

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
--	---

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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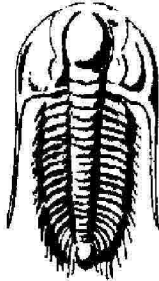
Form	ACO1 - Well Completion
Operator	Pioneer Oil Company, Inc.
Well Name	CLARK UNIT 1-5
Doc ID	1415539

All Electric Logs Run

Dual Induction
Dual Compensated Porosity
Micro-Resistivity
Sonic Log







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

## DRILL STEM TEST REPORT

Prepared For: **Pioneer Oil Co. Inc.**

400 Main St. PO Box 237  
Vincennes, IN 47501

ATTN: Jim Musgrove

### **Clark Unit #1-5**

#### **5-9s-28w Sheridan,KS**

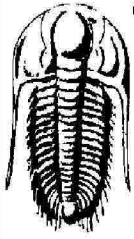
Start Date: 2018.03.04 @ 14:04:00

End Date: 2018.03.04 @ 21:30:45

Job Ticket #: 63364                      DST #: 1

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

Printed: 2018.03.14 @ 10:18:55



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Pioneer Oil Co. Inc.  
 400 Main St. PO Box 237  
 Vincennes, IN 47501  
 ATTN: Jim Musgrove

**5-9s-28w Sheridan, KS**  
**Clark Unit #1-5**  
 Job Ticket: 63364 **DST#: 1**  
 Test Start: 2018.03.04 @ 14:04:00

## GENERAL INFORMATION:

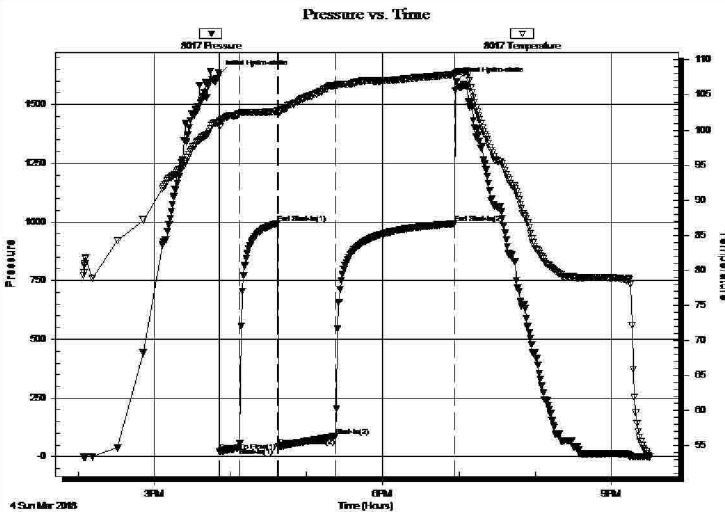
Formation: **Elmont**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:51:30  
 Time Test Ended: 21:30:45  
 Interval: **3464.00 ft (KB) To 3512.00 ft (KB) (TVD)**  
 Total Depth: 3512.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: James Winder  
 Unit No: 83  
 Reference Elevations: 2738.00 ft (KB)  
 2730.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 8017 Outside

Press@RunDepth: 87.21 psig @ 3465.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.03.04 End Date: 2018.03.04 Last Calib.: 2018.03.04  
 Start Time: 14:04:05 End Time: 21:30:44 Time On Btm: 2018.03.04 @ 15:51:15  
 Time Off Btm: 2018.03.04 @ 18:58:15

**TEST COMMENT:** 15 - IF: 3/4" Blow at open, built to 4 1/4"  
 30 - IS: No blow back (Blow stayed at 4 1/4")  
 45 - FF: Blow built to 7"  
 90 - FS: No blow back (Blow slowly decreased)

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1627.33	101.33	Initial Hydro-static
1	22.98	100.50	Open To Flow (1)
16	39.81	102.32	Shut-In(1)
46	994.24	102.71	End Shut-In(1)
47	42.86	102.38	Open To Flow (2)
92	87.21	106.26	Shut-In(2)
186	992.61	107.92	End Shut-In(2)
187	1597.86	108.22	Final Hydro-static

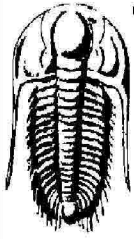
## Recovery

Length (ft)	Description	Volume (bbl)
62.00	SO/WCM 80% m, 18% w, 2% o	0.46
83.00	SOCM 95% m, 5% o	0.61
0.00	A few inches of Oil on top	0.00

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63364

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2018.03.04 @ 14:04:00

## Tool Information

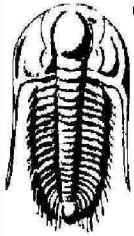
Drill Pipe:	Length: 3147.00 ft	Diameter: 3.80 inches	Volume: 44.14 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 311.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 54000.00 lb
			<u>Total Volume: 46.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3464.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	48.00 ft			
Tool Length:	79.00 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			3434.00	
Shut In Tool	5.00			3439.00	
Sampler	2.00			3441.00	
Hydraulic tool	5.00			3446.00	
Jars	5.00			3451.00	
Safety Joint	3.00			3454.00	
Packer	5.00			3459.00	31.00 Bottom Of Top Packer
Packer	5.00			3464.00	
Stubb	1.00			3465.00	
Recorder	0.00	6625	Inside	3465.00	
Recorder	0.00	8017	Outside	3465.00	
Perforations	10.00			3475.00	
Blank Spacing	34.00			3509.00	
Bullnose	3.00			3512.00	48.00 Bottom Packers & Anchor

