

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](mailto: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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Form	ACO1 - Well Completion
Operator	H & B Petroleum Corp.
Well Name	HEWITT 1
Doc ID	1418771

Tops

Name	Top	Datum
Anhydrite	632	
Heebner	3065	
Toronto	3083	
Brown Lime	3196	
Lansing	3212	
Kansas City	3417	
Simpson	3432	
Arbuckle	3476	



# GLOBAL OIL FIELD SERVICES, LLC

3285

REMIT TO 24 S. Lincoln  
Russell, KS 67665

SERVICE POINT: Russell, KS

DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
	9	21	12				
LEASE <u>Hewitt</u>	WELL#.	LOCATION <u>S of Elkhwood West</u>		COUNTY <u>Stafford</u>	STATE <u>KS</u>		
OLD OR NEW (CIRCLE ONE)	<u>1/4 South</u>						

CONTRACTOR Southern Drilling Rig #1

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D.

CASING SIZE 8 5/8 DEPTH

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX. 300 ps. MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS

DISPLACEMENT

EQUIPMENT

PUMP TRUCK CEMENTER Cody

# HELPER Brad

BULK TRUCK DRIVER Tom

# DRIVER

OWNER

CEMENT AMOUNT ORDERED 375 SY COM 3% CC

2% GEL

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE @

TOTAL

REMARKS:  
Run 8 5/8 casing and landing 1 1/2  
est circulation with mud pump  
Hook up and mix 375 SY and disp  
plug tested @ 300 ps  
Cement D.D. Circulate to surface

CHARGE TO: H&B Petro

STREET

CITY STATE ZIP

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE 35 @

MANIFOLD @

TOTAL

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. Thank you!

PRINTED NAME

SIGNATURE

PLUG & FLOAT EQUIPMENT

Rubber Plug @

Rattle Plate @

TOTAL

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS





## DRILL STEM TEST REPORT

Prepared For: **H&B Petroleum Corp**

PO Box 1305  
Hutchinson KS 67504

ATTN: Jim Musgrove

### **Hewitt #1**

### **9-21s-12w Stafford,KS**

Start Date: 2018.07.11 @ 00:20:34

End Date: 2018.07.11 @ 07:31:28

Job Ticket #: 64234                      DST #: 1

H&B Petroleum Corp  
9-21s-12w Stafford,KS  
Hewitt #1  
DST # 1  
LKC A-D  
2018.07.11

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

Printed: 2018.07.16 @ 14:52:19



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

H&B Petroleum Corp  
 PO Box 1305  
 Hutchinson KS 67504  
 ATTN: Jim Musgrove

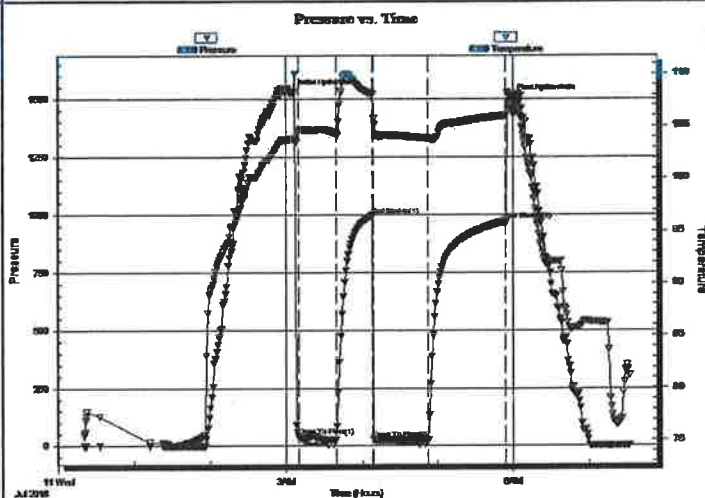
**9-21s-12w Stafford,KS**  
**Hewitt #1**  
 Job Ticket: 64234      **DST#: 1**  
 Test Start: 2018.07.11 @ 00:20:34

### GENERAL INFORMATION:

Formation: **LKC A-D**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 03:09:59 Tester: Ray Schwager  
 Time Test Ended: 07:31:28 Unit No: 77  
 Interval: **3198.00 ft (KB) To 3258.00 ft (KB) (TVD)** Reference Elevations: 1848.00 ft (KB)  
 Total Depth: 3258.00 ft (KB) (TVD) 1838.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

**Serial #: 8360** Inside  
 Press@RunDepth: 24.84 psig @ 3202.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.07.11 End Date: 2018.07.11 Last Calib.: 2018.07.11  
 Start Time: 00:20:34 End Time: 07:31:28 Time On Btm: 2018.07.11 @ 03:05:44  
 Time Off Btm: 2018.07.11 @ 05:58:28

TEST COMMENT: 30-IFP-BOB gas to surface in 15 min  
 30-ISIP-no blow  
 45-FFP-Gas to surface  
 60-FSIP-no blow



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1527.86	103.76	Initial Hydro-static
5	41.82	104.46	Open To Flow (1)
34	26.07	104.31	Shut-In(1)
63	998.30	108.04	End Shut-In(1)
64	30.78	105.70	Open To Flow (2)
107	24.84	103.83	Shut-In(2)
169	973.47	106.00	End Shut-In(2)
173	1500.20	106.44	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
0.00	GTS	0.00
35.00	GCM 10%G90%M w /show of oil	0.49

### Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	4.00	29.19
Last Gas Rate	0.25	2.00	26.02
Max. Gas Rate	0.25	4.00	29.19





**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

H&B Petroleum Corp  
PO Box 1305  
Hutchinson KS 67504  
ATTN: Jim Musgrove

**9-21s-12w Stafford, KS**  
**Hewitt #1**  
Job Ticket: 64234      **DST#: 1**  
Test Start: 2018.07.11 @ 00:20:34

**GENERAL INFORMATION:**

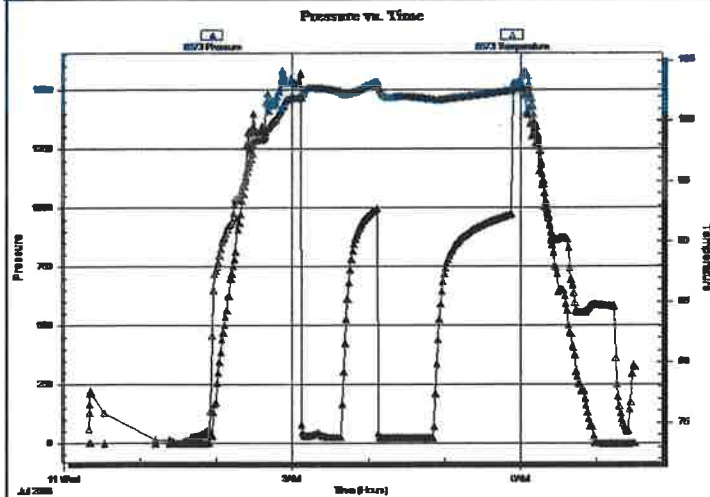
Formation: **LKC A-D**  
Deviated: No Whipstock:      ft (KB)  
Time Tool Opened: 03:09:59  
Time Test Ended: 07:31:28  
**Interval: 3198.00 ft (KB) To 3258.00 ft (KB) (TVD)**  
Total Depth: 3258.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Ray Schwager  
Unit No: 77  
Reference Elevations: 1848.00 ft (KB)  
1838.00 ft (CF)  
KB to GR/CF: 10.00 ft

**Serial #: 8673**

**Outside**

Press@RunDepth:      psig @ 3202.00 ft (KB)  
Capacity: 8000.00 psig  
Start Date: 2018.07.11      End Date: 2018.07.11      Last Calib.: 2018.07.11  
Start Time: 00:20:09      End Time: 07:30:33      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30-IFP-BOB gas to surface in 15 min  
30-ISIP-no blow  
45-FFP-Gas to surface  
60-FSIP-no blow



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
0.00	GTS	0.00
35.00	GCM 10%G90%Mw /show of oil	0.49

**Gas Rates**

	Choke (Inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	4.00	29.19
Last Gas Rate	0.25	2.00	26.02
Max. Gas Rate	0.25	4.00	29.19



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

H&B Petroleum Corp

9-21s-12w Stafford,KS

PO Box 1305  
Hutchinson KS 67504

Hewitt #1

Job Ticket: 64234

DST#: 1

ATTN: Jim Musgrove

Test Start: 2018.07.11 @ 00:20:34

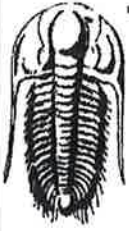
### Tool Information

Drill Pipe:	Length: 3200.00 ft	Diameter: 3.80 inches	Volume: 44.89 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 44.89 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3198.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	60.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3176.00	
Shut In Tool	5.00			3181.00	
Sampler	2.00			3183.00	
Hydraulic tool	5.00			3188.00	
Packer	5.00			3193.00	23.00 Bottom Of Top Packer
Packer	5.00			3198.00	
Stubb	1.00			3199.00	
Perforations	3.00			3202.00	
Recorder	0.00	8360	Inside	3202.00	
Recorder	0.00	8673	Outside	3202.00	
Blank Spacing	33.00			3235.00	
Perforations	20.00			3255.00	
Bullnose	3.00			3258.00	60.00 Bottom Packers & Anchor

**Total Tool Length: 83.00**



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&B Petroleum Corp

**9-21s-12w Stafford,KS**

PO Box 1305  
Hutchinson KS 67504

**Hewitt #1**

Job Ticket: 64234

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2018.07.11 @ 00:20:34

### 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: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.55 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	GTS	0.000
35.00	GCM 10%G90%M w/show of oil	0.491

Total Length: 35.00 ft      Total Volume: 0.491 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data : 200ML gas 1800ML mud  
PSI: 30#



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

H&B Petroleum Corp

**9-21s-12w Stafford,KS**

PO Box 1305  
Hutchinson KS 67504

**Hewitt #1**

Job Ticket: 64234

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2018.07.11 @ 00:20:34

### Gas Rates Information

Temperature: 59 (deg F)

Relative Density: 0.65

Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	20	0.25	4.00	29.19
1	30	0.25	3.00	27.60
2	10	0.25	3.00	27.60
2	20	0.25	2.00	26.02
2	30	0.25	2.00	26.02
2	40	0.25	2.00	26.02

