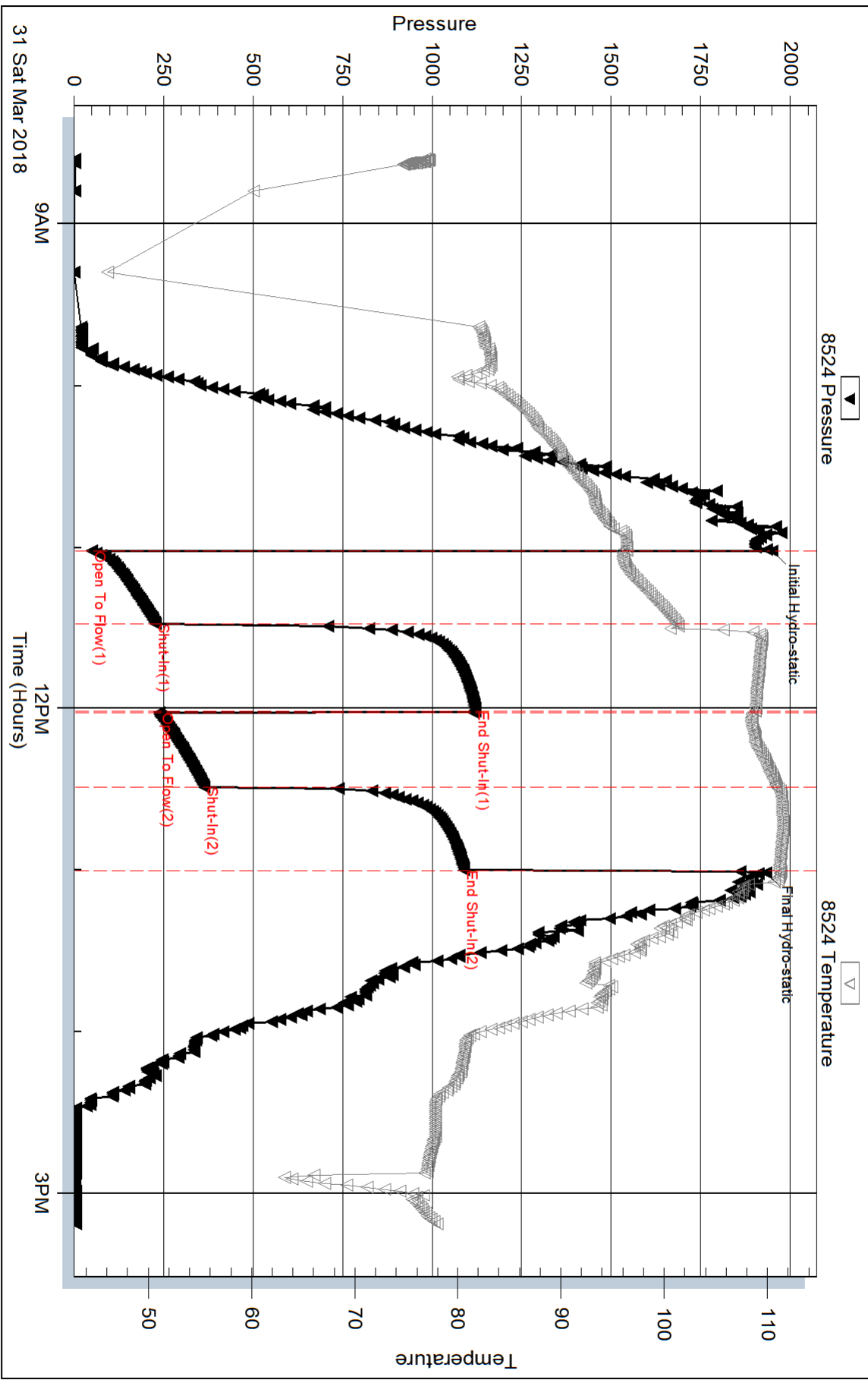
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .17@56deg

Pressure vs. Time



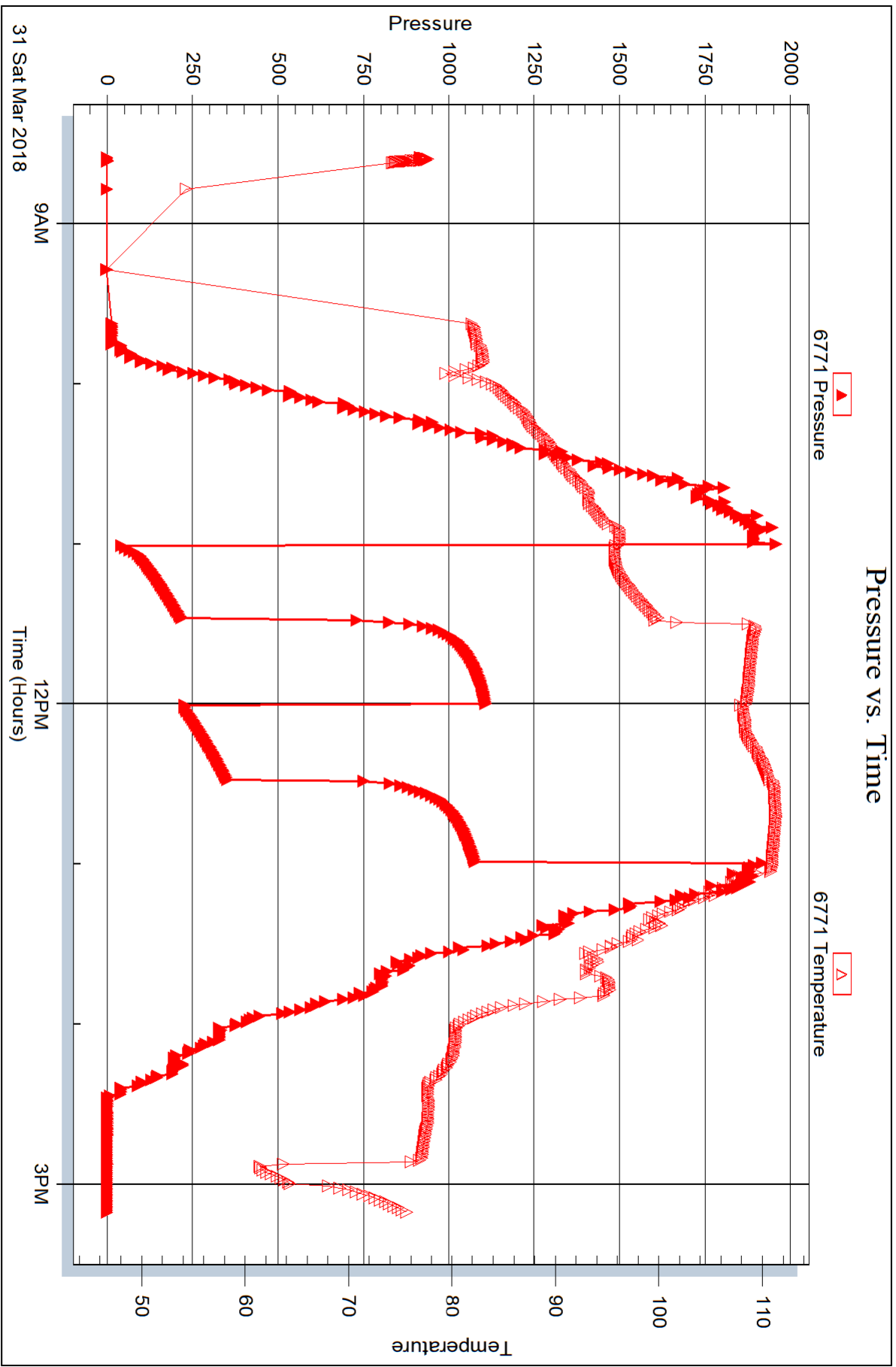
Serial #: 6771

Inside

Cobalt Energy, LLC

Radnor "A" #1-30

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Radnor "A" #1-30

30-15S-33W Logan,KS

Start Date: 2018.04.01 @ 07:06:55

End Date: 2018.04.01 @ 14:55:01

Job Ticket #: 63421 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.04.09 @ 12:02:24



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Cobalt Energy, LLC

30-15S-33W Logan, KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

ATTN: Corey Baker

Job Ticket: 63421

DST#: 2

Test Start: 2018.04.01 @ 07:06:55

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:27:31

Time Test Ended: 14:55:01

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 4032.00 ft (KB) To 4125.00 ft (KB) (TVD)

Reference Elevations: 2930.00 ft (KB)

Total Depth: 4125.00 ft (KB) (TVD)

2925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 71.31 psig @ 4057.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.04.01 End Date: 2018.04.01

Last Calib.: 2018.04.01

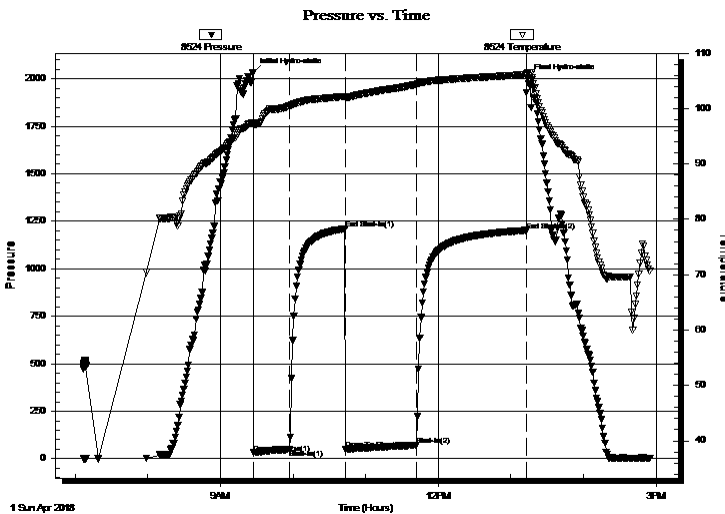
Start Time: 07:06:56 End Time: 14:55:01

Time On Btm: 2018.04.01 @ 09:27:16

Time Off Btm: 2018.04.01 @ 13:13:31

TEST COMMENT: 30- IF- Slow ly built to 3 1/2"
45- IS- No blow
60- FF- Slow ly built to 3 1/2"
90- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2033.44	97.47	Initial Hydro-static
1	31.41	96.98	Open To Flow (1)
30	49.04	100.45	Shut-In(1)
76	1211.08	102.21	End Shut-In(1)
77	51.44	101.91	Open To Flow (2)
135	71.31	104.38	Shut-In(2)
226	1201.93	106.11	End Shut-In(2)
227	2002.27	106.52	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
93.00	OSM	1.04

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

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63421

DST#: 2

ATTN: Corey Baker

Test Start: 2018.04.01 @ 07:06:55

Tool Information

Drill Pipe:	Length: 3992.00 ft	Diameter: 3.82 inches	Volume: 56.59 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	4032.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	93.00 ft			
Tool Length:	121.00 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			4005.00	
Shut In Tool	5.00			4010.00	
Hydraulic tool	5.00			4015.00	
Jars	5.00			4020.00	
Safety Joint	3.00			4023.00	
Packer	5.00			4028.00	28.00 Bottom Of Top Packer
Packer	4.00			4032.00	
Stubb	1.00			4033.00	
Perforations	24.00			4057.00	
Recorder	0.00	6771	Inside	4057.00	
Recorder	0.00	8524	Outside	4057.00	
Change Over Sub	1.00			4058.00	
Drill Pipe	63.00			4121.00	
Change Over Sub	1.00			4122.00	
Bullnose	3.00			4125.00	93.00 Bottom Packers & Anchor

Total Tool Length: 121.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63421

DST#: 2

ATTN: Corey Baker

Test Start: 2018.04.01 @ 07:06:55

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: 5.57 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
93.00	OSM	1.041

