

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)</i> <i>(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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REMIT TO: Allied OFS, LLC
P.O. Box 205803
Dallas, TX 75320-5803

SERVICE POINT: Carlsbad, N.M.

SURFACE

DATE <u>12/19/14</u>	SEC. <u>19</u>	TWP. <u>7</u>	RANGE <u>28</u>	CALLED OUT	ON LOCATION	JOB START <u>5:30P</u>	JOB FINISH <u>8:00P</u>
LEASE <u>Grade</u>	WELL # <u>1-19</u>	LOCATION <u>Horle N to Rd 4 3 W to Rd 30</u>	COUNTY <u>Sheridan</u>	STATE <u>KS</u>			
OLD OR NEW (Circle one)			<u>3/4" N Entry</u>				

CONTRACTOR Murphy 7
 TYPE OF JOB Snack
 HOLE SIZE 12 1/4 T.D. 295
 CASING SIZE 8 5/8 DEPTH 295
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG.
 PERFS.
 DISPLACEMENT 17.83

OWNER Same
 CEMENT
 AMOUNT ORDERED 270 Lbs 390 cc 14 PLO

EQUIPMENT
 PUMP TRUCK CEMENTER Alan 2100
 # 516-281 HELPER Kevin 2100
 BULK TRUCK
 # 891 DRIVER Jade Mitten
 BULK TRUCK
 # DRIVER

COMMON 270 SL @ 17.22 4833.24
 POZMIX @
 GEL @
 CHLORIDE 76216 @ 1.50 2385.20
 ASC @
PLO Seal 6816 @ 2.22 2012.66
 @
 @
 @
 @
 @

TOTAL 5,873.16

DISCOUNT 50% 2936.58

REMARKS:

On Coy, Carlsbad, N.M. Cement, Displace Cement
Shut in
Cement Did Carlsbad 800L 70P/T
Thank You Alan, Kevin, Cory

SERVICE

HANDLING 290 CF @ 2.50 719.25
 MILEAGE 2370/150 1443.25
 DEPTH OF JOB
 PUMP TRUCK CHARGE 1562.25
 EXTRA FOOTAGE @
 HV MILEAGE 40 @ 7.22 308.80
 LV MILEAGE 40 @ 4.90 176.00
 @
 @

TOTAL 4,159.80

DISCOUNT 50% 2079.60

CHARGE TO: Sulman Exp.
 STREET
 CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

Centralizers 8 1/2-3 @ 75.00 225.00
 @
 @
 @

TOTAL 225.00

DISCOUNT 50% 112.50

To: Allied OFS, 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 KELLY WILSON

SIGNATURE Kelly Wilson

SALES TAX (if Any)
 TOTAL CHARGES 10,257.36
 DISCOUNT 5,128.68 IF PAID IN 30 DAYS
 NET TOTAL 5,128.68 IF PAID IN 30 DAYS

Bid



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Suemaaur Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61211

DST#: 1

ATTN: Bob Petersen

Test Start: 2016.12.12 @ 09:47:00

GENERAL INFORMATION:

Formation: **Stotler**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:37:00

Time Test Ended: 17:50:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

Interval: 3579.00 ft (KB) To 3594.00 ft (KB) (TVD)

Reference Elevations: 2798.00 ft (KB)

Total Depth: 3594.00 ft (KB) (TVD)

2793.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8372 Outside

Press@RunDepth: 29.58 psig @ 3581.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.12.12 End Date: 2016.12.12

Last Calib.: 2016.12.12

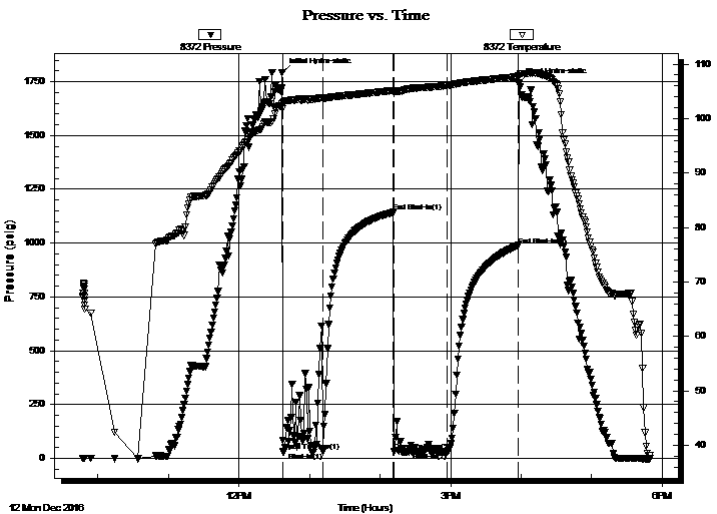
Start Time: 09:47:02 End Time: 17:50:00

Time On Btm: 2016.12.12 @ 12:36:45

Time Off Btm: 2016.12.12 @ 15:58:00

TEST COMMENT: 45-IFP- Surface Blow Building to 1 1/2in.
60-ISIP- No Blow
45-FFP- Weak Surface Blow in 4min.
60-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1792.08	102.76	Initial Hydro-static
1	30.62	101.86	Open To Flow (1)
35	29.65	103.57	Shut-In(1)
95	1143.38	105.16	End Shut-In(1)
95	31.43	104.71	Open To Flow (2)
141	29.58	106.08	Shut-In(2)
201	989.52	107.68	End Shut-In(2)
202	1743.35	107.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Oil Speck Mud 100%	0.07

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Suemaaur Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61211

DST#: 1

ATTN: Bob Petersen

Test Start: 2016.12.12 @ 09:47:00

GENERAL INFORMATION:

Formation: **Stotler**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:37:00

Time Test Ended: 17:50:00

Interval: 3579.00 ft (KB) To 3594.00 ft (KB) (TVD)

Total Depth: 3594.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)

Tester: Jim Svaty

Unit No: 76

Reference Elevations: 2798.00 ft (KB)

2793.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8789

Inside

Press@RunDepth: psig @ 3581.00 ft (KB)

Start Date: 2016.12.12

End Date:

2016.12.12

Start Time: 09:47:02

End Time:

17:49:45

Capacity: 8000.00 psig

Last Calib.:

2016.12.12

Time On Btm:

Time Off Btm:

TEST COMMENT: 45-IFP- Surface Blow Building to 1 1/2in.
60-ISIP- No Blow
45-FFP- Weak Surface Blow in 4min.
60-FSIP- No Blow

PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
15.00	Oil Speck Mud 100%	0.07

Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Suemaur Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61211

DST#: 1

ATTN: Bob Petersen

Test Start: 2016.12.12 @ 09:47:00

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: 73.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 700.00 ppm

Filter Cake: 7.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Oil Speck Mud 100%	0.074

