

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
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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
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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:	
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Form	ACO1 - Well Completion
Operator	Cobalt Energy LLC
Well Name	STUM-HARRIS "A" 1-5
Doc ID	1365398

Tops

Name	Top	Datum
Anhy	1528	762
Heebner	3717	-1427
Lansing	3767	-1477
BKC	4111	-1821
Pawnee	4197	-1907
Ft Scott	4276	-1986
Cherokee	4299	-2009
Miss	4401	-2111

GLOBAL OIL FIELD SERVICES, LLC

3069

REMIT TO 24 S. Lincoln
Russell, KS 67665

SERVICE POINT:

Russell, KS

DATE 8-2-17	SEC. 9	TWP. 20 S	RANGE 32 W	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
STUMP HARRIS LEASE	WELL # 1-5	LOCATION Ness City, KS		COUNTY NESS	STATE KS		
OLD OR <u>NEW</u> (CIRCLE ONE)							

CONTRACTOR PICKSELL DRILLING RIG #10

TYPE OF JOB SURFACE

HOLE SIZE 12 1/4 T.D. 223'

CASING SIZE 8 5/8 DEPTH 223.35'

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX. MINIMUM

MEAS. LINE SHOE JOINT 112.22'

CEMENT LEFT IN CSG. 20'

PERFS

DISPLACEMENT 13 BAR

OWNER

CEMENT AMOUNT ORDERED 175 SX 34% ACC 24% GEL

EQUIPMENT

PUMP TRUCK CEMENTER BRAD

417 HELPER JASON

BULK TRUCK DRIVER KAIS

374

BULK TRUCK DRIVER

#

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE @

REMARKS:

RUN IN 5 WTS. 8 5/8 CASING, CIRCULATE 1140,
MIX 175 SX, WASH UP & DISPLACE W/ 13 BAR
170, SHUT IN @ 200 PSI, CEMENT DID CIRCULATE

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE @

MANIFOLD @

TOTAL

PLUG & FLOAT EQUIPMENT

@

@

@

@

@

TOTAL

CHARGE TO: Cobalt

STREET

CITY STATE ZIP

Global Oil Field Services, LLC

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

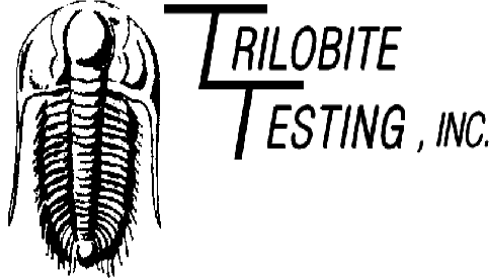
PRINTED NAME Mike Kern

SIGNATURE [Signature]

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS



DRILL STEM TEST REPORT

Prepared For: **Colbalt Energy LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Ben Landes

Stum-Harris A #1-5

5-20S-23W Ness,KS

Start Date: 2017.08.08 @ 10:41:00

End Date: 2017.08.08 @ 17:30:00

Job Ticket #: 62631 DST #: 1

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

Printed: 2017.08.10 @ 10:38:24



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Colbalt Energy LLC

5-20S-23W Ness, KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

Job Ticket: 62631

DST#: 1

ATTN: Ben Landes

Test Start: 2017.08.08 @ 10:41:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:52:30

Time Test Ended: 17:30:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

Interval: 4320.00 ft (KB) To 4367.00 ft (KB) (TVD)

Reference Elevations: 2292.00 ft (KB)

Total Depth: 4367.00 ft (KB) (TVD)

2285.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8354 Inside

Press@RunDepth: 97.22 psig @ 4321.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.08 End Date: 2017.08.08

Last Calib.: 2017.08.08

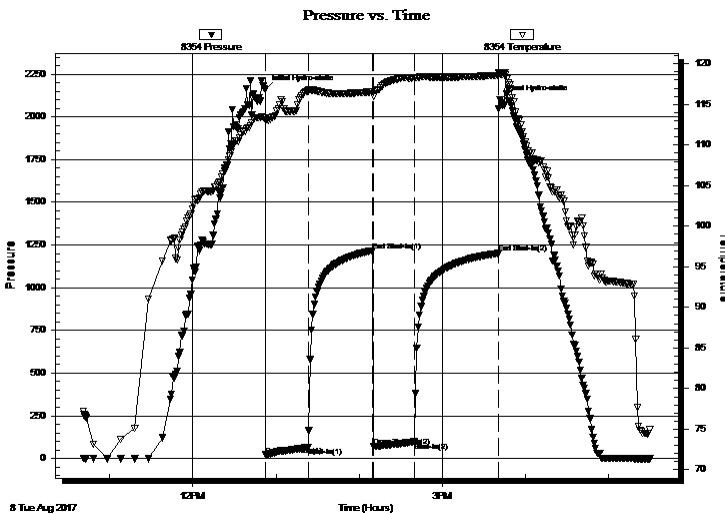
Start Time: 10:41:05 End Time: 17:29:59

Time On Btm: 2017.08.08 @ 12:52:00

Time Off Btm: 2017.08.08 @ 15:41:30

TEST COMMENT: IFP 30 Minutes Blow built to 1 1/2"
ISI 45 Minutes No blow back
FFP 30 Minutes Blow built to 1 1/2"
FSI 60 Minutes No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2161.08	113.37	Initial Hydro-static
1	21.57	113.06	Open To Flow (1)
31	64.07	116.70	Shut-In(1)
78	1216.43	116.56	End Shut-In(1)
79	69.29	116.03	Open To Flow (2)
108	97.22	118.32	Shut-In(2)
168	1201.03	118.58	End Shut-In(2)
170	2101.42	118.71	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
170.00	SOCM w/ inch of oil top Oil 3% Mud 97%	0.84

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Colbalt Energy LLC

5-20S-23W Ness, KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

ATTN: Ben Landes

Job Ticket: 62631

DST#: 1

Test Start: 2017.08.08 @ 10:41:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:52:30

Time Test Ended: 17:30:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

Interval: 4320.00 ft (KB) To 4367.00 ft (KB) (TVD)

Reference Elevations: 2292.00 ft (KB)

Total Depth: 4367.00 ft (KB) (TVD)

2285.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8960 Outside

Press@RunDepth: 1200.31 psig @ 4322.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.08

End Date:

2017.08.08

Last Calib.:

2017.08.08

Start Time: 10:41:05

End Time:

17:29:59

Time On Btm:

2017.08.08 @ 12:52:00

Time Off Btm:

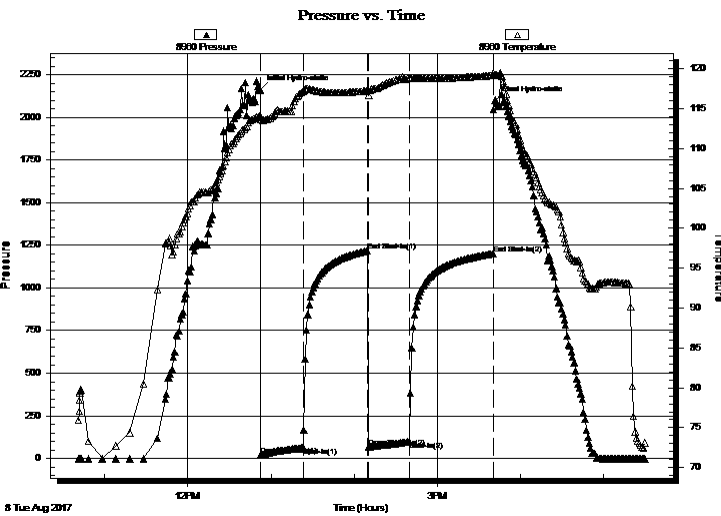
2017.08.08 @ 15:41:30

TEST COMMENT: IFP 30 Minutes Blow built to 1 1/2"