Total Length: 93.00 ft Total Volume: 1.041 bbl

Num Fluid Samples: 0

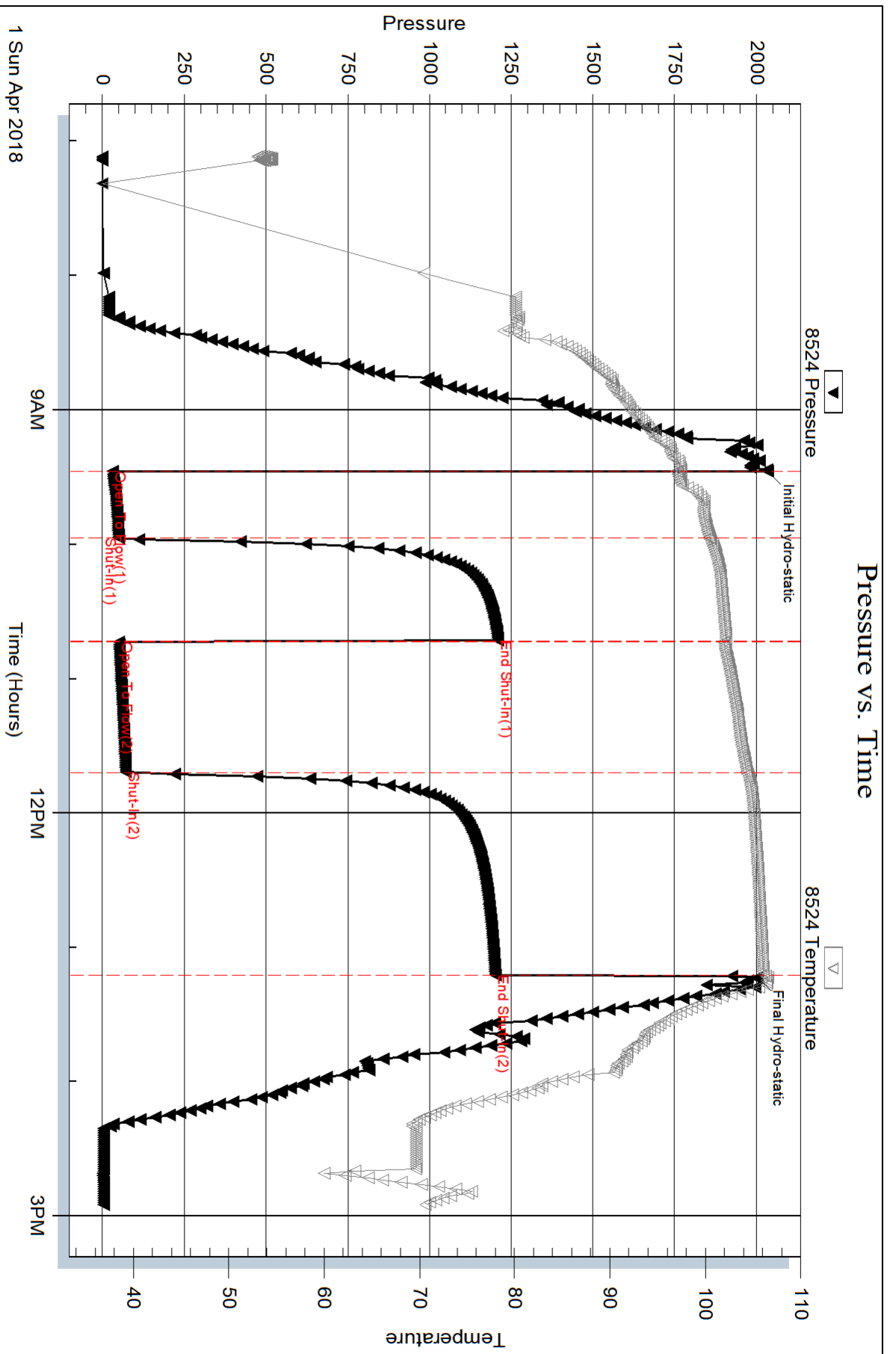
Num Gas Bombs: 0

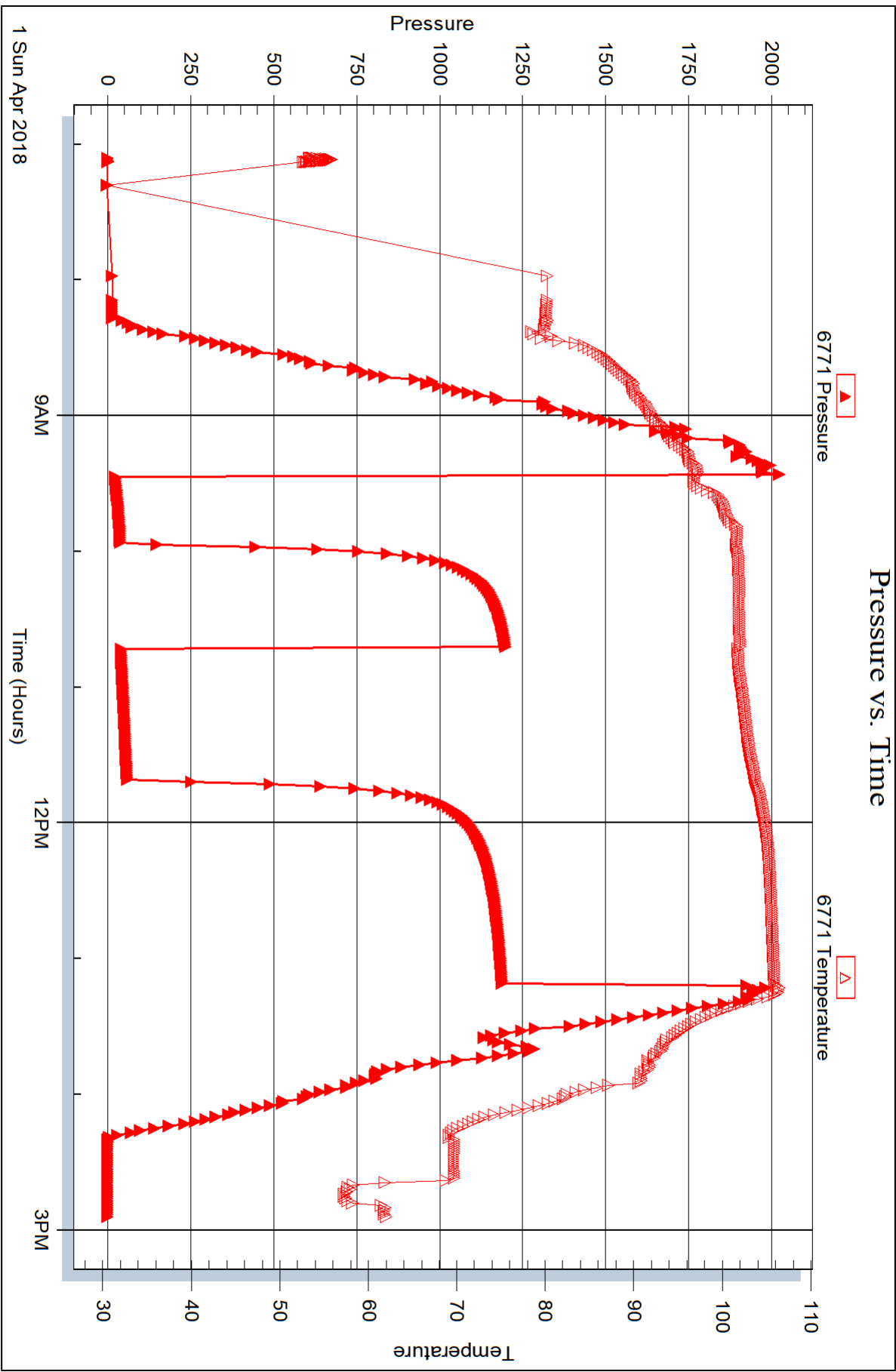
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Radnor "A" #1-30

30-15S-33W Logan,KS

Start Date: 2018.04.02 @ 00:29:38

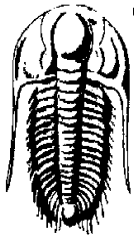
End Date: 2018.04.02 @ 06:02:44

Job Ticket #: 63422 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.04.09 @ 12:02:04

Cobalt Energy, LLC
30-15S-33W Logan,KS
Radnor "A" #1-30
DST # 3
LKC "K - L"
2018.04.02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Cobalt Energy, LLC

30-15S-33W Logan, KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

ATTN: Corey Baker

Job Ticket: 63422

DST#: 3

Test Start: 2018.04.02 @ 00:29:38

GENERAL INFORMATION:

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

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:10:59

Time Test Ended: 06:02:44

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 4126.00 ft (KB) To 4190.00 ft (KB) (TVD)

Reference Elevations: 2930.00 ft (KB)

Total Depth: 4190.00 ft (KB) (TVD)

2925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 669.23 psig @ 4153.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.04.02

End Date:

2018.04.02

Last Calib.:

2018.04.02

Start Time: 00:29:39

End Time:

06:02:44

Time On Btm:

2018.04.02 @ 02:09:59

Time Off Btm:

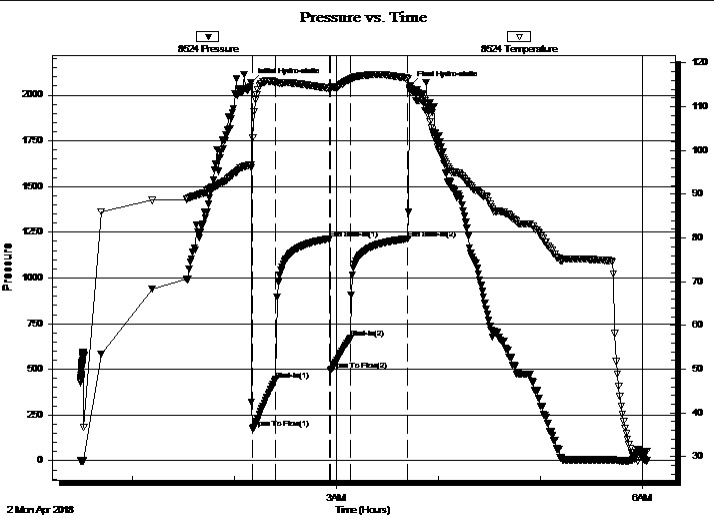
2018.04.02 @ 03:43:29

TEST COMMENT: 15- IF- BOB 30 secs

30- IS- No blow

15- FF- BOB 1 min

30- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2067.11	96.70	Initial Hydro-static
1	175.67	102.94	Open To Flow (1)
15	440.91	115.55	Shut-In(1)
46	1214.14	114.24	End Shut-In(1)
47	494.47	114.09	Open To Flow (2)
59	669.23	116.34	Shut-In(2)
93	1214.68	116.49	End Shut-In(2)
94	2050.06	113.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1377.00	MW, 25%M 75%W	19.24

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

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63422

DST#: 3

ATTN: Corey Baker

Test Start: 2018.04.02 @ 00:29:38

Tool Information

Drill Pipe:	Length: 4087.00 ft	Diameter: 3.82 inches	Volume: 57.93 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	4126.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 ft			
Tool Length:	92.00 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			4099.00	
Shut In Tool	5.00			4104.00	
Hydraulic tool	5.00			4109.00	
Jars	5.00			4114.00	
Safety Joint	3.00			4117.00	
Packer	5.00			4122.00	28.00 Bottom Of Top Packer
Packer	4.00			4126.00	
Stubb	1.00			4127.00	
Perforations	26.00			4153.00	
Recorder	0.00	6771	Inside	4153.00	
Recorder	0.00	8524	Outside	4153.00	
Change Over Sub	1.00			4154.00	
Drill Pipe	32.00			4186.00	
Change Over Sub	1.00			4187.00	
Bullnose	3.00			4190.00	64.00 Bottom Packers & Anchor

Total Tool Length: 92.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63422

DST#: 3

ATTN: Corey Baker

Test Start: 2018.04.02 @ 00:29:38

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:

46000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.96 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
1377.00	MW, 25%M 75%W	19.242

Total Length: 1377.00 ft Total Volume: 19.242 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

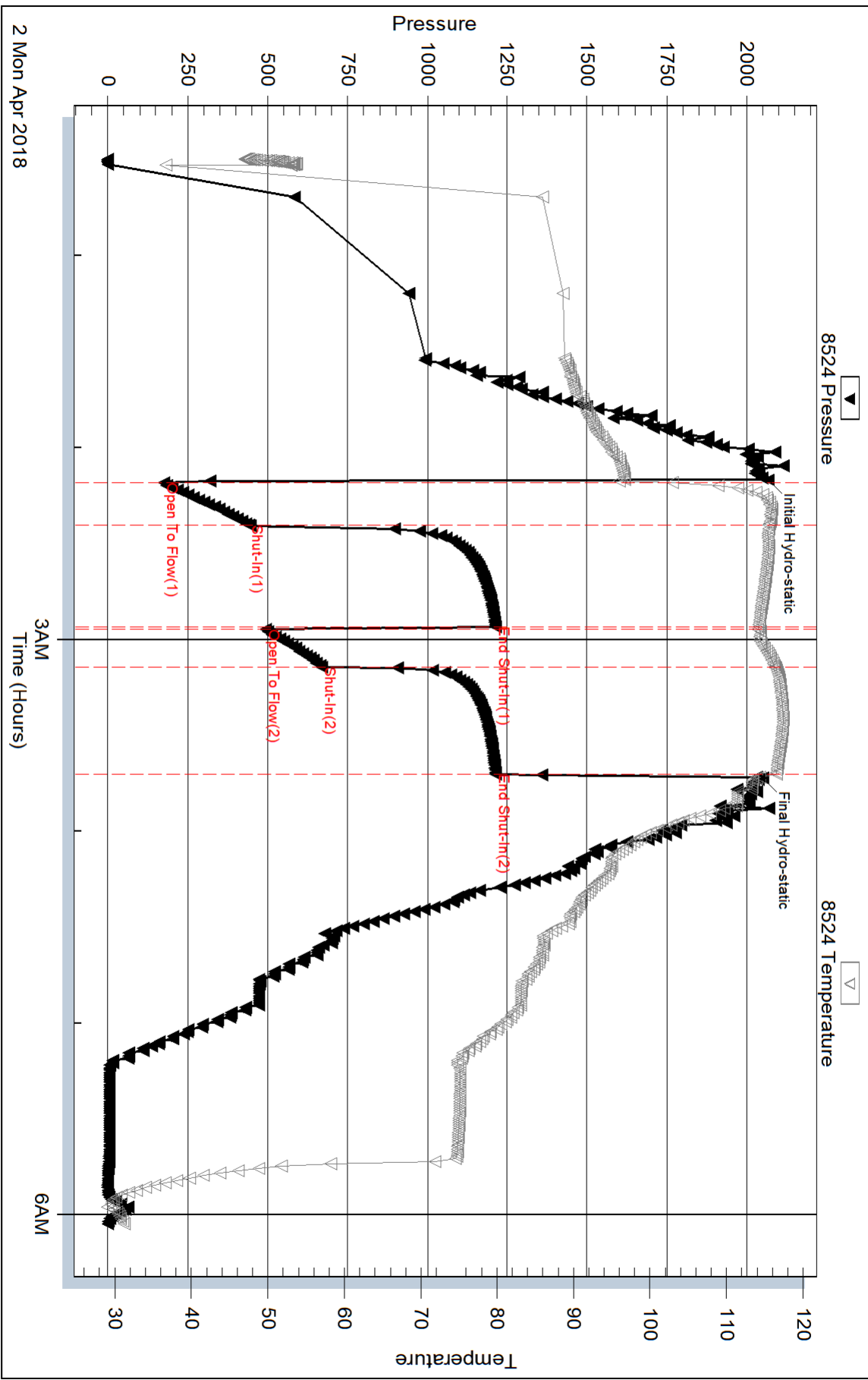
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .24@42deg

Pressure vs. Time



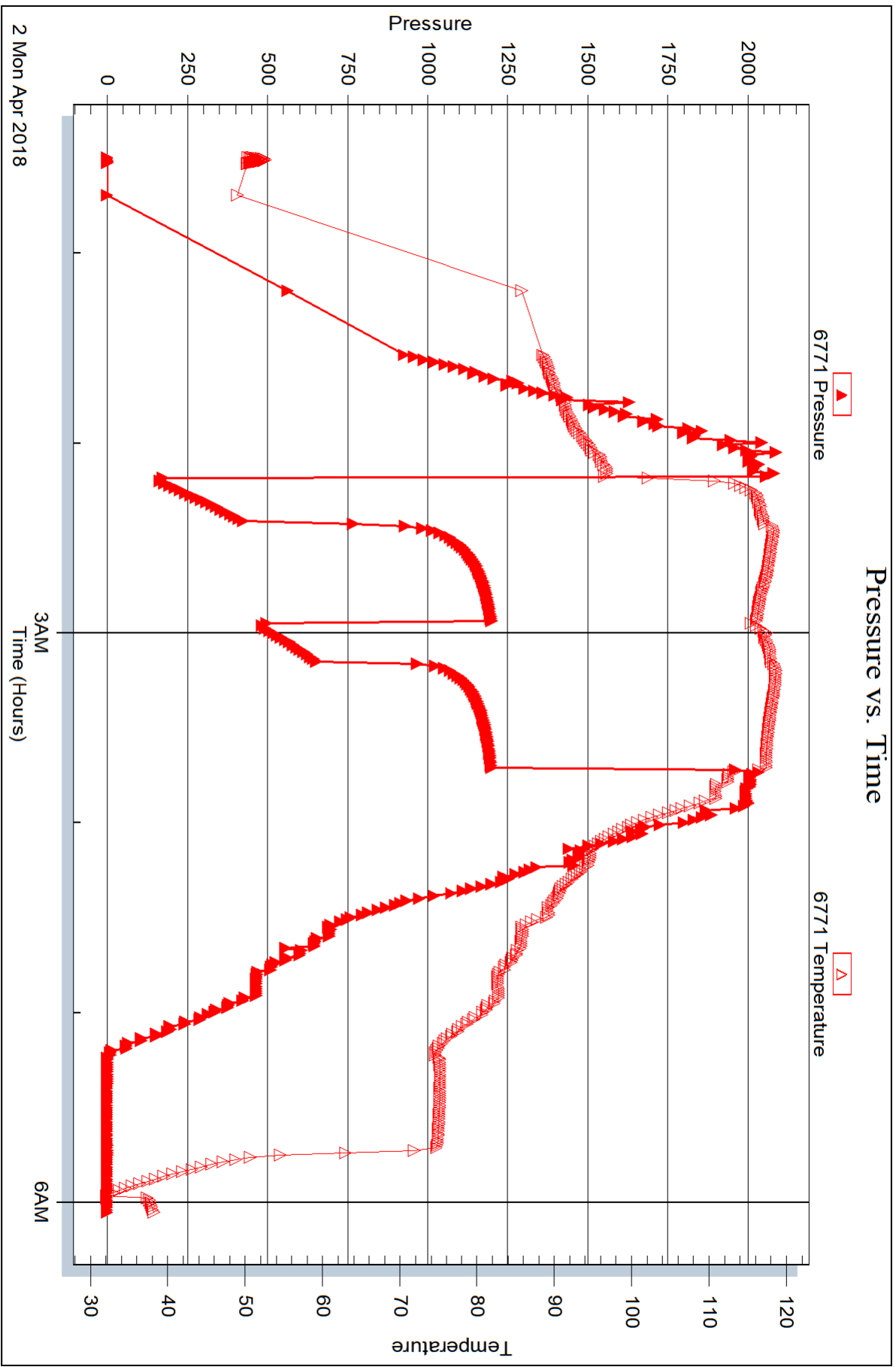
Serial #: 6771

Inside

Cobalt Energy, LLC

Radnor "A" #1-30

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Radnor "A" #1-30

30-15S-33W Logan,KS

Start Date: 2018.04.02 @ 16:29:16

End Date: 2018.04.02 @ 23:25:37

Job Ticket #: 63423 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.04.09 @ 12:01:43