Total Length: 15.00 ft Total Volume: 0.074 bbl

Num Fluid Samples: 0

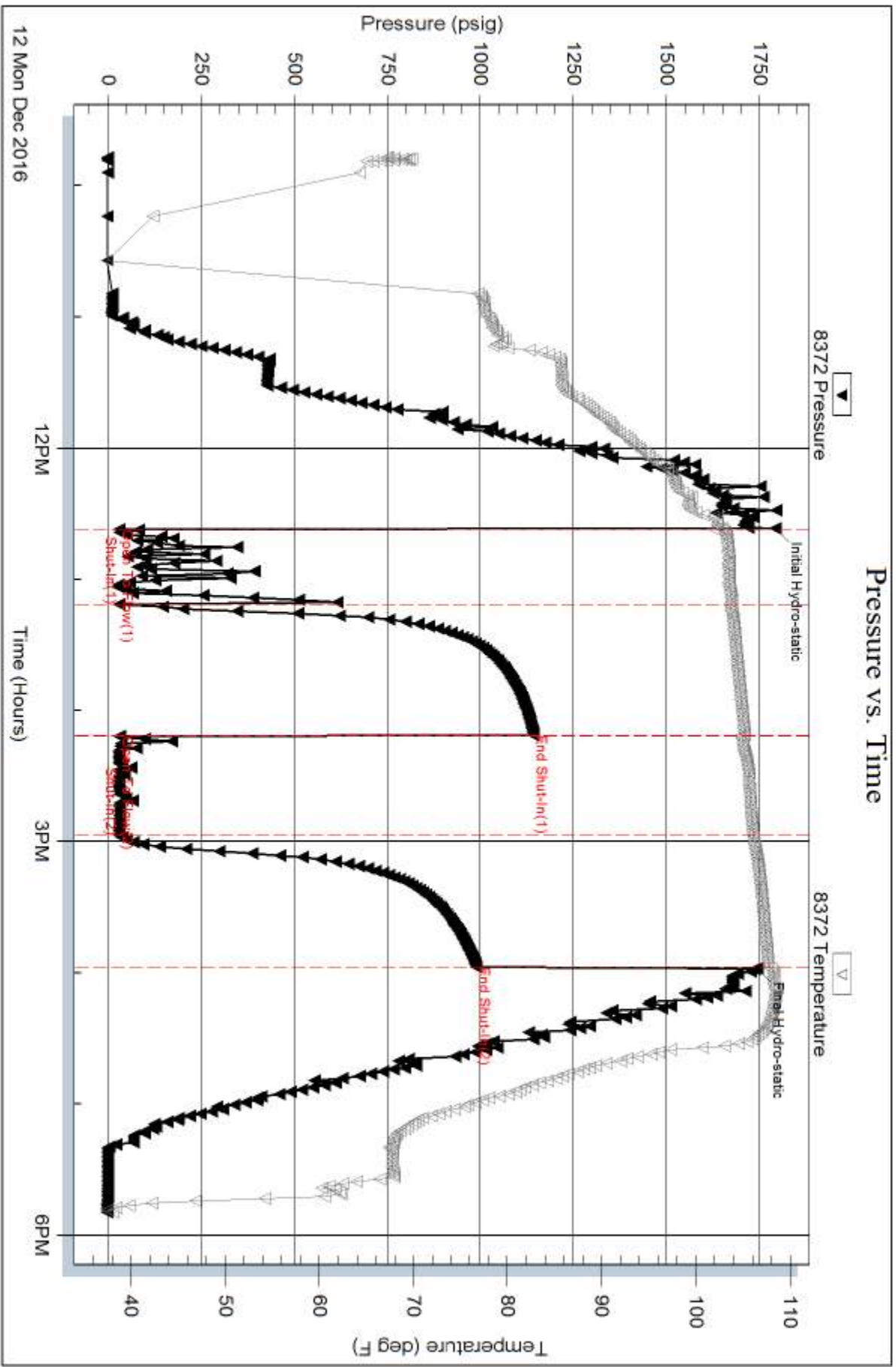
Num Gas Bombs: 0

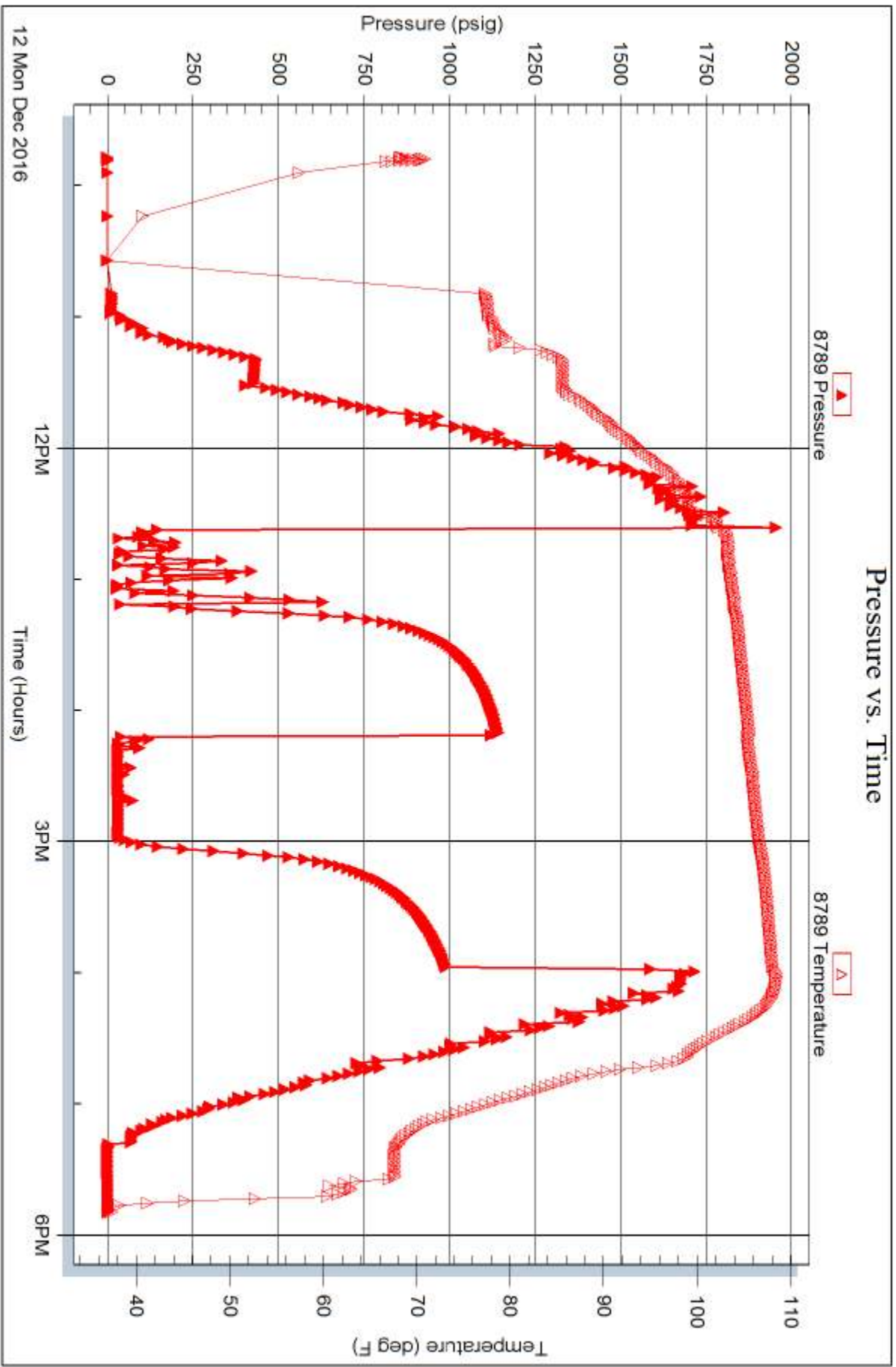
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Suemaour Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61212

DST#: 2

ATTN: Bob Peterson

Test Start: 2016.12.13 @ 22:28:00

GENERAL INFORMATION:

Formation: **LKC " C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 00:55:15

Time Test Ended: 06:48:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 3956.00 ft (KB) To 3978.00 ft (KB) (TVD)

Reference Elevations: 2798.00 ft (KB)

Total Depth: 3978.00 ft (KB) (TVD)

2793.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8372 Outside

Press@RunDepth: 164.73 psig @ 3960.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.12.13

End Date:

2016.12.14

Last Calib.: 2016.12.14

Start Time: 22:28:02

End Time:

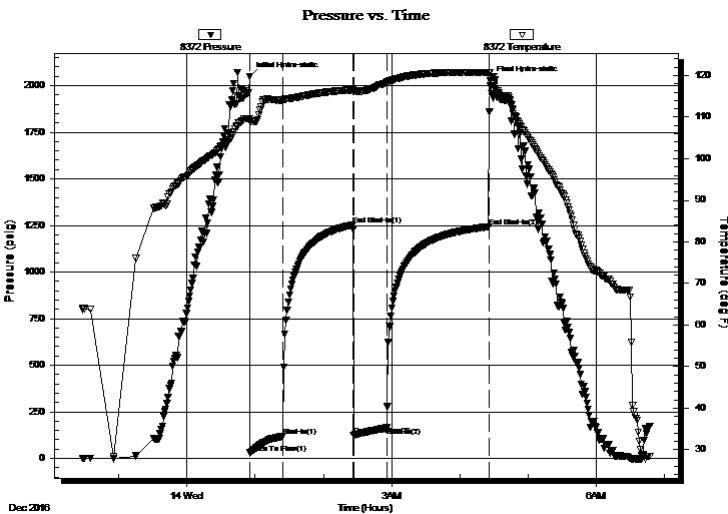
06:48:00

Time On Btm: 2016.12.14 @ 00:55:00

Time Off Btm: 2016.12.14 @ 04:26:45

TEST COMMENT: 30-IFP- BOB in 22min.
60-ISIP- Weak Surface Blow in 5min. Died in 12min.
30-FFP- BOB in 28min.
90-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2048.43	109.65	Initial Hydro-static
1	28.78	109.00	Open To Flow (1)
30	118.22	114.09	Shut-In(1)
91	1253.03	116.57	End Shut-In(1)
92	123.27	116.18	Open To Flow (2)
121	164.73	118.32	Shut-In(2)
211	1242.45	120.74	End Shut-In(2)
212	2027.80	119.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
187.00	MCW 15%w 85%w	0.92
130.00	WCM 40%w 60%w	1.82

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Suemaaur Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61212

DST#: 2

ATTN: Bob Peterson

Test Start: 2016.12.13 @ 22:28:00

Tool Information

Drill Pipe:	Length: 3767.00 ft	Diameter: 3.80 inches	Volume: 52.84 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 187.00 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 53.76 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3956.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	50.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3929.00	
Shut In Tool	5.00			3934.00	
Hydraulic tool	5.00			3939.00	
Jars	5.00			3944.00	
Safety Joint	2.00			3946.00	
Packer	5.00			3951.00	28.00 Bottom Of Top Packer
Packer	5.00			3956.00	
Stubb	1.00			3957.00	
Perforations	3.00			3960.00	
Recorder	0.00	8789	Inside	3960.00	
Recorder	0.00	8372	Outside	3960.00	
Perforations	15.00			3975.00	
Bullnose	3.00			3978.00	22.00 Bottom Packers & Anchor

Total Tool Length: 50.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Suemaaur Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61212

DST#: 2

ATTN: Bob Peterson

Test Start: 2016.12.13 @ 22:28:00

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: 52000 ppm

Viscosity: 65.00 sec/qt

Cushion Volume: bbl

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 700.00 ppm

Filter Cake: 6.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
187.00	MCW 15%m 85%w	0.920
130.00	WCM 40%w 60%m	1.824

