

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	O'Brien Energy Resources Corp.
Well Name	HUSH 3-16
Doc ID	1354368

Tops

Name	Top	Datum
Heebner	4398	1655
Toronto	4421	1678
Lansing	4494	1751
Marmaton	5166	2423
Novinger	5238	2495
Cherokee	5334	2591
Atoka	5624	2881
Morrow	5669	2926
Mississippi Chester	5765	3022
Basal Chester	5965	3222
Ste. Genevieve	6015	3272
St. Louis	6171	3428



BASIC
ENERGY SERVICES

Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

PRESSURE PUMPING

Job Log

Customer:	O'BRIEN ENERGY	Cement Pump No.:	38119-19570	Operator TRK No.:	78939
Address:		Ticket #:	1718-14247 L	Bulk TRK No.:	70897-19578
City, State, Zip:		Job Type:	Z-41 PTA		
Service District:		Well Type:	OIL		
Well Name and No.:	HUSH 3-16	Well Location:	16-33-30	County:	MEADE
				State:	KS

Type of Cmt	Sacks	Additives	Truck Loaded On		
60/40 POZ	160	4%GEL	70897-19578	Front	Back
				Front	Back
				Front	Back

Lead/Tail:	Weight #1 Gal.	Cu/Ft/sk	Water Requirements	CU. FT.	Man Hours / Personnel	
Lead:	13.5	1.5	7.5	240	Man Hours:	6
Tail:					# of Men on Job:	3

Time	Volume (BBLS)	Pumps		Pressure(PSI)		Description of Operation and Materials
		T	C	Tubing	Casing	
8:00						ON LOC, SAFTEY MTG, R.U.
10:53	4	10		150		H2O SPACER
10:58 AM	4	13.35		180		MIX 50 SX@ 1515'
11:03 AM	4	3.5		50		H2O SPACER
11:05 AM	8	14		70		MUD DISPLACEMENT
11:44	4	15		140		H2O SPACER
11:49	4	10.7		150		MIX 40 SX @ 650'
11:52 AM	4	3.5		50		H2O SPACER
13:09	2	5				PLUG @ 60' W/ 20SX
13:15						PLUG R&M W/50 SX
						JOB COMPLETE
						THANK YOU FOR YOUR BUSINESS!!!!

Size Hole	Depth			TYPE	
Size & Wl Csg.	Depth		New / Used	Packer	Depth
lbg.	Depth			Retainer	Depth
Top Plugs	Type			Perfs	CIBP

Customer Signature: *Roger Pearson*

Basic Representative: *Cheryl Hinz*

Basic Signature: *[Signature]*

Date of Service: *2/7/17*

O'Brien Energy Resources, Inc.
Hush No. 3-16, Bruno Field
Section 16, T33S, R30W
Meade County, Kansas
February, 2017

Well Summary

The O'Brien Energy Resources, Corporation, Hush No. 3-16, Bruno Prospect, was drilled to a total depth of 6325' in the Mississippian St. Louis Formation without any problems. It offset the Hush No. 2-9 by approximately 800' to the South. The Heebner came in 4' low relative to this offset. The Lansing, Marmaton and Cherokee ran 2', 3' and 9' low respectively. The Morrow came in 1' low and the Chester 24' low. The St. Louis, 8' high.

No Morrow "A" or "B" Sandstones were noted in the Hush No. 3-16. A Lower Morrow Sandstone with show was documented(5742' to 5753') and consists of a Sandstone in up to 30% of the samples: Light brown, salt and pepper, speckled green, occasionally mottled gray, hard to friable in part, very fine upper to fine lower well sorted round grains, calcite and some clay cement with infill, glauconitic, pyritic, fair to occasionally good intergranular porosity, occasional vuggy porosity, very dull dark brown hydrocarbon fluorescence, fair bleeding to occasional good streaming cut, trace oil stain, no gas bubbles or odor, weak show relative to productive oil sands in the area, and interbedded with Shale. 220 to 450 Unit gas kicks were documented.

This interval was drill stem tested(5722'-5772') and recovered gas to surface in 48 minutes of the final flow period and was too small to measure.

A very Upper Morrow Sandstone with a slight show was noted from 5674' to 5676'. A 110 Unit gas increase was documented(attached mudlog).

Typical shows and of low quality were documented in the Basal Chester/Ste. Genevieve. The Hush No. 3-16 was plugged and abandoned 2/7/17.

Respectfully Submitted,

Peter Debenham

WELL DATA

Operator: O'Brien Energy Resources, Inc., John Forma – Portsmouth, NH
Geologist: Paul Wiemann – Denver, CO

Prospect Geologist: Ed Schuett, David Ward

Well: Hush No. 3-16, Bruno Field

Location: 700' FNL & 660' FEL, Section 16, T33S, R30W, Meade County, Kansas – 5 miles South of Plains.