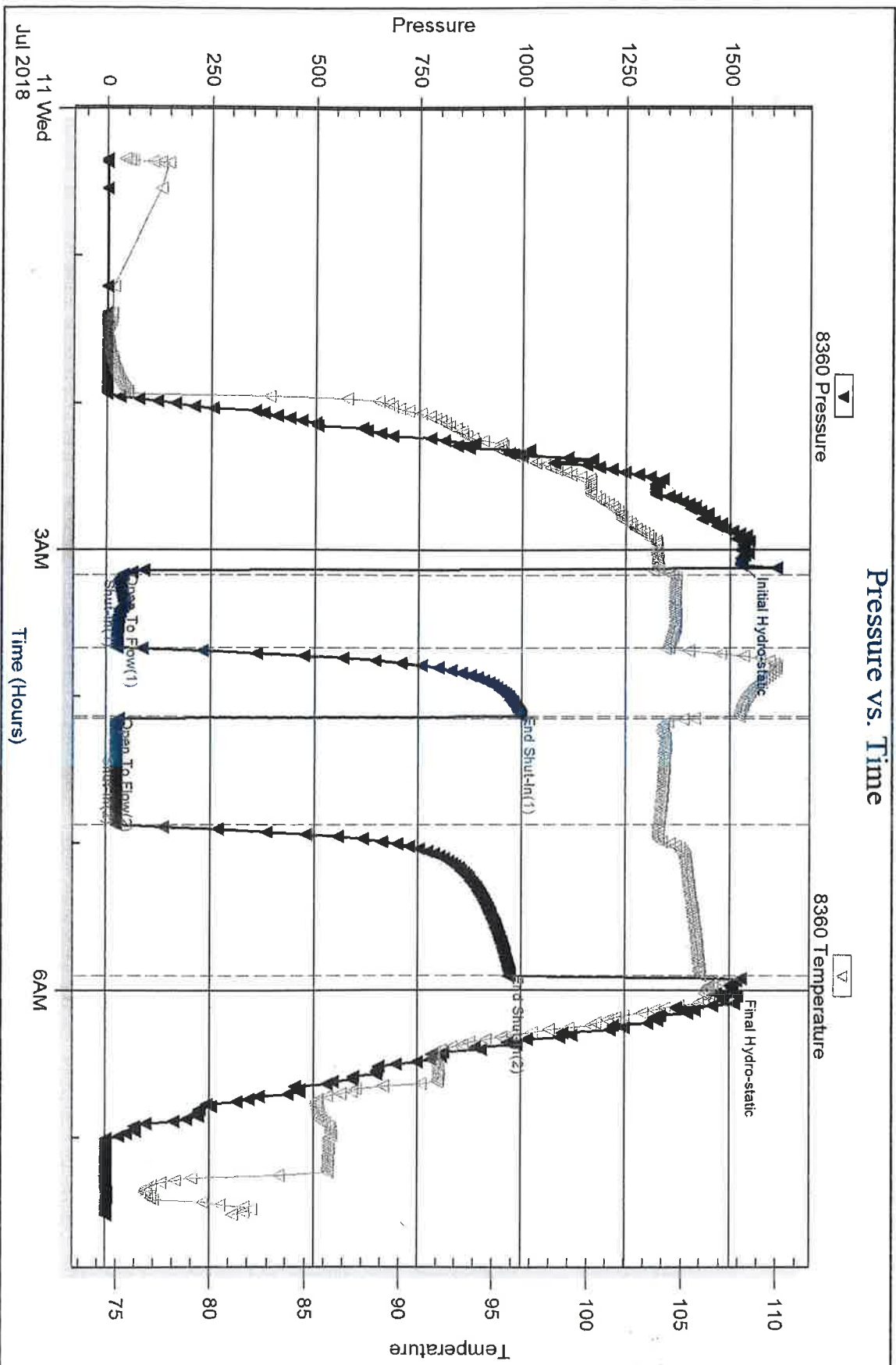
Serial #: 8360

Inside

H&B Petroleum Corp

How it #1

DST Test Number: 1

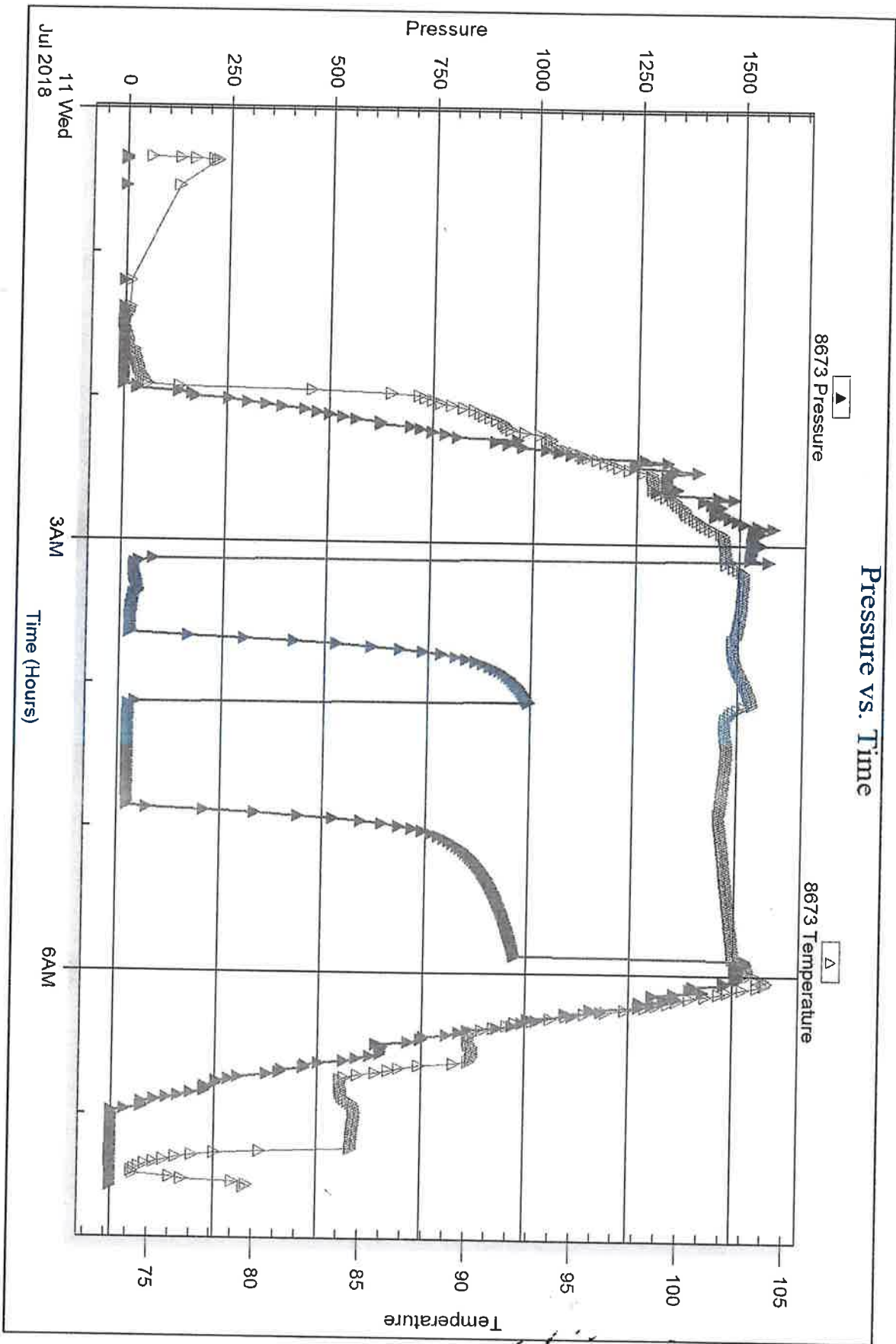


Serial #: 8673

Outside H&B Petroleum Corp

How it #1

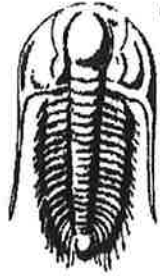
DST Test Number: 1



Triobite Testing, Inc

Ref. No: 64234

Printed: 2018.07.16 @ 14:52:20



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **H&B Petroleum Corp**

PO Box 1305  
Hutchinson KS 67504

ATTN: Jim Musgrove

**Hewitt #1**

**9-21s-12w Stafford,KS**

Start Date: 2018.07.11 @ 14:31:00

End Date: 2018.07.11 @ 18:24:40

Job Ticket #: 64235                      DST #: 2

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

Printed: 2018.07.16 @ 14:39:55

H&B Petroleum Corp  
9-21s-12w Stafford,KS  
Hewitt #1  
DST # 2  
LKC  
2018.07.11



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&B Petroleum Corp  
 PO Box 1305  
 Hutchinson KS 67504  
 ATTN: Jim Musgrove

**9-21s-12w Stafford, KS**

**Hewitt #1**

Job Ticket: 64235

**DST#: 2**

Test Start: 2018.07.11 @ 14:31:00

## GENERAL INFORMATION:

Formation: **LKC**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:59:10  
 Time Test Ended: 18:24:40

Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ray Schwager  
 Unit No: 77

**Interval: 3260.00 ft (KB) To 3296.00 ft (KB) (TVD)**  
 Total Depth: 3296.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1848.00 ft (KB)  
 1838.00 ft (CF)  
 KB to GR/CF: 10.00 ft

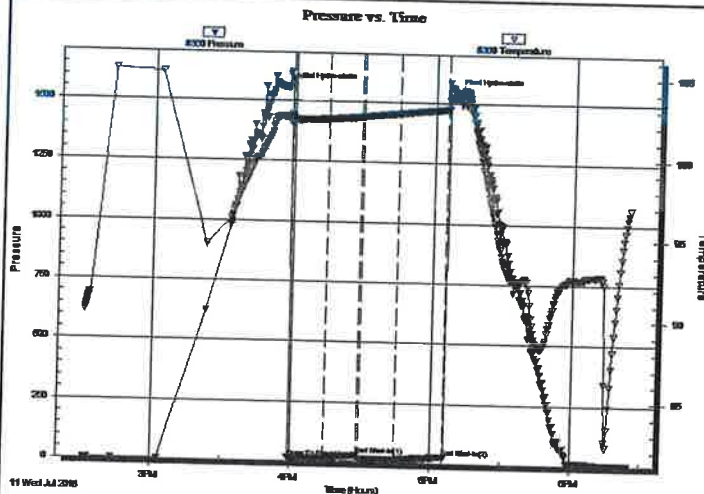
**Serial #: 8360**

**Inside**

Press@RunDepth: 16.19 psig @ 3264.00 ft (KB)  
 Start Date: 2018.07.11 End Date: 2018.07.11  
 Start Time: 14:31:00 End Time: 18:24:40

Capacity: 8000.00 psig  
 Last Calib.: 2018.07.11  
 Time On Btm: 2018.07.11 @ 15:57:10  
 Time Off Btm: 2018.07.11 @ 17:08:55

**TEST COMMENT:** 15-IFP-surface blow , died in 12 min  
 15-ISIP-no blow  
 15-FFP-no blow  
 20-FSIP-no blow



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1556.60	102.42	Initial Hydro-static
2	14.51	101.92	Open To Flow (1)
18	15.47	102.34	Shut-In(1)
32	29.63	102.49	End Shut-In(1)
32	15.83	102.50	Open To Flow (2)
48	16.19	102.73	Shut-In(2)
69	27.86	103.03	End Shut-In(2)
72	1541.79	103.78	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.07

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

H&B Petroleum Corp  
PO Box 1305  
Hutchinson KS 67504  
ATTN: Jim Musgrove

**9-21s-12w Stafford,KS**  
**Hewitt #1**  
Job Ticket: 64235      **DST#: 2**  
Test Start: 2018.07.11 @ 14:31:00

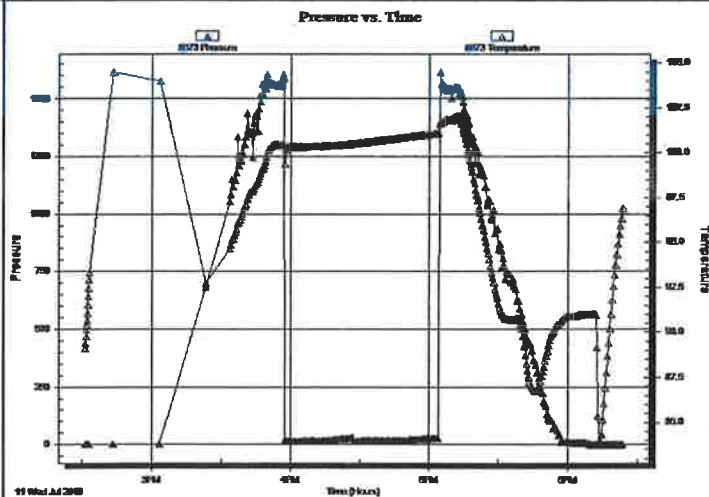
## GENERAL INFORMATION:

Formation: **LKC**  
Deviated: No      Whipstock:      ft (KB)  
Time Tool Opened: 15:59:10  
Time Test Ended: 18:24:40  
Interval: **3260.00 ft (KB) To 3296.00 ft (KB) (TVD)**  
Total Depth: 3296.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches      Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Ray Schwager  
Unit No: 77  
Reference Elevations: 1848.00 ft (KB)  
1838.00 ft (CF)  
KB to GR/CF: 10.00 ft

## Serial #: 8673

Press@RunDepth:      psig @      ft (KB)      Capacity: 8000.00 psig  
Start Date: 2018.07.11      End Date: 2018.07.11      Last Calib.: 2018.07.11  
Start Time: 14:31:24      End Time: 18:23:49      Time On Btm:  
Time Off Btm:

TEST COMMENT: 15-IFP-surface blow , died in 12 min  
15-ISIP-no blow  
15-FFP-no blow  
20-FSIP-no blow



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.07

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&B Petroleum Corp

**9-21s-12w Stafford, KS**

PO Box 1305  
Hutchinson KS 67504

**Hewitt #1**

Job Ticket: 64235

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2018.07.11 @ 14:31:00

## Tool Information

Drill Pipe:	Length: 3262.00 ft	Diameter: 3.80 inches	Volume: 45.76 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 45.76 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3260.00 ft			Final 38000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	59.00 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			3238.00	
Shut In Tool	5.00			3243.00	
Sampler	2.00			3245.00	
Hydraulic tool	5.00			3250.00	
Packer	5.00			3255.00	23.00 Bottom Of Top Packer
Packer	5.00			3260.00	
Stubb	1.00			3261.00	
Perforations	3.00			3264.00	
Recorder	0.00	8360	Inside	3264.00	
Recorder	0.00	8373	Outside	3264.00	
Perforations	29.00			3293.00	
Bullnose	3.00			3296.00	
<b>Total Tool Length:</b>	<b>59.00</b>				36.00 Bottom Packers & Anchor



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

H&B Petroleum Corp  
PO Box 1305  
Hutchinson KS 67504  
ATTN: Jim Musgrove

**9-21s-12w Stafford,KS**  
**Hewitt #1**  
Job Ticket: 64235      **DST#: 2**  
Test Start: 2018.07.11 @ 14:31:00

**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: 61.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.53 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 1.00 inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud	0.070

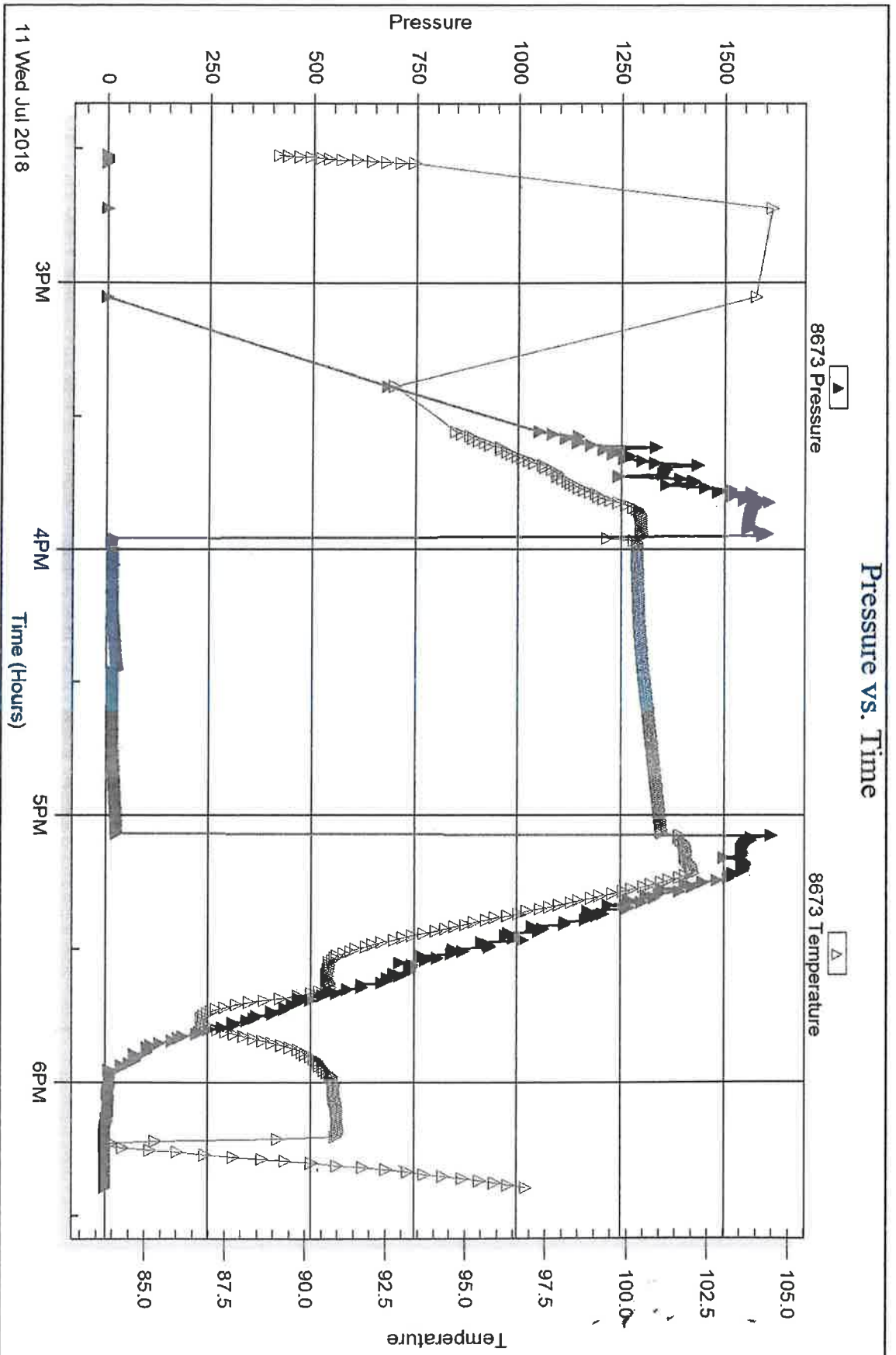
Total Length: 5.00 ft      Total Volume: 0.070 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

Serial #: 8673

H&B Petroleum Corp

Well #1

DST Test Number: 2





## DRILL STEM TEST REPORT

Prepared For: **H&B Petroleum Corp**

PO Box 1305  
Hutchinson KS 67504

ATTN: Jim Musgrove

**Hewitt #1**

**9-21s-12w Stafford,KS**

Start Date: 2018.07.12 @ 03:35:22

End Date: 2018.07.12 @ 09:12:01

Job Ticket #: 64236                      DST #: 3

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

Printed: 2018.07.16 @ 14:39:17



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&B Petroleum Corp  
 PO Box 1305  
 Hutchinson KS 67504  
 ATTN: Jim Musgrove

**9-21s-12w Stafford,KS**  
**Hewitt #1**  
 Job Ticket: 64236 **DST#: 3**  
 Test Start: 2018.07.12 @ 03:35:22

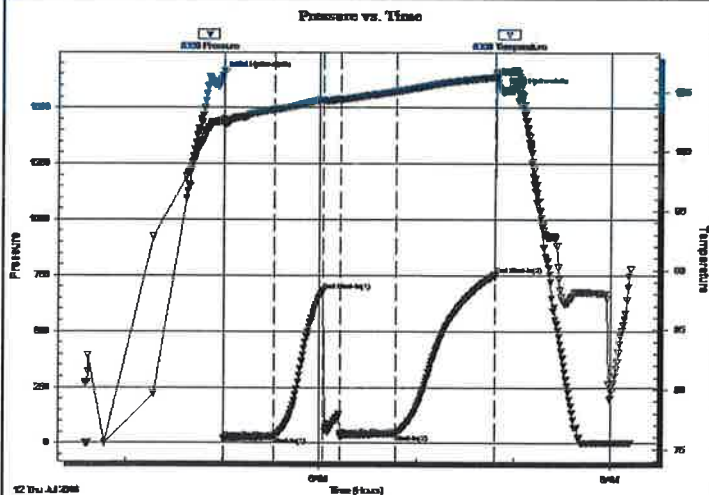
**GENERAL INFORMATION:**

Formation: **LKC**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:01:02  
 Time Test Ended: 09:12:01  
 Interval: **3320.00 ft (KB) To 3384.00 ft (KB) (TVD)**  
 Total Depth: 3384.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ray Schwager  
 Unit No: 77  
 Reference Elevations: 1848.00 ft (KB)  
 1838.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8360** **Inside**  
 Press@RunDepth: 41.36 psig @ 3324.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.07.12 End Date: 2018.07.12 Last Calib.: 2018.07.12  
 Start Time: 03:35:22 End Time: 09:12:01 Time On Btm: 2018.07.12 @ 05:00:17  
 Time Off Btm: 2018.07.12 @ 07:52:46

**TEST COMMENT:** 30-IFP-w eak to a fair blow 1/2"to 4"  
 30-ISIP- no blow  
 45-FFP-w eak blow thru-out surface to 2 1/2"blow  
 60-FSIP-no blow

**PRESSURE SUMMARY**



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1641.97	102.63	Initial Hydro-static
1	20.32	102.26	Open To Flow (1)
32	28.96	103.50	Shut-In(1)
62	681.59	104.36	End Shut-In(1)
73	31.47	104.36	Open To Flow (2)
107	41.36	105.04	Shut-In(2)
168	751.15	106.23	End Shut-In(2)
173	1570.87	106.70	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
55.00	SO&GCM 10%G7%O83%M	0.77
0.00	65' GIP	0.00

**Gas Rates**

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&B Petroleum Corp  
PO Box 1305  
Hutchinson KS 67504  
ATTN: Jim Musgrove

**9-21s-12w Stafford,KS**  
**Hewitt #1**  
Job Ticket: 64236      **DST#: 3**  
Test Start: 2018.07.12 @ 03:35:22

### Tool Information

Drill Pipe:	Length: 3326.00 ft	Diameter: 3.80 inches	Volume: 46.66 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 46.66 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 39000.00 lb
Depth to Top Packer:	3320.00 ft			Final 39000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 ft			
Tool Length:	87.00 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			3298.00	
Shut In Tool	5.00			3303.00	
Sampler	2.00			3305.00	
Hydraulic tool	5.00			3310.00	
Packer	5.00			3315.00	23.00      Bottom Of Top Packer
Packer	5.00			3320.00	
Stubb	1.00			3321.00	
Perforations	3.00			3324.00	
Recorder	0.00	8360	Inside	3324.00	
Recorder	0.00	8673	Outside	3324.00	
Blank Spacing	33.00			3357.00	
Perforations	24.00			3381.00	
Bullnose	3.00			3384.00	64.00      Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>87.00</b>				