Total Length: 317.00 ft Total Volume: 2.744 bbl

Num Fluid Samples: 0

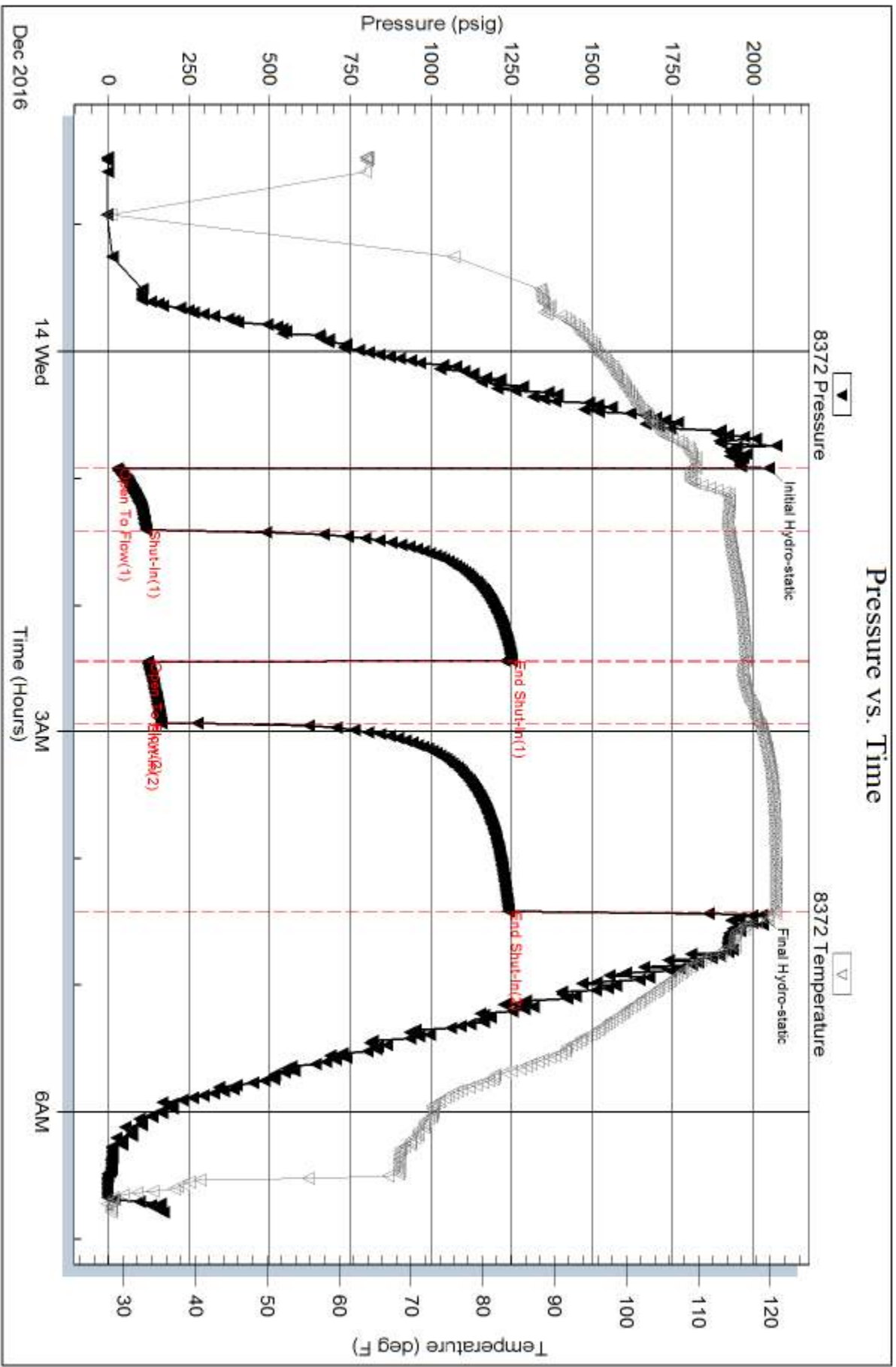
Num Gas Bombs: 0

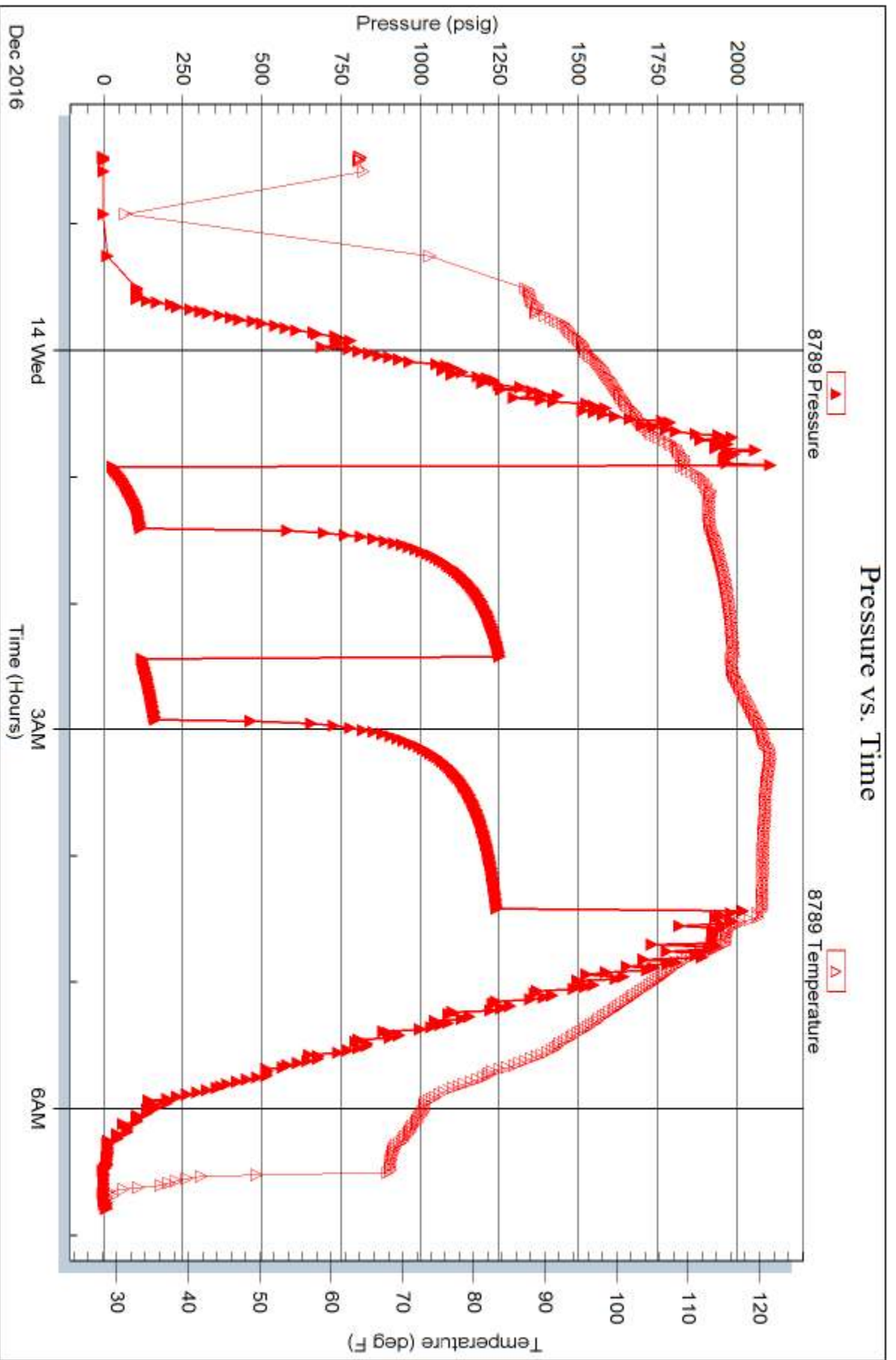
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .460 @ 22







**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Suemaour Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61213

DST#: 3

ATTN: Bob Petersen

Test Start: 2016.12.14 @ 19:14:00

GENERAL INFORMATION:

Formation: **LKC " G "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:19:45

Time Test Ended: 03:45:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 4017.00 ft (KB) To 4035.00 ft (KB) (TVD)

Reference Elevations: 2798.00 ft (KB)

Total Depth: 4035.00 ft (KB) (TVD)

2793.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8372 Outside

Press@RunDepth: 142.79 psig @ 4019.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.12.14

End Date:

2016.12.15

Last Calib.:

2016.12.15

Start Time:

19:14:02

End Time:

03:45:00

Time On Btm:

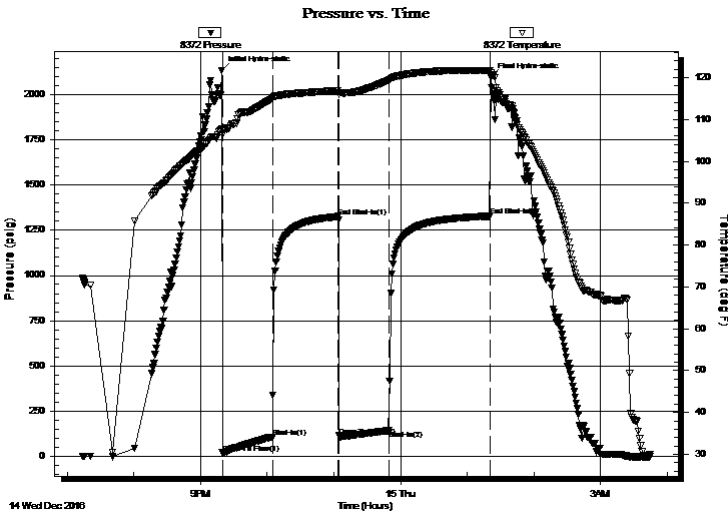
2016.12.14 @ 21:19:15

Time Off Btm:

2016.12.15 @ 01:21:15

TEST COMMENT: 45-IFP- Surface Blow Building to 9 1/2in.
60-ISIP- No Blow
45-FFP- Surface Blow Building to 8in.
90-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2132.75	107.77	Initial Hydro-static
1	20.31	106.31	Open To Flow (1)
46	106.34	115.01	Shut-In(1)
105	1325.52	116.90	End Shut-In(1)
106	113.90	116.06	Open To Flow (2)
151	142.79	119.40	Shut-In(2)
242	1327.58	121.71	End Shut-In(2)
242	2095.67	121.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
187.00	MCW 10%w 90%w	0.92
80.00	WCM 45%w 55%w	1.12

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Suemaaur Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61213

DST#: 3

ATTN: Bob Petersen

Test Start: 2016.12.14 @ 19:14:00

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:

80000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1500.00 ppm

Filter Cake: 6.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
187.00	MCW 10%m 90%w	0.920
80.00	WCM 45%w 55%m	1.122