**Total Tool Length: 79.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63364

**DST#: 1**

ATTN: Jim Musgrove

Test Start: 2018.03.04 @ 14:04:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 55.00 sec/qt  
Water Loss: 7.53 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 750.00 ppm  
Filter Cake: 1.00 inches

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

Oil API: 20.4 deg API  
Water Salinity: 25000 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	SO/WCM 80%m, 18%w , 2%o	0.455
83.00	SOCM 95%m, 5%o	0.610
0.00	A few inches of Oil on top	0.000

Total Length: 145.00 ft      Total Volume: 1.065 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

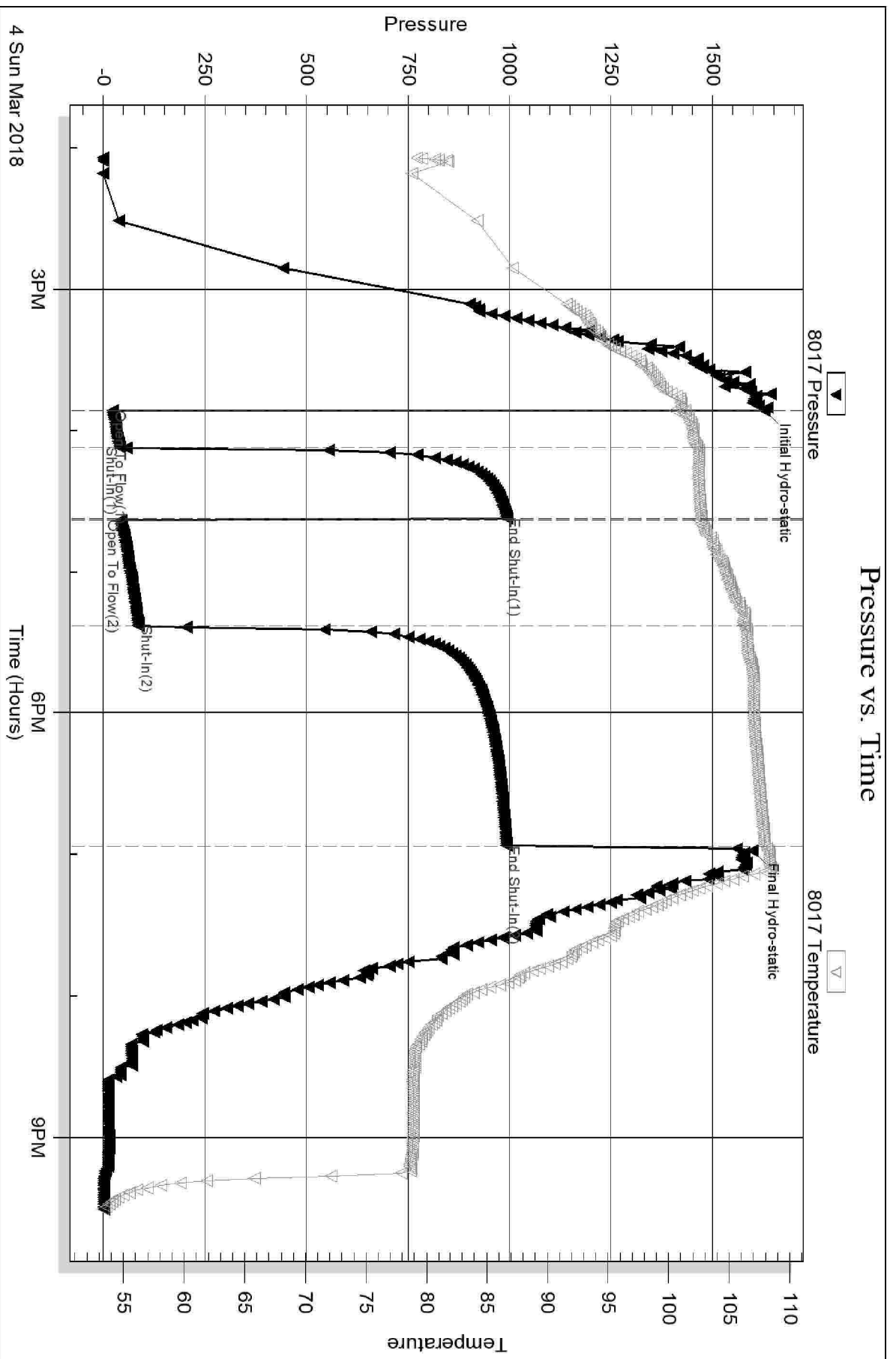
Laboratory Location:

Recovery Comments: Gravity = 20.4 api @ 60 deg F

RW = .345 ohms @ 55 deg F Chlorides = 25,000 ppm

Sampler = 170 PSI, 2200 mL SO/WCM 58%m, 38%w , 4%o RW = .330 ohms @ 53 deg F

Chlorides = 27,000 ppm



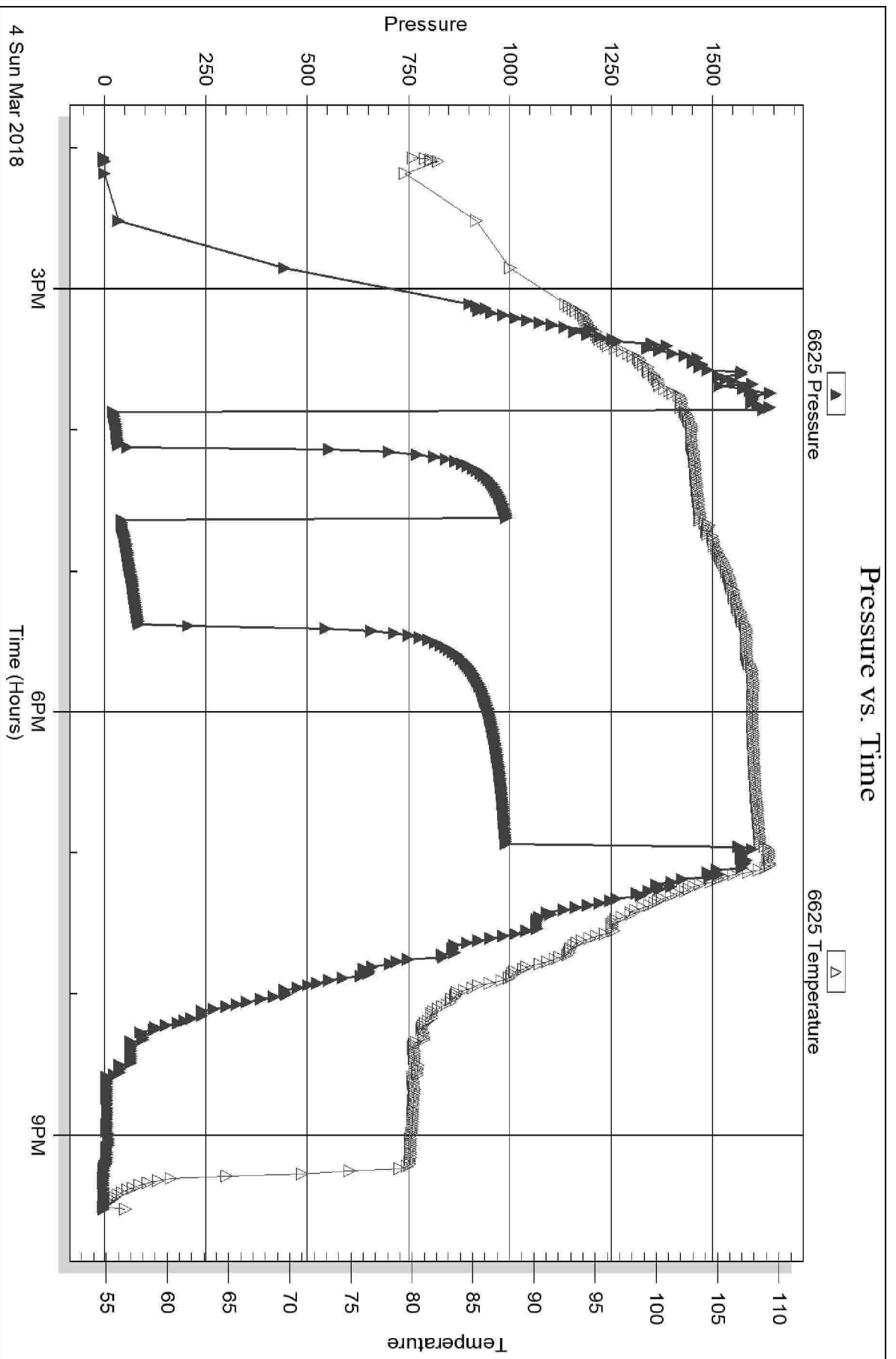
Serial #: 6625

Inside

Pioneer Oil Co. Inc.

Clark Unit #1-5

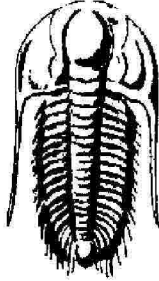
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 63364

Printed: 2018.03.14 @ 10:18:56



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

## DRILL STEM TEST REPORT

Prepared For: **Pioneer Oil Co. Inc.**

400 Main St. PO Box 237  
Vincennes, IN 47501

ATTN: Jim Musgrove

### **Clark Unit #1-5**

#### **5-9s-28w Sheridan,KS**

Start Date: 2018.03.05 @ 09:40:00

End Date: 2018.03.05 @ 18:14:15

Job Ticket #: 63365                      DST #: 2

Trilobite Testing, Inc

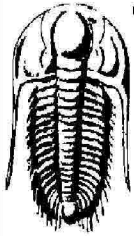
1515 Commerce Parkway Hays, KS 67601

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

Printed: 2018.03.14 @ 10:18:30

Pioneer Oil Co. Inc. 5-9s-28w Sheridan,KS Clark Unit #1-5 DST # 2 Howard "C" 2018.03.05