**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

H&B Petroleum Corp  
PO Box 1305  
Hutchinson KS 67504  
ATTN: Jim Musgrove

**9-21s-12w Stafford,KS**  
**Hewitt #1**  
Job Ticket: 64236      **DST#: 3**  
Test Start: 2018.07.12 @ 03:35:22

**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: 40.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.53 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 1.00 inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
55.00	SO&GCM 10%G7%O83%M	0.772
0.00	65' GIP	0.000

Total Length: 55.00 ft      Total Volume: 0.772 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments:

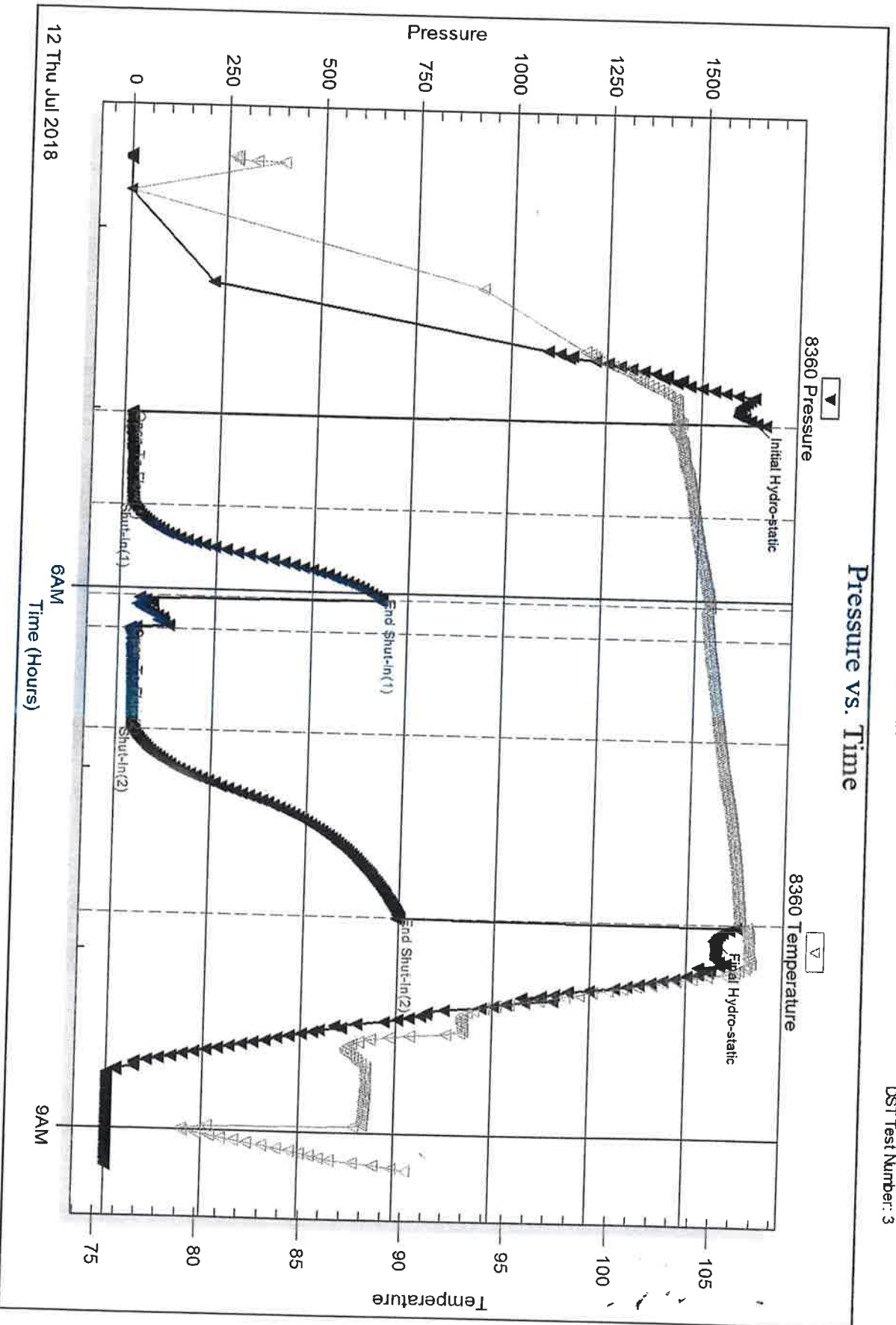
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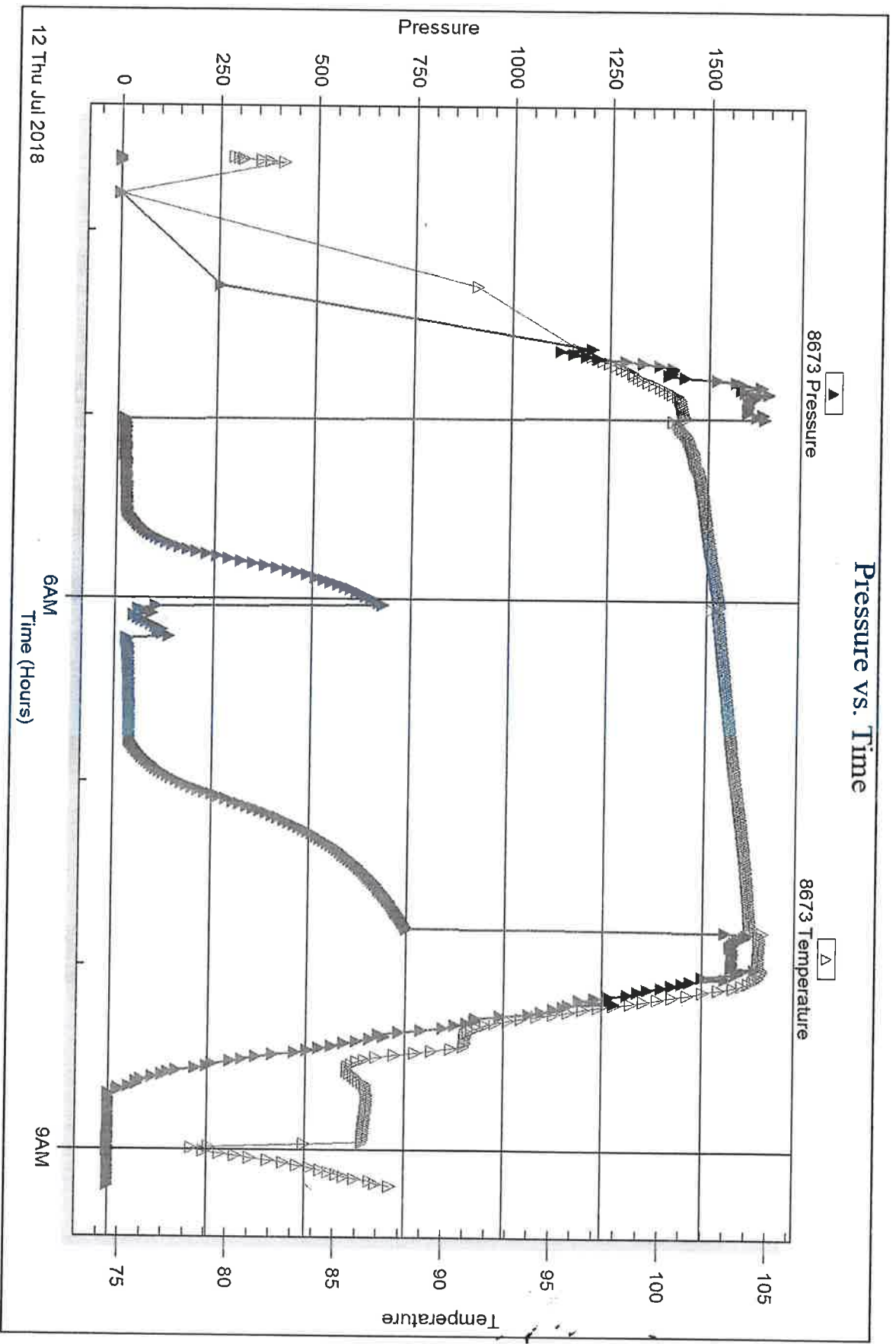
Inside

H&B Petroleum Corp

Hew #1

DST Test Number: 3

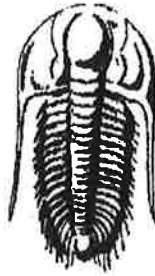




Triobite Testing, Inc

Ref. No: 64236

Printed: 2018.07.16 @ 14:39:18



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **H&B Petroleum Corp**

PO Box 1305  
Hutchinson KS 67504

ATTN: Jim Musgrove

**Hewitt #1**

**9-21s-12w Stafford,KS**

Start Date: 2018.07.12 @ 17:25:18

End Date: 2018.07.12 @ 22:35:42

Job Ticket #: 64237                      DST #: 4

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

Printed: 2018.07.16 @ 14:38:53

H&B Petroleum Corp 9-21s-12w Stafford,KS Hewitt #1 DST # 4 Lower LKC 2018.07.12



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

H&B Petroleum Corp  
 PO Box 1305  
 Hutchinson KS 67504  
 ATTN: Jim Musgrove

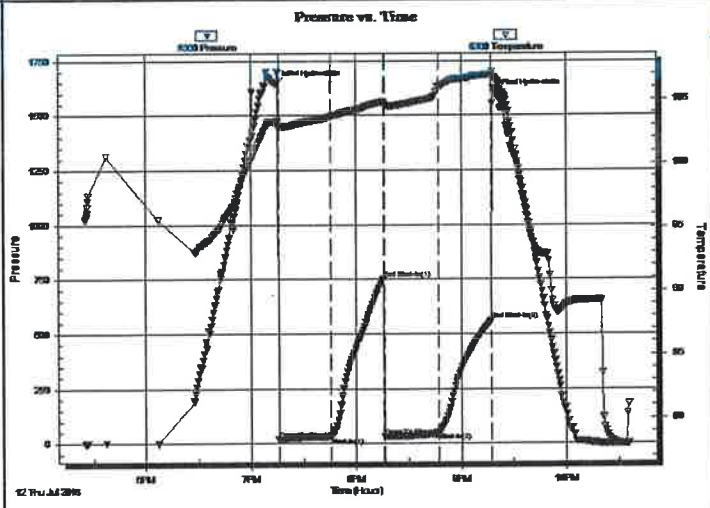
**9-21s-12w Stafford, KS**  
**Hewitt #1**  
 Job Ticket: 64237      **DST#: 4**  
 Test Start: 2018.07.12 @ 17:25:18

**GENERAL INFORMATION:**

Formation: **Lower LKC**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Rese)  
 Time Tool Opened: 19:15:43 Tester: Ray Schwager  
 Time Test Ended: 22:35:42 Unit No: 77  
 Interval: **3380.00 ft (KB) To 3447.00 ft (KB) (TVD)** Reference Elevations: 1848.00 ft (KB)  
 Total Depth: 3447.00 ft (KB) (TVD) 1838.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

**Serial #: 8360 Inside**  
 Press@RunDepth: 49.67 psig @ 3384.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.07.12 End Date: 2018.07.12 Last Calib.: 2018.07.12  
 Start Time: 17:25:18 End Time: 22:35:42 Time On Btm: 2018.07.12 @ 19:14:28  
 Time Off Btm: 2018.07.12 @ 21:19:43