Elevation: Ground Level 2730', Kelly Bushing 2743'

Contractor: Duke Drilling Rig No. 7, Type: Double jackknife, triple stand, Toolpusher Gaylen Roach, Drillers:

Company Man: Roger Pearson – Liberal, Kansas

Spud Date: 1/27/17

Total Depth: 1/5/17, Driller 5360', Logger 5356', Mississippi St. Louis

Casing Program: 35 joints of 8 5/8", J55, 24Lbs/ft, set at 1464'.

Mud Program: Winter Mud, engineer Drew Smith, Theran Hegwood, displaced 2642' with Chemical Gel/LCM.

Wellsite Consultant: Peter Debenham with mudlogging trailer, Call depth 3000', Box 350, Drake, CO 80515, 720/220-4860.

Samples: 30' samples to 5600', 20' to td.

Electric Logs: Weatherford, engineer Adam Sill, 1)Dual Induction 2) Compensated Neutron Litho Density 3) Microlog – high res. repeat.

Drillstem Testing: Trilobite Testing, Engineer Leal Cason, Straddle Test No. 1(5722'-5772'), Lower Morrow Sandstone.

Status: Plugged and abandoned 2/7/17.

WELL CHRONOLOGY

<u>DATE</u>	<u>DEPTH</u>	<u>FOOTAGE</u>	<u>RIG ACTIVITY</u>
1/27	150'	150'	Move to location and rig up rotary tools. Mix spud mud. Drill rathole and mousehole. Spud in 12 1/4" surface hole(8:30pm). to 150'.
1/28	1095'	945'	To 570' and trip for balled bit. Clean pits and service rig. Trip in with tooth bit and drill to 1095'. Surveys(1/4 – 3/4 deg.).
1/29	1490'	395'	Surveys(3/4 deg.). To 1490' and circulate, jet cellar and spot mud. Wiper trip 16 stands and circulate. Drop survey(3/4 deg.) and trip out and lay down 8" drill collars. Run and cement 35 joints of 8 5/8", 24 lbs/ft, tally at 1464'. Plug down 8pm, with Basic Services.
1/30	1995'	505'	Wait on cement. Trip in collars and pressure test BOP. Trip in and tag cement and drill plug and cement and 7 7/8" hole to 1659' and trip for Bit no. 4. Rechain BOP and work on shale shaker. Surveys(1 deg.).
1/31	2877'	882'	Surveys(3/4 – 1 deg.). Displace mud system at 2642'.
2/1	3570'	693'	Trip for hole in pipe at 2877' and replace valve seat. Jet cellar. Survey(1 1/2 deg.).
2/2	4445'	875'	Surveys(1/4 – 1/2 deg.). Service and jet.
2/3	5190'	745'	Service rig. Survey(1deg.). To 5020' and circulate and wiper trip. To 5190'.
2/4	5950'	760'	Adjust breaks. Survey(3/4 deg.).
2/5	6325'TD		To TD and circulate and wiper trip 60 stands and circulate. Drop survey(3/4 deg.) and trip for logs.
2/6	TD	375'	Trip out for logs and run ELogs. Wait on orders. Trip in and run straddle test(5722'-5772'), Lower Morrow Sandstone.
2/7	TD		Pull test tool. Trip in and circulate. Trip out laying down and plug and abandon well. Rig down.

DEVIATION RECORD - degree

316' 3/4, 680' 1/2, 901' 1/4, 1490' 3/4, 1913' 1, 2324' 3/4, 2547' 3/4, 3055' 1, 3341' 1 1/2, 3689' 1/2, 4005' 1/4, 4574' 1, 4861' 1, TD 3/4

BIT RECORD

<u>NO.</u>	<u>MAKE</u>	<u>TYPE</u>	<u>SIZE</u>	<u>OUT</u>	<u>FOOTAGE</u>	<u>HOURS</u>
1	PDC	PDC	12 ¼"	570'	570'	6
2	Tooth	PLD-RR RT	7 7/8"	1490'	920'	20
3	J2	RR BB	7 7/8"	1659'	169'	4 ¾
4	PDC	J2	7 7/8"	6325'	4666'	108 ¾
Total Rotating Hours:						138 ¾
Average:						45.6 Ft/hr

MUD PROPERTIES

<u>DATE</u>	<u>DEPTH</u>	<u>WT</u>	<u>VIS</u>	<u>PV</u>	<u>YP</u>	<u>pH</u>	<u>WL</u>	<u>CL</u>	<u>LCM-LBS/BBL</u>
1/27	0'	8.3	make up water						
1/28	610'	9.5	35	8	12	8.0	nc	2K	8
1/29	1406'	10.3	38	12	17	8.0	nc	7.5K	18
1/30	1490'	8.4	28	1	1	10.0	nc	3.5K	--
1/31	2400'	9.8	30	4	7	8.5	nc	65K	--
2/1	3119'	9.0	43	12	19	9.5	22	8.5K	4
2/2	4000'	9.3	45	12	13	9.5	16.0	6.5K	4
2/3	4861'	9.2	40	11	4	10.0	6.8	4.7K	4
2/4	5555'	9.3	45	14	8	10.0	7.6	5K	4
2/5	6201'	9.4	48	18	14	10.0	6.8	4K	6