Cobalt Energy, LLC

30-15S-33W Logan,KS

Radnor "A" #1-30

DST # 4

Pleasanton - Marmato

2018.04.02



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

30-15S-33W Logan, KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

ATTN: Corey Baker

Job Ticket: 63423

DST#: 4

Test Start: 2018.04.02 @ 16:29:16

GENERAL INFORMATION:

Formation: **Pleasanton - Marmato**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:18:22

Time Test Ended: 23:25:37

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 4202.00 ft (KB) To 4250.00 ft (KB) (TVD)

Reference Elevations: 2930.00 ft (KB)

Total Depth: 4250.00 ft (KB) (TVD)

2925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 796.88 psig @ 4213.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.04.02 End Date: 2018.04.02

Last Calib.: 2018.04.02

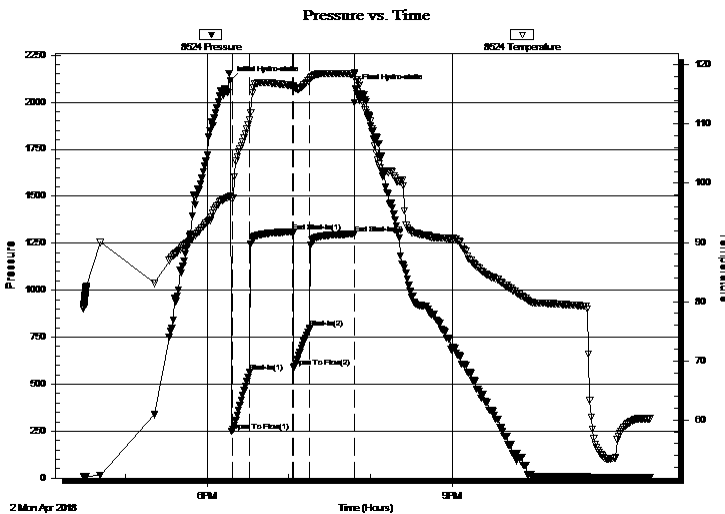
Start Time: 16:29:17 End Time: 23:25:37

Time On Btm: 2018.04.02 @ 18:17:22

Time Off Btm: 2018.04.02 @ 19:49:07

TEST COMMENT: 15- IF- BOB 30 secs
30- IS- Weak surface blow died in 6 mins
15- FF- BOB 90 secs
30- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2114.62	97.84	Initial Hydro-static
1	247.36	97.58	Open To Flow (1)
14	561.99	110.63	Shut-In(1)
46	1310.23	116.49	End Shut-In(1)
46	591.79	116.26	Open To Flow (2)
58	796.88	117.48	Shut-In(2)
91	1299.74	118.41	End Shut-In(2)
92	2070.33	117.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1890.00	GMWCO, 25%G 25%W 5%M 45%O	26.51

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

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63423

DST#: 4

ATTN: Corey Baker

Test Start: 2018.04.02 @ 16:29:16

Tool Information

Drill Pipe:	Length: 4151.00 ft	Diameter: 3.82 inches	Volume: 58.84 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4202.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	76.00 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			4175.00	
Shut In Tool	5.00			4180.00	
Hydraulic tool	5.00			4185.00	
Jars	5.00			4190.00	
Safety Joint	3.00			4193.00	
Packer	5.00			4198.00	28.00 Bottom Of Top Packer
Packer	4.00			4202.00	
Stubb	1.00			4203.00	
Perforations	10.00			4213.00	
Recorder	0.00	6771	Inside	4213.00	
Recorder	0.00	8524	Outside	4213.00	
Change Over Sub	1.00			4214.00	
Drill Pipe	32.00			4246.00	
Change Over Sub	1.00			4247.00	
Bullnose	3.00			4250.00	48.00 Bottom Packers & Anchor

Total Tool Length: 76.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63423

DST#: 4

ATTN: Corey Baker

Test Start: 2018.04.02 @ 16:29:16

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

58000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.17 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1890.00	GMWCO, 25%G 25%W 5%M 45%O	26.514

Total Length: 1890.00 ft Total Volume: 26.514 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

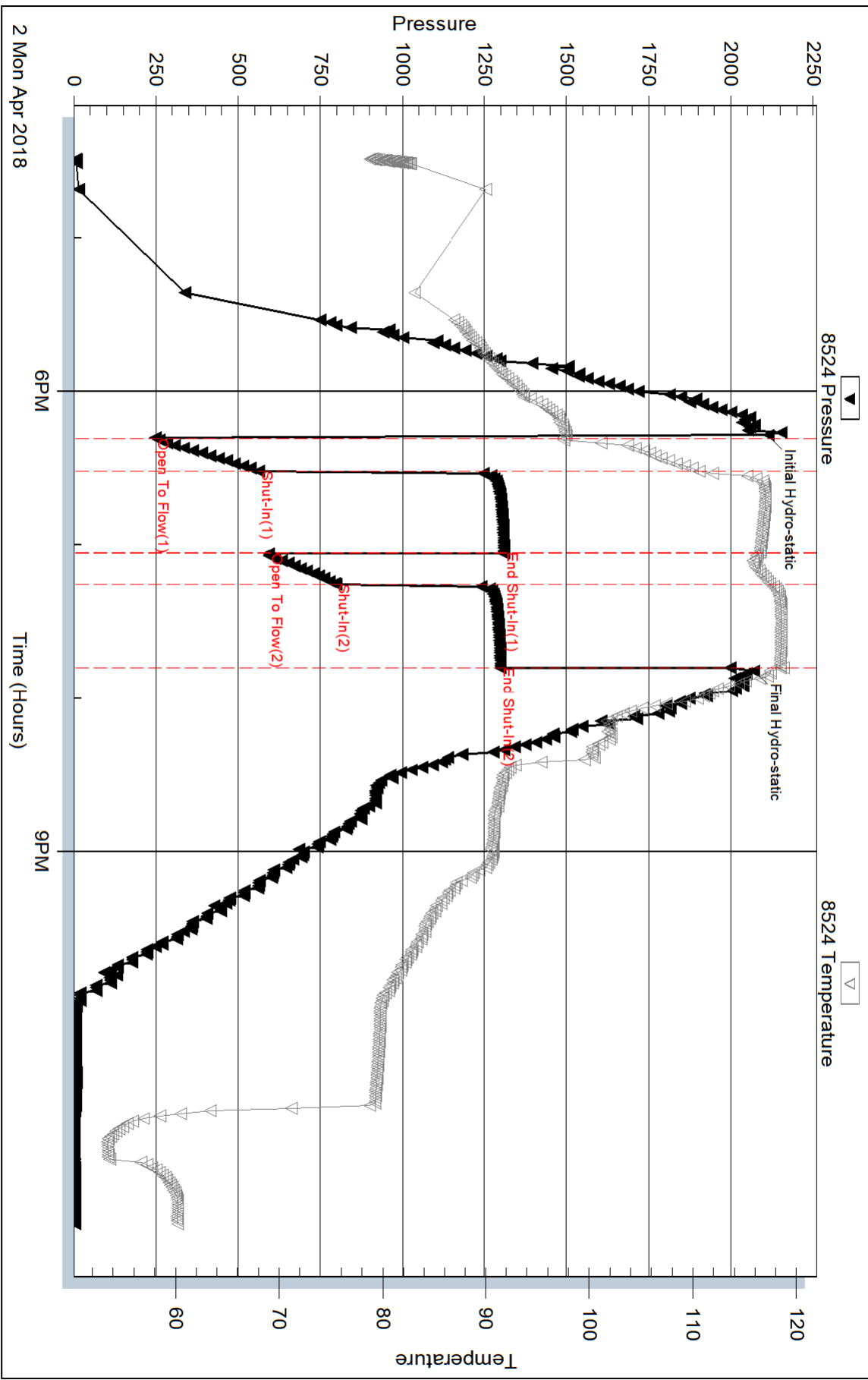
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .15@53deg

Pressure vs. Time



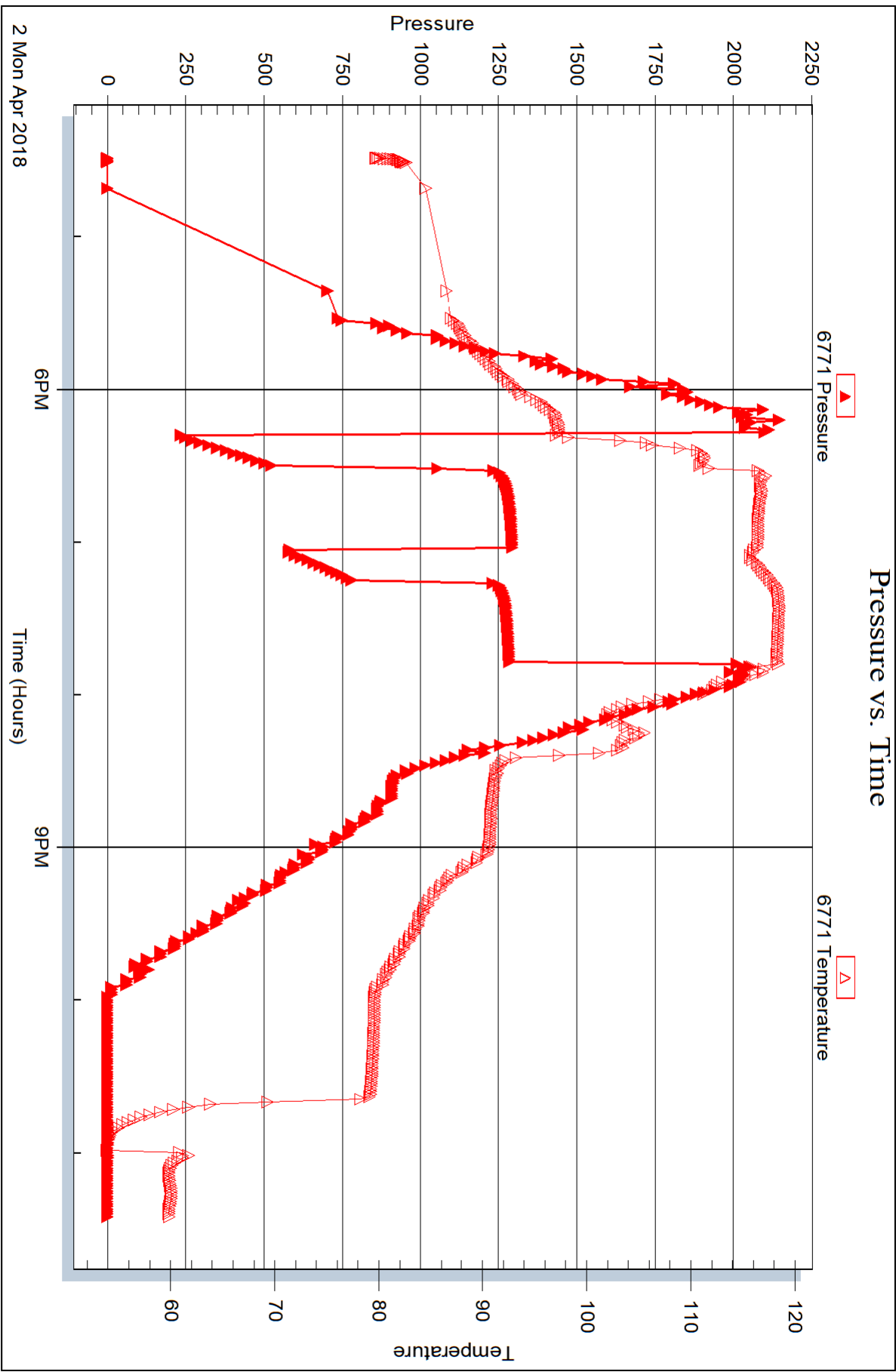
Serial #: 6771

Inside

Cobalt Energy, LLC

Radnor "A" #1-30

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Radnor "A" #1-30

30-15S-33W Logan,KS

Start Date: 2018.04.03 @ 08:28:17

End Date: 2018.04.03 @ 18:28:52

Job Ticket #: 63424 DST #: 5

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.04.09 @ 12:01:23



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

30-15S-33W Logan, KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

ATTN: Corey Baker

Job Ticket: 63424

DST#: 5

Test Start: 2018.04.03 @ 08:28:17

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:59:53

Time Test Ended: 18:28:52

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 4264.00 ft (KB) To 4285.00 ft (KB) (TVD)

Reference Elevations: 2930.00 ft (KB)

Total Depth: 4285.00 ft (KB) (TVD)

2925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 29.76 psig @ 4282.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.04.03

End Date:

2018.04.03

Last Calib.:

2018.04.03

Start Time: 08:28:18

End Time:

18:28:52

Time On Btm:

2018.04.03 @ 10:59:38

Time Off Btm:

2018.04.03 @ 13:00:38

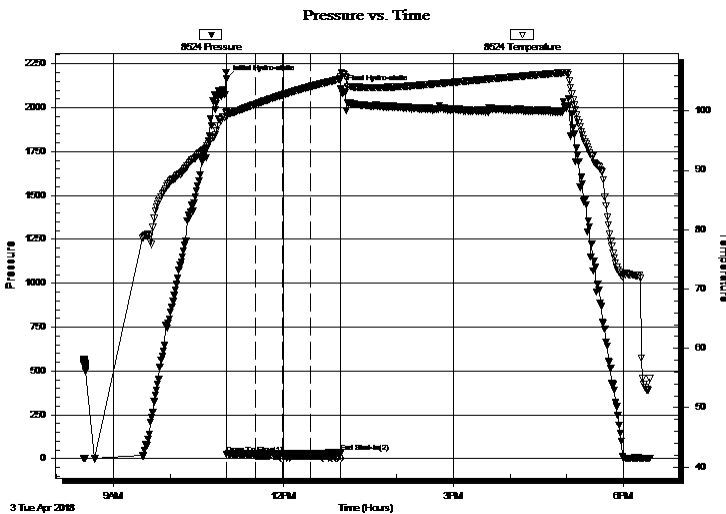
TEST COMMENT: 30- IF- Weak surface blow died 17 mins