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Pioneer Oil Co. Inc.  
400 Main St. PO Box 237  
Vincennes, IN 47501  
ATTN: Jim Musgrove

**5-9s-28w Sheridan,KS**  
**Clark Unit #1-5**  
Job Ticket: 63365 **DST#: 2**  
Test Start: 2018.03.05 @ 09:40:00

## GENERAL INFORMATION:

Formation: **Howard "C"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 12:41:00  
Time Test Ended: 18:14:15  
Interval: **3566.00 ft (KB) To 3584.00 ft (KB) (TVD)**  
Total Depth: 3584.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 2738.00 ft (KB)  
2730.00 ft (CF)  
KB to GR/CF: 8.00 ft  
Test Type: Conventional Bottom Hole (Reset)  
Tester: James Winder  
Unit No: 83

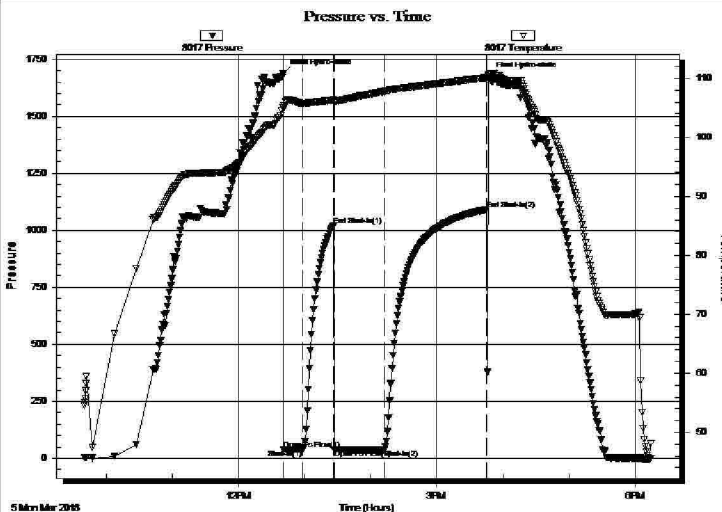
## Serial #: 8017

## Outside

Press@RunDepth: 37.87 psig @ 3567.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2018.03.05 End Date: 2018.03.05 Last Calib.: 2018.03.05  
Start Time: 09:40:05 End Time: 18:14:15 Time On Btm: 2018.03.05 @ 12:40:30  
Time Off Btm: 2018.03.05 @ 15:47:30

**TEST COMMENT:** 15 - IF: 2 3/4" Blow at open, built to 3 1/2"  
30 - ISI: No blow back  
45 - FF: Weak surface blow, built to 1/8"  
90 - FS: No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1687.81	105.10	Initial Hydro-static
1	40.75	105.01	Open To Flow (1)
18	38.65	105.76	Shut-In(1)
46	1022.77	106.34	End Shut-In(1)
47	39.97	105.98	Open To Flow (2)
92	37.87	107.78	Shut-In(2)
185	1091.23	110.13	End Shut-In(2)
187	1672.16	110.68	Final Hydro-static

## Recovery

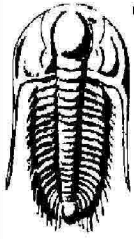
Length (ft)	Description	Volume (bbl)
30.00	Mud 100%	0.22

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63365

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2018.03.05 @ 09:40:00

## Tool Information

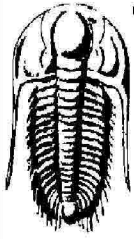
Drill Pipe:	Length: 3243.00 ft	Diameter: 3.80 inches	Volume: 45.49 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 311.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 47.77 bbl</u>	Tool Chased 2.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3566.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: Tool chased 2' - 3' to bottom at open, lost 5' of mud - 2 3/4" surge blow at open

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3536.00	
Shut In Tool	5.00			3541.00	
Sampler	2.00			3543.00	
Hydraulic tool	5.00			3548.00	
Jars	5.00			3553.00	
Safety Joint	3.00			3556.00	
Packer	5.00			3561.00	31.00 Bottom Of Top Packer
Packer	5.00			3566.00	
Stubb	1.00			3567.00	
Recorder	0.00	6625	Inside	3567.00	
Recorder	0.00	8017	Outside	3567.00	
Perforations	14.00			3581.00	
Bullnose	3.00			3584.00	18.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63365

**DST#: 2**

ATTN: Jim Musgrove

Test Start: 2018.03.05 @ 09:40:00

## 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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.53 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
30.00	Mud 100%	0.220