ISI 45 Minutes No blow back

FFP 30 Minutes Blow built to 1 1/2"

FSI 60 Minutes No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2159.91	114.08	Initial Hydro-static
1	20.69	113.59	Open To Flow (1)
31	63.76	117.16	Shut-In(1)
78	1216.32	117.23	End Shut-In(1)
79	67.26	116.59	Open To Flow (2)
108	98.34	118.87	Shut-In(2)
168	1200.31	119.13	End Shut-In(2)
170	2099.55	119.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
170.00	SOCM w/ inch of oil top Oil 3% Mud 97%	0.84

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Colbalt Energy LLC

5-20S-23W Ness,KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

Job Ticket: 62631

DST#: 1

ATTN: Ben Landes

Test Start: 2017.08.08 @ 10:41:00

Tool Information

Drill Pipe:	Length: 4124.00 ft	Diameter: 3.80 inches	Volume: 57.85 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 58.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 69000.00 lb
Depth to Top Packer:	4320.00 ft			Final 69000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	47.30 ft			
Tool Length:	75.30 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			4297.00	
Hydraulic tool	5.00			4302.00	
Jars	6.00			4308.00	
Safety Joint	2.00			4310.00	
Top Packer	5.00			4315.00	
Packer	5.00			4320.00	28.00 Bottom Of Top Packer
Recorder	1.00	8354	Inside	4321.00	
Recorder	1.00	8960	Outside	4322.00	
Anchor	9.00			4331.00	
Change Over Sub	1.00			4332.00	
Drill Pipe	31.30			4363.30	
Change Over Sub	1.00			4364.30	
Bullnose	3.00			4367.30	47.30 Anchor Tool

Total Tool Length: 75.30



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Colbalt Energy LLC

5-20S-23W Ness,KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

Job Ticket: 62631

DST#: 1

ATTN: Ben Landes

Test Start: 2017.08.08 @ 10:41:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.77 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
170.00	SOCM w / inch of oil top Oil 3% Mud 97%	0.836