ELECTRIC LOG FORMATION TOPS- KB Elev. 2743'

<u>FORMATION</u>	<u>DEPTH</u>	<u>DATUM</u>	<u>*Hush No. 2-9</u>	
			<u>DATUM</u>	<u>POSITION</u>
Surface Casing	1483'			
Heebner	4398'	-1655'	-1651'	-4'
Toronto	4421'	-1678'	-1676'	-2'
Lansing	4494'	-1751'	-1748'	-3'
Marmaton	5166'	-2423'	-2414'	-9'
Novinger Interval	5238'	-2495'	-2488'	-7'
Cherokee	5334'	-2591'	-2589'	-2'
Atoka	5624'	-2881'	-2881'	0'
Morrow	5669'	-2926'	-2925'	-1'
Lower Morrow SS	5742'	-2999'	na	
Mississippi Chester	5765'	-3022'	-2998'	-24'
Basal Chester	5965'	-3222'	-3226'	+4'
Ste. Genevieve	6015'	-3272'	-3271'	-1'
St. Louis	6171'	-3428'	-3436'	+8'
TD	6329'	-3586'		

*Hush No. 2-9, 100' FSL & 660' FEL, sec. 9 – app. 800' to the North, KB Elev. 2742'.

DRILL STEM DATA

DST NO.1: (5722' -5772'), Lower Morrow Sandstone

Type: Straddle Test Times: 30-60-60-120

<u>PERIOD</u>	<u>TIME</u>	<u>PSI</u>
IH		2933
IF	30	76 - 138
ISI	60	1185
FF	60	38 - 42
FSI	120	1768
FH		2911

BHT 126 deg. F.

BLOWS: IF – Fair, bottom of bucket in 20 minutes. ISI – Blowback, bottom of bucket in 46 minutes.

FF – Strong, bottom of bucket in 10 seconds, gas to surface in 48 minutes, burns – too small to measure. FSI – 1” blowback.

RECOVERY: Gas to surface in 48 minutes of FF period. 65’ of gas cut mud(5% gas, 95% mud).



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

O'Brien Energy
18 Congress St Ste 207
Portsmouth, NH 03801
ATTN: Roger Pearson

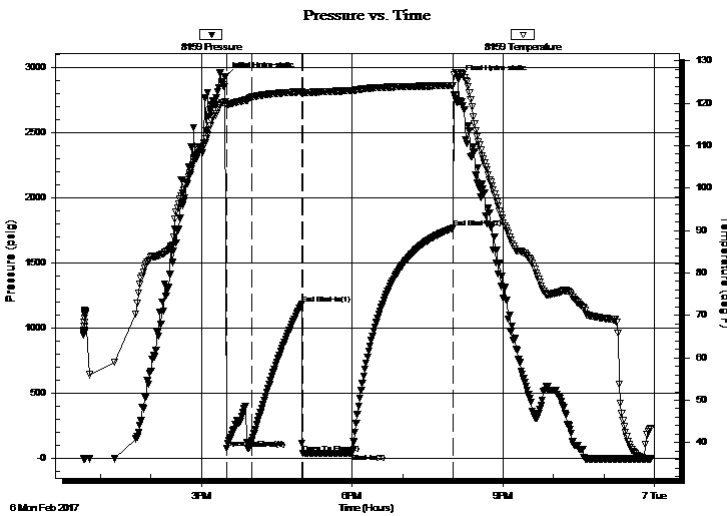
16-33S-30W Meade
Hush 3-16
Job Ticket: 63561 **DST#: 1**
Test Start: 2017.02.06 @ 12:39:51

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Straddle (Initial)
Time Tool Opened: 15:30:06 Tester: Leal Cason
Time Test Ended: 23:56:06 Unit No: 74
Interval: 5722.00 ft (KB) To 5772.00 ft (KB) (TVD) Reference Elevations: 2743.00 ft (KB)
Total Depth: 6329.00 ft (KB) (TVD) 2730.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 13.00 ft

Serial #: 8159 Inside
Press@RunDepth: 42.54 psig @ 5723.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.02.06 End Date: 2017.02.06 Last Calib.: 2017.02.07
Start Time: 12:39:52 End Time: 23:56:06 Time On Btm: 2017.02.06 @ 15:28:36
Time Off Btm: 2017.02.06 @ 20:06:36