30- IS- No blow

30- FF- No blow

30- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2162.81	99.80	Initial Hydro-static
1	26.84	98.93	Open To Flow (1)
31	28.57	101.10	Shut-In(1)
60	32.97	102.69	End Shut-In(1)
61	28.81	102.75	Open To Flow (2)
89	29.76	104.07	Shut-In(2)
121	35.19	105.36	End Shut-In(2)
121	2105.88	105.78	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	M	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

30-15S-33W Logan, KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63424

DST#: 5

ATTN: Corey Baker

Test Start: 2018.04.03 @ 08:28:17

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:59:53

Time Test Ended: 18:28:52

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: **4264.00 ft (KB) To 4285.00 ft (KB) (TVD)**

Total Depth: 4285.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2930.00 ft (KB)

2925.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6771 **Inside**

Press@RunDepth: psig @ 4282.00 ft (KB)

Start Date: 2018.04.03 End Date: 2018.04.03

Start Time: 08:28:34 End Time: 18:28:53

Capacity: 8000.00 psig

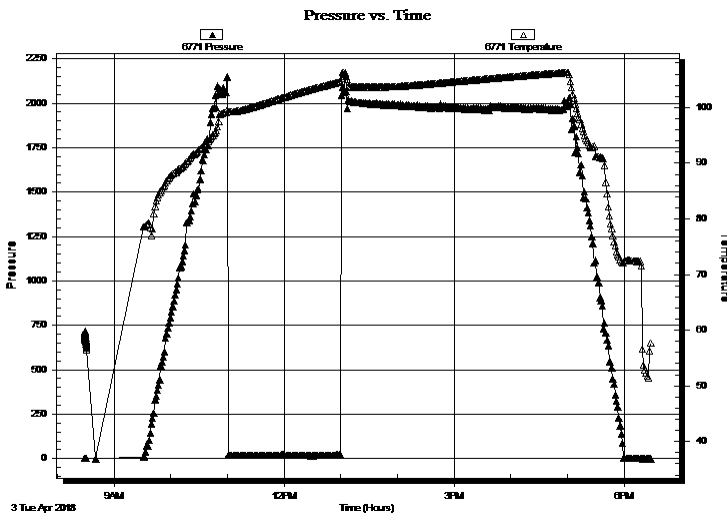
Last Calib.: 2018.04.03

Time On Btm:

Time Off Btm:

TEST COMMENT: 30- IF- Weak surface blow died 17 mins
30- IS- No blow
30- FF- No blow
30- FSI- No blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
1.00	M	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

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63424

DST#: 5

ATTN: Corey Baker

Test Start: 2018.04.03 @ 08:28:17

Tool Information

Drill Pipe:	Length: 4214.00 ft	Diameter: 3.82 inches	Volume: 59.74 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	8.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	4264.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 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			4237.00	
Shut In Tool	5.00			4242.00	
Hydraulic tool	5.00			4247.00	
Jars	5.00			4252.00	
Safety Joint	3.00			4255.00	
Packer	5.00			4260.00	28.00 Bottom Of Top Packer
Packer	4.00			4264.00	
Stubb	1.00			4265.00	
Perforations	17.00			4282.00	
Recorder	0.00	6771	Inside	4282.00	
Recorder	0.00	8524	Outside	4282.00	
Bullnose	3.00			4285.00	21.00 Bottom Packers & Anchor

Total Tool Length: 49.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63424

DST#: 5

ATTN: Corey Baker

Test Start: 2018.04.03 @ 08:28:17

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	M	0.005

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

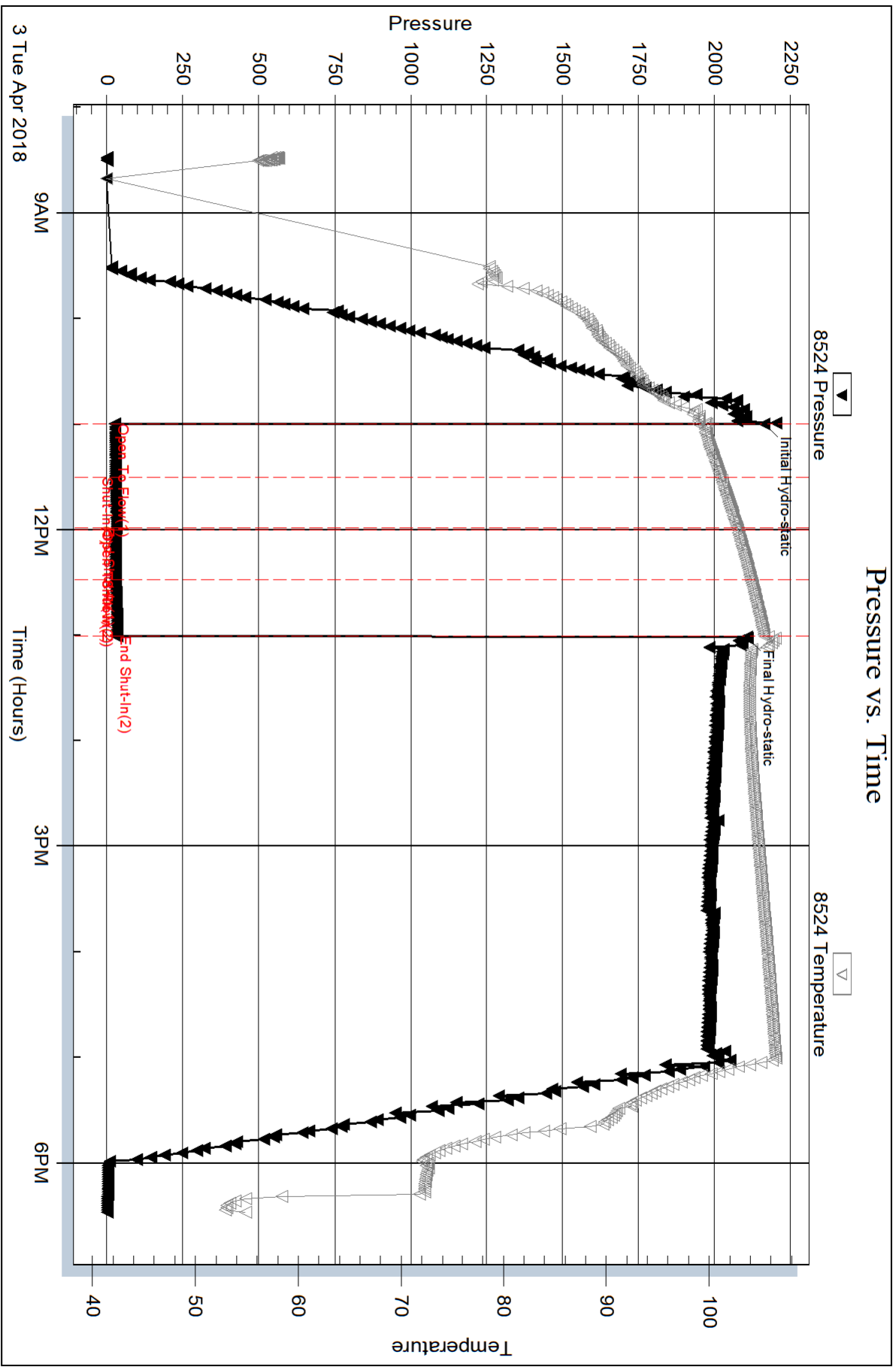
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



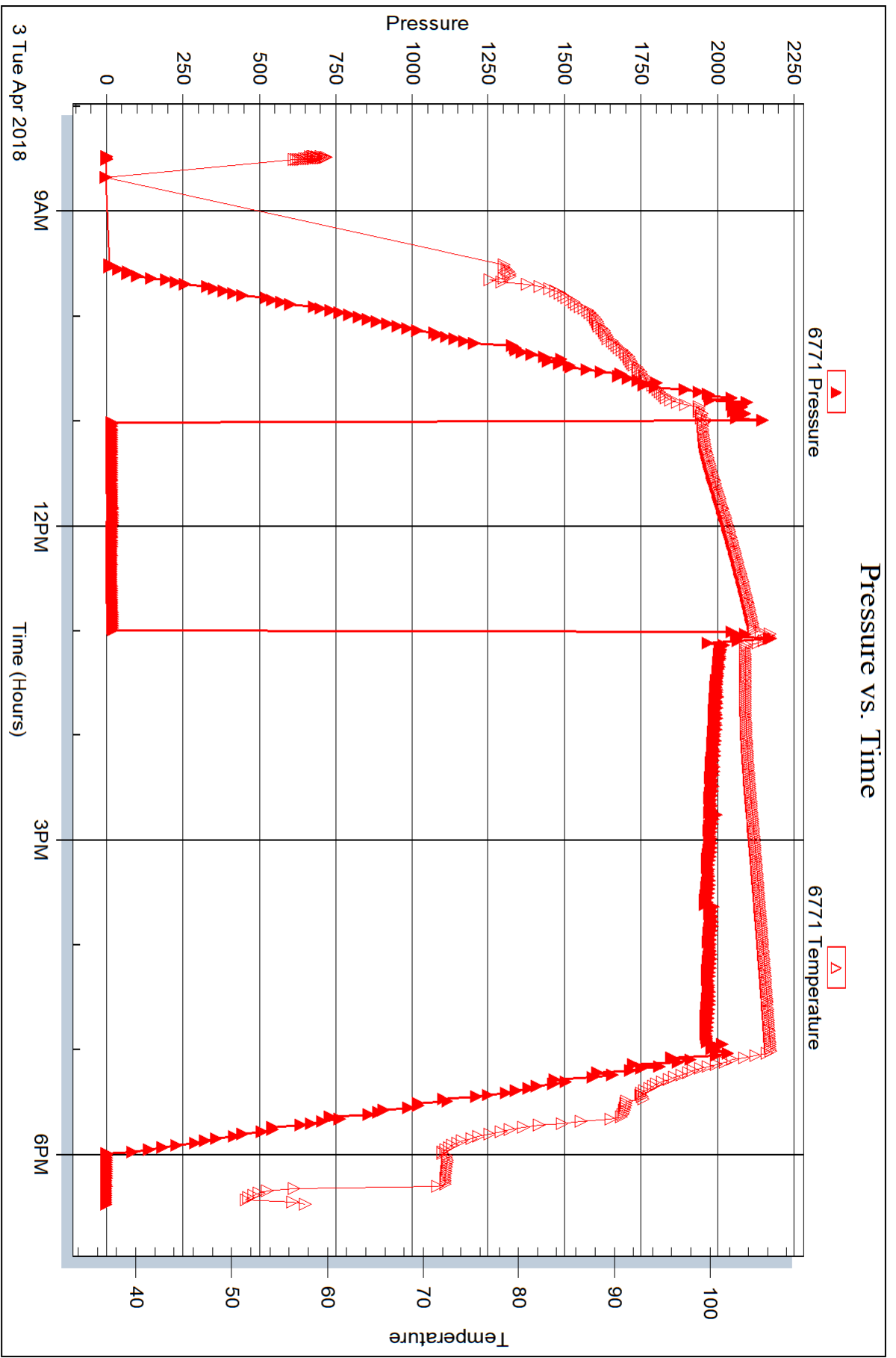
Serial #: 6771

Inside

Cobalt Energy, LLC

Radnor "A" #1-30

DST Test Number: 5





DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Radnor "A" #1-30

30-15S-33W Logan,KS

Start Date: 2018.04.04 @ 03:04:31

End Date: 2018.04.04 @ 09:05:22

Job Ticket #: 63425 DST #: 6

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.04.09 @ 12:01:00



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

30-15S-33W Logan, KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

ATTN: Corey Baker

Job Ticket: 63425

DST#: 6

Test Start: 2018.04.04 @ 03:04:31

GENERAL INFORMATION:

Formation: **Altamont**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:24:22

Time Test Ended: 09:05:22

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 4270.00 ft (KB) To 4330.00 ft (KB) (TVD)

Reference Elevations: 2930.00 ft (KB)

Total Depth: 4330.00 ft (KB) (TVD)

2925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 33.86 psig @ 4293.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.04.04

End Date:

2018.04.04

Last Calib.:

2018.04.04

Start Time: 03:04:32

End Time:

09:05:22

Time On Btm:

2018.04.04 @ 05:24:07

Time Off Btm:

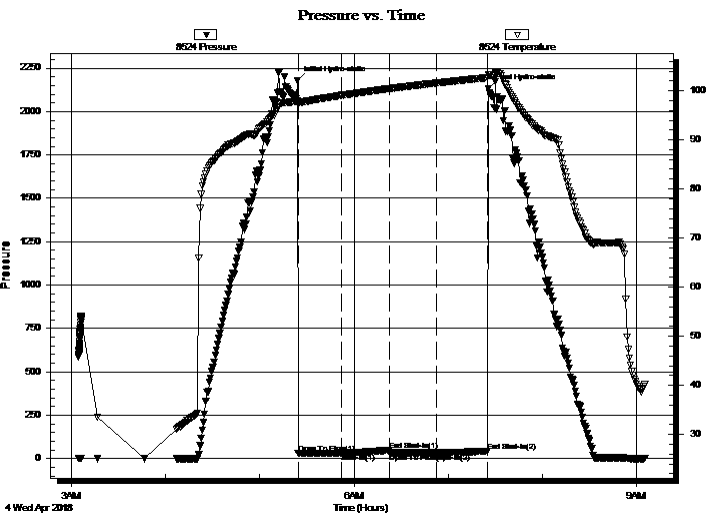
2018.04.04 @ 07:25:37

TEST COMMENT: 30- IF- Surface blow died 9 mins

30- IS- No blow

30- FF- No blow

30- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2177.93	97.96	Initial Hydro-static
1	31.26	97.31	Open To Flow (1)
29	32.76	99.07	Shut-In(1)
59	48.52	100.41	End Shut-In(1)
59	32.72	100.43	Open To Flow (2)
89	33.86	101.58	Shut-In(2)
121	42.64	102.65	End Shut-In(2)
122	2130.42	103.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	M	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

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63425

DST#: 6

ATTN: Corey Baker

Test Start: 2018.04.04 @ 03:04:31

Tool Information

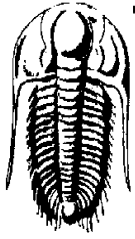
Drill Pipe:	Length: 4214.00 ft	Diameter: 3.82 inches	Volume: 59.74 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial 48000.00 lb
Depth to Top Packer:	4270.00 ft			Final 48000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	88.00 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			4243.00	
Shut In Tool	5.00			4248.00	
Hydraulic tool	5.00			4253.00	
Jars	5.00			4258.00	
Safety Joint	3.00			4261.00	
Packer	5.00			4266.00	28.00 Bottom Of Top Packer
Packer	4.00			4270.00	
Stubb	1.00			4271.00	
Perforations	22.00			4293.00	
Recorder	0.00	6771	Inside	4293.00	
Recorder	0.00	8524	Outside	4293.00	
Change Over Sub	1.00			4294.00	
Drill Pipe	32.00			4326.00	
Change Over Sub	1.00			4327.00	
Bullnose	3.00			4330.00	60.00 Bottom Packers & Anchor