Total Length: 170.00 ft Total Volume: 0.836 bbl

Num Fluid Samples: 0

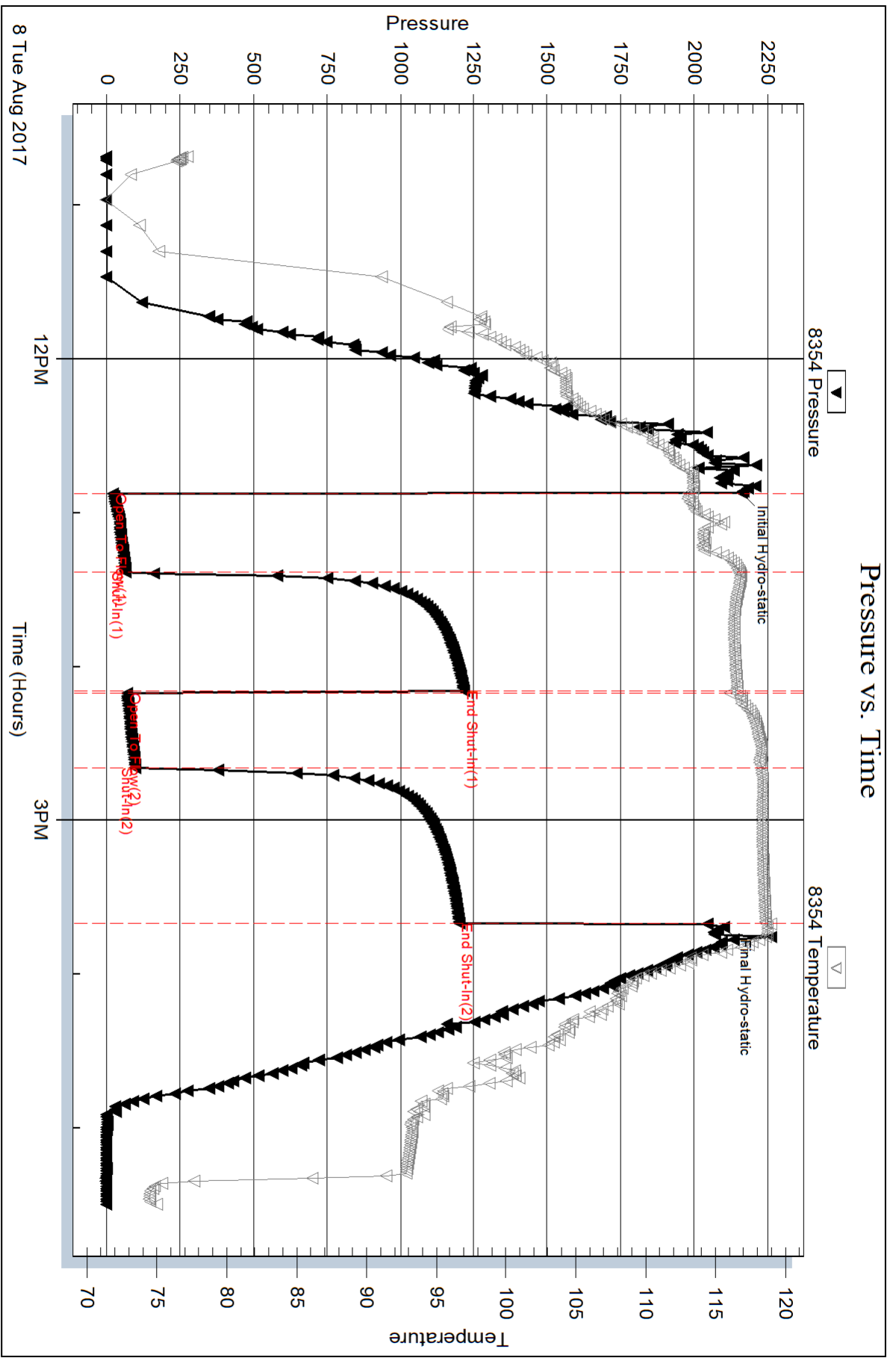
Num Gas Bombs: 0

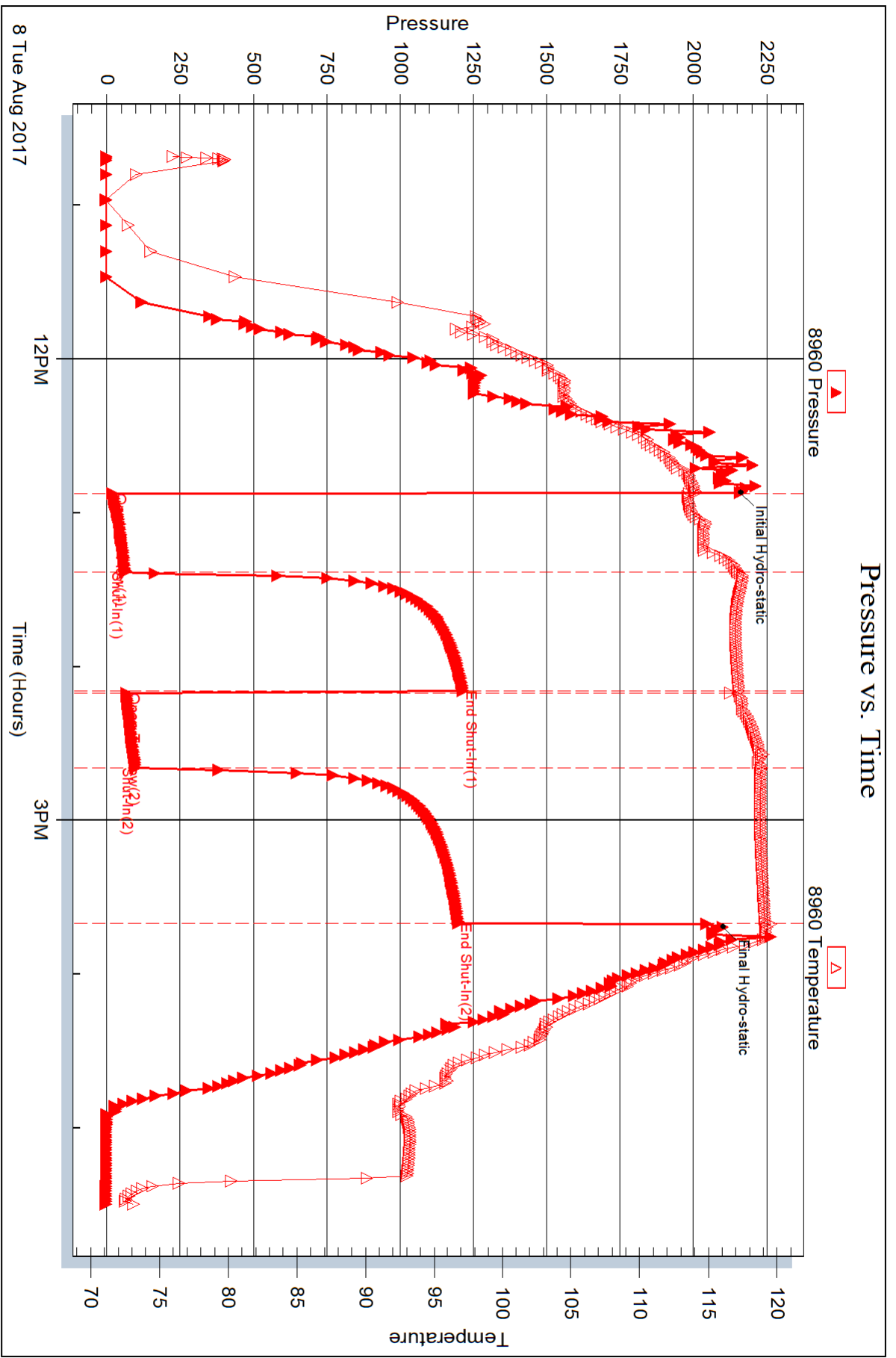
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Colbalt Energy LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Ben Landes

Stum-Harris A #1-5

5-20S-23W Ness,KS

Start Date: 2017.08.08 @ 23:43:00

End Date: 2017.08.09 @ 08:02:30

Job Ticket #: 62632 DST #: 2

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

Printed: 2017.08.10 @ 10:37:52



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Colbalt Energy LLC

5-20S-23W Ness, KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

ATTN: Ben Landes

Job Ticket: 62632

DST#: 2

Test Start: 2017.08.08 @ 23:43:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:07:30

Time Test Ended: 08:02:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

Interval: 4318.00 ft (KB) To 4380.00 ft (KB) (TVD)

Reference Elevations: 2292.00 ft (KB)

Total Depth: 4380.00 ft (KB) (TVD)

2285.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8354 Inside

Press@RunDepth: 134.82 psig @ 4319.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.08

End Date:

2017.08.09

Last Calib.: 2017.08.09

Start Time: 23:43:05

End Time:

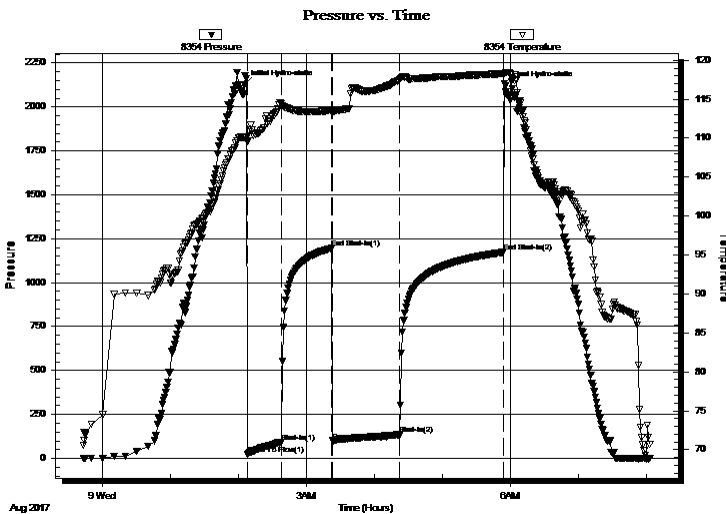
08:02:29

Time On Btm: 2017.08.09 @ 02:05:00

Time Off Btm: 2017.08.09 @ 05:55:00

TEST COMMENT: IFP 30 Minutes Blow built to 5"
ISI 45 Minutes No blow back
FFP 60 Minutes Blow built to 7"
FSI 90 Minutes No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2124.12	110.11	Initial Hydro-static
3	23.36	109.55	Open To Flow (1)
33	91.64	114.43	Shut-In(1)
77	1195.26	113.56	End Shut-In(1)
78	99.09	113.39	Open To Flow (2)
137	134.82	117.52	Shut-In(2)
229	1172.56	118.26	End Shut-In(2)
230	2119.02	118.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	OCWM Oil 5% Water 45% Mud 50%	0.61
139.00	Emulsified OCM E oil 10% Mud 90%	1.42

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Colbalt Energy LLC

5-20S-23W Ness, KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

ATTN: Ben Landes

Job Ticket: 62632

DST#: 2

Test Start: 2017.08.08 @ 23:43:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:07:30

Time Test Ended: 08:02:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

Interval: 4318.00 ft (KB) To 4380.00 ft (KB) (TVD)

Reference Elevations: 2292.00 ft (KB)

Total Depth: 4380.00 ft (KB) (TVD)

2285.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8960 Outside

Press@RunDepth: 1171.57 psig @ 4320.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.08

End Date:

2017.08.09

Last Calib.: 2017.08.09

Start Time: 23:43:05

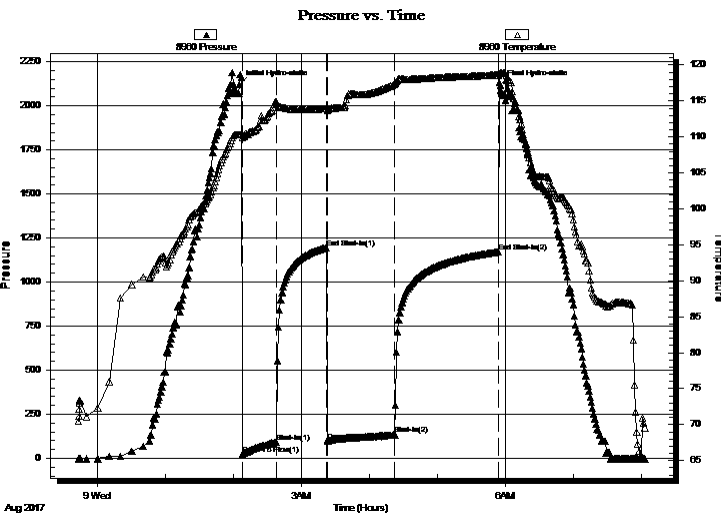
End Time:

08:02:29

Time On Btm: 2017.08.09 @ 02:05:00

Time Off Btm: 2017.08.09 @ 05:55:00

TEST COMMENT: IFP 30 Minutes Blow built to 5"
ISI 45 Minutes No blow back
FFP 60 Minutes Blow built to 7"
FSI 90 Minutes No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2120.09	110.31	Initial Hydro-static
3	21.54	109.95	Open To Flow (1)
33	92.06	114.90	Shut-In(1)
77	1195.55	113.96	End Shut-In(1)
78	97.34	113.83	Open To Flow (2)
137	134.24	117.38	Shut-In(2)
229	1171.57	118.62	End Shut-In(2)
230	2118.28	118.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
124.00	OCWM Oil 5% Water 45% Mud 50%	0.61
139.00	Emulsified OCM E oil 10% Mud 90%	1.42

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Colbalt Energy LLC

5-20S-23W Ness,KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

Job Ticket: 62632

DST#: 2

ATTN: Ben Landes

Test Start: 2017.08.08 @ 23:43:00

Tool Information

Drill Pipe:	Length: 4124.00 ft	Diameter: 3.80 inches	Volume: 57.85 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 72000.00 lb
			<u>Total Volume: 58.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial 69000.00 lb
Depth to Top Packer:	4318.00 ft			Final 69000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.30 ft			
Tool Length:	90.30 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			4295.00	
Hydraulic tool	5.00			4300.00	
Jars	6.00			4306.00	
Safety Joint	2.00			4308.00	
Top Packer	5.00			4313.00	
Packer	5.00			4318.00	28.00 Bottom Of Top Packer
Recorder	1.00	8354	Inside	4319.00	
Recorder	1.00	8960	Outside	4320.00	
Anchor	24.00			4344.00	
Change Over Sub	1.00			4345.00	
Drill Pipe	31.30			4376.30	
Change Over Sub	1.00			4377.30	
Bullnose	3.00			4380.30	62.30 Anchor Tool

Total Tool Length: 90.30



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Colbalt Energy LLC

5-20S-23W Ness,KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

Job Ticket: 62632

DST#: 2

ATTN: Ben Landes

Test Start: 2017.08.08 @ 23:43:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

17000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	OCWM Oil 5% Water 45% Mud 50%	0.610
139.00	Emulsified OCM E oil 10% Mud 90%	1.421