Total Length: 267.00 ft

Total Volume: 2.042 bbl

Num Fluid Samples: 0

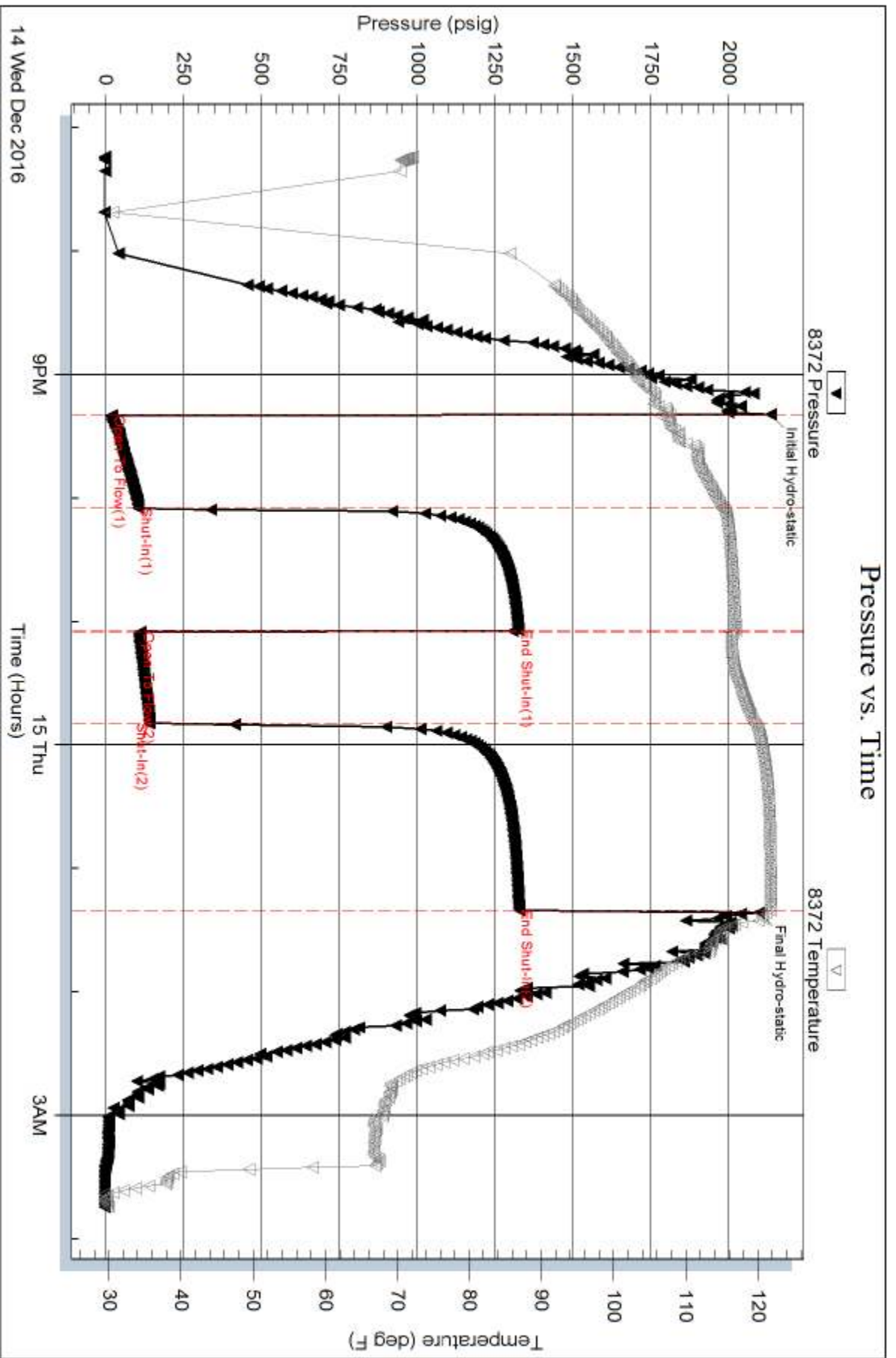
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: .232 @ 30



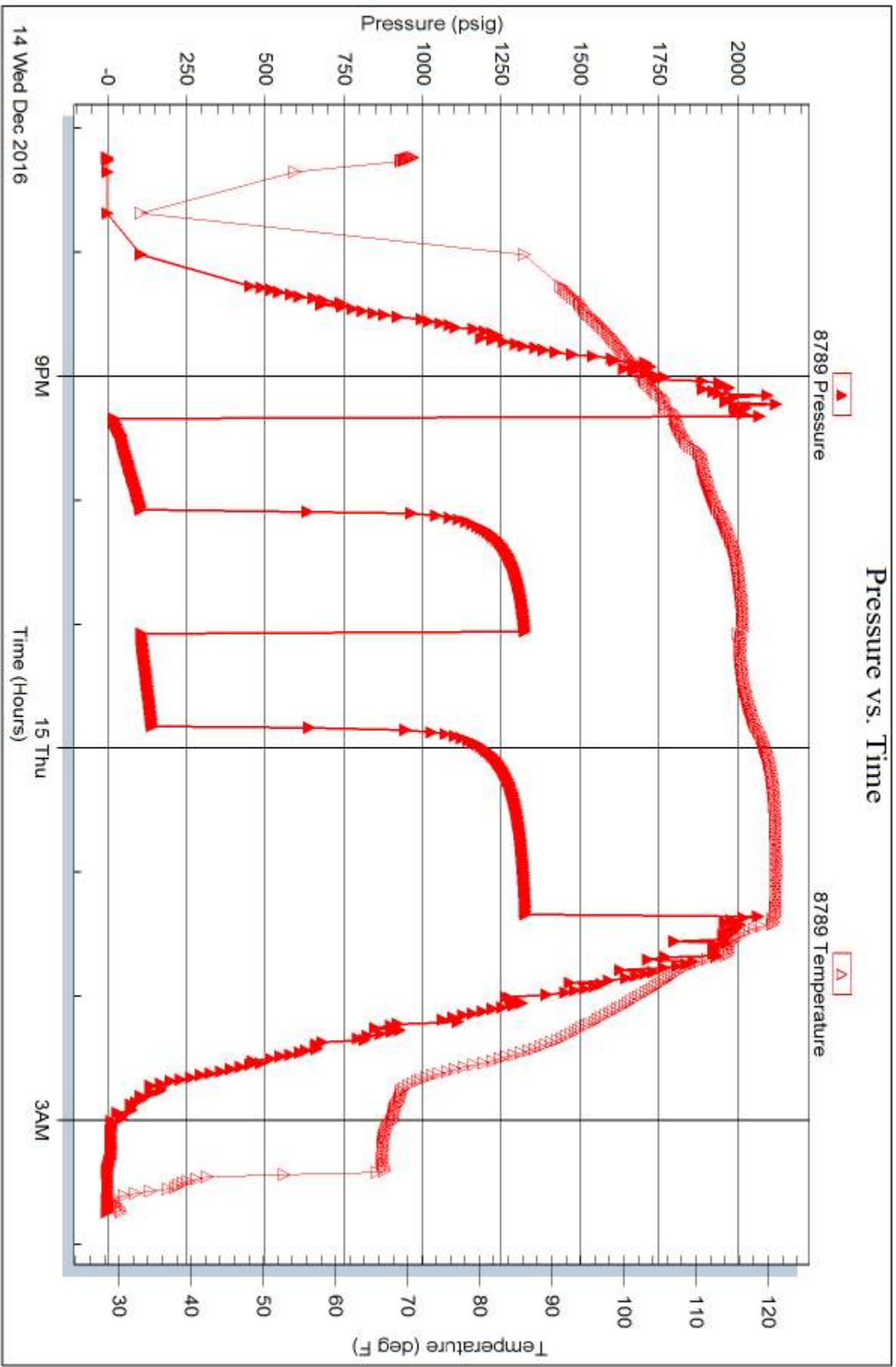
Serial #: 8789

Inside

Suenaux Expl. & Prod. LLC

Gaeede 1-19

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 61213

Printed: 2016.12.15 @ 06:28:20



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Suemaour Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61214

DST#: 4

ATTN: Bob Petersen

Test Start: 2016.12.15 @ 13:21:00

GENERAL INFORMATION:

Formation: **LKC " H "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:18:30

Time Test Ended: 22:31:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 4068.00 ft (KB) To 4080.00 ft (KB) (TVD)

Reference Elevations: 2798.00 ft (KB)

Total Depth: 4080.00 ft (KB) (TVD)

2793.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8372 Outside

Press@RunDepth: 22.32 psig @ 4069.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.12.15

End Date:

2016.12.15

Last Calib.:

2016.12.15

Start Time: 13:21:02

End Time:

22:31:15

Time On Btm:

2016.12.15 @ 16:18:15

Time Off Btm:

2016.12.15 @ 20:19:00

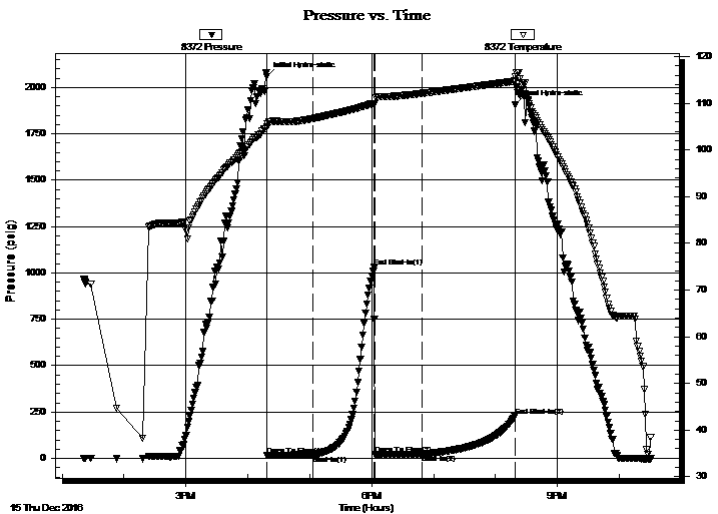
TEST COMMENT: 45-IFP- Surface Blow Building to 1 1/2in.

60-ISIP- No Blow

45-FFP- Surface Blow

90-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2056.99	104.91	Initial Hydro-static
1	15.83	104.71	Open To Flow (1)
46	18.73	106.72	Shut-In(1)
105	1030.50	109.97	End Shut-In(1)
105	20.84	109.93	Open To Flow (2)
151	22.32	112.10	Shut-In(2)
241	226.54	114.74	End Shut-In(2)
241	1904.69	115.70	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 5%o 95% m W/ Small Oil Cap	0.05

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Suemaaur Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61214

DST#: 4

ATTN: Bob Petersen

Test Start: 2016.12.15 @ 13:21:00

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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 4.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OCM 5%o 95%m W/ Small Oil Cap	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