Total Tool Length: 88.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63425

DST#: 6

ATTN: Corey Baker

Test Start: 2018.04.04 @ 03:04:31

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: 59.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	M	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

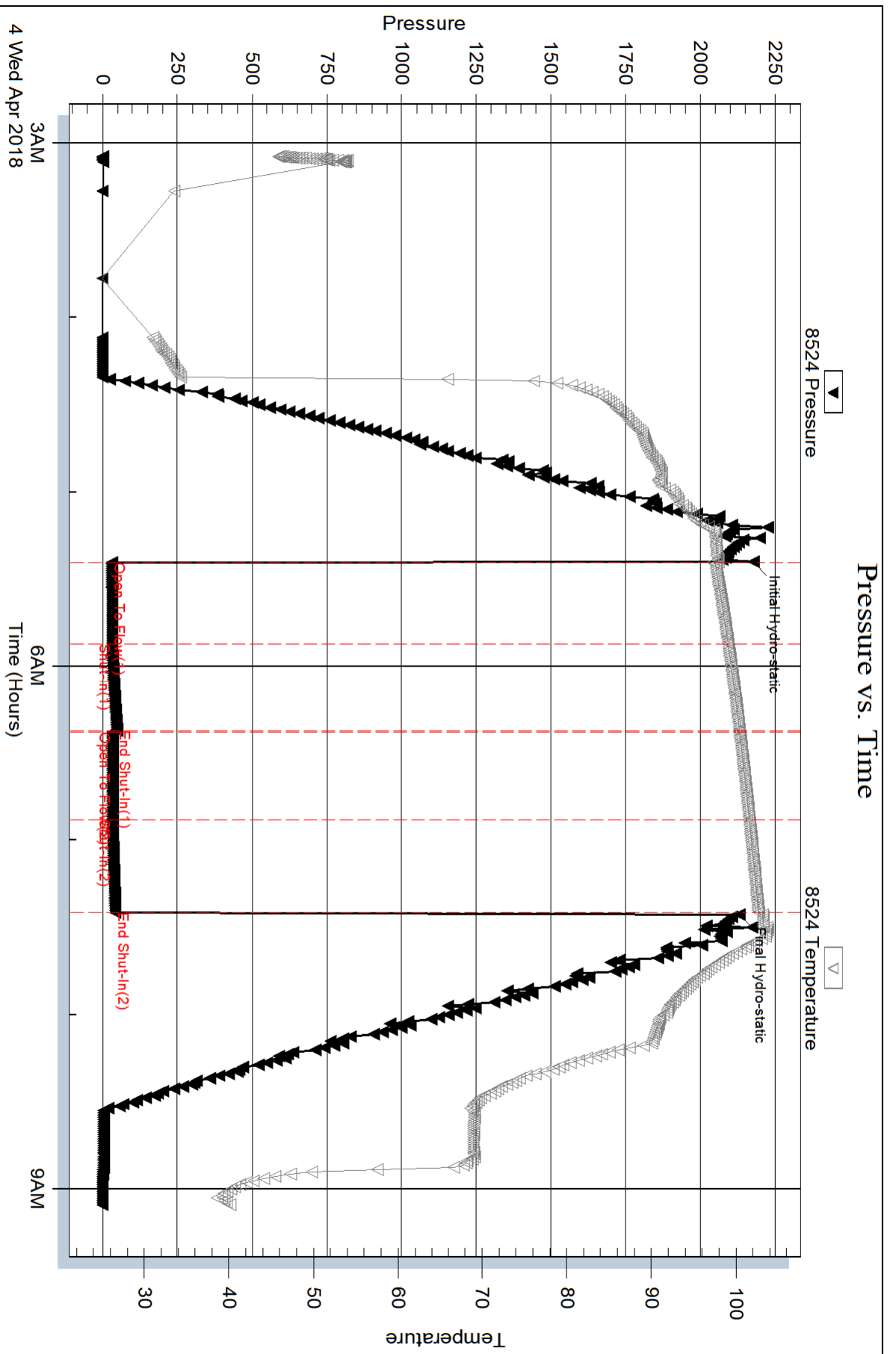
Num Gas Bombs: 0

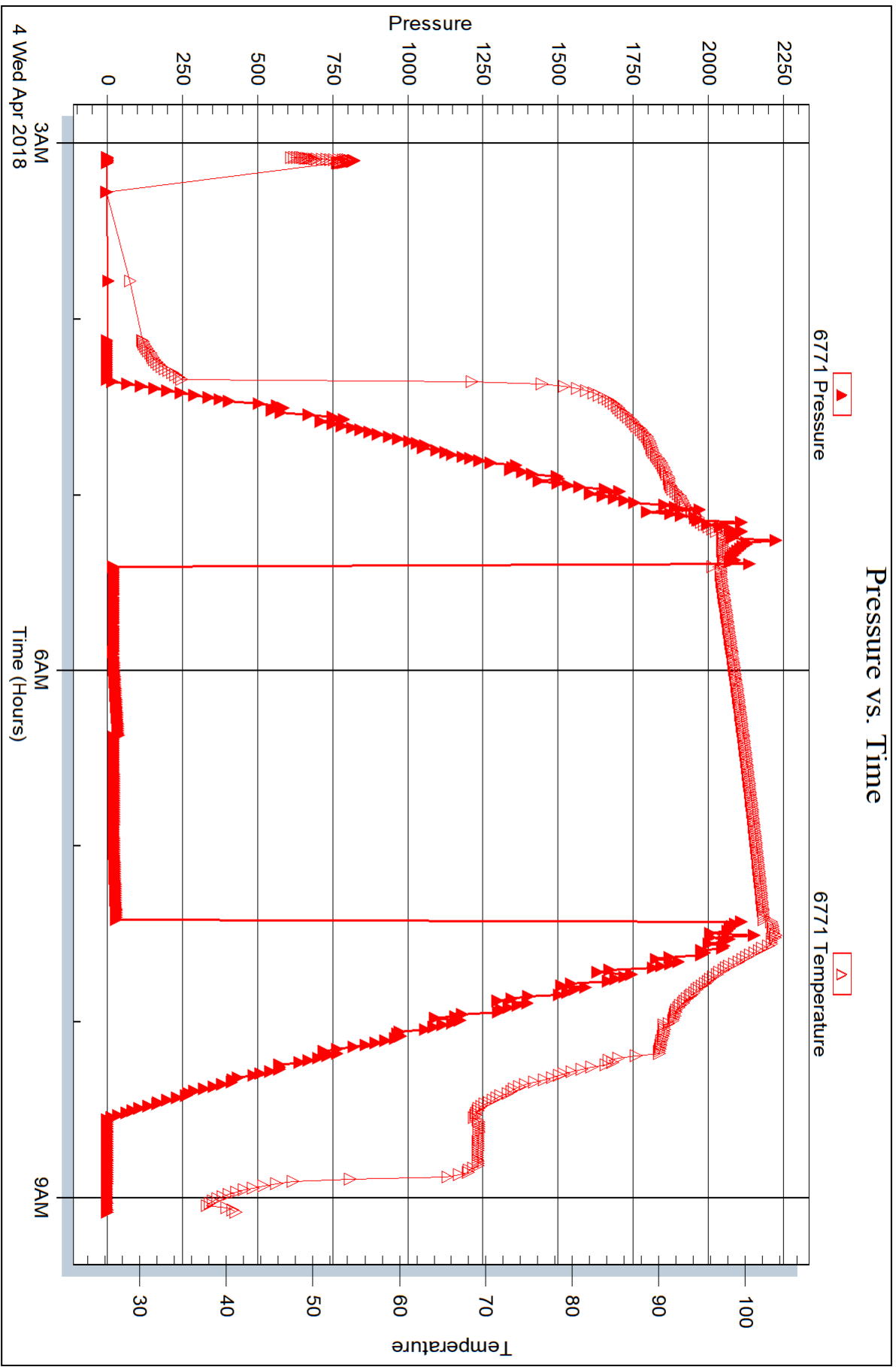
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Radnor "A" #1-30

30-15S-33W Logan,KS

Start Date: 2018.04.05 @ 07:31:17

End Date: 2018.04.05 @ 16:38:37

Job Ticket #: 63426 DST #: 7

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.04.09 @ 12:00:35



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

30-15S-33W Logan, KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

ATTN: Corey Baker

Job Ticket: 63426

DST#: 7

Test Start: 2018.04.05 @ 07:31:17

GENERAL INFORMATION:

Formation: **Ft. Scott- Johnson**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:16:38

Time Test Ended: 16:38:37

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 4392.00 ft (KB) To 4510.00 ft (KB) (TVD)

Reference Elevations: 2930.00 ft (KB)

Total Depth: 4510.00 ft (KB) (TVD)

2925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 56.11 psig @ 4410.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.04.05 End Date: 2018.04.05

Last Calib.: 2018.04.05

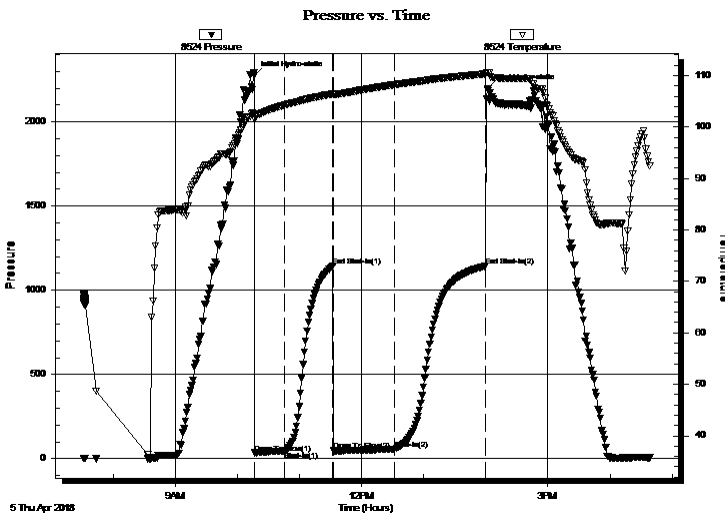
Start Time: 07:31:18 End Time: 16:38:37

Time On Btm: 2018.04.05 @ 10:16:23

Time Off Btm: 2018.04.05 @ 14:01:53

TEST COMMENT: 30- IF- Slow ly built to 2"
45- IS- No blow
60- FF- Slow ly built to 2 1/2"
90- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2273.44	102.43	Initial Hydro-static
1	34.35	101.50	Open To Flow (1)
30	45.48	104.28	Shut-In(1)
76	1142.59	106.43	End Shut-In(1)
77	47.93	106.26	Open To Flow (2)
136	56.11	108.24	Shut-In(2)
224	1143.33	110.34	End Shut-In(2)
226	2194.64	110.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	OCM, 20%O 80%M	0.64

* 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

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63426

DST#: 7

ATTN: Corey Baker

Test Start: 2018.04.05 @ 07:31:17

Tool Information

Drill Pipe:	Length: 4340.00 ft	Diameter: 3.82 inches	Volume: 61.52 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 56000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4392.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	118.00 ft			
Tool Length:	146.00 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			4365.00	
Shut In Tool	5.00			4370.00	
Hydraulic tool	5.00			4375.00	
Jars	5.00			4380.00	
Safety Joint	3.00			4383.00	
Packer	5.00			4388.00	28.00 Bottom Of Top Packer
Packer	4.00			4392.00	
Stubb	1.00			4393.00	
Perforations	17.00			4410.00	
Recorder	0.00	6771	Inside	4410.00	
Recorder	0.00	8524	Outside	4410.00	
Change Over Sub	1.00			4411.00	
Drill Pipe	95.00			4506.00	
Change Over Sub	1.00			4507.00	
Bullnose	3.00			4510.00	118.00 Bottom Packers & Anchor

Total Tool Length: 146.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63426

DST#: 7

ATTN: Corey Baker

Test Start: 2018.04.05 @ 07:31:17

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	OCM, 20%O 80%M	0.644

Total Length: 65.00 ft Total Volume: 0.644 bbl

Num Fluid Samples: 0

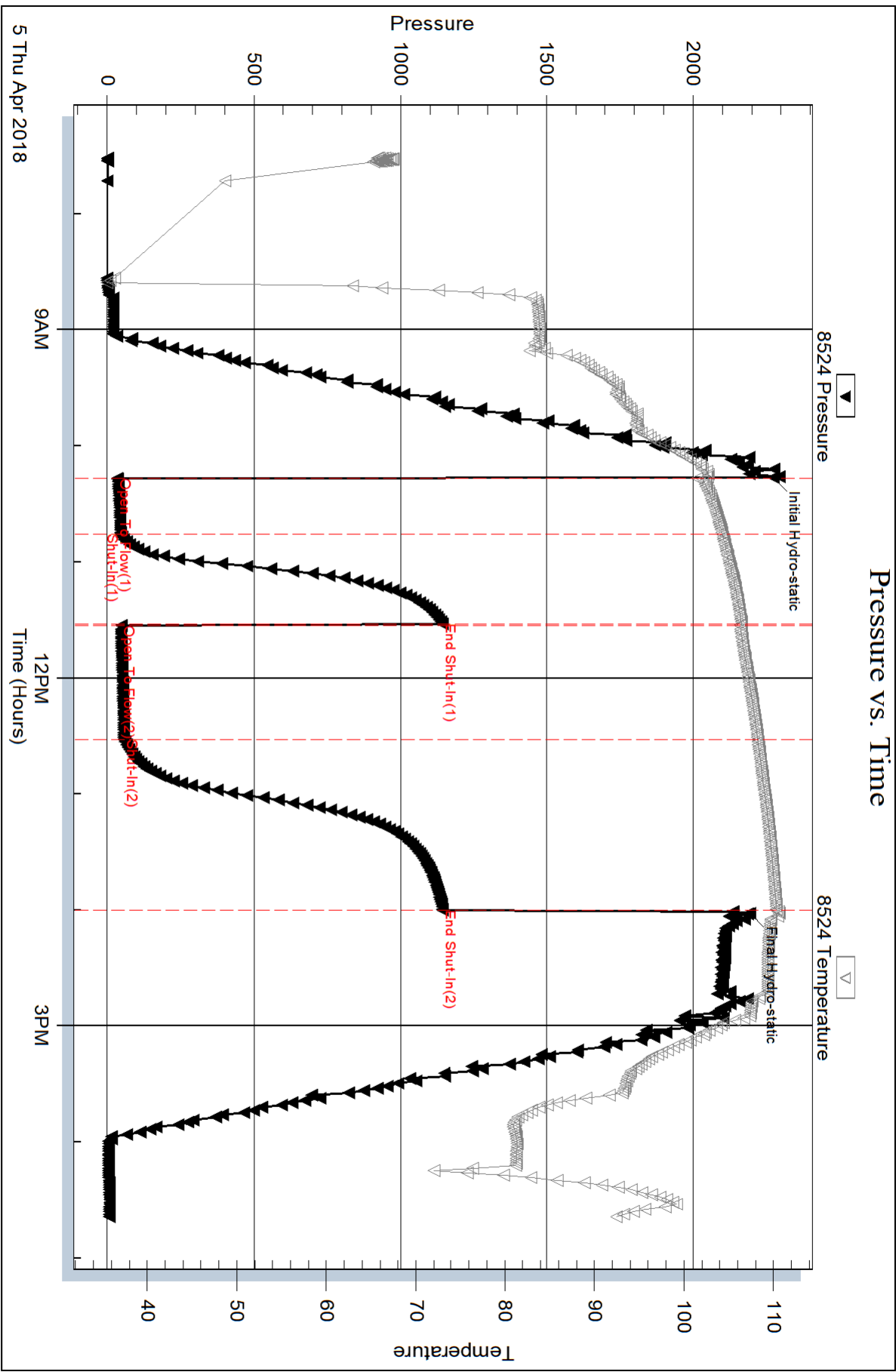
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