**TEST COMMENT:** 30-IFP-w eak Blow , surface to 1"blow  
 30-ISIP-no blow  
 30-FFP-no blow 1st 8min, then surface blow thru-out  
 30-FSIP-no blow



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1643.15	103.26	Initial Hydro-static
2	19.34	102.79	Open To Flow (1)
31	30.62	103.66	Shut-In(1)
62	751.30	104.82	End Shut-In(1)
62	33.37	104.61	Open To Flow (2)
93	49.67	106.00	Shut-In(2)
123	560.23	106.96	End Shut-In(2)
126	1598.08	106.53	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
40.00	Mud	0.56

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (M)

\* Recovery from multiple tests



**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

H&B Petroleum Corp  
 PO Box 1305  
 Hutchinson KS 67504  
 ATTN: Jim Musgrove

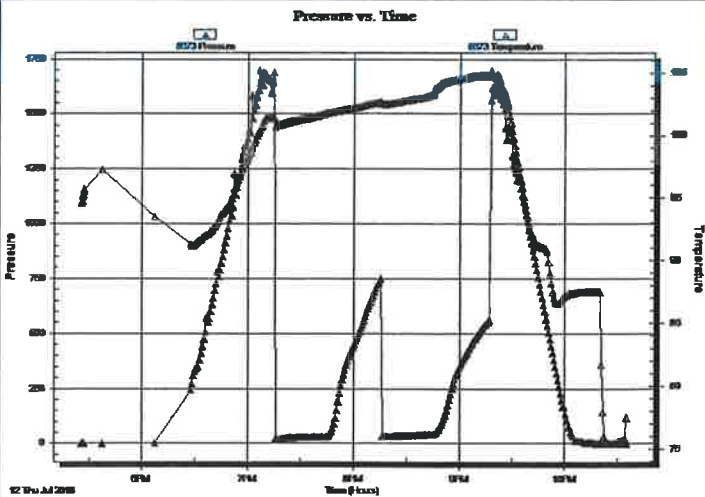
**9-21s-12w Stafford,KS**  
**Hewitt #1**  
 Job Ticket: 64237      **DST#: 4**  
 Test Start: 2018.07.12 @ 17:25:18

### GENERAL INFORMATION:

Formation: **Lower LKC**  
 Deviated: No Whipstock:      ft (KB)  
 Time Tool Opened: 19:15:43  
 Time Test Ended: 22:35:42  
 Interval: **3380.00 ft (KB) To 3447.00 ft (KB) (TVD)**  
 Total Depth: 3447.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ray Schwager  
 Unit No: 77  
 Reference Elevations: 1848.00 ft (KB)  
 1838.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8673      Outside**  
 Press@RunDepth:      psig @      3384.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2018.07.12      End Date: 2018.07.12      Last Calib.: 2018.07.12  
 Start Time: 17:25:24      End Time: 22:35:33      Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30-IFP-weak Blow, surface to 1"blow  
 30-ISIP-no blow  
 30-FFP-no blow 1st 8min, then surface blow thru-out  
 30-FSIP-no blow



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
40.00	Mud	0.56

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRA**

H&B Petroleum Corp

**9-21s-12w Stafford,KS**

PO Box 1305  
Hutchinson KS 67504

**Hewitt #1**

Job Ticket: 64237

**DST#: 4**

ATTN: Jim Musgrove

Test Start: 2018.07.12 @ 17:25:18

### Tool Information

Drill Pipe:	Length: 3388.00 ft	Diameter: 3.80 inches	Volume: 47.52 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 47.52 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3380.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	67.00 ft			
Tool Length:	90.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3358.00	
Shut In Tool	5.00			3363.00	
Sampler	2.00			3365.00	
Hydraulic tool	5.00			3370.00	
Packer	5.00			3375.00	23.00 Bottom Of Top Packer
Packer	5.00			3380.00	
Stubb	1.00			3381.00	
Perforations	3.00			3384.00	
Recorder	0.00	8360	Inside	3384.00	
Recorder	0.00	8673	Outside	3384.00	
Blank Spacing	33.00			3417.00	
Perforations	27.00			3444.00	
Bullnose	3.00			3447.00	67.00 Bottom Packers & Anchor

**Total Tool Length: 90.00**



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

H&B Petroleum Corp  
PO Box 1305  
Hutchinson KS 67504  
ATTN: Jim Musgrove

**9-21s-12w Stafford,KS**  
**Hewitt #1**  
Job Ticket: 64237      **DST#: 4**  
Test Start: 2018.07.12 @ 17:25:18

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 45.00 sec/qt  
Water Loss: 7.96 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 5000.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	Mud	0.561

Total Length: 40.00 ft      Total Volume: 0.561 bbl

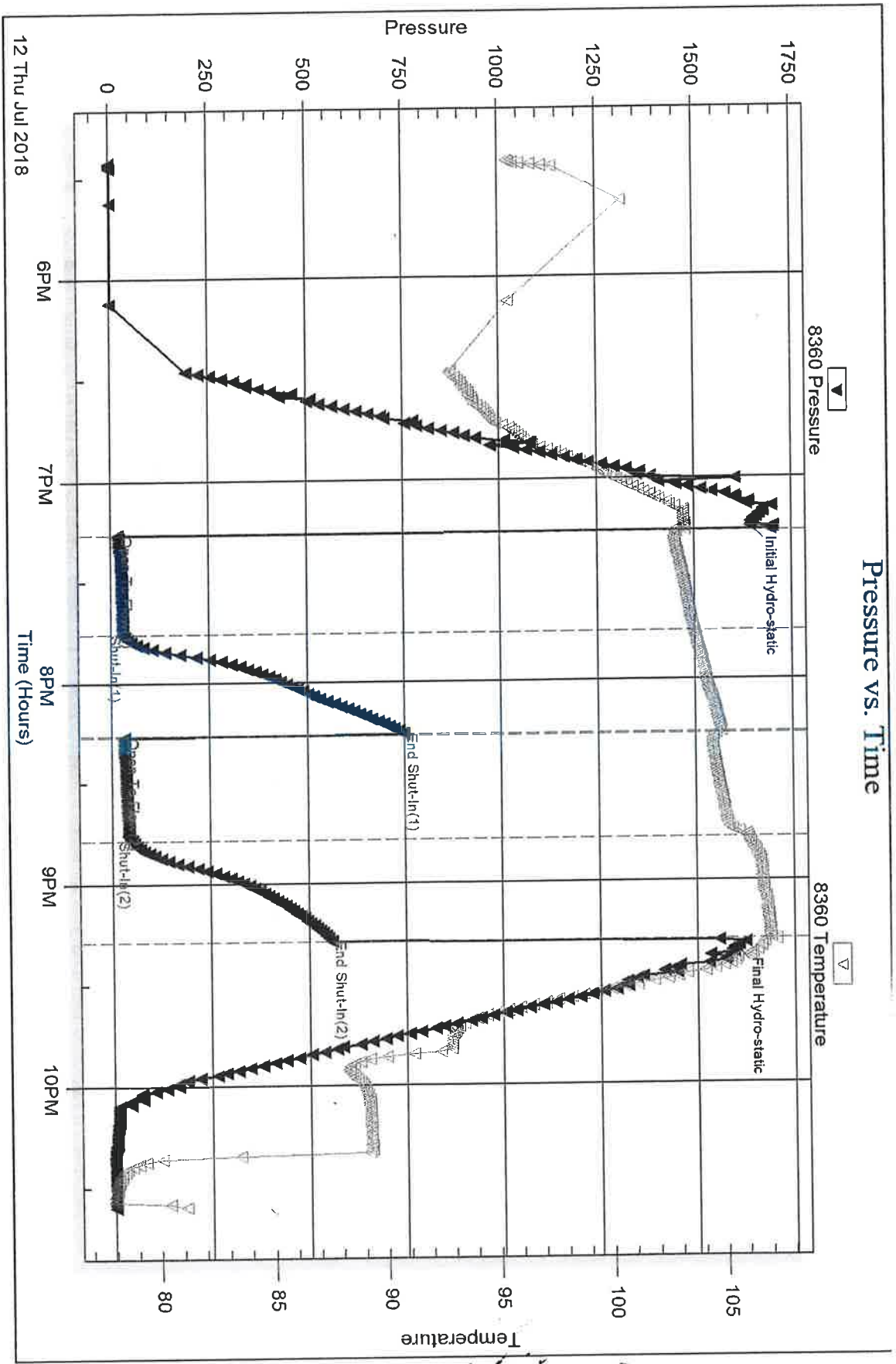
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:



# Pressure vs. Time

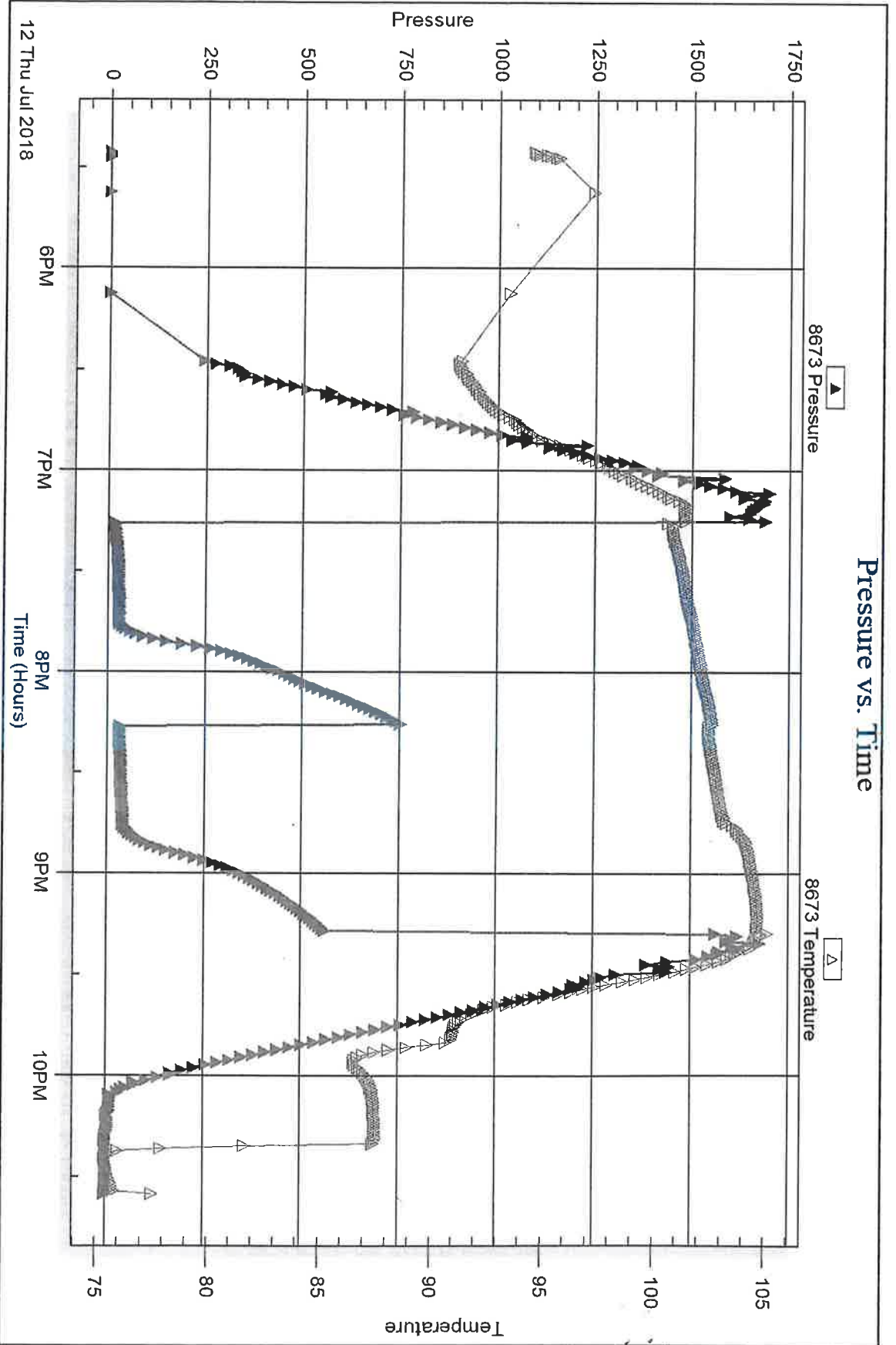


Serial #: 8673

Outside H&B Petroleum Corp

Heu ft #1

DST Test Number: 4





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **H&B Petroleum Corp**

PO Box 1305  
Hutchinson KS 67504

ATTN: Jim Musgrove

**Hewitt #1**

**9-21s-12w Stafford,KS**

Start Date: 2018.07.13 @ 07:25:37

End Date: 2018.07.13 @ 13:16:46

Job Ticket #: 64238                      DST #: 5

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2018.07.16 @ 14:37:04



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

H&B Petroleum Corp

9-21s-12w Stafford, KS

PO Box 1305  
Hutchinson KS 67504

**Hewitt #1**

Job Ticket: 64238

**DST#: 5**

ATTN: Jim Musgrove

Test Start: 2018.07.13 @ 07:25:37

### GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:00:32

Time Test Ended: 13:16:46

Test Type: Conventional Bottom Hole (Reset)

Tester: Ray Schwager

Unit No: 77

Interval: **3415.00 ft (KB) To 3482.00 ft (KB) (TVD)**

Total Depth: 3482.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1848.00 ft (KB)

1838.00 ft (CF)

KB to GR/CF: 10.00 ft

**Serial #: 8360**

Inside

Press@RunDepth: 209.68 psig @ 3419.00 ft (KB)

Start Date: 2018.07.13

End Date:

2018.07.13

Capacity: 8000.00 psig

Last Calib.: 2018.07.13

Start Time: 07:25:37

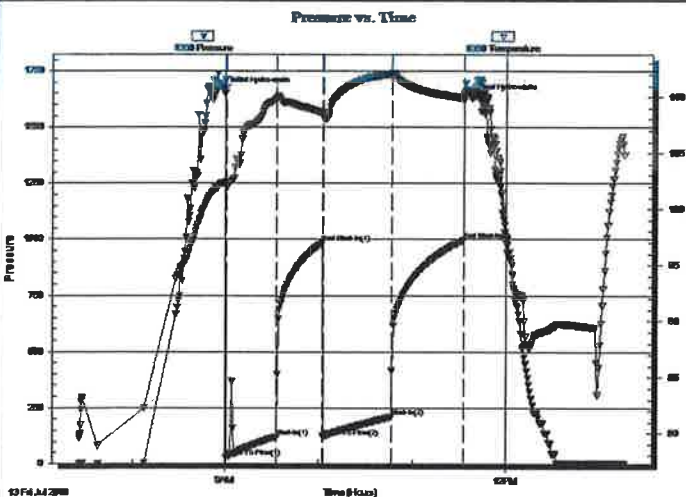
End Time:

13:16:46

Time On Btm: 2018.07.13 @ 08:58:32

Time Off Btm: 2018.07.13 @ 11:38:02

TEST COMMENT: 30-IFP-weak to BOB in 12 min  
30-ISIP-no blow  
45-FFP-BOB in 22 min  
45-FSIP-surface blow back



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1660.63	102.34	Initial Hydro-static
2	28.08	101.96	Open To Flow (1)
35	119.75	109.88	Shut-In(1)
64	985.76	108.58	End Shut-In(1)
65	121.48	108.17	Open To Flow (2)
108	209.68	112.08	Shut-In(2)
155	996.85	109.91	End Shut-In(2)
160	1628.64	110.44	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
186.00	SOCW 1%O99%W	2.61
62.00	O&GCMW 10%G5%O20%M65%W	0.87
204.00	O&GCVW 10%G20%O20%W50%M	2.86
30.00	CO	0.42
0.00	200'GIP	0.00

### Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

H&B Petroleum Corp  
PO Box 1305  
Hutchinson KS 67504  
ATTN: Jim Musgrove

**9-21s-12w Stafford,KS**  
**Hewitt #1**  
Job Ticket: 64238      **DST#: 5**  
Test Start: 2018.07.13 @ 07:25:37

### Tool Information

Drill Pipe:	Length: 3419.00 ft	Diameter: 3.80 inches	Volume: 47.96 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 47.96 bbl</u>	Tool Chased 3.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3415.00 ft			Final 41000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	67.00 ft			
Tool Length:	90.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3393.00	
Shut In Tool	5.00			3398.00	
Sampler	2.00			3400.00	
Hydraulic tool	5.00			3405.00	
Packer	5.00			3410.00	23.00      Bottom Of Top Packer
Packer	5.00			3415.00	
Stubb	1.00			3416.00	
Perforations	3.00			3419.00	
Recorder	0.00	8360	Inside	3419.00	
Recorder	0.00	8673	Outside	3419.00	
Blank Spacing	33.00			3452.00	
Perforations	27.00			3479.00	
Bullnose	3.00			3482.00	67.00      Bottom Packers & Anchor

**Total Tool Length: 90.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMA**

H&B Petroleum Corp  
PO Box 1305  
Hutchinson KS 67504  
ATTN: Jim Musgrove

**9-21s-12w Stafford,KS**  
**Hewitt #1**  
Job Ticket: 64238      **DST#: 5**  
Test Start: 2018.07.13 @ 07:25:37

**Mud and Cushion Information**

Mud Type: Gel Chem	Cushion Type: '      Oil API: 41 deg A
Mud Weight: 9.00 lb/gal	Cushion Length: ft      Water Salinity: 27000 ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl
Water Loss: 7.96 in <sup>3</sup>	Gas Cushion Type:
Resistivity: ohm.m	Gas Cushion Pressure: psig
Salinity: 5000.00 ppm	
Filter Cake: 1.00 inches	

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
186.00	SOCW 1%O99%W	2.609
62.00	O&GCMW 10%G5%O20%M65%W	0.870
204.00	O&GCVW 10%G20%O20%W50%M	2.862
30.00	CO	0.421
0.00	200'GIP	0.000

Total Length: 482.00 ft      Total Volume: 6.762 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial#:        
Laboratory Name:      Laboratory Location:        
Recovery Comments: RW .2@85F      Sampler Data: 300MLoil 100MLmud 200ML gas  
1400 ML w ater PSI