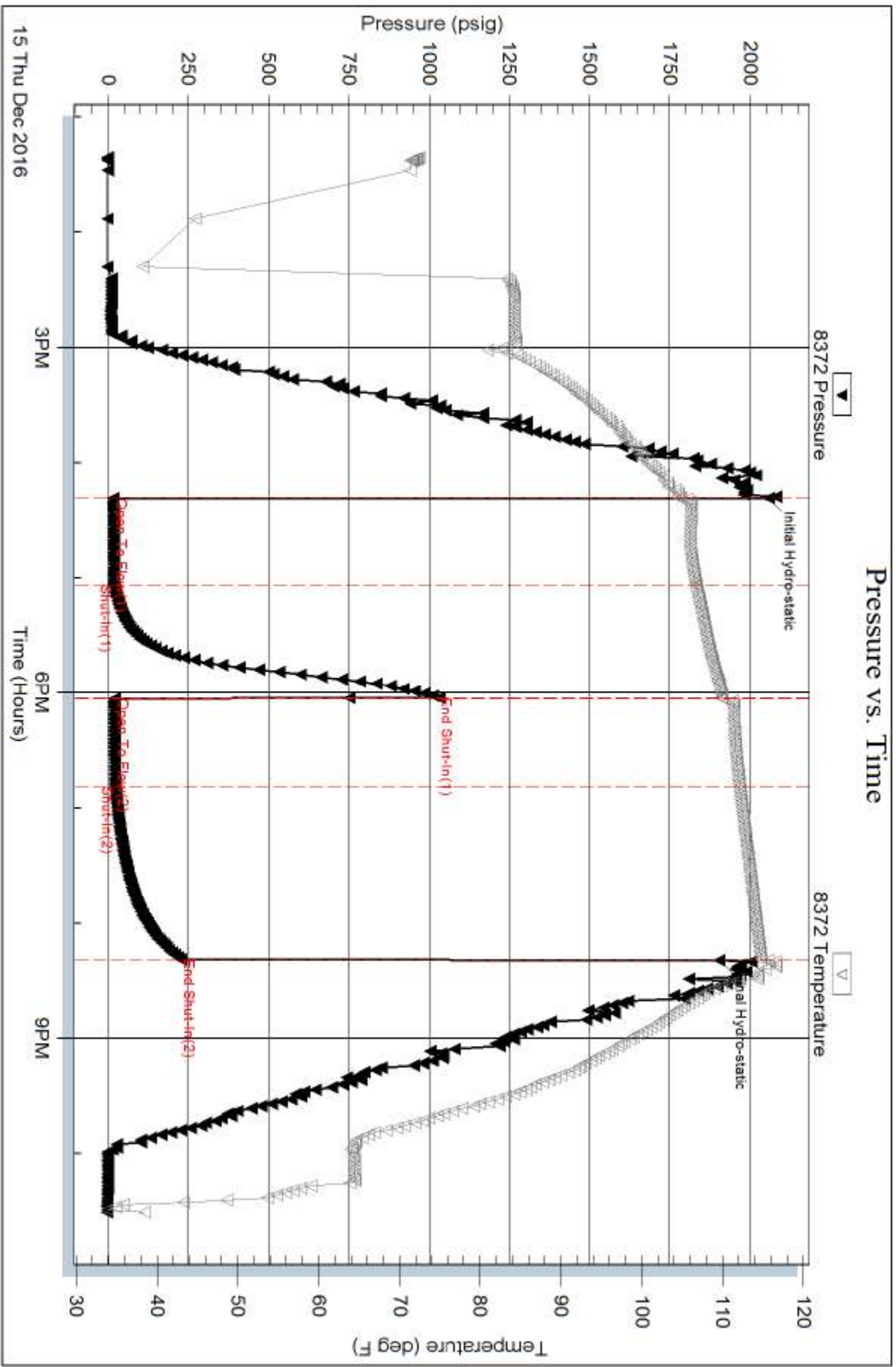
Num Gas Bombs: 0

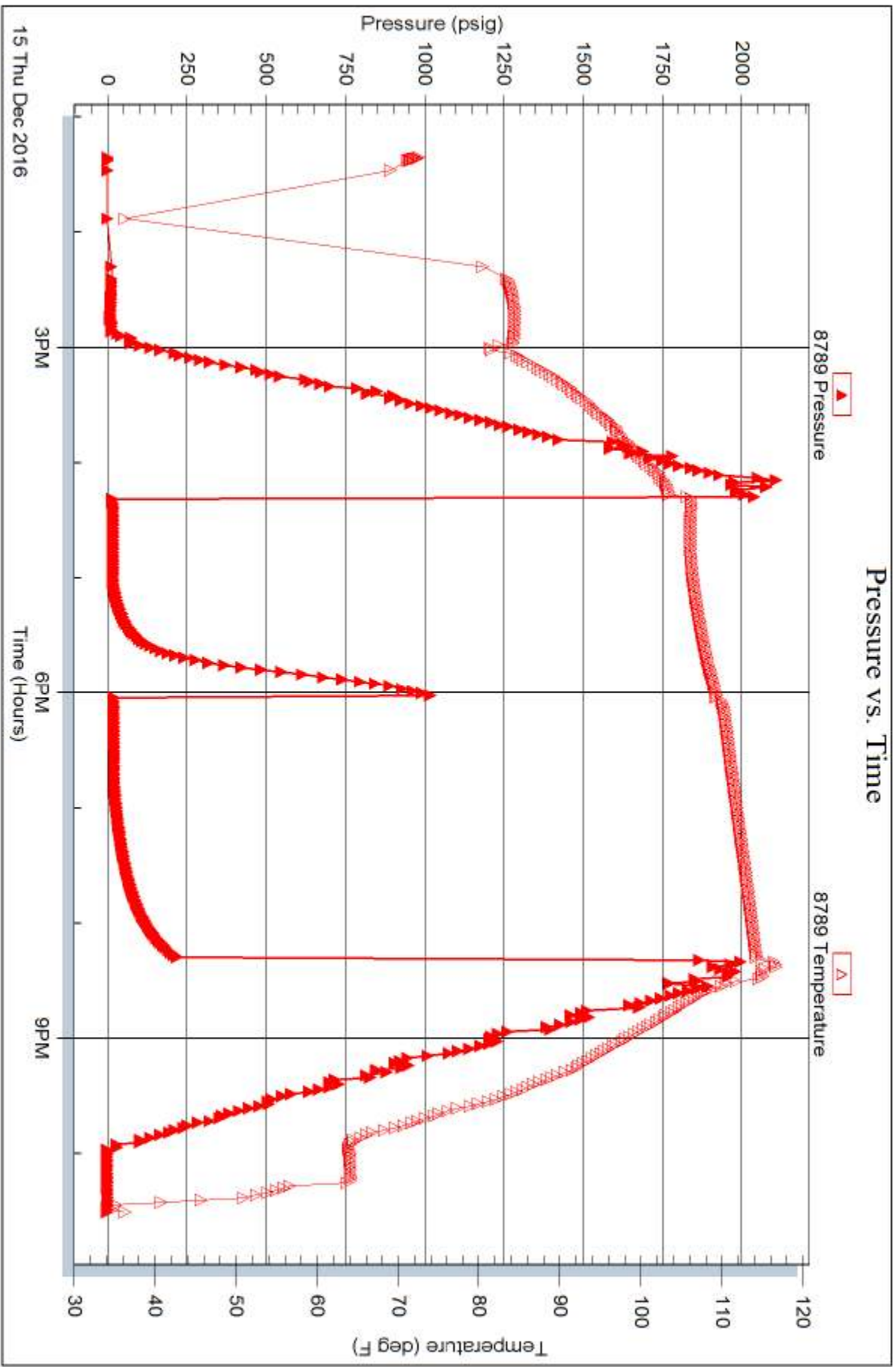
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Suemaour Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61215

DST#: 5

ATTN: Bob Petersen

Test Start: 2016.12.16 @ 07:33:00

GENERAL INFORMATION:

Formation: **LKC " J "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:43:45

Time Test Ended: 16:06:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 4083.00 ft (KB) To 4120.00 ft (KB) (TVD)

Reference Elevations: 2798.00 ft (KB)

Total Depth: 4120.00 ft (KB) (TVD)

2793.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8372 Outside

Press@RunDepth: 20.48 psig @ 4087.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.12.16

End Date:

2016.12.16

Last Calib.:

2016.12.16

Start Time: 07:33:02

End Time:

16:06:00

Time On Btm:

2016.12.16 @ 09:43:30

Time Off Btm:

2016.12.16 @ 13:44:45

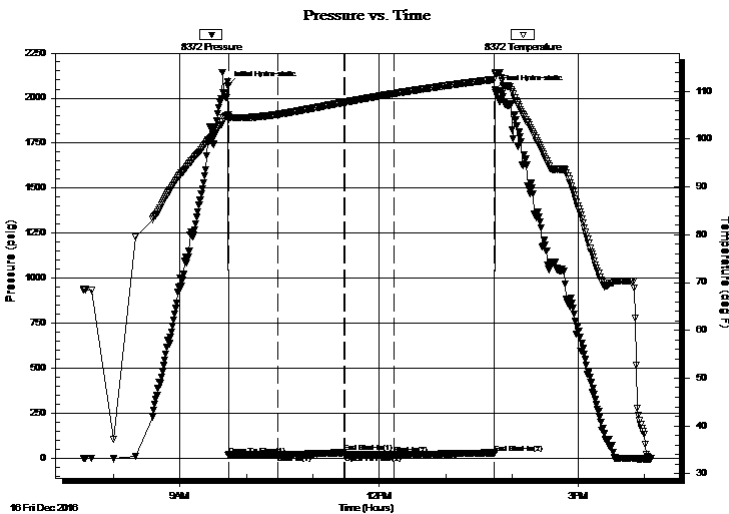
TEST COMMENT: 45-IFP- Surface Blow Building to 1in. In 15min. Died Back in 33min.

60-ISIP- No Blow

45-FFP- Weak Surface Blow

90-FSIP- No Blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2069.80	105.08	Initial Hydro-static
1	18.74	104.20	Open To Flow (1)
45	19.85	105.17	Shut-In(1)
105	32.01	107.70	End Shut-In(1)
106	19.62	107.70	Open To Flow (2)
151	20.48	109.53	Shut-In(2)
241	30.68	112.50	End Shut-In(2)
242	2045.27	113.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Oil Speck Mud 100%	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Suemaaur Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61215

DST#: 5

ATTN: Bob Petersen

Test Start: 2016.12.16 @ 07:33:00

GENERAL INFORMATION:

Formation: **LKC " J "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:43:45

Time Test Ended: 16:06:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Jim Svaty

Unit No: 76

Interval: 4083.00 ft (KB) To 4120.00 ft (KB) (TVD)

Reference Elevations: 2798.00 ft (KB)

Total Depth: 4120.00 ft (KB) (TVD)

2793.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8789

Inside

Press@RunDepth: psig @ 4087.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2016.12.16

End Date:

2016.12.16

Last Calib.:

2016.12.16

Start Time:

07:33:02

End Time:

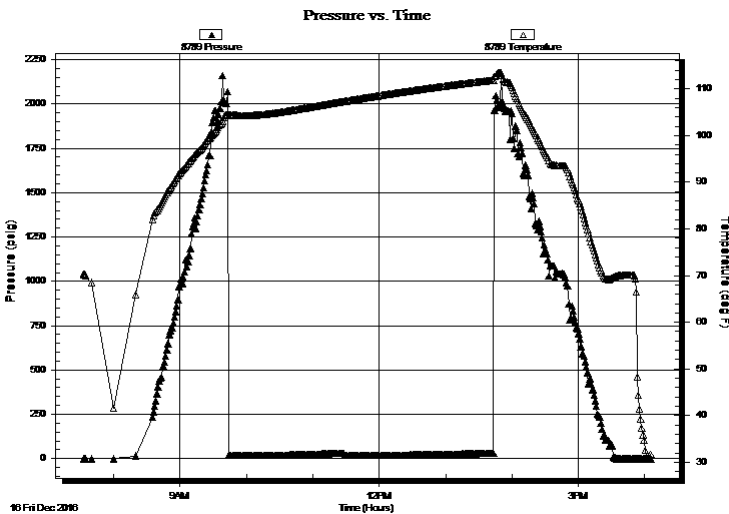
16:05:45

Time On Btm:

Time Off Btm:

TEST COMMENT: 45-IFP- Surface Blow Building to 1in. In 15min. Died Back in 33min.
60-ISIP- No Blow
45-FFP- Weak Surface Blow
90-FSIP- No Blow

PRESSURE SUMMARY



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

Recovery

Length (ft)	Description	Volume (bbl)
2.00	Oil Speck Mud 100%	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

Suemaur Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61215

DST#: 5

ATTN: Bob Petersen

Test Start: 2016.12.16 @ 07:33:00

Tool Information

Drill Pipe:	Length: 3895.00 ft	Diameter: 3.80 inches	Volume: 54.64 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 187.00 ft	Diameter: 2.25 inches	Volume: 0.92 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 55.56 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4083.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	37.00 ft			
Tool Length:	65.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

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

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4056.00	
Shut In Tool	5.00			4061.00	
Hydraulic tool	5.00			4066.00	
Jars	5.00			4071.00	
Safety Joint	2.00			4073.00	
Packer	5.00			4078.00	28.00 Bottom Of Top Packer
Packer	5.00			4083.00	
Stubb	1.00			4084.00	
Perforations	3.00			4087.00	
Recorder	0.00	8789	Inside	4087.00	
Recorder	0.00	8372	Outside	4087.00	
Perforations	30.00			4117.00	
Bullnose	3.00			4120.00	37.00 Bottom Packers & Anchor

Total Tool Length: 65.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Suemaour Expl. & Prod. LLC

19 7s 28w Sheridan KS

539 N Carancahua Ste 1100
Corpus Christi TX 78401

Gaede 1-19

Job Ticket: 61215

DST#: 5

ATTN: Bob Petersen

Test Start: 2016.12.16 @ 07:33:00

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.00 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1700.00 ppm

Filter Cake: 6.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	Oil Speck Mud 100%	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

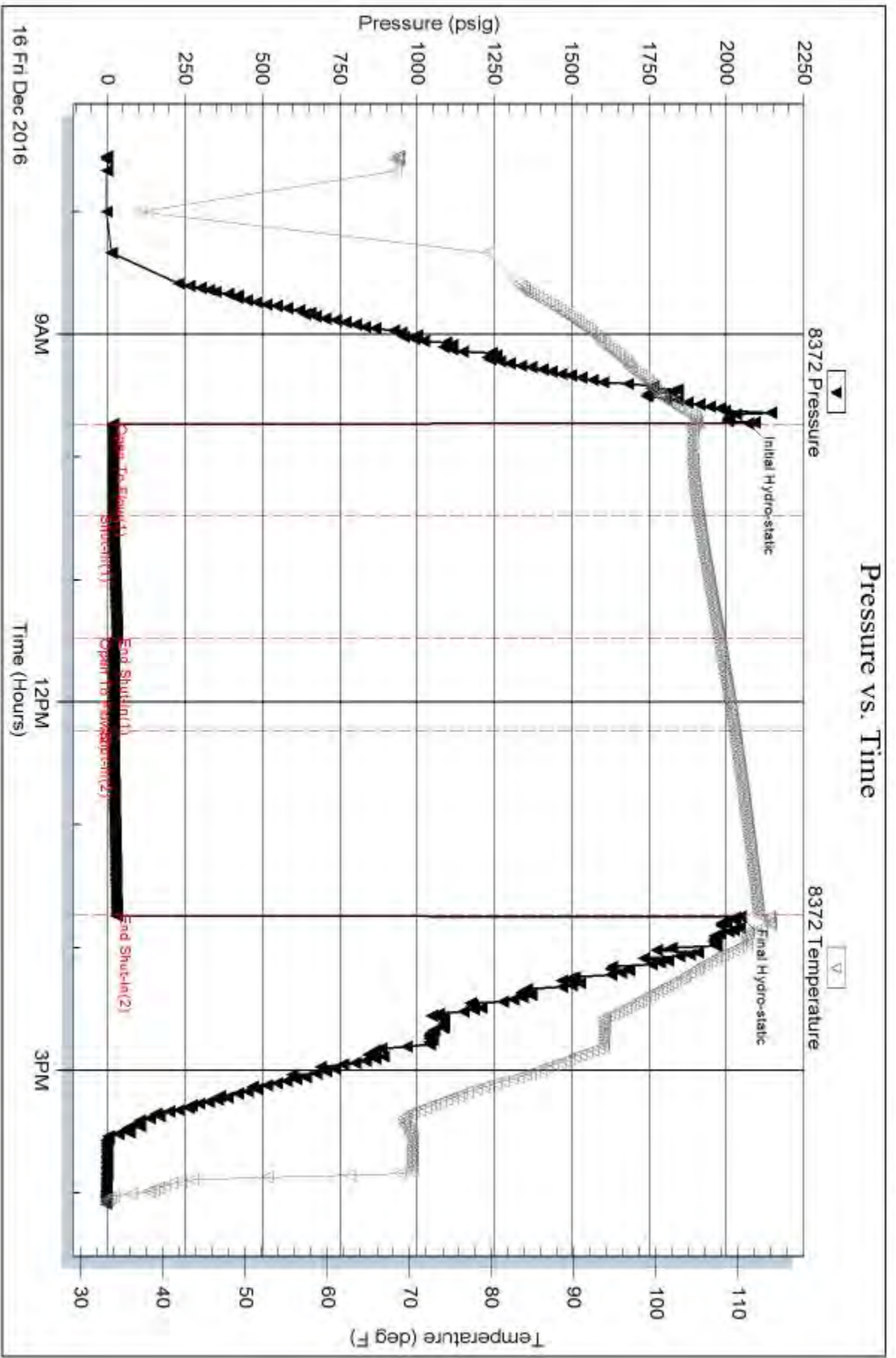
Num Gas Bombs: 0

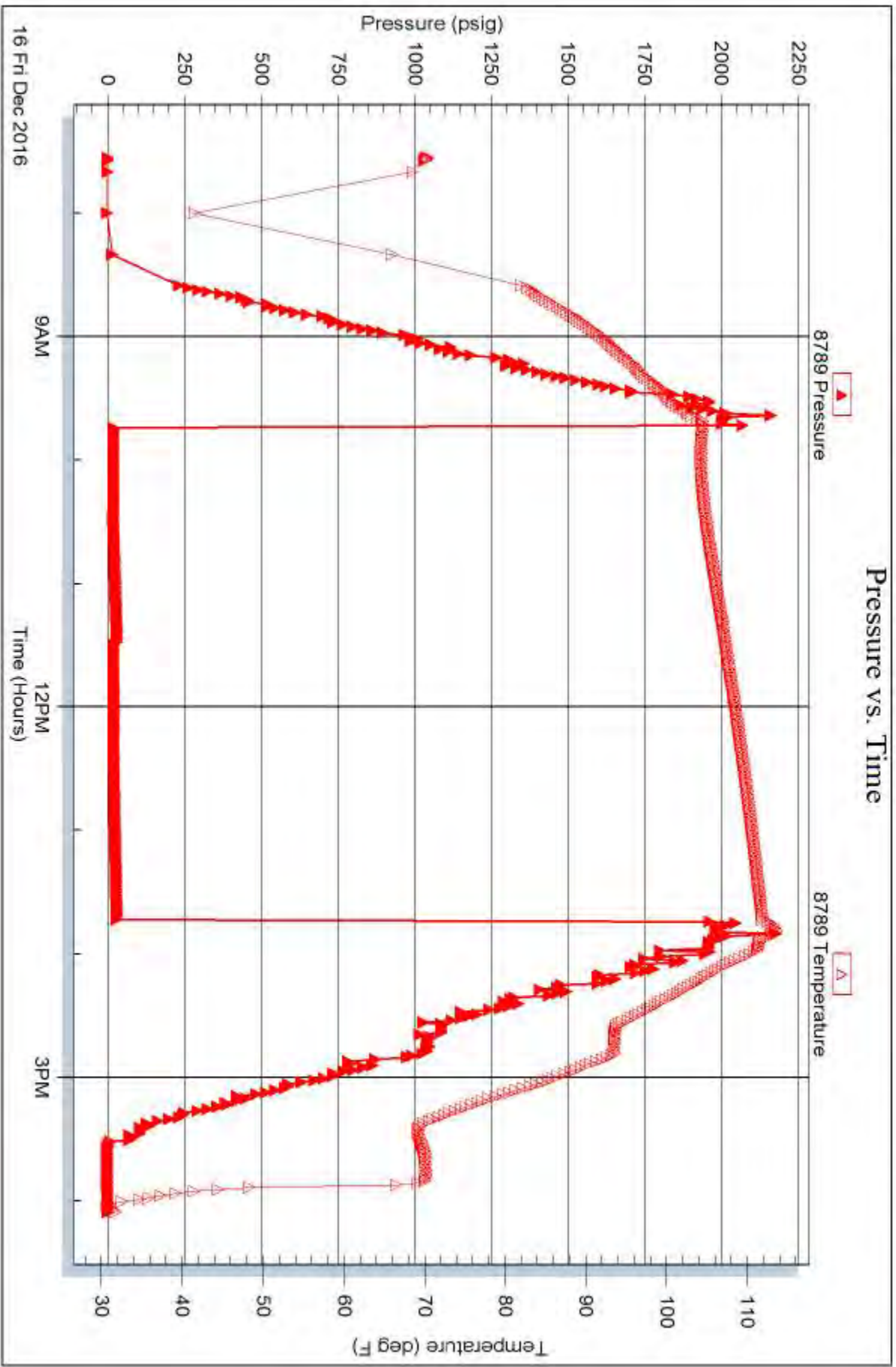
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







ALLIED OFS, LLC

Federal Tax I.D. #81-2169190

68252

877

REMIT TO:

Allied OFS, LLC
P.O. Box 205803
Dallas, TX 75320-5803

SERVICE POINT:

Dallas TX

DATE <i>12/18/16</i>	SEC. <i>19</i>	TWP. <i>7</i>	RANGE <i>28</i>	LOCATED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <i>Good</i>	WELL # <i>1-19</i>	LOCATION <i>Hessie W to W 4 W 2</i>	31 <i>34 W E note</i>	53	53	TX	TX
OLD OR NEW (circle one)				COUNTY <i>Smith</i>	STATE <i>TX</i>		