Total Length: 263.00 ft Total Volume: 2.031 bbl

Num Fluid Samples: 0

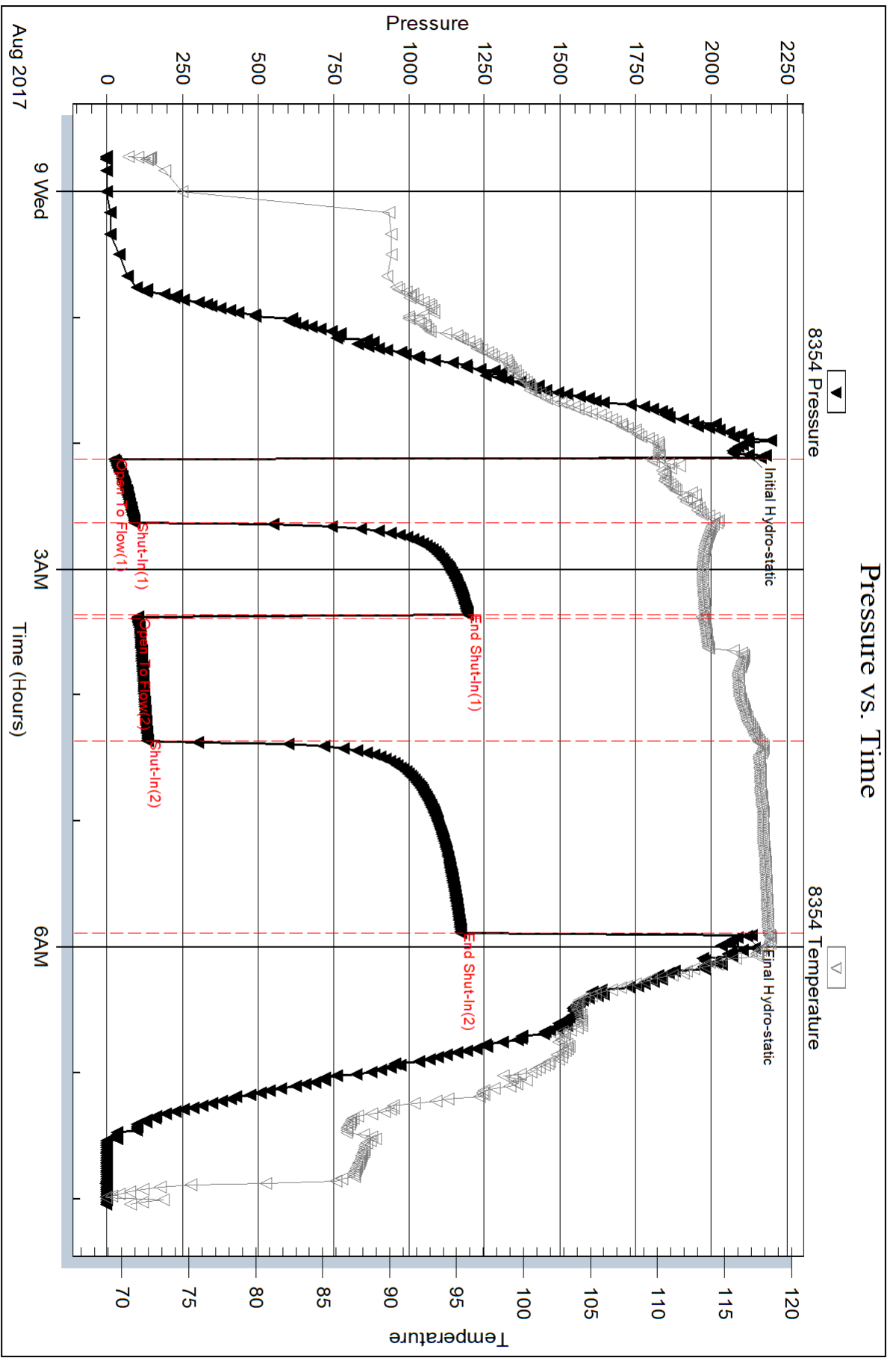
Num Gas Bombs: 0

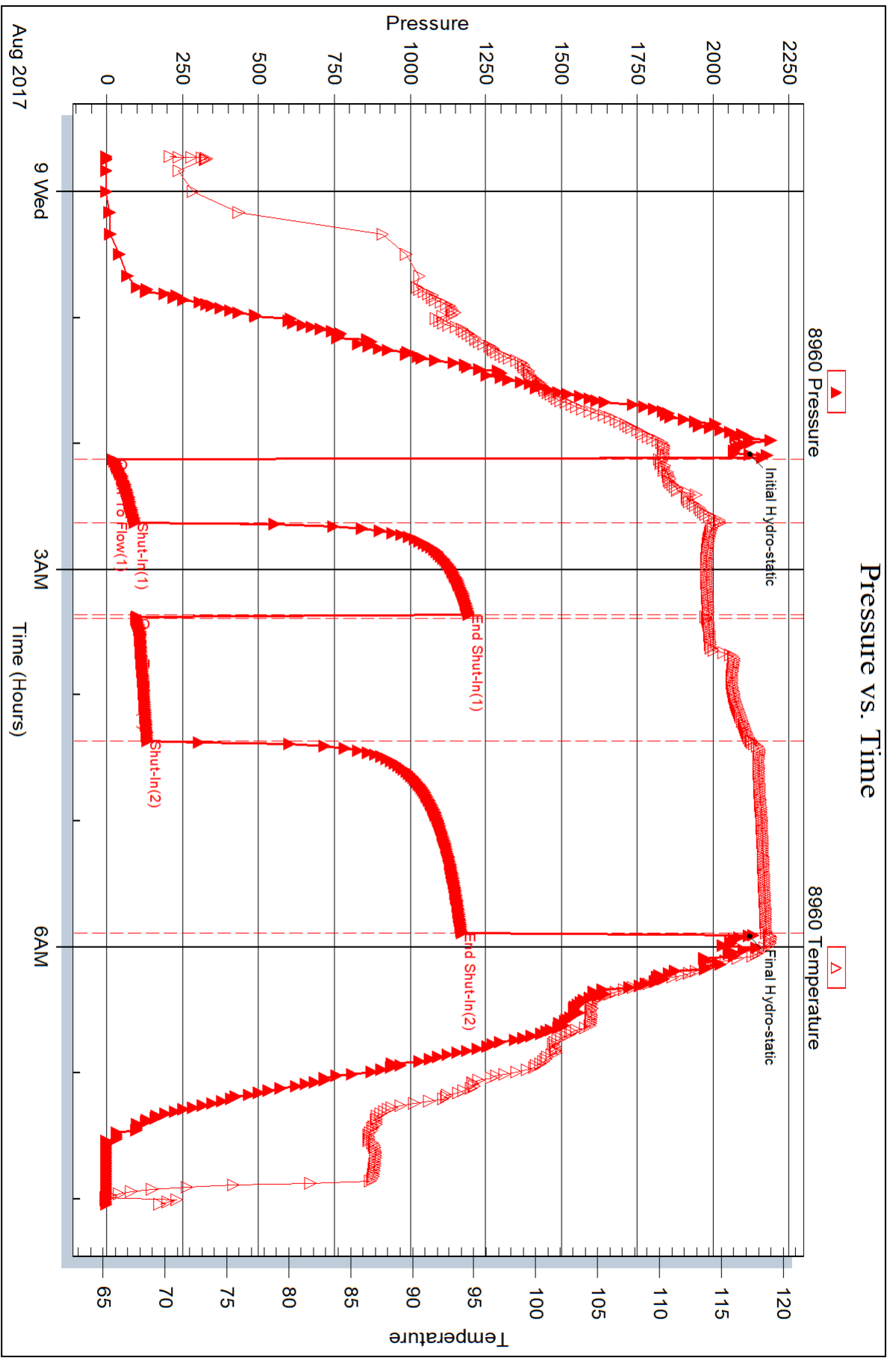
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Recovery Resistivity .36 ohms @ 72 deg







DRILL STEM TEST REPORT

Prepared For: **Colbalt Energy LLC**

PO Box 8037
Wichita, KS 67208

ATTN: Ben Landes

Stum-Harris A #1-5

5-20S-23W Ness,KS

Start Date: 2017.08.09 @ 14:58:00

End Date: 2017.08.09 @ 22:30:30

Job Ticket #: 62633 DST #: 3

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

Printed: 2017.08.10 @ 10:35:14



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Colbalt Energy LLC

5-20S-23W Ness, KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

Job Ticket: 62633

DST#: 3

ATTN: Ben Landes

Test Start: 2017.08.09 @ 14:58:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:49:30

Time Test Ended: 22:30:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

Interval: **4381.00 ft (KB) To 4402.00 ft (KB) (TVD)**

Reference Elevations: 2292.00 ft (KB)

Total Depth: 4402.00 ft (KB) (TVD)

2285.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8354

Inside

Press@RunDepth: 256.18 psig @ 4382.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.09

End Date:

2017.08.09

Last Calib.:

2017.08.09

Start Time: 14:58:05

End Time:

22:30:29

Time On Btm:

2017.08.09 @ 16:48:30

Time Off Btm:

2017.08.09 @ 20:35:00

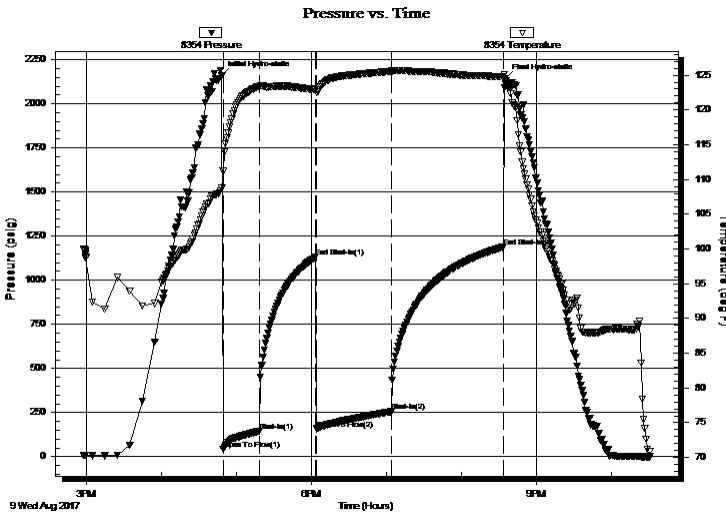
TEST COMMENT: IFP 30 Minutes Blow built to 3 1/2" in 5 minutes then died to 1 1/2"

ISI 45 Minutes No blow back

FFP 60 Minutes Blow built to BOB in 28 1/2 minutes

FSI 90 Minutes No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2159.38	108.73	Initial Hydro-static
1	41.97	111.18	Open To Flow (1)
30	145.09	123.40	Shut-In(1)
75	1131.24	122.93	End Shut-In(1)
76	158.94	122.56	Open To Flow (2)
136	256.18	125.51	Shut-In(2)
225	1188.70	124.78	End Shut-In(2)
227	2143.23	124.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
541.00	MW Mud 5% Water 95%	5.93

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Colbalt Energy LLC

5-20S-23W Ness, KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

ATTN: Ben Landes

Job Ticket: 62633

DST#: 3

Test Start: 2017.08.09 @ 14:58:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:49:30

Time Test Ended: 22:30:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 72

Interval: **4381.00 ft (KB) To 4402.00 ft (KB) (TVD)**

Reference Elevations: 2292.00 ft (KB)

Total Depth: 4402.00 ft (KB) (TVD)