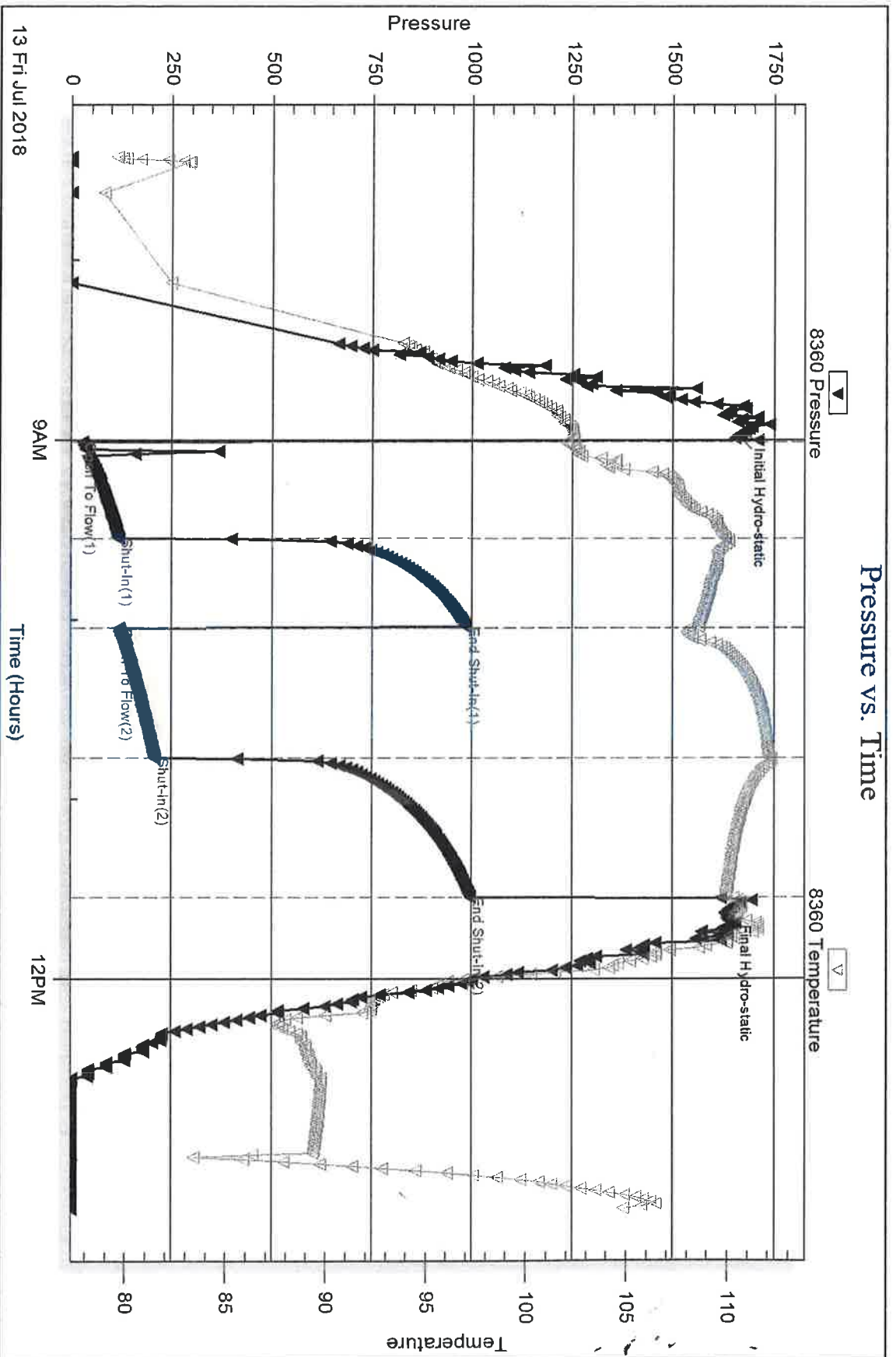
Serial #: 8360

Inside

H&B Petroleum Corp

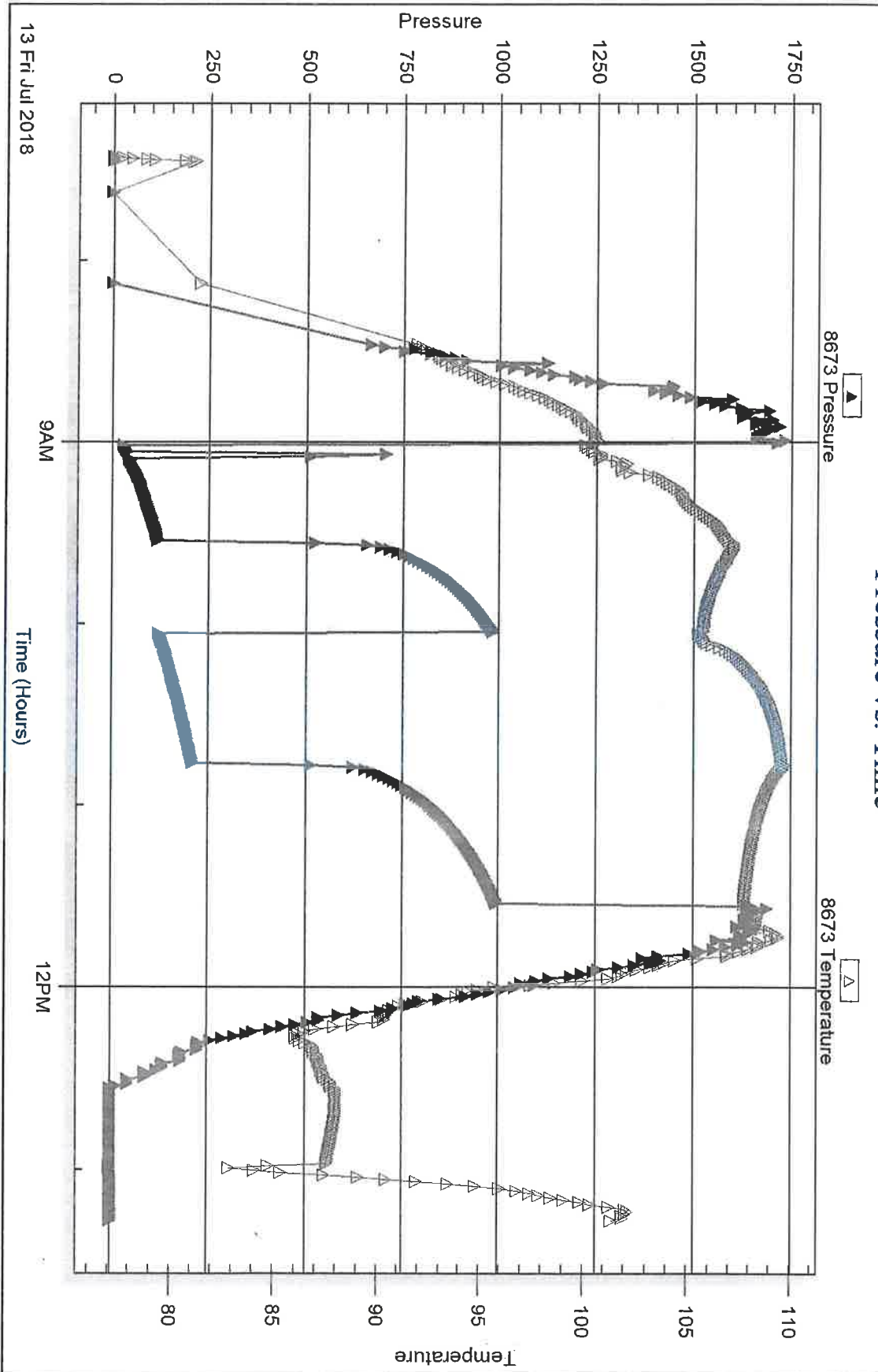
Well It #1

DST Test Number: 5





Pressure vs. Time



Triobite Testing, Inc

Ref. No: 64238

Printed: 2018.07.16 @ 14:37:05



# Musgrove

**PETROLEUM CORPORATION**  
Clafin, Kansas

## GEOLOGIST'S REPORT

### DRILLING TIME AND SAMPLE LOG

COMPANY H&B Petroleum Corp.

LEASE Hewitt # 1

FIELD Byron

LOCATION NE-NW-SW-NE (1640'FNL & 2150'FEL)

SEC 9 TWSP 21S RGE 12W

COUNTY Stafford STATE Kansas

#### ELEVATIONS

KB 1848'

DF \_\_\_\_\_

GL 1838'

Measurements Are All  
From KB

CONTRACTOR Southwind Drilling, Inc. (Rig #1)

SPUD 07/06/2018 COMP 07/14/2018

RTD 3551' LTD 3552'

MUD UP 2800' TYPE MUD Chemical

#### CASING

SURFACE 8 5/8"@ 637'

PRODUCTION 5 1/2"@ 3546'

#### ELECTRICAL SURVEYS

ELI; DIL, MEL

PE/CDL/CNL

SAMPLES SAVED FROM 2950' TO RTD

DRILLING TIME KEPT FROM 2900' TO RTD

SAMPLES EXAMINED FROM 2950' TO RTD

GEOLOGICAL SUPERVISION FROM 2950' TO RTD









GEOLOGIST ON WELL Jim Musgrove (2900-3400) & Wyatt Urban (3380-RTD)

FORMATION TOPS	LOG		SAMPLES	
Anhydrite	632	(+1216)		
B.Anhydrite	658	(+1190)		
Heebner	3065	(-1217)	3065	(-1217)
Toronto	3083	(-1208)	3083	(-1208)
Brown Lime	3196	(-1348)	3196	(-1348)
Lansing	3212	(-1364)	3212	(-1364)
BKC	3417	(-1569)	3418	(-1570)

		X	
	9		


Simpson	3432	(-1584)	3427	(-1579)	
Arbuckle	3476	(-1628)	3475	(-1627)	
RTD	3551	(-1703)	3551	(-1703)	
ITD	3552	(-1704)	3552	(-1703)	

**ROCK TYPES**





 Dolprim	 shale, grn	 Carbon Sh	 Shcol
 Lmst fw<7	 shale, gry	 shale, red	 Ss

**ACCESSORIES**

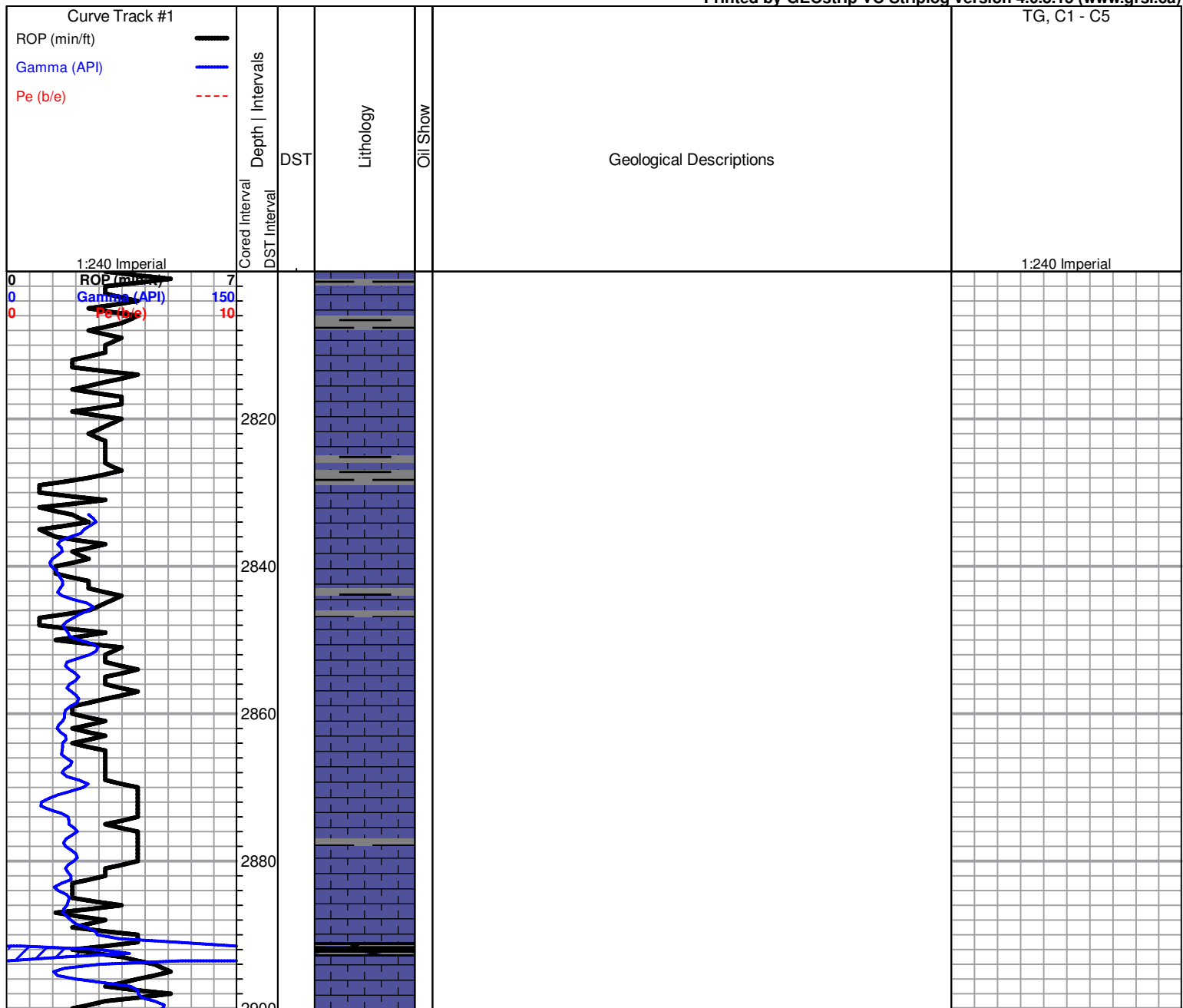
**STRINGER**

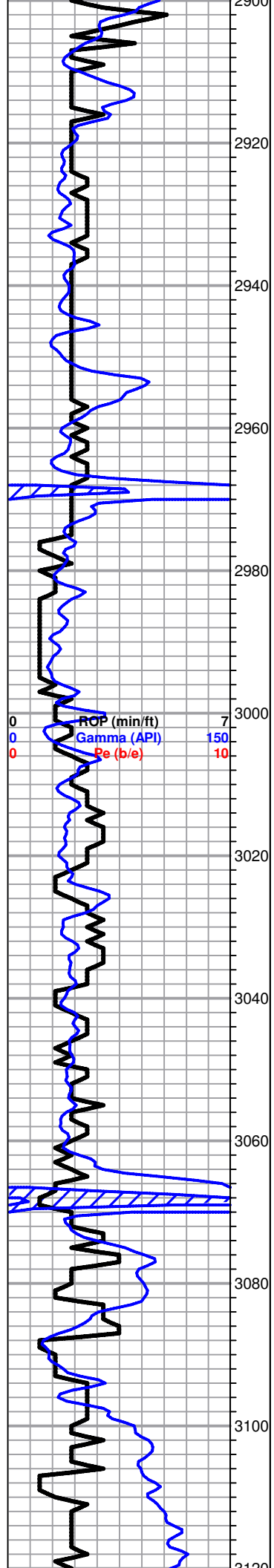
-  Sandstone

**OTHER SYMBOLS**

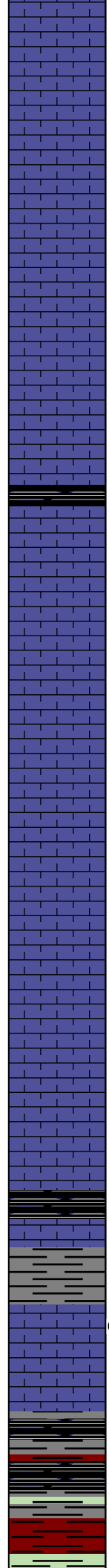
<p><b>Oil Show</b></p> <ul style="list-style-type: none"> <li>● Good Show</li> <li>● Fair Show</li> <li>○ Poor Show</li> <li>○ Spotted or Trace</li> <li>○ Questionable Strn</li> <li>D Dead Oil Strn</li> <li>■ Fluorescence</li> <li>* Gas</li> </ul>	<p><b>DST</b></p> <ul style="list-style-type: none"> <li> DST Int</li> <li> DST alt</li> <li> Core</li> <li> tail pipe</li> </ul>
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Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)





0 ROP (min/ft) 7  
 0 Gamma (API) 150  
 0 Pe (b/e) 10



LS, tan, gran, chalky, tr. gry chert, no shows

a/a

Tr. black carb Sh.