CONTRACTOR *Max Fin*
 TYPE OF JOB *PTG* T.D.
 HOLE SIZE *8 1/2* DEPTH
 CASING SIZE *8 1/2* DEPTH
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG.
 PERFS.
 DISPLACEMENT

EQUIPMENT

PUMP TRUCK CEMENTER *Alvin Egan*
 # *66781* HELPER *Kevin Egan*
 BULK TRUCK
 # *323* DRIVER *Cory Bauer*
 BULK TRUCK DRIVER

REMARKS:

*50 SLL @ 2515'
 100 SLL @ 1695'
 20 SLL @ 345'
 10 SLL @ 40'
 30 GYRASH
 15 SK MH*

CHARGE TO: *Guernsey*
 STREET
 CITY STATE ZIP

OWNER *Seare*

CEMENT AMOUNT ORDERED *255 60/40 & 30 of 40/60*

COMMON *255* @ *18.00* = *4590.00*
 POZ MIX @
 GEL @
 CHLORIDE @
 ASC @

6 1/2 Seal @ *2.92* = *190.00*
 @
 @
 @

TOTAL *5014.68*
 DISCOUNT *50%* = *2507.34*

SERVICE

HANDLING *224 CE @ 2.40* = *679.52*
 MILEAGE *25 pay/mile 115.700* = *1065.00*
 DEPTH OF JOB
 PUMP TRUCK CHARGE
 EXTRA FOOTAGE @ *2.70* = *228.00*
 HV MILEAGE *40* @ *4.40* = *176.00*
 LV MILEAGE @

TOTAL *4922.11*
 DISCOUNT *50%* = *2461.05*

PLUG & FLOAT EQUIPMENT

8 1/2" Wind Plug @ *110* = *110.00*
 @
 @
 @
 @
 @
 TOTAL *110.00*
 DISCOUNT *50%* = *55.00*

To: Allied OFS, 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 *Kelly Wilson*

SIGNATURE *Kelly Wilson*

SALES TAX (if Any)
 TOTAL CHARGES *10036.79*
 DISCOUNT *5018.39* (50%) IF PAID IN 30 DAYS
 NET TOTAL *5018.39* IF PAID IN 30 DAYS

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

SUEMAUR EXPLORATION & PROD., LLC

GAEDE #1-19
SEC. 19 TWP 7S RGE 28W
SE NW SE SW
981' FSL & 1852' FWL
SHERIDAN COUNTY, KANSAS
API: 15-179-21424-00-00

ELEVATION

KB: 2797
GL: 2792
LOG MEASURED
FROM: KB

SURFACE CASING

8 5/8" Set @295' w/ 270SX

PRODUCTION CASING

DRILLING CONTR.: MURFIN RIG #7

SPUD: 12-09-2016 COMP:
MUD UP: 3050' TYPE MUD: CHEM.
DRILL TIME: 3300' to RTD
RTD: XXXX' LTD:XXXX'
SAMPLES SAVED: 3350' to RTD
GEOLOGIST: ROBERT J. PETERSEN

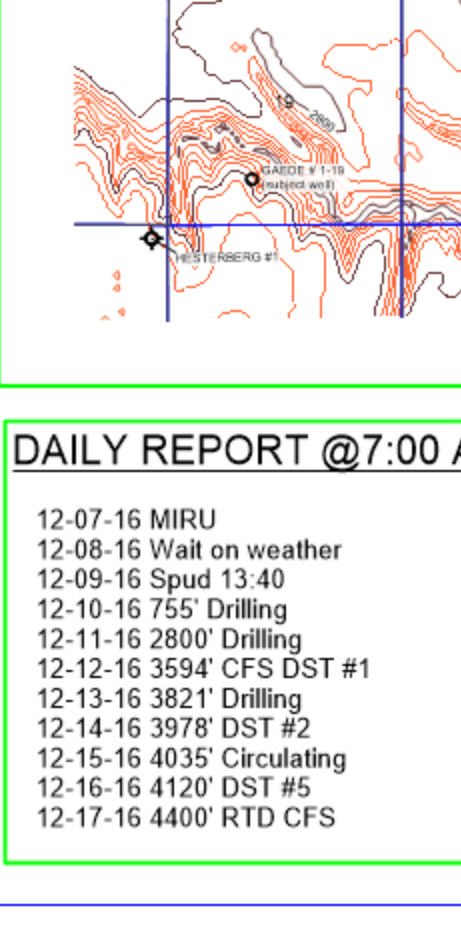
WELL LOG SURVEYS

WEATHERFORD
Hi-Res AIL-DNL-ML-GR-SP

ELECTRIC LOG TOPS

Formation	Sample Top	Datum	Ref A	Ref B
Stone Corral	2490	+307	-3	0
Base Stone Corral	2530	+387	N/A	+1
Stoller	3588	-771	+7	-6
Howard	3638	-841	+7	0
Topoka	3695	-898	+2	-10
Deer Creek	3740	-943	+7	-5
Crad	3854	-1057	+11	-4
Heebner	3898	-1101	+10	-6
Toronto	3924	-1127	+9	-6
Lansing	3940	-1143	+8	-6
C Zone	3971	-1174	+10	-5
D Zone	3979	-1182	+11	-4
E Zone	3999	-1202	+12	-4
F Zone	4012	-1215	+10	-7
G Zone	4026	-1229	+7	-8
Munroe Cr.	4053	-1256	+13	-9
H Zone	4089	-1272	+9	-10
J Zone	4111	-1314	+7	-11
K Zone	4120	-1323	+8	-12
L Zone	4134	-1337	+7	-10
Stark	4157	-1380	+7	-10
BKC	4170	-1373	+7	-11
Pawnee	4276	-1479	N/R	-12
Cherokee SH	4356	-1558	N/R	-14
Cherokee LS	4385	-1588	N/R	-12
RTD/LTD	4400	-1803	208 shallow	43 deeper

LOCATION MAP



REFERENCE WELL A:

15-179-20079
DEAN & CLARK INC
HESTERBERG #1
(SAMPLE LOG TOPS)
C NE NE NE 25-7-29W
Longitude: -100.4979304
Latitude: 39.4219094
Sheridan County, KS

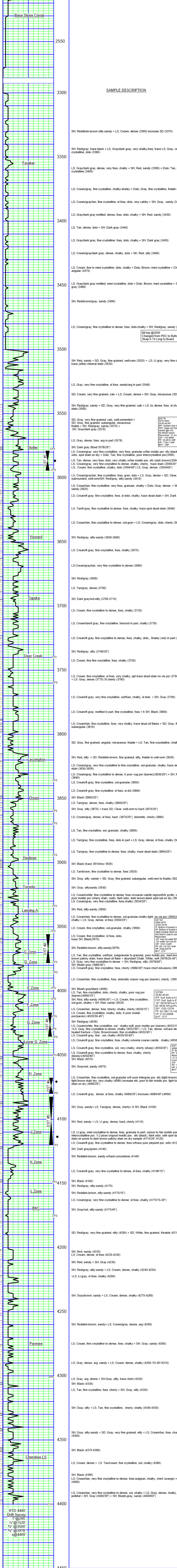
REFERENCE WELL B:

15-179-21412
Sueaur Expl. & Prod., LLC
Oelke #1
(E LOG TOPS)
NE SE NW NE 18-7-28W
Longitude: -100.4839534
Latitude: 39.4497522
Sheridan County, KS

DAILY REPORT @7:00 A.M.

12-07-16 MURU
12-09-16 Wait on weather
12-09-16 Spud 13:40
12-10-16 755' Drilling
12-11-16 2800' Drilling
12-12-16 3594' CFS DST #1
12-13-16 3821' CFS #2
12-14-16 3978' DST #2
12-15-16 4035' Circulating
12-16-16 4120' DST #5
12-17-16 4400' RTD CFS

REMARKS AND RECOMMENDATIONS



SAMPLE DESCRIPTION

SH, Reddish-brown silty-sandy + LS, Cream, dense (3360) increase SD (3370)

SH, Red/gray, trace black + LS, Gray/dark gray, very chalky-foss, trace LS; Gray, very fine crystalline, dolo (3380)

LS, Gray/dark gray, dense, very foss, chalky + SH; Red, sandy (3390) + Dolo; Tan, med crystalline (3400)

LS, Cream/gray, fine crystalline, chalky-shaley + Dolo; Gray, fine crystalline, friable (3410)

LS, Cream/gray/tan, fine crystalline, sl foss, dolo, very chalky + SH; Gray, sandy (3420)

LS, Gray/dark gray mottled, dense, foss, dolo, chalky + SH, Red, sandy (3430)

LS, Tan, dense, dolo + SH; Dark gray (3440)

LS, Gray/dark gray, fine crystalline, foss, dolo, chalky + SH; Dark gray (3450)

LS, Cream/gray/dark gray, dense, chalky, dolo + SH; Red, silty (3460)

LS, Cream, fine to med crystalline, dolo, chalky + Dolo; Brown, med crystalline + Chert; Gray, angular (3470)

LS, Gray/dark gray mottled, med crystalline, dolo + Dolo, Brown, med crystalline + SH; Dark gray (3480)

SH, Red/brown/gray, sandy (3490)

LS, Cream/gray, fine crystalline to dense, foss, dolo-chalky + SH; Red/gray, sandy (3500-3510)

Bit trip @3500
Changed from PDC to Button bit
Strap 0.74 Long to Board

SH, Red, sandy + SD; Gray, fine grained, well-cem (3520) + LS; Lt gray, very fine crystalline, trace yellow mineral stain (3530)

LS, Gray, very fine crystalline, sl foss, sandy/arg in part (3540)

SD, Cream, very fine grained, calc + LS, Cream, dense + SH; Gray, micaceous (3550)

SH, Red/gray, sandy + SD; Gray, very fine grained, calc + LS; ta, dense, foss, sl chalky, tr dead stain (3560)

SD, Gray, very fine grained, calc, well-cemented + SD; Gray, fine grained, subangular, micaceous, friable + SH; Red/gray, sandy (3570) + SH, Gray/dark gray (3578)

LS, Gray, dense, foss, arg in part (3578)

SH, Dark gray (foss 3578/20')

LS, Cream/gray, very fine crystalline, very foss, granular w/fair moldic por, sfo (black), faint odor, spot stain on dry + Dolo; Tan, fine crystalline, poor intercrystalline por (3590)