2285.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8960 Outside

Press@RunDepth: 1191.01 psig @ 4383.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.09

End Date: 2017.08.09

Last Calib.: 2017.08.09

Start Time: 14:58:05

End Time: 22:30:29

Time On Btm: 2017.08.09 @ 16:48:30

Time Off Btm: 2017.08.09 @ 20:35:00

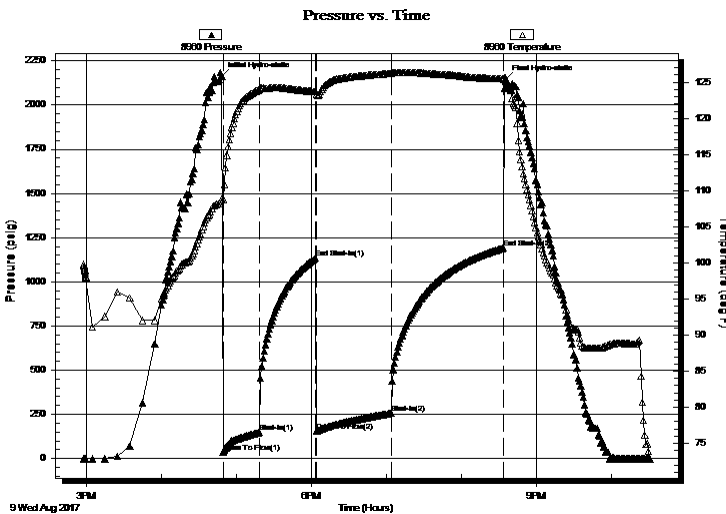
TEST COMMENT: IFP 30 Minutes Blow built to 3 1/2" in 5 minutes then died to 1 1/2"

ISI 45 Minutes No blow back

FFP 60 Minutes Blow built to BOB in 28 1/2 minutes

FSI 90 Minutes No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2160.20	108.80	Initial Hydro-static
1	37.66	108.81	Open To Flow (1)
30	146.82	124.01	Shut-In(1)
75	1133.73	123.70	End Shut-In(1)
76	154.62	123.36	Open To Flow (2)
136	256.48	126.24	Shut-In(2)
225	1191.01	125.46	End Shut-In(2)
227	2144.30	125.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
541.00	MW Mud 5% Water 95%	5.93

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Colbalt Energy LLC

5-20S-23W Ness,KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

Job Ticket: 62633

DST#: 3

ATTN: Ben Landes

Test Start: 2017.08.09 @ 14:58:00

Tool Information

Drill Pipe:	Length: 4186.00 ft	Diameter: 3.80 inches	Volume: 58.72 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 182.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 59.62 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial 69000.00 lb
Depth to Top Packer:	4381.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	48.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut-In Tool	5.00			4359.00	
Hydraulic tool	5.00			4364.00	
Jars	5.00			4369.00	
Safety Joint	2.00			4371.00	
Top Packer	5.00			4376.00	
Packer	5.00			4381.00	27.00 Bottom Of Top Packer
Recorder	1.00	8354	Inside	4382.00	
Recorder	1.00	8960	Outside	4383.00	
Anchor	16.00			4399.00	
Bullnose	3.00			4402.00	21.00 Anchor Tool
Total Tool Length:	48.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Colbalt Energy LLC

5-20S-23W Ness,KS

PO Box 8037
Wichita, KS 67208

Stum-Harris A #1-5

Job Ticket: 62633

DST#: 3

ATTN: Ben Landes

Test Start: 2017.08.09 @ 14:58:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

24000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 12.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
541.00	MW Mud 5% Water 95%	5.931

Total Length: 541.00 ft Total Volume: 5.931 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Recovery Resistivity .271 ohms @ 69 deg.