LS, tan, fxl, foss, chalky in pt. no shows

LS, gry/ cream/ tan, fxl, foss, chalky; poor vis. porosity, no shows

Tr, gry chert

**Heebner 3065.0 (-1217.0)**

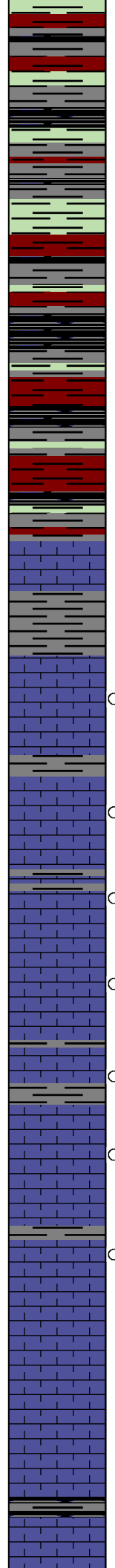
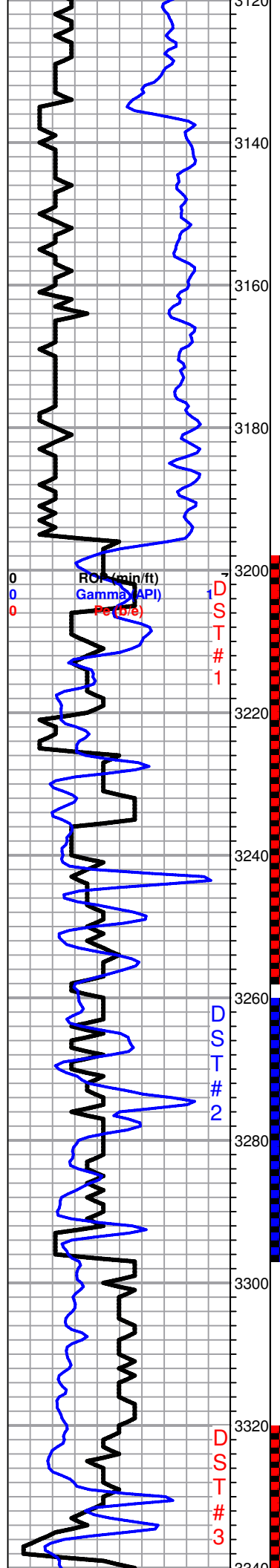
Sh, black carb

**Toronto 3083.0 (-1236.0)**

LS, white/ cream, med xln, chalky, scattered porosity, tr. brown stain, nsfo, no odor

**Douglas 3098.0 (-1250.0)**

V.C. Silty sh



Tr. sand, gry, gryish, green , vfg. mica, no shows

a/a, + gry/ gryish green, silty sh.

**Brown Lime 3196.0 (-1348.0)**

LS, tan, brown, fxl, slightly cherty, (dense)

**Lansing 3212.0 (-1364.0)**

○ LS, tan, fxl, slightly foss, chalky, tr. brown stain, nsfo, ft. odor

○ LS, white, cream, ool, scattered porosity, blk stain, tr. fo , ft. odor

○ LS, white, cream, ool, scattered porosity, blk stain, tr. fo, faint odor

○ LS, gry, white, ool, foss, fair vuggy porosity, brown stain, tr. fo ??? odor

○ LS, tan, fxl, foss, fair porosity, brn stain, tr. fo, ??? odor

○ LS, gry, white, med xln , chalky, tr. gry/ blk stain, nsfo, no odor

○ LS, tan, foss, scattered porosity, brn stain, sfo, no odor

LS, white/ gry, fxl, few chalky, increasing cherty (dense)

LS, a/a, tr. gry chert

Sh, black / gry

LS, white, cream, scattered cream porosity, gry, blk stain

**DST#1 3198-3258**  
30-30-45-60

1st Open:  
BOB GTS 15 mins.

1st Close:  
no return

2nd Open:  
GTS

2nd Close:  
no blow

Recovery:  
35' Mud

35' GCM w/ tr. of oil  
(10% G, 90%M)

Pressures:  
ISIP 998 psi  
FSIP 973 psi  
IFP 41-26 psi  
FFP 30-24 psi  
HSH 1527-1500 psi

**PIPE STRAP @ 3258'**  
**33' SHORT /**  
**ALL CORRECTIONS**  
**MADE**

**DST#2 3260-3296**  
15-15-15-20

1st Open:  
Weak Surface blow  
died in 12 mins.

2nd Open: Dead

Recovery:  
5' Mud

**DST #3 3320-3384**  
30-30-45-45

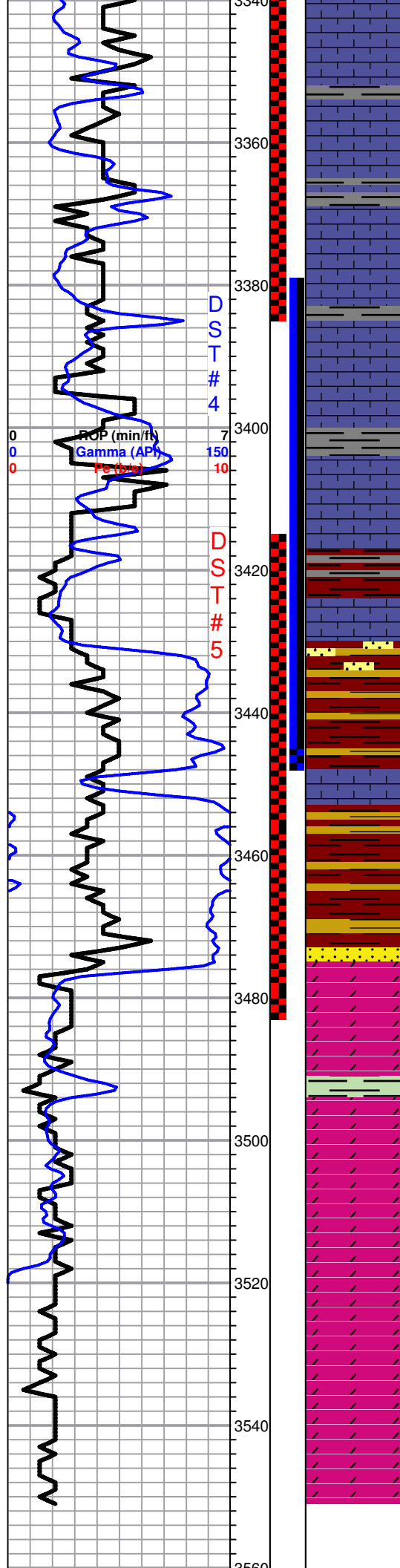
1st Open:  
Weak , 4"

2nd Open:  
Weak surface to 2.5"

Recovery:  
65' GIP

55' SO&GCM





LS, white, oom, scattered oom porosity, gry-blk stain, nsfo, ft. odor

LS, white, gry, ool, scattered porosity, fair brown stain/sat. tr. fo, ft. odor

LS, cream, white, fxl, slightly ool/oom, poor oom porosity, gry-blk stain, nsfo, no odor

Sh, gry, dk gry, waxy

LS, white/ cream, foss, scattered vuggy type porosity, lt. brn stain, sfo (spty) ft. odor

Sh, dk gry, waxy

LS, tan, foss/ool, p.p. type porosity, lt. brn stain, sfo, odor

**BKC 3417.0 (-1569.0)**

Sh, gry, maroon, red

**Simpson 3432.0 (-1584.0)**

Sh, a/a, waxy, abd. tan, brn, orange cherts, few blk spty stain. nsfo

Sh, maroon, green, dk green, tr. v. c. cherts, tr. spty brn/blk stain on few, tr. spty sfo, odor

LS, tan, cream, fxl, dense, cherty, few foss

Sh, maroon, green, waxy orange & tan, cherts

Sd. tan, buff, qtz, f-med grain, well sorted, lt. brn stain, sfo, odor

**Arbuckle 3475.0 (-1627.0)**

Dol. tan, fxl, scattered vuggy type porosity, lt. brn stain, sfo, fair odor

Dol a/a, decreasing vis. porosity & sfo more dead in app.

Abd. Sh, green, maroon, waxey, tr. dol. tan, suc/ gran. blk (dead) oil flakes, fair odor

Dol. tan, buff, ool, scattered vuggy/oom porosity, tr. brn stain, sfo, few dead flakes, strong odor

Dol. tan, coarse- med grain, good inxln porosity, sfo/ (few dead in appearance) odor, tr. pyrite

Dol. white, suc. good inxln porosity, nsfo, increase in pyrite, tr. white chert, few ool, strong odor

Dol, tan, buff, fxl, dense, cherty, no shows, odor.

**RTD 3551.0 (-1703.0)**  
**LTD 3552.0 (-1704.0)**

(10%G, 7%O, 83%M)

**Pressures:**  
ISIP 681 psi  
FSIP 751 psi  
IFP 20-28 psi  
FFP 31-41 psi  
HSH 1641-1570 psi

**DST#4 3380-3447**  
30-30-30-30

**1st Open:**  
Weak, 1"

**2nd Open:**  
Weak surface blow

**Recovery:**  
40' Mud

**Pressures:**  
ISIP 751 psi  
FSIP 560 psi  
IFP 19-30 psi  
FFP 33-49 psi  
HSH 1643-1598 psi

**3440' CFS 20"** -  
Tr. Sd. brn, med grain, sub rounded, poorly sorted, "shaley" / mica. dk brn stain, sfo, odor

**DST#5 3415-3482**  
30-30-45-45

**1st Open:**  
BOB 12 min

**2nd Open:**  
BOB 22 min

**Recovery:**  
200' GIP

**30' Clean Oil**  
**204' O&GCWM**  
(10%G, 20%O, 20%W, 50%M)

**62' O&GCMW**  
(10%G, 5%O, 65%W, 20%M)

**186' SOCW**  
(1%O, 99%W)

**Pressures:**  
ISIP 985 psi  
FSIP 996 psi  
IFP 28-119 psi

3560

3580

FFP 121-209 psi  
HSH 1660-1628 psi