LS, Tan, dense, very foss, dolo, very chalky w/fair moldic por, sfo (dark brown) (3594)

LS, Cream/gray, very fine crystalline to dense, chalky, cherty, trace stain (3594/20')

LS, Cream, fine crystalline, chalky, dolo (3594/40'); LS; Gray, dense, (3594/60')

LS, Cream/gray/tan, fine crystalline, foss, gran, dolo + LS, Gray, dense + SD; Clear, f-c, subrounded, well-cem/SH; Red/gray, silty-sandy (3610)

LS, Cream/gray, fine crystalline, very foss, granular, chalky + Dolo; Gray, dense, + SH, Gray, sandy (3620)

LS, Cream/lt gray, fine crystalline, foss, sl dolo, chalky, trace dead stain + SH; Dark gray (3630)

LS, Tan/lt gray, fine crystalline to dense, foss, chalky, trace spot dead stain (3640)

LS, Cream/tan, fine crystalline to dense, ool-gran + LS; Cream/gray, dolo, cherty (3650)

SH, Red/gray, silty-sandy (3650-3660)

LS, Cream/lt gray, fine crystalline, foss, chalky (3670)

LS, Cream/gray/tan, very fine crystalline to dense (3680)

SH, Red/gray (3690)

LS, Tan/gray, dense (3700)

SH, Dark gray/red-silty (3700-3710)

LS, Cream, fine crystalline to dense, foss, chalky (3720)

LS, Cream/tan/lt gray, fine crystalline, foss/ool in part, chalky (3730)

LS, Cream/lt gray, fine crystalline to dense, foss, chalky, dolo, Shaley (red) in part (3740)

SH, Red/gray, silty (3740/20')

LS, Cream, fine fine crystalline, foss, chalky (3750)

LS, Cream, fine crystalline, sl foss, very chalky, ppt trace dead stain no vis por (3760-3760/20') + LS; Gray, dense (3770) Sl cherty (3780)

LS, Cream/lt gray, very fine crystalline, ool/foss, chalky, sl dolo + SH; Gray (3790)

LS, Cream/lt gray, mottled in part, fine crystalline, foss + tr SH; Black (3800)

LS, Cream/tan, fine crystalline, foss, very chalky, trace dead oil flakes + SD; Gray, fine grained, subangular (3810)

SD, Gray, fine grained, angular, micaceous, friable + LS; Tan, fine crystalline, chalky (3820)

SH, Red, silty + SD; Reddish-brown, fine grained, silty, friable to well-cem (3830)

LS, Cream/gray, very fine crystalline to fine crystalline, ool-granular, chalky, trace dead flakey oil stain (3830-3836)

LS, Cream/gray, fine crystalline to dense, tr poor vug por (barren) (3836/20') + SH; Red/gray (3840)

LS, Cream/lt gray, fine crystalline, ool-granular (3850)

LS, Cream/lt gray, fine crystalline, sl foss, sl dol (3860)

SH, Black (3860/20')

LS, Tan/gray, dense, foss, chalky (3860/20')

SH, Gray, silty (3870) + trace SD, Clear, well-cem to hard (3870/20')

LS, Cream/gray, dense, sl foss, hard (3870/20'), dolomitic, cherty (3880)

LS; Tan, fine crystalline, ool, granular, chalky (3890)

LS; Tan/gray, fine crystalline, foss, dolo in part + LS; Gray, dense, sl foss, chalky (3894)

LS; Tan/gray, fine crystalline to dense, foss, chalky, trace dead stain (3894/20')

SH, Black (trace 3910/incr 3920)

LS; Tan/brown, fine crystalline to dense, foss (3920)

SH, Gray, silty-sandy + SD, Gray, fine grained, subangular, well-cem to friable (3920)

SH, Gray, silty-sandy (3930)

LS, Cream/white, fine crystalline to dense, foss w/coarse calcite regrowth pyrrite, very chalky, poor moldic por w/fairly stain, vs/fo, faint odor, dark brown-black spot sat on dry (3934)

LS, Cream/gray, very fine crystalline, foss, chalky (3934/20')

SH, Red, silty-sandy (3950)

LS, Cream/tan, fine crystalline to dense, ool-granular, chalky, light, no vis por (3950/lt dolo, chalky + LS; Gray, dense, sl foss (3950/20')

LS, Cream, fine crystalline, ool-granular, chalky (3960)

LS, Cream, fine crystalline, sl foss, dolo, trace SH; Black (3970)

SH, Reddish-brown, silty-sandy (3978)

LS; Tan, fine crystalline, ool/foss, subgranular to granular, poor moldic por, med brown to dark brown patchy stain, trace dead oil flake + abundant Chalk; White, soft (3978/20-40')

LS, Gray, very fine crystalline to dense + SH; Red/gray, silty (3978/60')

LS, Cream/lt gray, fine crystalline, foss, cherty (3986/30') trace chert inclusions (3990)

LS, Cream/tan, fine crystalline, foss, dolomitic w/poor vug por (barren), cherty (3997/15-30')

SH, Bluish gray/black (4006)

LS; Tan, fine crystalline, dolo, cherty, chalky, poor vug por (barren) (4006/15')

SH, Red, silty-sandy (4006/30') + LS, Cream, fine crystalline, ool-gran, shaley + SH, Red, sandy (4020)

LS, Cream/tan, dense, foss, blocky, chalky, cherty (4020/15')

LS, Cream, fine crystalline, chalky, dolo, tr poor moldic por (barren) (4020/30-45')

SH, Red/gray (4030)

LS, Cream/white, fine crystalline, ool, chalky-soft, poor moldic por (barren) (4032/15')

+LS; Gray, fine crystalline to dense, chalky (4032/30') + LS, Tan, dense, w/trace dead stain on heated fracture + Dolo; Brown/cream, fine crystalline (4032/45')

SH, Bluish gray (3986/30')

LS, Cream/lt gray, fine crystalline, foss, chalky w/coarse calcite, chalky (4050)

LS, Cream/lt gray, fine crystalline, ool, very chalky, cherty (cherty) (4050/20')

LS, Cream/lt gray, fine crystalline to dense, foss, chalky, cherty

SH, Black (4070)

SH, Gray/red, sandy (4070)

LS, Cream/tan, fine crystalline, ool-granular w/tr poor intergran por, sfo (light brown) faint odor, light brown stain dry, very chalky (4080) increase sfo, poor to fair moldic por, light to med brown stain on dry (4080/20')

LS, Cream/lt gray, dense, sl foss, chalky (4080/20') increase (4080/40') (4090)

SH, Gray, sandy + LS; Tan/gray, dense, cherty-tr SH; Black (4100)

SH, Red, sandy + LS; Lt gray, dense, hard, cherty (4110)

LS; Lt gray, med crystalline to dense, foss, granular in part, w/poor to fair moldic por, poor intercrystalline por, 1-2 pieces w/wood moldic por, sfo (black), faint odor, with spot dark brown stain on pores to dark brown patchy stain on dry surface (4115/20'-4120')

LS, Cream/lt gray, fine crystalline to dense, w/trace poor pinpoint por, sfo (4120/20-40')

SH, Dark gray/green (4140)

SH, Reddish-brown, sandy w/hard concretions (4149)

LS, Cream/lt gray, very fine crystalline to dense, sl foss, chalky (4149/15')

SH, Black (4160)

SH, Red/gray, silty-sandy (4170)

SH, Reddish-brown, silty-sandy (4175/15')

LS, Cream/gray, very fine crystalline to dense, sl foss, chalky (4175/15-30')

SH, Gray/red, silty-sandy (4175/45')

SD, Red/gray, very fine grained, silty (4200) + SD, White, fine grained, finable (4210)

SH, Red, sandy (4220)

LS, Cream, dense, sl foss (4220-4230)

SH, Red, sandy + SH; Gray (4230)

SH, Red/gray, silty-sandy + LS; Cream, dense, chalky (4240-4250)

+LS; Lt gray, sl foss, chalky (4260)

SH, Gray/brown, sandy + LS; Cream, dense, chalky (4270-4280)

SH, Reddish-brown, sandy + LS; Cream/gray, dense, arg (4290)

LS, Cream, fine crystalline to dense, foss, chalky + SH; Gray, sandy (4300)

LS, Gray, dense, arg, sandy + LS; Cream, dense, chalky (4300/15-30'/4310)

LS, Gray, arg, dense + SH; Gray, silty, trace chert (4320)

SH, Black (4330)

LS; Tan, fine crystalline, foss, cherty + SH; Gray, silty (4330)

SH, Gray, silty + LS; Tan, fine crystalline, cherty, chalky (4340-4350)

SH, Gray, silty-sandy + SD; Gray, very fine grained, silty + LS; Cream/tan, foss, chalky, cherty (4360)

SH, Black (4370-4380)

LS, Cream, dense + LS; Tan/cream, fine crystalline, ool, chalky (4380)

SH, Black (4390)

LS, Cream/tan, very fine crystalline to dense, foss-subgran, chalky, chert (orange) + SH; Red (4400)

LS, Cream/tan, very fine crystalline to dense, ool, chalky + LS; Gray, dense, chalky, friable, pelletal + SH; Gray (4400/30') + SH, Bluish-gray, sandy (4400/60')

DST #1
2576-5184
35-60-48-60"
FFP: Surf. built to 1.5'
FFP: Surface blow built to 1.5'
FFP: Vicks surf blow
started @ 1 min
No Return flows
Recovered: 15' oil specked mud
SIP: 1143-89W
FFP: 30-28/31-28W
FFP: 20-110/113-142W
FFP: 21-132-205W
BHT: 121F

DST#3
45-60-45-60"
DST#3 built to 0.5"
FFP: Surf. built to 8"
FFP: Bottom of bucket in 28 min.
Vicks surface return tool on
first shut-in (due to cold weather)
Recoveries:
1ST mud cut water 85%/w/15% mud
13' water cut mud 40 % w/60% mud
SIP: 20-110/123-164W
FFP: 20-112-205W
BHT: 121F

DST#4
43-60-48-60"
FFP: Built to 1.5'
FFP: Surf. Blow
Recovered:
17' CCM (10% oil)
10' CCM (10% oil)
SIP: 1030-228W
FFP: 15-18/20-22W
FFP: 2056-194W
BHT: 116F

RTD 4400'
Drift Survey
1" @295'
1/2" @3500'
3/4" @3978'
X @4400'