TEST COMMENT: IF: Fair Blow , BOB in 20 minutes
IS: Blow Back Built to BOB in 46 minutes
FF: Strong Blow , BOB in 10 seconds, GTS in 48 minutes, TSTM, Caught Sample
FS: 1 Inch Blow Back



PRESSURE SUMMARY

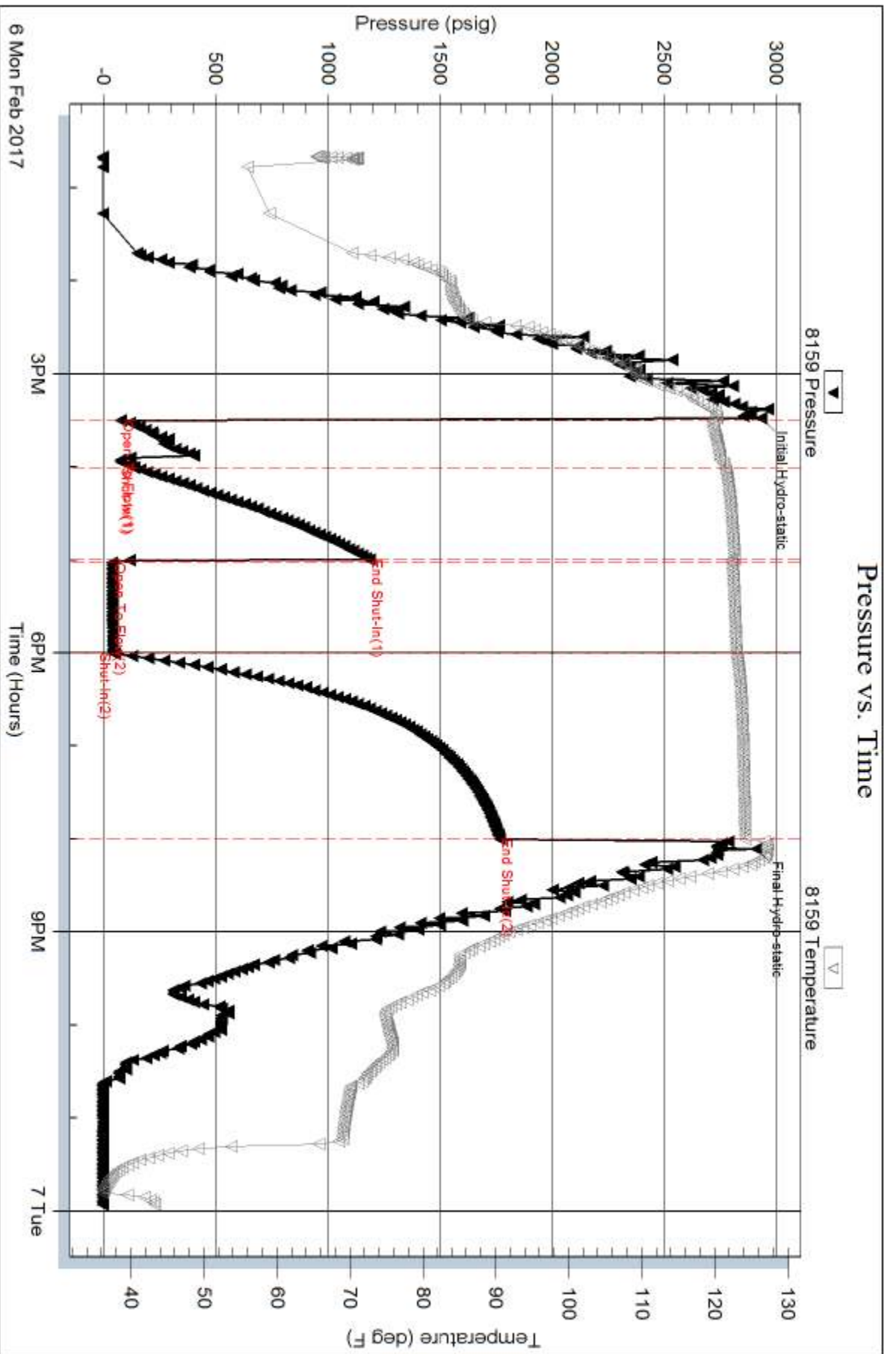
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2933.59	120.40	Initial Hydro-static
2	76.62	119.73	Open To Flow (1)
32	138.58	121.43	Shut-In(1)
92	1185.08	122.71	End Shut-In(1)
93	38.38	122.40	Open To Flow (2)
152	42.54	122.96	Shut-In(2)
272	1768.28	124.17	End Shut-In(2)
278	2911.48	127.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	5635 GIP	0.00
65.00	GCM 5%G 95%M	0.32

Gas Rates

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



Serial #: 6806

Outside O'Brien Energy

Hush 3-16

DST Test Number: 1