Serial #: 8354

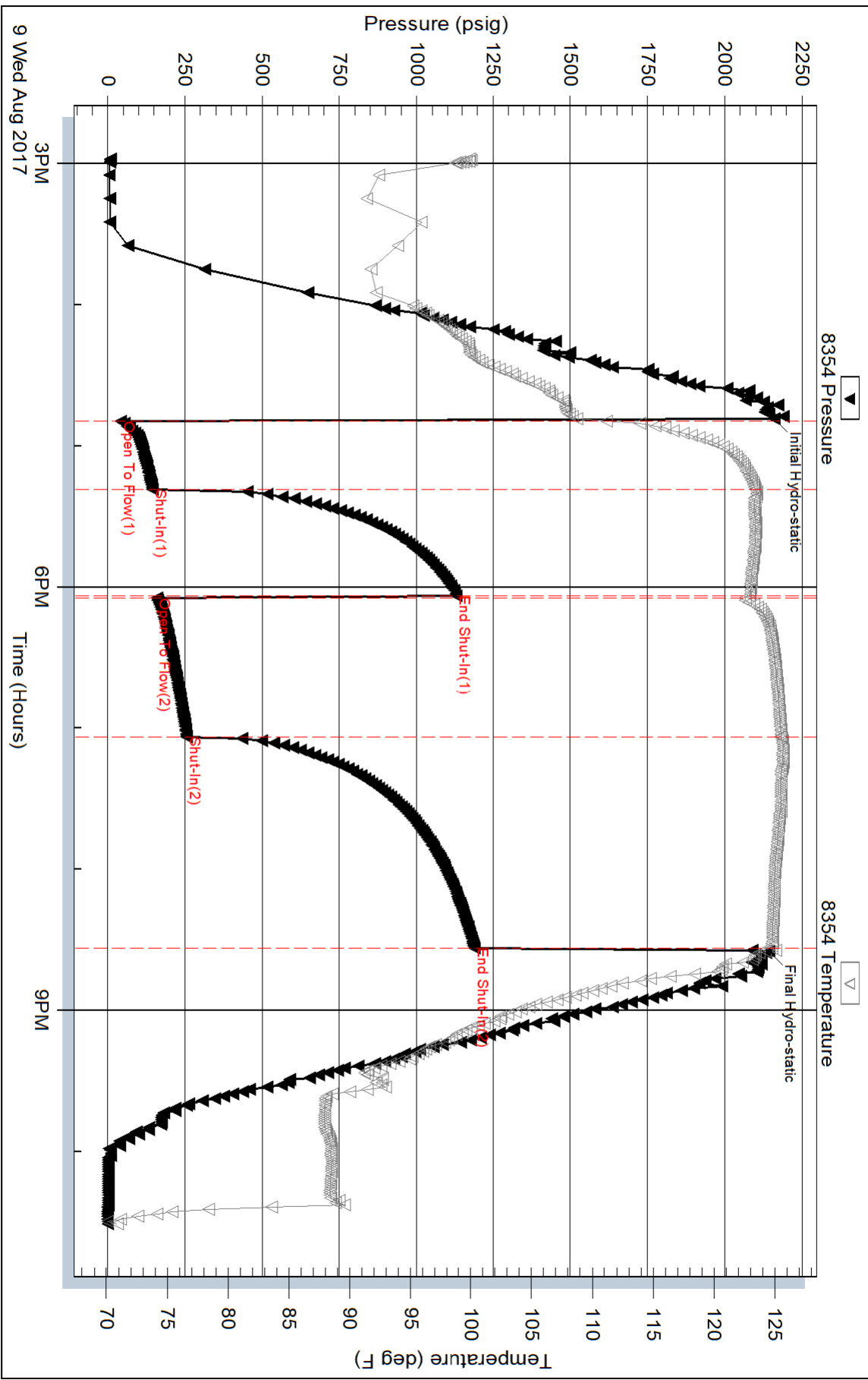
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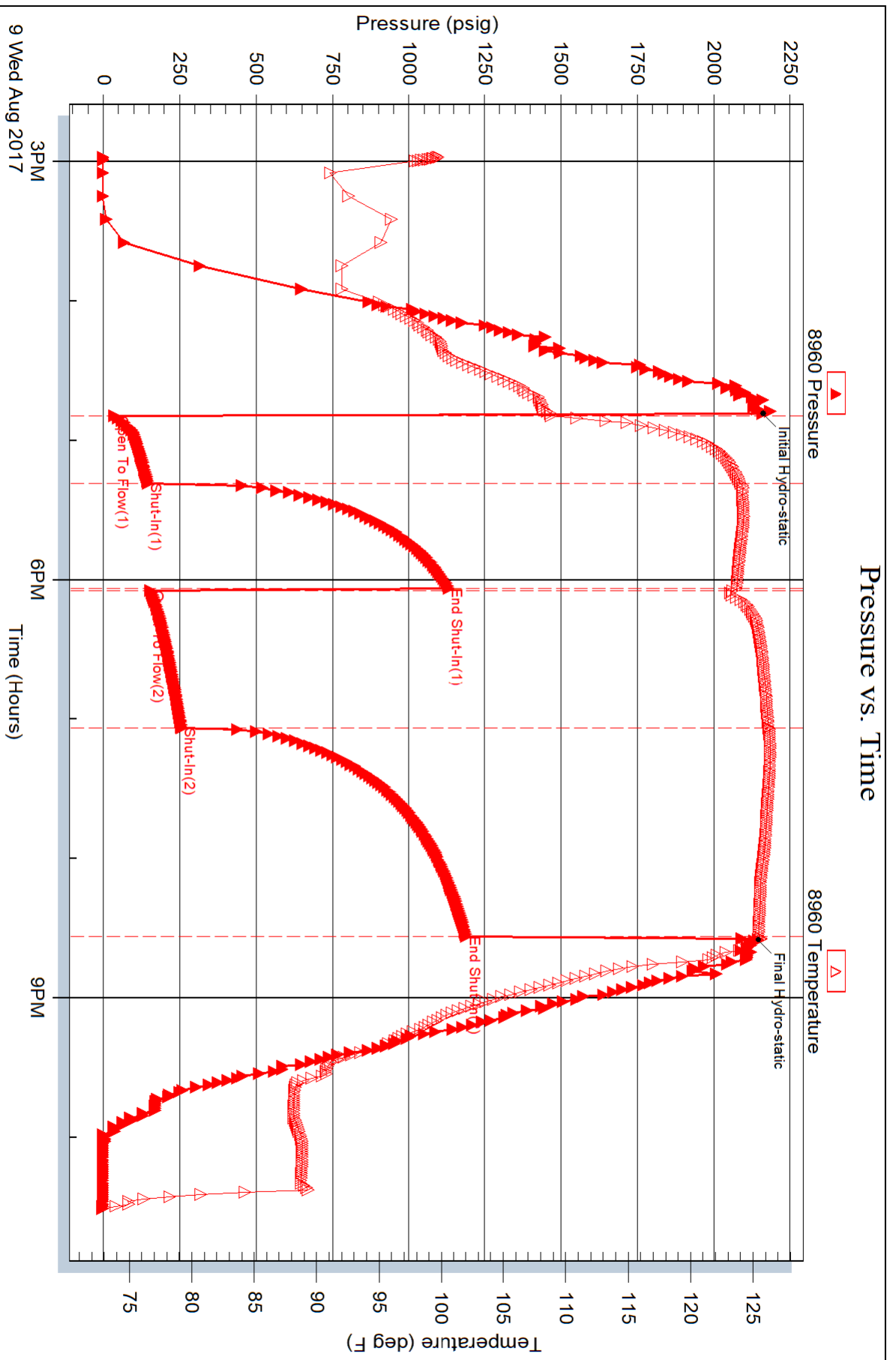
Colbalt Energy LLC

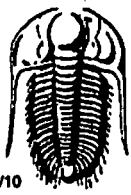
Sturm-Harris A #1-5

DST Test Number: 3

Pressure vs. Time







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 62631

Well Name & No. Stum-Harris A #1-5 Test No. 1 Date 8 AUG 17
 Company Cobalt Energy LLC Elevation 2292 KB 2285 GL
 Address 115 S Belmont #12 PO Box 8037 Wichita KS 67208
 Co. Rep / Geo. Ben Landes Rig Pickrel Rig 10
 Location: Sec. 5 Twp. 20S Rge. 23W Co. Ness State KS

Interval Tested 4320-4367 Zone Tested Cherokee Sand
 Anchor Length 47 Drill Pipe Run 4124 Mud Wt. 9.3
 Top Packer Depth 4315 Drill Collars Run 182 Vis 51
 Bottom Packer Depth 4320 Wt. Pipe Run - WL 10.8
 Total Depth 4367 Chlorides 7300 ppm System LCM 2#

Blow Description I.F. Blow built to 1 1/2 inch
I.S.I No blowback
F.F. Blow built to 1 1/2 inch
F.S.I No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>170</u>	<u>Oil Cut Mud</u>		<u>3</u>		<u>27</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 170 BHT 118 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2161</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>9:44 am</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>10:41 am</u>
(C) First Final Flow <u>64</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>12:52 pm</u>
(D) Initial Shut-In <u>1216</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>3:37 pm</u>
(E) Second Initial Flow <u>69</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>5:29 pm</u>
(F) Second Final Flow <u>97</u>	<input checked="" type="checkbox"/> Mileage <u>170</u> 127.50	Comments _____
(G) Final Shut-In <u>1201</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>2901</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby _____	Total <u>1602.50</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1602.50</u>	

Approved By Ben Landes Our Representative [Signature]

Triobite Testing Inc. shall not be liable for damaged of any kind of the property or personal 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. 62632

Well Name & No. Stum-Harris A #1-5 Test No. 2 Date 8 Aug 17
 Company Cobalt Energy LLC Elevation 2292 KB 2285 GL
 Address 115 S Belmont #12 PO Box 8037 Wichita KS 67208
 Co. Rep / Geo. Ben Landes Rig Pickrell Rig 10
 Location: Sec. 5 Twp. 20S Rge. 23W Co. Ness State KS

Interval Tested 4318-4380 Zone Tested Cherokee Sand
 Anchor Length 62 Drill Pipe Run 4124 Mud Wt. 9.3
 Top Packer Depth 4313 Drill Collars Run 182 Vis 51
 Bottom Packer Depth 4318 Wt. Pipe Run — WL 10.8
 Total Depth 4380 Chlorides 7300 ppm System LCM 2#
 Blow Description I.F. Blow built to 5 inches
I.S.I. No Blowback
F.F. Blow built to 7 inches
F.S.I. No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>124</u>	<u>Oil cut Watery Mud</u>	<u>5</u>	<u>4.5</u>	<u>50</u>	<u>50</u>
<u>139</u>	<u>Emulsified Oil cut Mud</u>	<u>10</u>	<u>90</u>	<u>90</u>	<u>90</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 263 BHT 118 Gravity — API RW .36 @ 72 °F Chlorides 17000 ppm