Total Length: 30.00 ft      Total Volume: 0.220 bbl

Num Fluid Samples: 0

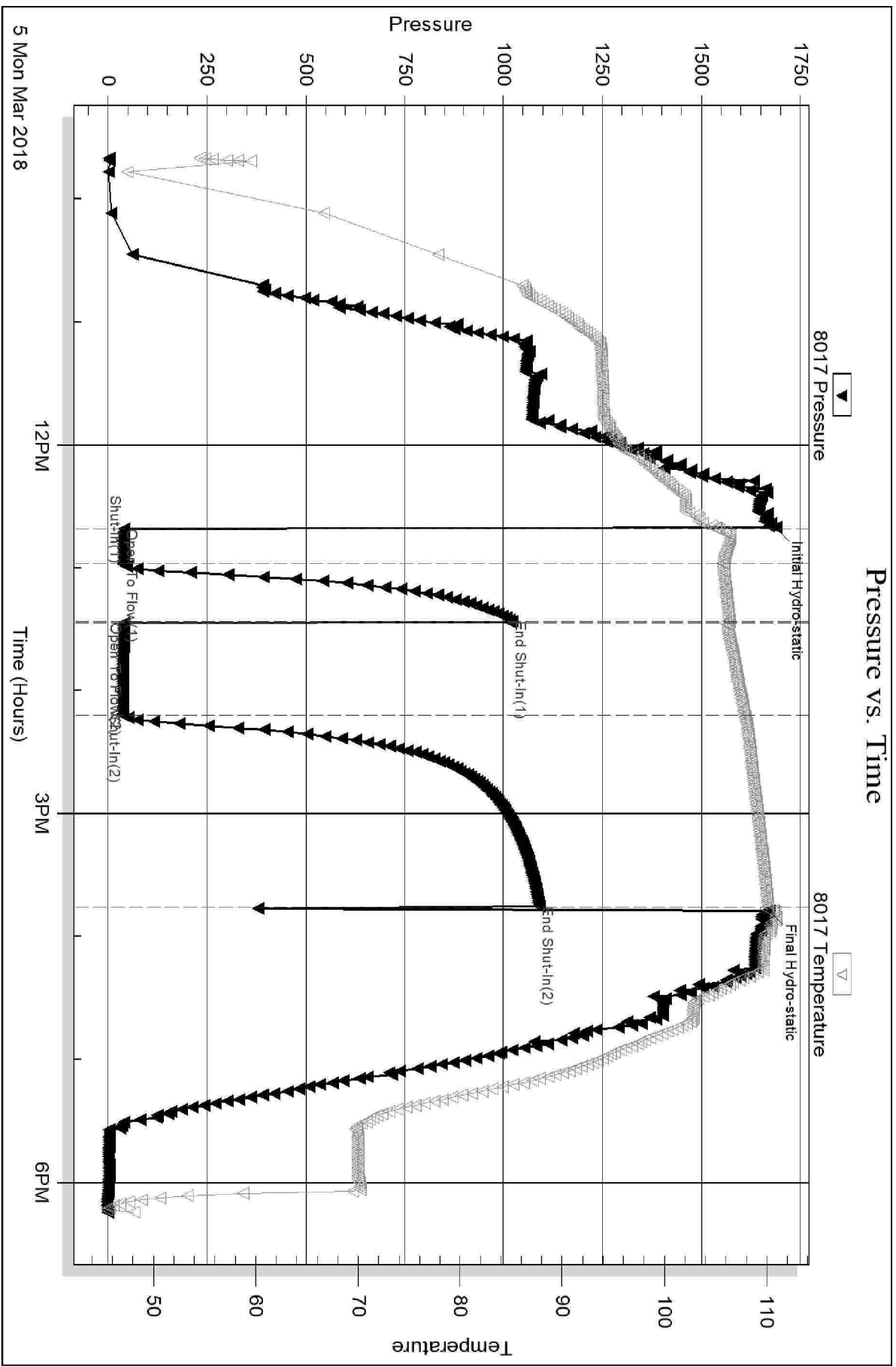
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler = 130 PSI 2000 mL Mud w /trace oil