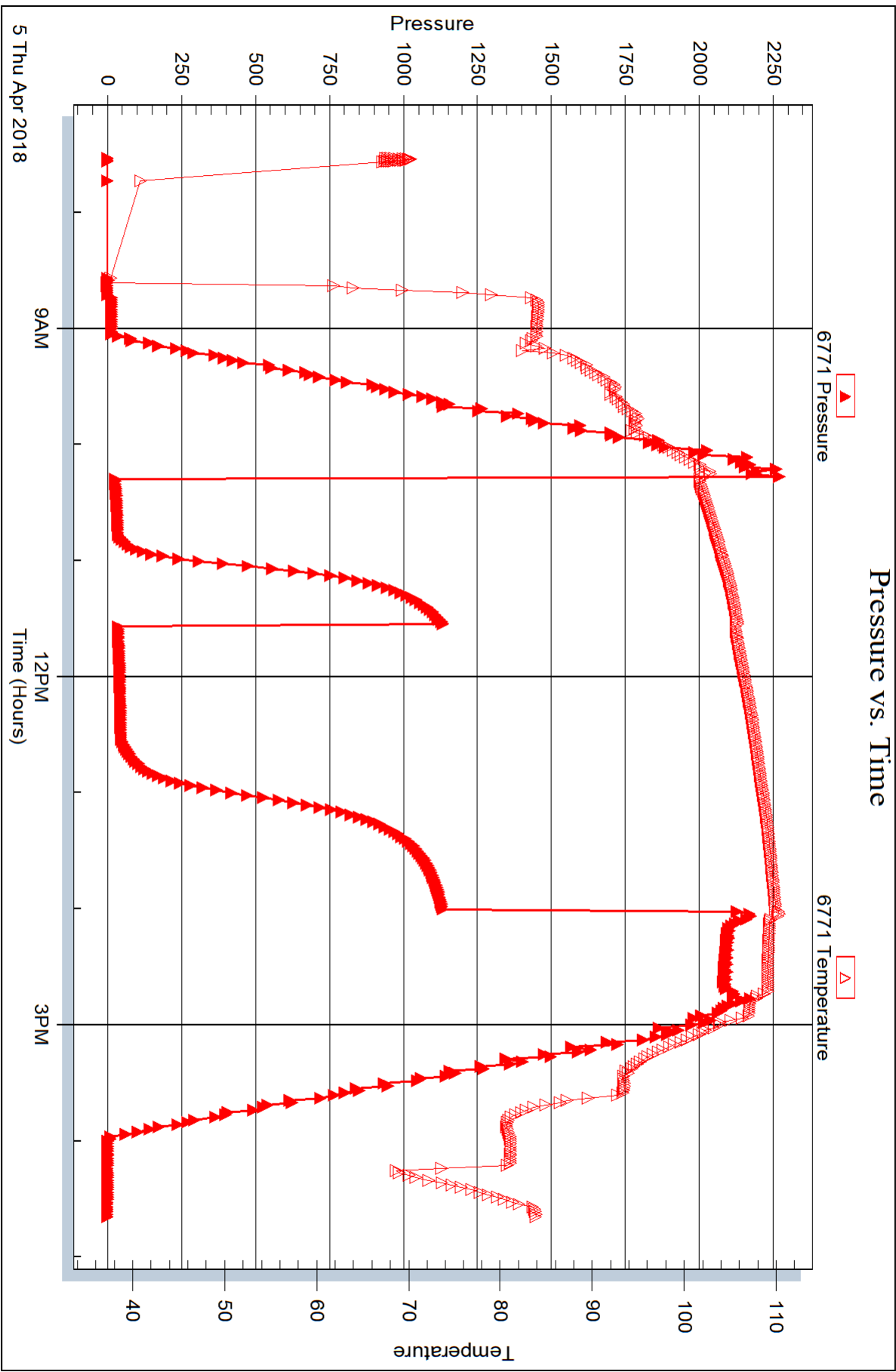
Serial #: 6771

Inside

Cobalt Energy, LLC

Radnor "A" #1-30

DST Test Number: 7





DRILL STEM TEST REPORT

Prepared For: **Cobalt Energy, LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Corey Baker

Radnor "A" #1-30

30-15S-33W Logan,KS

Start Date: 2018.04.06 @ 01:13:29

End Date: 2018.04.06 @ 09:37:05

Job Ticket #: 63427 DST #: 8

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.04.09 @ 11:52:04



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Cobalt Energy, LLC

30-15S-33W Logan, KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63427

DST#: 8

ATTN: Corey Baker

Test Start: 2018.04.06 @ 01:13:29

GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:00:05

Time Test Ended: 09:37:05

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 4520.00 ft (KB) To 4580.00 ft (KB) (TVD)

Reference Elevations: 2930.00 ft (KB)

Total Depth: 4580.00 ft (KB) (TVD)

2925.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 126.77 psig @ 4543.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.04.06

End Date:

2018.04.06

Last Calib.:

2018.04.06

Start Time: 01:13:30

End Time:

09:37:05

Time On Btm:

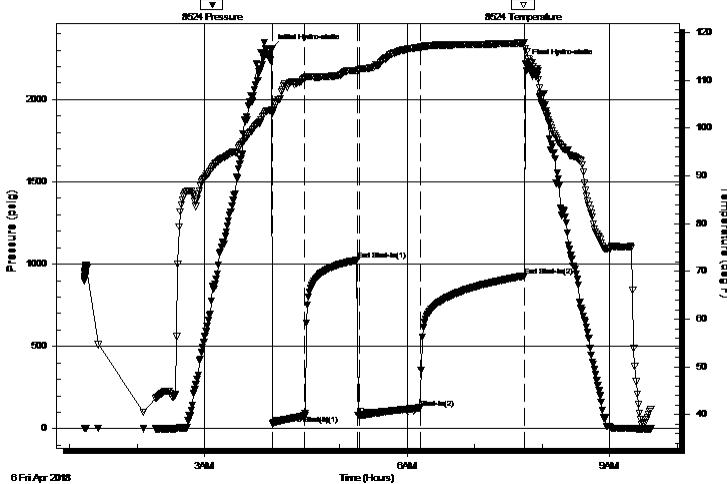
2018.04.06 @ 03:59:50

Time Off Btm:

2018.04.06 @ 07:45:20

TEST COMMENT: 30- IF- Slow ly built to 2 1/2"
45- IS- No blow
60- FF- Slow ly built to 1 1/2"
90- FSI- No blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2306.66	103.79	Initial Hydro-static
1	29.26	103.09	Open To Flow (1)
30	78.99	110.46	Shut-In(1)
76	1024.41	111.99	End Shut-In(1)
78	80.03	112.28	Open To Flow (2)
132	126.77	116.88	Shut-In(2)
225	928.74	117.92	End Shut-In(2)
226	2216.00	116.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
126.00	OSWM 15%W 85%M	1.51
95.00	OSM 100%M	1.35

* 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, LLC

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63427

DST#: 8

ATTN: Corey Baker

Test Start: 2018.04.06 @ 01:13:29

Tool Information

Drill Pipe:	Length: 4467.00 ft	Diameter: 3.82 inches	Volume: 63.32 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: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	4520.00 ft			Final 49000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	88.00 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			4493.00	
Shut In Tool	5.00			4498.00	
Hydraulic tool	5.00			4503.00	
Jars	5.00			4508.00	
Safety Joint	3.00			4511.00	
Packer	5.00			4516.00	28.00 Bottom Of Top Packer
Packer	4.00			4520.00	
Stubb	1.00			4521.00	
Perforations	22.00			4543.00	
Recorder	0.00	6771	Inside	4543.00	
Recorder	0.00	8524	Outside	4543.00	
Change Over Sub	1.00			4544.00	
Drill Pipe	32.00			4576.00	
Change Over Sub	1.00			4577.00	
Bullnose	3.00			4580.00	60.00 Bottom Packers & Anchor

Total Tool Length: 88.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Cobalt Energy, LLC

30-15S-33W Logan,KS

PO Box 8037
Wichita, KS 67208

Radnor "A" #1-30

Job Ticket: 63427

DST#: 8

ATTN: Corey Baker

Test Start: 2018.04.06 @ 01:13:29

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

32000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
126.00	OSWM 15%W 85%M	1.508
95.00	OSM 100%M	1.347

Total Length: 221.00 ft Total Volume: 2.855 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

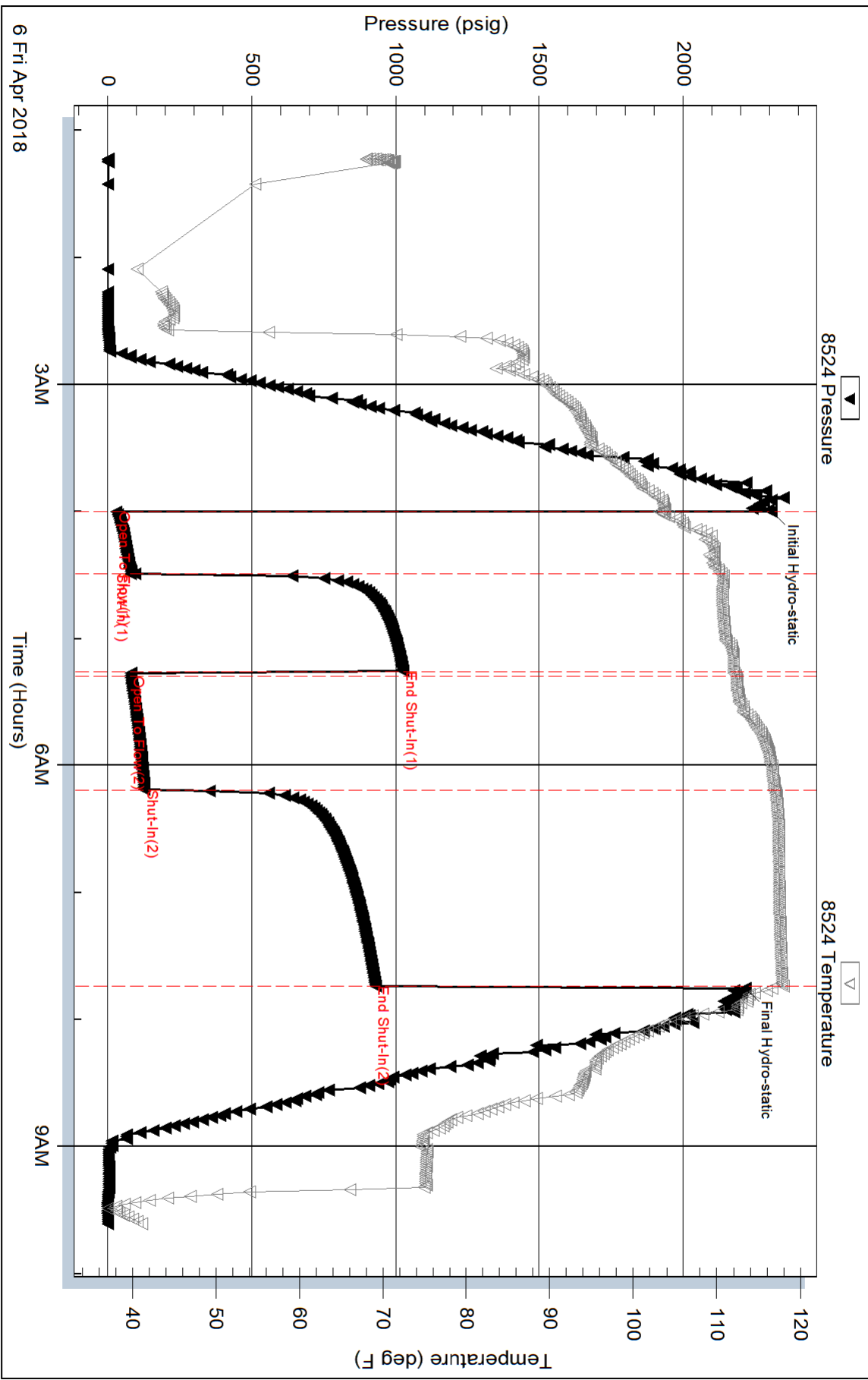
Serial #:

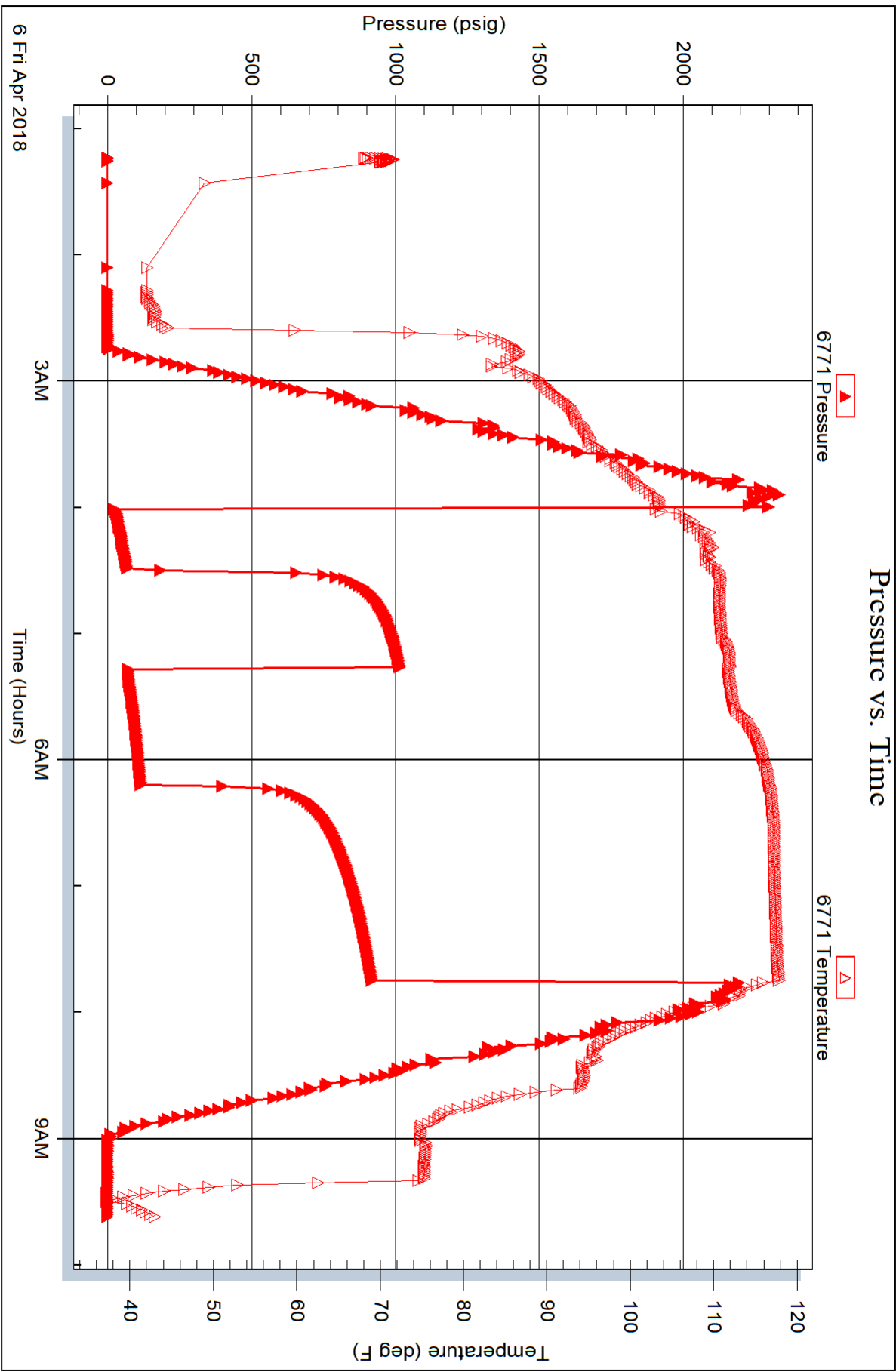
Laboratory Name:

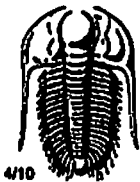
Laboratory Location:

Recovery Comments: RW: .29@49deg

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63420

Well Name & No. Radnor "A" #1-30 Test No. 1 Date 3/31/18
 Company Cobalt Energy, LLC Elevation 2930 KB 2925 GL
 Address 115 S. Belmont #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Cory Baker Rig Murfin #16
 Location: Sec. 20 Twp 15 S Rgs. 33 W Co. Logan State KS

Interval Tested 2912-2985 Zone Tested LKC "D-F"
 Anchor Length 73' Drill Pipe Run 2770 Mud Wt. 9.0
 Top Packer Depth 3907 Drill Collars Run 144 Vis 65
 Bottom Packer Depth 3912 Wt. Pipe Run --- WL 6.4
 Total Depth 3985 Chlorides 3,000 ppm System LCM 2#

Blow Description IF- BOB 6 mins
EST- No blow
FF- BOB 8 mins
EST- No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>230</u>	<u>MW</u>			<u>60</u>	<u>40</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 230' BHT 111° Gravity --- API RW .17 @ 56° F Chlorides 80,000 ppm
 (A) Initial Hydrostatic 1950 Test 1050 T-On Location 0832
 (B) First Initial Flow 50 Jars 250 T-Started 0835
 (C) First Final Flow 229 Safety Joint 75 T-Open 1100
 (D) Initial Shut-In 1122 Circ Sub _____ T-Pulled 1306
 (E) Second Initial Flow 239 Hourly Standby _____ T-Out 1511
 (F) Second Final Flow 364 Mileage 50 RT 50 Comments _____
 (G) Final Shut-In 1691 Sampler _____
 (H) Final Hydrostatic 1933 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 1425
 Total 1425
 MP/DST Disc't _____

Approved By _____ Our Representative Brennan Lonsdak

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. 63421

Well Name & No. Baker "A" #1-30 Test No. 2 Date 4/1/18
 Company Cobalt Energy LLC Elevation 2930 KB 2925 GL
 Address 115 S. Belmont #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Corey Baker Rig Murfm #16
 Location: Sec. 30 Twp 15 S Rge. 33 W Co. Logan State KS

Interval Tested 4032-4125 Zone Tested LKC "H-J"
 Anchor Length 93' Drill Pipe Run 3992 Mud Wt. 9.2
 Top Packer Depth 4027 Drill Collars Run 30 Vis 58
 Bottom Packer Depth 4032 Wt. Pipe Run _____ WL 5.6
 Total Depth 4125 Chlorides 4,000 ppm System LCM 2 1/2
 Blow Description IF - slowly built to 3 1/2"
FSI - No blow
FF - slowly built to 3 1/2"
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>93</u>	<u>OSM</u>				
_____	_____				
_____	_____				
_____	_____				
_____	_____				

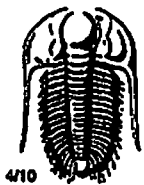
Rec Total 93' BHT 106° Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2033</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0631</u>
(B) First Initial Flow <u>31</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0706</u>
(C) First Final Flow <u>49</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0926</u>
(D) Initial Shut-In <u>1211</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>1311</u>
(E) Second Initial Flow <u>51</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>1454</u>
(F) Second Final Flow <u>71</u>	<input checked="" type="checkbox"/> Mileage <u>50 RT</u> 50	Comments _____
(G) Final Shut-In <u>1202</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>2002</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>45</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>1525</u>
	Sub Total <u>1525</u>	MP/DST Disc't _____

Approved By _____

Our Representative Brannan Lonsdale

TriLOBITE Testing Inc. shall not be liable for damaged or 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. 63422

Well Name & No. Radnor "A" #1-30 Test No. 3 Date 4/2/18
 Company Cobalt Energy, LLC Elevation 2930 KB 2925 GL
 Address 115 S. Belmont #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Carey Baker Rig Murfin #16
 Location: Sec. 30 Twp 15 S Rge. 33 W Co. Logan State KS

Interval Tested 4126-4190 Zone Tested LKC "K&L"
 Anchor Length 64' Drill Pipe Run 4087 Mud Wt. 9.3
 Top Packer Depth 4121 Drill Collars Run 30 Vis 35
 Bottom Packer Depth 4126 Wt. Pipe Run --- WL 8.0
 Total Depth 4190 Chlorides 4,800 ppm System LCM 2#

Blow Description IF-BOB 30secs
ISI- No Blow
FF- BOB 1min
FSI- No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1377</u>	<u>MW</u>			<u>25</u>	<u>25</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1377' BHT 117° Gravity --- API RW .24 @ 42° F Chlorides 4600 ppm

(A) Initial Hydrostatic	<u>2067</u>	<input checked="" type="checkbox"/> Test	<u>1150</u>	T-On Location	<u>0025</u>
(B) First Initial Flow	<u>176</u>	<input checked="" type="checkbox"/> Jars	<u>250</u>	T-Started	<u>0029</u>
(C) First Final Flow	<u>441</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>0210</u>
(D) Initial Shut-In	<u>1214</u>	<input type="checkbox"/> Circ Sub		T-Pulled	<u>0340</u>
(E) Second Initial Flow	<u>494</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>0602</u>
(F) Second Final Flow	<u>669</u>	<input checked="" type="checkbox"/> Mileage	<u>50 RT</u> 50	Comments	
(G) Final Shut-In	<u>1215</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>2050</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	

Initial Open 15
 Initial Shut-In 30
 Final Flow 15
 Final Shut-In 30

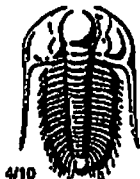
Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Sub Total 1525

Sub Total 0
 Total 1525
 MP/DST Disc't _____

Approved By _____ Our Representative Brian Lonsdale

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. 63423

Well Name & No. Radnor "A" #1-30 Test No. 4 Date 4/2/18
 Company Cohalt Energy, LLC Elevation 2930 KB 2925 GL
 Address 115 S. Belmont #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Cory Baker Rig Murfin #16
 Location: Sec. 30 Twp 15 S Rge. 33 Wco. Logan State KS

Interval Tested 4202-4250 Zone Tested Pleasonton + Marmaton
 Anchor Length 48' Drill Pipe Run 4151 Mud Wt. 9.0
 Top Packer Depth 4197 Drill Collars Run 30 Vis 57
 Bottom Packer Depth 4202 Wt. Pipe Run --- WL 7.2
 Total Depth 4250 Chlorides 5,000 ppm System LCM 3#

Blow Description IF- BOB 30secs
ISF- Weak surface blowed in 6mins
FF- BOB 90secs
FSF- No blow

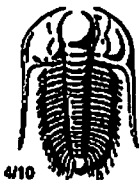
Rec	Feet of	%gas	%oil	%water	%mud
<u>1890</u>	<u>GW SMC0</u>	<u>25</u>	<u>45</u>	<u>25</u>	<u>5</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1890 BHT 118° Gravity 28 API RW .15 @ 53°F Chlorides 58,000 ppm
 (A) Initial Hydrostatic 2115 Test 1150 T-On Location 1613
 (B) First Initial Flow 247 Jars 250 T-Started 1629
 (C) First Final Flow 562 Safety Joint 75 T-Open 1817
 (D) Initial Shut-In 1310 Circ Sub _____ T-Pulled 1947
 (E) Second Initial Flow 592 Hourly Standby _____ T-Out 2325
 (F) Second Final Flow 797 Mileage 50 RT 50
 (G) Final Shut-In 1300 Sampler _____
 (H) Final Hydrostatic 2070 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 15 Ruined Shale Packer _____
 Initial Shut-In 30 Ruined Packer _____
 Final Flow 15 Extra Copies _____
 Final Shut-In 30 Sub Total 0
 Total 1525
 MP/DST Disc't _____
 Sub Total 1525

Approved By _____ Our Representative Brannan Louisdale

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.

1516 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63424

Well Name & No. Radnor "A" #1-30 Test No. 5 Date 4/3/18
 Company Cobalt Energy, LLC Elevation 2930 KB 2925 GL
 Address 115 S. Belmont #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Corey Baker Rig Murfin #16
 Location: Sec. 30 Twp 15 S Rge. 33 W Co. Logan State KS

Interval Tested 4264-4285 Zone Tested Aldamont
 Anchor Length 21' Drill Pipe Run 4214 Mud Wt. 9.0
 Top Packer Depth 4259 Drill Collars Run 30 Vis 57
 Bottom Packer Depth 4264 Wt. Pipe Run — WL 7.2
 Total Depth 4285 Chlorides 5,600 ppm System LCM 3#

Blow Description FF - Weak surface blow dead 17 mins
ISI - No blow
FF - No blow
PSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>M</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1 BHT 105° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2163</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0804</u>
(B) First Initial Flow <u>27</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0828</u>
(C) First Final Flow <u>29</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1100</u>
(D) Initial Shut-In <u>33</u>	<input type="checkbox"/> Circ Sub <u>—</u>	T-Pulled <u>1300</u>
(E) Second Initial Flow <u>29</u>	<input type="checkbox"/> Hourly Standby <u>—</u>	T-Out <u>1829</u>
(F) Second Final Flow <u>30</u>	<input checked="" type="checkbox"/> Mileage <u>50 RT</u> 50	Comments <u>—</u>
(G) Final Shut-In <u>35</u>	<input type="checkbox"/> Sampler <u>—</u>	
(H) Final Hydrostatic <u>2106</u>	<input type="checkbox"/> Straddle <u>—</u>	<input type="checkbox"/> Ruined Shale Packer <u>—</u>
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer <u>—</u>	<input type="checkbox"/> Ruined Packer <u>—</u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer <u>—</u>	<input type="checkbox"/> Extra Copies <u>—</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder <u>—</u>	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby <u>—</u>	Total <u>1525</u>
	<input type="checkbox"/> Accessibility <u>—</u>	MP/DST Disc't <u>—</u>
	Sub Total <u>1525</u>	

Approved By _____

Our Representative Brannan Lonsdale

TriLOBITE Testing Inc. shall not be liable for damaged or 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. 63425

Well Name & No. Badner "A" #1-30 Test No. 6 Date 4/4/18
 Company Cobalt Energy, LLC Elevation 2930 KB 2925 GL
 Address 115 S. Belmont #12, PO Box #237 Wichita, KS 67208
 Co. Rep / Geo. Corey Baker Rig Murfin #16
 Location: Sec. 30 Twp 15 S Rge. 33 W Co. Logan State KS

Interval Tested 4270-4330 Zone Tested Altament
 Anchor Length 60' Drill Pipe Run 4214 Mud Wt. 9.3
 Top Packer Depth 4265 Drill Collars Run 30 Vis 59
 Bottom Packer Depth 4270 Wt. Pipe Run --- WL 8.8
 Total Depth 4330 Chlorides 5800 ppm System LCM 3#

Blow Description IF- Surface blow direct 9mins
ISF- No blow
FF- No blow
FST- No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>2</u>	<u>M</u>				

Rec Total 2' BHT 103° Gravity --- API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic <u>2178</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0249</u>
(B) First Initial Flow <u>31</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0304</u>
(C) First Final Flow <u>33</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0524</u>
(D) Initial Shut-In <u>49</u>	<input type="checkbox"/> Circ Sub <u>---</u>	T-Pulled <u>0724</u>
(E) Second Initial Flow <u>33</u>	<input type="checkbox"/> Hourly Standby <u>---</u>	T-Out <u>0905</u>
(F) Second Final Flow <u>34</u>	<input checked="" type="checkbox"/> Mileage <u>SO RT</u> <u>50</u>	Comments <u>---</u>
(G) Final Shut-In <u>43</u>	<input type="checkbox"/> Sampler <u>---</u>	
(H) Final Hydrostatic <u>2130</u>	<input type="checkbox"/> Straddle <u>---</u>	

Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer <u>---</u>	<input type="checkbox"/> Ruined Shale Packer <u>---</u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer <u>---</u>	<input type="checkbox"/> Ruined Packer <u>---</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder <u>---</u>	<input type="checkbox"/> Extra Copies <u>---</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby <u>---</u>	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility <u>---</u>	Total <u>1525</u>
	Sub Total <u>1525</u>	MP/DST Disc't <u>---</u>

Approved By _____ Our Representative Brannan Lonsdale

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. 63426

Well Name & No. Radner "A" #1-30 Test No. 7 Date 4/5/18
 Company Cobalt Energy, LLC Elevation 2930 KB 2925 GL
 Address 115 S. Belmont #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Corey Baker Rig Mur-Pin #16
 Location: Sec. 30 Twp 15 Rge. 33 W.Co. Logan State KS

Interval Tested 4392-4510 Zone Tested Ft. Scott - Johnson
 Anchor Length 118' Drill Pipe Run 4340 Mud Wt. 9.3
 Top Packer Depth 4387 Drill Collars Run 30 Vis 58
 Bottom Packer Depth 4392 Wt. Pipe Run _____ WL 8.0
 Total Depth 4510 Chlorides 5,200 ppm System LCM 3#

Blow Description IF - slowly built to 2"
ISF - No flow
FF - slowly built to 2 1/2"
FSI - No flow

Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>OCM</u>	<u>20</u>		<u>80</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

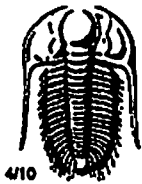
Rec Total 65' BHT 110° Gravity 31 API RW _____ @ _____ F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2273</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0726</u>
(B) First Initial Flow <u>34</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0731</u>
(C) First Final Flow <u>45</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1016</u>
(D) Initial Shut-In <u>1143</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>1401</u>
(E) Second Initial Flow <u>48</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>1638</u>
(F) Second Final Flow <u>56</u>	<input checked="" type="checkbox"/> Mileage <u>50 RT</u> 50	Comments _____
(G) Final Shut-In <u>1143</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2195</u>	<input type="checkbox"/> Straddle _____	