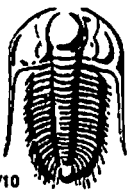
(A) Initial Hydrostatic 2124 Test 1150 T-On Location stayed on location
 (B) First Initial Flow 23 Jars 250 T-Started 11:45 pm
 (C) First Final Flow 91 Safety Joint 75 T-Open 2:38 am
 (D) Initial Shut-In 1195 Circ Sub — T-Pulled 5:53 am
 (E) Second Initial Flow 99 Hourly Standby — T-Out 8:02 am
 (F) Second Final Flow 134 Mileage 170 127.50
 (G) Final Shut-In 1172 Sampler —
 (H) Final Hydrostatic 2119 Straddle —
 Shale Packer —
 Extra Packer —
 Extra Recorder —
 Day Standby —
 Accessibility —
 Sub Total 1602.50

Initial Open 30
 Initial Shut-In 45
 Final Flow 60
 Final Shut-In 90

Comments —
 Ruined Shale Packer —
 Ruined Packer —
 Extra Copies —
 Sub Total 0
 Total 1602.50
 MP/DST Disc't —

Approved By [Signature] Our Representative [Signature]

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. 62633

Well Name & No. Stum-Harris A # 1-5 Test No. 3 Date 9 AUG 17
 Company Cobalt Energy LLC Elevation 2292 KB 2285 GL
 Address 115 S Belmont #12 PO Box 8037 Wichita Kansas 67208
 Co. Rep / Geo. Ben Landes Rig Pickrell Rig 10
 Location: Sec. 5 Twp. 20S Rge. 23W Co. Ness State KS

Interval Tested 4381-4402 Zone Tested Cherokee Sand
 Anchor Length 21 Drill Pipe Run 4186 Mud Wt. 9.4
 Top Packer Depth 4376 Drill Collars Run 182 Vis 52
 Bottom Packer Depth 4381 Wt. Pipe Run - WL 12.8
 Total Depth 4402 Chlorides 8500 ppm System LCM 1 #

Blow Description I.F. Blow built to 3 1/2 inches in 5 minutes then died to 1 1/2 inches
I.S.I. No blow back
F.F. Blow built to B.O.B. in 28 1/2 minutes
F.S.I. No blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>541</u>	<u>Muddy Water</u>			<u>5%</u>	<u>95%</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 541 BHT _____ Gravity _____ API RW .271 @ 69 °F Chlorides 24000 ppm
 (A) Initial Hydrostatic 2159 Test 1150 T-On Location 1:54 pm
 (B) First Initial Flow 41 Jars 250 T-Started 2:58 pm
 (C) First Final Flow 145 Safety Joint 75 T-Open 4:49 pm
 (D) Initial Shut-In 1131 Circ Sub _____ T-Pulled 8:34 pm
 (E) Second Initial Flow 158 Hourly Standby _____ T-Out 10:31 pm
 (F) Second Final Flow 256 Mileage 170 127.50
 (G) Final Shut-In 1188 Sampler _____
 (H) Final Hydrostatic 2143 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Comments _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1602.50
 MP/DST Disc't _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 60
 Final Shut-In 90

Sub Total 1602.50

Approved By [Signature]

Our Representative [Signature]

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.

COMPANY **COBAT ENERGY, LLC**

LEASE **STON-HARRIS #1 & 1-5**

FIELD **FRANKLIN EXTENSION**

LOCATION **600' NW 1/4 Sec 28, T12N, R10E, S14E**

SEC **5** TWP **28S** RGE **10E**

COUNTY **MISSOURI** STATE **KANSAS**

CONTRACTOR **ROCKWELL DRILLING, LLC**

SPD **6 1/2" 200' COMP 9/10/2017**

RTD **4/10/17**

MUD UP **TYPE MUD CHEMICAL**

SAMPLES SAVED FROM **3600 TO 4200**

DRILLING TIME KEPT FROM **3600 TO 4200**

SAMPLES EXAMINED FROM **3600 TO 4200**

GEOLOGICAL SUPERVISION FROM **3600 TO 4200**

GEOLOGIST ON WELL **BSU C. LANDES**

ELEVATIONS

KB **2290**

DF **0**

GL **2283**

Measurements Are All From **K.B.**

CASINO SURFACE **209.85' ±**

PRODUCTION **0**

ELECTRICAL SURVEYS **CND W/DI, MICKS**

FORMATION TOPS	LOG #	SAMPLES
Heebner L.C.	3716 (1925)	3715 (1925)
Lansing K.C.	3765 (1975)	3765 (1975)
Base K.C.	4110 (1820)	4110 (1820)
Pannee	4196 (1908)	4196 (1908)
Ft. Scott	4275 (1985)	4275 (1985)
Cherokee	4300 (1985)	4300 (1985)
Coke Sand	4350 (2000)	4350 (2000)
Miss	4402 (2112)	4402 (2112)

DRILL STEER TESTS

No.	Interval	UP/Time	SP/Time	FF/Time	FR/Time	HR/HR	RECOVERY

REMARKS AND RECOMMENDATIONS

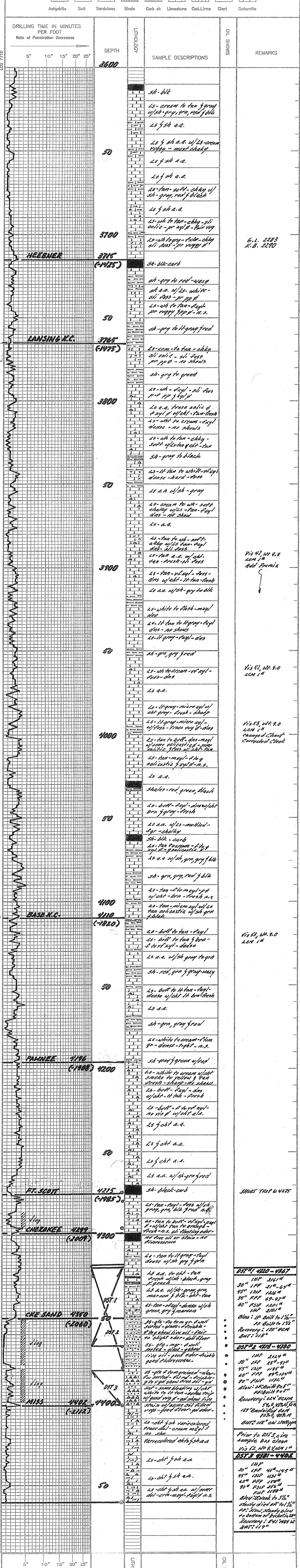
After sample evaluation, subsequent needs of DST 1, 2, 3, and log analysis, it was decided by all parties that the Ston-Harris #1 & 1-5 be deemed as a dry production and was therefore plugged and abandoned.

Respectfully Submitted,

[Signature]

LEGEND

	Anhydrite		Salt		Sandstone		Shale		Carb sh		Limestone		Cnl.Lime		Chert		Dolomite
--	-----------	--	------	--	-----------	--	-------	--	---------	--	-----------	--	----------	--	-------	--	----------



CONTRACTOR _____ LOCATION _____

LEASE _____ IP _____ SEC. _____ TWP _____ RNG _____

ELEVATION _____ RTD _____ COUNTY _____ STATE _____