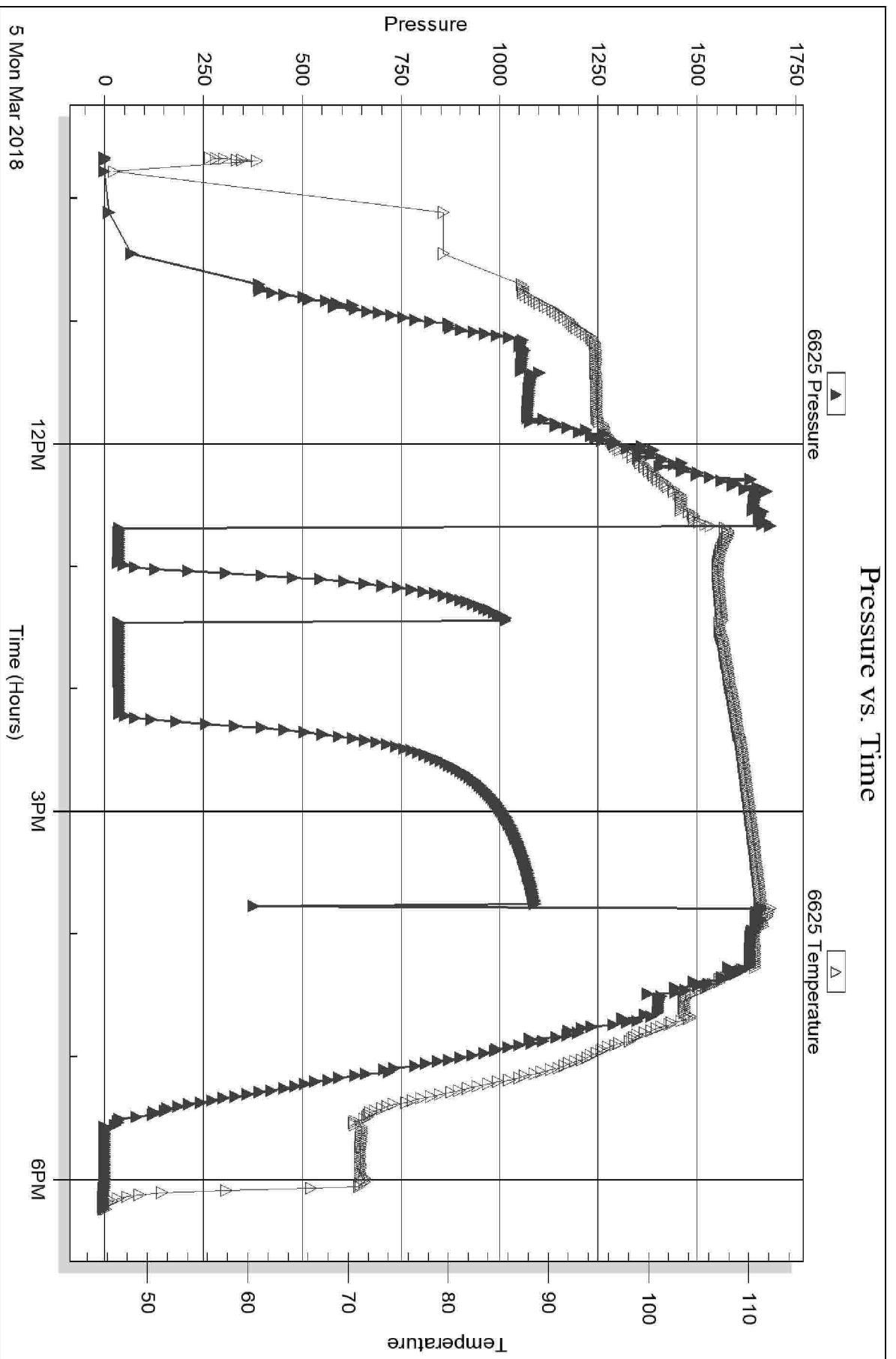
Serial #: 6625

Inside

Pioneer Oil Co. Inc.

Clark Unit #1-5

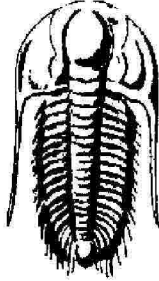
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 63365

Printed: 2018.03.14 @ 10:18:31



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

## DRILL STEM TEST REPORT

Prepared For: **Pioneer Oil Co. Inc.**

400 Main St. PO Box 237  
Vincennes, IN 47501

ATTN: Jim Musgrove

### **Clark Unit #1-5**

#### **5-9s-28w Sheridan,KS**

Start Date: 2018.03.06 @ 08:44:00

End Date: 2018.03.06 @ 21:04:45

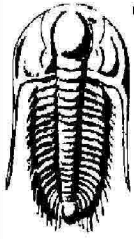
Job Ticket #: 63366                      DST #: 3

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2018.03.14 @ 10:18:07



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Pioneer Oil Co. Inc.  
 400 Main St. PO Box 237  
 Vincennes, IN 47501  
 ATTN: Jim Musgrove

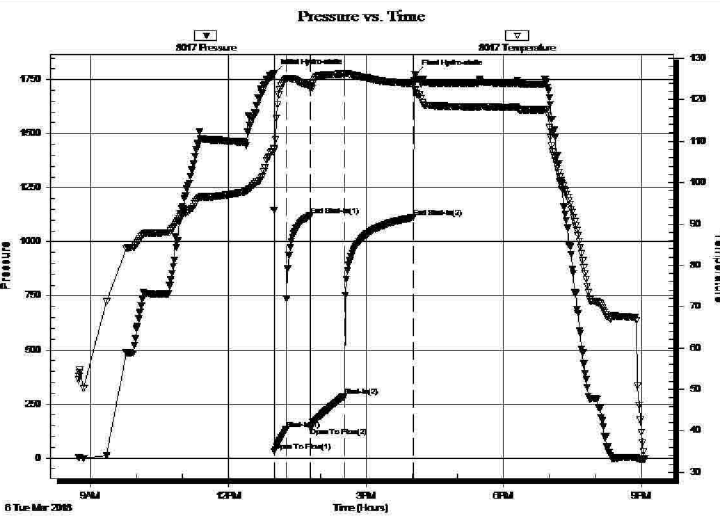
**5-9s-28w Sheridan,KS**  
**Clark Unit #1-5**  
 Job Ticket: 63366 **DST#: 3**  
 Test Start: 2018.03.06 @ 08:44:00