Initial Open <u>80</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Shut-In <u>45</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>1525</u>
	Sub Total <u>1525</u>	MP/DST Disc't _____

Approved By _____ Our Representative Brannon Lonsdale

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 all cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 63427

Well Name & No. Budnor "A" #1-30 Test No. 8 Date 4/6/18
 Company Cobalt Energy, LLC Elevation 2930 KB 2925 GL
 Address 115 S. Belmont #12, PO Box 8037 Wichita, KS 67208
 Co. Rep / Geo. Corey Baker Rig Martin #16
 Location: Sec. 30 Twp 15 S Rge. 33 W Co. Logan State KS

Interval Tested 4520-4580 Zone Tested Morrow
 Anchor Length 60' Drill Pipe Run 4467 Mud Wt. 9.5
 Top Packer Depth 4515 Drill Collars Run 30 Vis 51
 Bottom Packer Depth 4520 Wt. Pipe Run --- WL 7.2
 Total Depth 4580 Chlorides 5,000 ppm System LCM 2#

Blow Description IF - Slowly built to 2'6"
FSI - No blow
FF - Slowly built to 1'1/2"
FSI - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>126</u>	<u>OSMW</u>			<u>15</u>	<u>85</u>
<u>95</u>	<u>OSM</u>				

Rec Total 221 BHT 118° Gravity --- API RW 29 @ 49 °F Chlorides 32,000 ppm

(A) Initial Hydrostatic 2307 Test 1150 T-On Location 0108
 (B) First Initial Flow 29 Jars 250 T-Started 0113
 (C) First Final Flow 79 Safety Joint 75 T-Open 0359
 (D) Initial Shut-In 1024 Circ Sub --- T-Pulled 0744
 (E) Second Initial Flow 80 Hourly Standby --- T-Out 0936
 (F) Second Final Flow 127 Mileage 50 RT 50
 (G) Final Shut-In 929 Sampler ---
 (H) Final Hydrostatic 2216 Straddle ---
 Shale Packer ---
 Extra Packer ---
 Extra Recorder ---
 Day Standby ---
 Accessibility ---

Sub Total 1525

Comments ---
 Ruined Shale Packer ---
 Ruined Packer ---
 Extra Copies ---
 Sub Total 0
 Total 1525
 MP/DST Disc't ---

Approved By _____ Our Representative Brannon Lovsdale

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.



CHARGE TO: Cobalt Energy

ADDRESS

CITY, STATE, ZIP CODE

TICKET 031429

PAGE 1 OF 2

SERVICE LOCATIONS 1. <u>Ness City KS</u>	WELL/PROJECT NO. <u>#1-30</u>	LEASE <u>Randor "A"</u>	COUNTY/PARISH <u>Logan</u>	STATE <u>KS</u>	CITY <u>Pence</u>	DATE <u>4-7-18</u>	OWNER <u>Same</u>
2.	TICKET TYPE <input checked="" type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR <u>Muefin Drilling</u>	RIG NAME/NO. <u>#16</u>	SHIPPED VIA <u>CT</u>	DELIVERED TO <u>Location</u>	ORDER NO.	
3.	WELL TYPE <u>Oil</u>	WELL CATEGORY <u>Development</u>	JOB PURPOSE <u>Cement 5 1/2" Two-Stage</u>	WELL PERMIT NO.		WELL LOCATION <u>Pence - 3E, 4W, E/S info</u>	
4.	INVOICE INSTRUCTIONS						
REFERRAL LOCATION							

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
<u>575</u>		<u>1</u>			MILEAGE		<u>90</u>	<u>mi</u>		<u>5</u>	<u>450</u>
<u>574</u>		<u>1</u>			Pump Change - Two-Stage		<u>1</u>	<u>job</u>		<u>1800</u>	<u>1800</u>
<u>409</u>		<u>1</u>			Turbolizer		<u>12</u>	<u>ca</u>		<u>85</u>	<u>1020</u>
<u>403</u>		<u>1</u>			Cement Basket		<u>2</u>	<u>ca</u>		<u>275</u>	<u>550</u>
<u>407</u>		<u>1</u>			Insert Float Shoe w/ Auto Fill		<u>1</u>	<u>ca</u>		<u>325</u>	<u>325</u>
<u>408</u>		<u>1</u>			D.V. Tool + Plug Set		<u>1</u>	<u>ca</u>		<u>3375</u>	<u>3375</u>
<u>417</u>		<u>1</u>			D.V. Latch Down Plug + Baffle		<u>1</u>	<u>ca</u>		<u>200</u>	<u>200</u>

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.

Becky Papp

DATE SIGNED 4-7-18 TIME SIGNED 1515 A.M. P.M.

REMIT PAYMENT TO:

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

SURVEY	AGREE	UNDECIDED	DISAGREE	PAGE TOTAL	<u>7720</u>
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				<u>#1</u>	<u>12458</u>
WE UNDERSTOOD AND MET YOUR NEEDS?				<u>#2</u>	<u>20178</u>
OUR SERVICE WAS PERFORMED WITHOUT DELAY?					<u>1212</u>
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				<u>Logan Tax 8.0%</u>	<u>20</u>
ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> YES <input type="checkbox"/> NO				TOTAL	<u>21390</u>
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND					<u>156</u>

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

SWIFT OPERATOR David Kuehn APPROVAL

Thank You!



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

TICKET CONTINUATION

TICKET No. #31429

CUSTOMER Caball Energy
WELL Ravelos 'A' #1-30
DATE 4-7-18
PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY		U/M	UNIT PRICE	AMOUNT	
		LOC	ACCT	DF			QTY	U/M				
325		1				Standard Cement (EA-2)	175	skts		13.00	2275.00	
284		1				Calseal	5	%	8	35.00	280.00	
283		1				Salt	900	lbs	10	00.20	180.00	
292		1				Harlad 322	100	lbs	1/2	8.00	800.00	
276		1				Floccle	125	lbs	1/4	2.50	312.50	
330		1				SMD Cement	300	skts		16.25	4875.00	
290		1				D-Air	5	gal		42.00	210.00	
221		1				Liquid HCL	4	gal		25.00	100.00	
281		1				Mud Flush	500	gal		1.50	750.00	
581		1				SERVICE CHARGE				1.75	831.25	
583		1				MILEAGE CHARGE	48	TON WEIGHT	225		00.85	1844.61
						LOADED MILES	90	TON MILES	2170.13			

CONTINUATION TOTAL 12458.36

JOB LOG

SWIFT Services, Inc.

DATE 4-7-18 PAGE NO. 1

CUSTOMER Cobalt Energy WELL NO. #1-30 LEASE Round 'A' JOB TYPE Two-Stage
TICKET NO. #31429

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0745							on location 5 1/2" 15.5" RTD- 4680' LTD- 4681' TP- 4676' set 4672' SS #1 41.20 D.V. #57 2335' Turboes - #1 #2 #3 #4 #5 #6 #7 #8 #10 #11 #12 #58 Baskets - #56 #57
	0920							Start 5 1/2" 15.5" casing in well
	1115							Drop Ball circulate
	1220	6 1/2	12				300	Pump 12 bbl mud flush
	1230	6 1/2	20				300	Pump 20 bbl KCL flush
		6 4 1/2	42				200	mix 175 sks EA-2 @ 15.5 ppg wash out Pump + Lines / Release Latch Down plug
	1245	6 1/2	0				100	Start Displacement
		6 1/2	55				200	Pump Mud (55 bbls)
		6 1/2	85				350	lift Pressure
		6 1/2	109				850	max lift Pressure
	1315	6 1/2	110.3				1600	Land Latch Down Plug / Release Pressure & Plug Hold
	1320	0	0				0	Drop Bomb
	1345	0	0				750	open D.V. Tool
	1350	5 1/2	20				200	Pump 20 bbl KCL flush
			16-11					Plug RH - MH (30-20)
	1410	5 1/2	138				200	mix 250 sks SMD @ 11.2 ppg wash out Pump + Lines / Release Top Plug
	1445	6 1/2	0				100	Start Displacement
		6 1/2	25				300	lift Pressure
		6 1/2	44				600	circulate cement to surface - 20 sks *
	1500	6 1/2	55.5				2000	land Top Plug - close D.V. Tool Release Pressure - D.V. Hold wash up truck
	1530							Job Complete Thank You Dave Preston Kirby Dusty



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

10304
10196

TICKET NUMBER 55087
LOCATION Oakley KS
FOREMAN Miles Shaul

FIELD TICKET & TREATMENT REPORT
CEMENT

Invoice # 812740 *KS*

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
3-26-18	2180	Radnor A 1-30	30	15S	33 W	Logan
CUSTOMER <u>Colbalt Energy</u>		Mailing Address <u>PO BOX 8037</u>		CITY <u>Wichita</u>		STATE <u>KS</u>
		ZIP CODE <u>67208</u>		TRUCK # <u>753</u>		DRIVER <u>Keith C</u>
		TRUCK # <u>530/T-129</u>		DRIVER <u>Travis W</u>		

*Order 5
to Gold Rd
W to Driveway
23 to 11th Rd
W to 12340
2 1/2 S
E into*

JOB TYPE <u>Surface</u>	HOLE SIZE <u>12.25'</u>	HOLE DEPTH <u>219'</u>	CASING SIZE & WEIGHT <u>8 5/8" 23 #</u>
CASING DEPTH <u>218'</u>	DRILL PIPE	TUBING	OTHER
SLURRY WEIGHT <u>14.8</u>	SLURRY VOL <u>1.36</u>	WATER gal/sk	CEMENT LEFT in CASING <u>20'</u>
DISPLACEMENT <u>12461s</u>	DISPLACEMENT PSI	MIX PSI	RATE

REMARKS: Safety meetings and R/S up on Murtin drilling Rig #16 Circulate casing
mix 1055x Surface blend II Class A cement w/ 3% calcium 28 gel displacer
1 1/4 hls water shut on cement did circulate

Centralizer on Job #1

Thanks Miles & Crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CF0471	1	PUMP CHARGE	1150. ⁰⁰	1150. ⁰⁰
CE0002	45	MILEAGE	7.15	321.75
CE0031	7.76	Ten Mileage delivery	66.00	511.92
CE0071	105	Surface blend II	24.00	2520.00
CE0038				
CP8556	1	8 5/8" Centralizer	110. ⁰⁰	110. ⁰⁰
			Subtotal	6201.75
			less 30% discount	1860.52
			Subtotal	4341.23
			SALES TAX	227.93
			ESTIMATED TOTAL	4569.16

Ravin 3737

AUTHORIZATION Ag Shaul TITLE T.P. 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.



GEOLOGIST'S REPORT
DRILL TIME &
SAMPLE LOG

COMPANY **COBALT ENERGY, LLC**
LEASE **Radnor 'A' #1-30**
FIELD **Wildcat**

LOCATION **1218' FSL & 1878' FWL**
SEC. **30** TWP. **15S** RGE. **33W**
COUNTY **Logan** STATE **KS**

CONTRACTOR **Martin Drilling Co., Rig #16**
SPUD **03/26/17** COMP **04/07/18**
RTD **4880'** TYPE LTD **4681'**
MUD UP **3383'**

SAMPLES SAVED FROM **3700' to RTD**
DRILLING TIME KEPT FROM **3800'** TO RTD
DRAILING EXAMINED FROM **3700'** TO RTD

GEOLOGICAL SUPERVISION FROM **3516' to RTD**
GEOLOGIST ON WELL **Corey N. Baker**

FORMATION TOPS ELECTRIC LOG
Anhydrite 2307 (+629)
Base of Anhydrite 2323 (+607)
Heebner 3811 (-881)
Lansing 3853 (-923)
Stark 4177 (-1187)
Marmoron 4238 (-1308)
Pawnee 4413 (-1483)
Myrick Station 4680 (-1750)

FORMATION TOPS SAMPLE
Anhydrite 2307 (+629)
Base of Anhydrite 2323 (+607)
Heebner 3811 (-881)
Lansing 3853 (-923)
Stark 4177 (-1187)
Marmoron 4238 (-1308)
Pawnee 4413 (-1483)
Myrick Station 4680 (-1750)



Section

Geological Services

Electrical Surveys
Dial Induction Neutron Density Monitor

CASING
Conductor NA
Surface 8 5/8" @ 218'
Production 5.5" @ 4673'

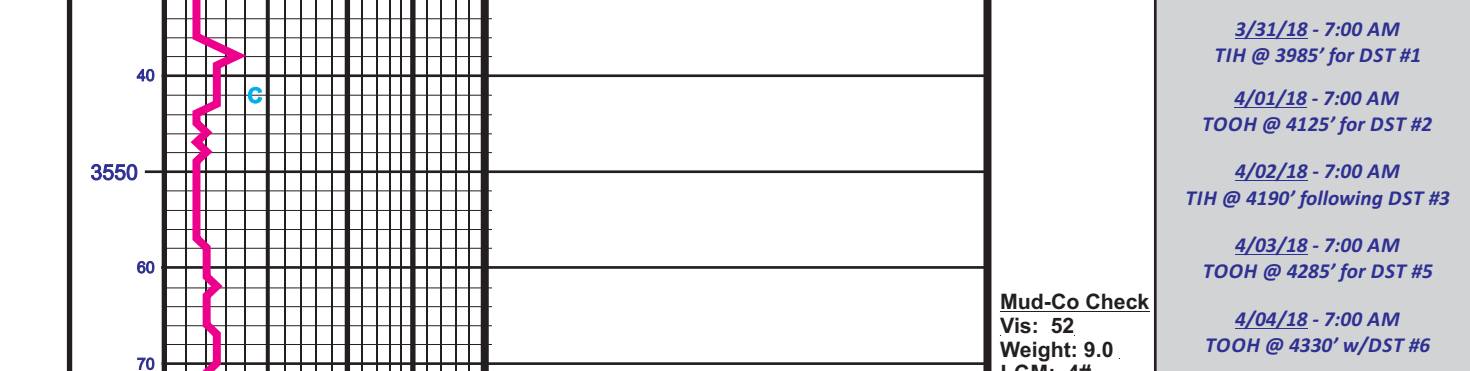
ELEVATIONS
KB 2930'

REMARKS
The Radnor 'A' #1-30 recovered positive results on DST #4 & DST #7. 5.5" production casing was run to test the well through perforations.

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

API #15-019-21540-00-00

LEGEND



Main log table with columns: DEPTH, DRILLING TIME IN MINUTES PER FOOT, OIL SHOWS, SAMPLE DESCRIPTION, REMARKS. Includes detailed sample descriptions and well logs for various formations like Heebner, Lansing, Stark, Marmoron, Pawnee, Myrick Station, Fort Scott, Cherokee, Johnson, Morrow, and Mississippi.

Summary table with columns: DEPTH, DRILLING TIME IN MINUTES PER FOOT, OIL SHOWS, SAMPLE DESCRIPTION, REMARKS. Includes data for formations from 4680' to 4880'.

Company **COBALT ENERGY, LLC** Elevation **2930' KB**
Lease **Radnor 'A' #1-30**
Location **1218' FSL & 1878' FWL SEC. 30 TWP. 15S RGE. 33W**
County **Logan** State **Kansas**