## GENERAL INFORMATION:

Formation: **Plattsmouth**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:00:00  
 Time Test Ended: 21:04:45  
 Interval: **3754.00 ft (KB) To 3772.00 ft (KB) (TVD)**  
 Total Depth: 3772.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 83  
 Reference Elevations: 2738.00 ft (KB)  
 2730.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8017 Outside**  
 Press@RunDepth: 285.42 psig @ 3755.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.03.06 End Date: 2018.03.06 Last Calib.: 2018.03.06  
 Start Time: 08:44:05 End Time: 21:04:45 Time On Btm: 2018.03.06 @ 12:59:30  
 Time Off Btm: 2018.03.06 @ 16:04:00

**TEST COMMENT:** 15 - IF: Blow built to BOB (11") at 9 1/4 min. - Built to 17"  
 30 - IS: Pressure held steady to slight increase  
 45 - FF: Blow built to BOB at 11 min., Built to 36"  
 90 - FS: Pressure held steady



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1779.47	107.90	Initial Hydro-static
1	29.20	107.90	Open To Flow (1)
16	131.21	124.91	Shut-In(1)
48	1121.39	123.27	End Shut-In(1)
48	141.41	122.75	Open To Flow (2)
92	285.42	126.26	Shut-In(2)
183	1112.70	123.85	End Shut-In(2)
185	1775.55	122.53	Final Hydro-static

## Recovery

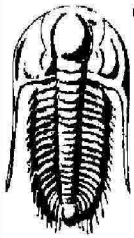
Length (ft)	Description	Volume (bbl)
500.00	SMCW w /trace oil 96%w , 4%m	4.94
90.00	MCW w /trace oil 84%w , 16%m	1.26

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Pioneer Oil Co. Inc.  
400 Main St. PO Box 237  
Vincennes, IN 47501  
ATTN: Jim Musgrove

**5-9s-28w Sheridan, KS**  
**Clark Unit #1-5**  
Job Ticket: 63366 **DST#: 3**  
Test Start: 2018.03.06 @ 08:44:00

## GENERAL INFORMATION:

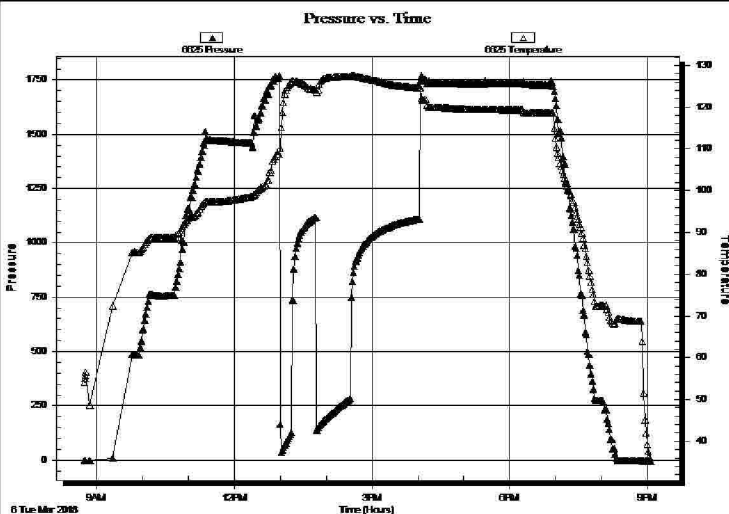
Formation: **Plattsmouth**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 13:00:00  
Time Test Ended: 21:04:45  
Interval: **3754.00 ft (KB) To 3772.00 ft (KB) (TVD)**  
Total Depth: 3772.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 2738.00 ft (KB)  
2730.00 ft (CF)  
KB to GR/CF: 8.00 ft  
Test Type: Conventional Bottom Hole (Reset)  
Tester: James Winder  
Unit No: 83

## Serial #: 6625

Inside

Press@RunDepth: psig @ 3755.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2018.03.06 End Date: 2018.03.06 Last Calib.: 2018.03.06  
Start Time: 08:44:05 End Time: 21:05:00 Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 15 - IF: Blow built to BOB (11") at 9 1/4 min. - Built to 17"  
30 - IS: Pressure held steady to slight increase  
45 - FF: Blow built to BOB at 11 min., Built to 36"  
90 - FS: Pressure held steady



## PRESSURE SUMMARY

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

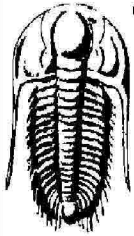
## Recovery

Length (ft)	Description	Volume (bbl)
500.00	SMCW w /trace oil 96%w , 4%m	4.94
90.00	MCW w /trace oil 84%w , 16%m	1.26

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63366

**DST#: 3**

ATTN: Jim Musgrove

Test Start: 2018.03.06 @ 08:44:00

## Tool Information

Drill Pipe:	Length: 3432.00 ft	Diameter: 3.80 inches	Volume: 48.14 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 311.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 50.42 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3754.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

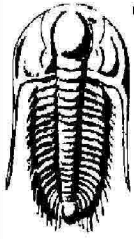
Tool Comments:

## 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			3724.00	
Shut In Tool	5.00			3729.00	
Sampler	2.00			3731.00	
Hydraulic tool	5.00			3736.00	
Jars	5.00			3741.00	
Safety Joint	3.00			3744.00	
Packer	5.00			3749.00	31.00 Bottom Of Top Packer
Packer	5.00			3754.00	
Stubb	1.00			3755.00	
Recorder	0.00	6625	Inside	3755.00	
Recorder	0.00	8017	Outside	3755.00	
Perforations	14.00			3769.00	
Bullnose	3.00			3772.00	18.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63366

**DST#: 3**

ATTN: Jim Musgrove

Test Start: 2018.03.06 @ 08:44:00

## 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:

71000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
500.00	SMCW w /trace oil 96%w , 4%m	4.936
90.00	MCW w /trace oil 84%w , 16%m	1.262

Total Length: 590.00 ft      Total Volume: 6.198 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

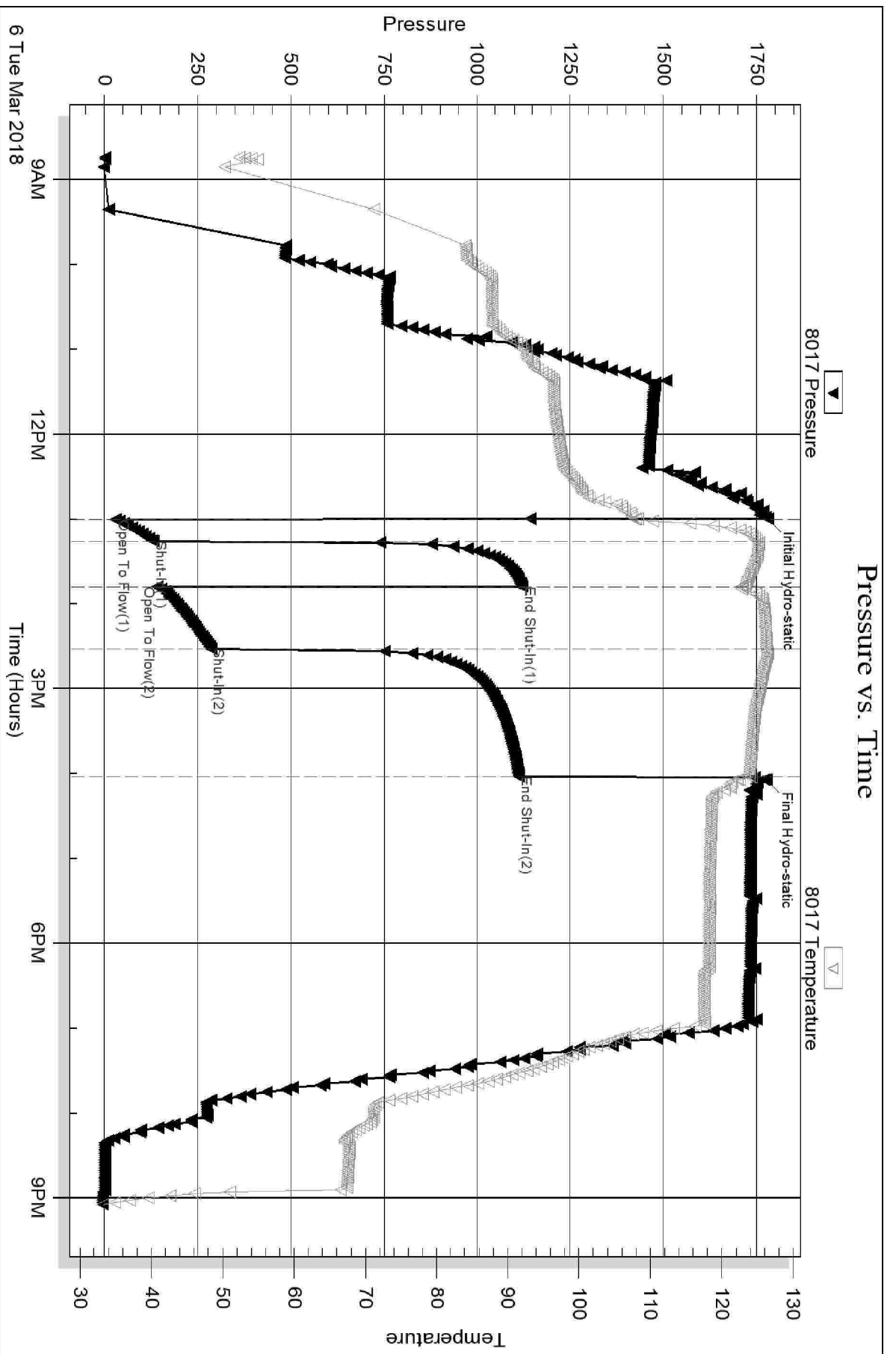
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .238 ohms @ 31.7 deg F Chlorides = 71,000 ppm

Sampler = 270 PSI, 2300 mL Water 99%w , 1%o w /trace of oil RW = .226 @ 33.9 deg F Chlorides = 70,000 ppm



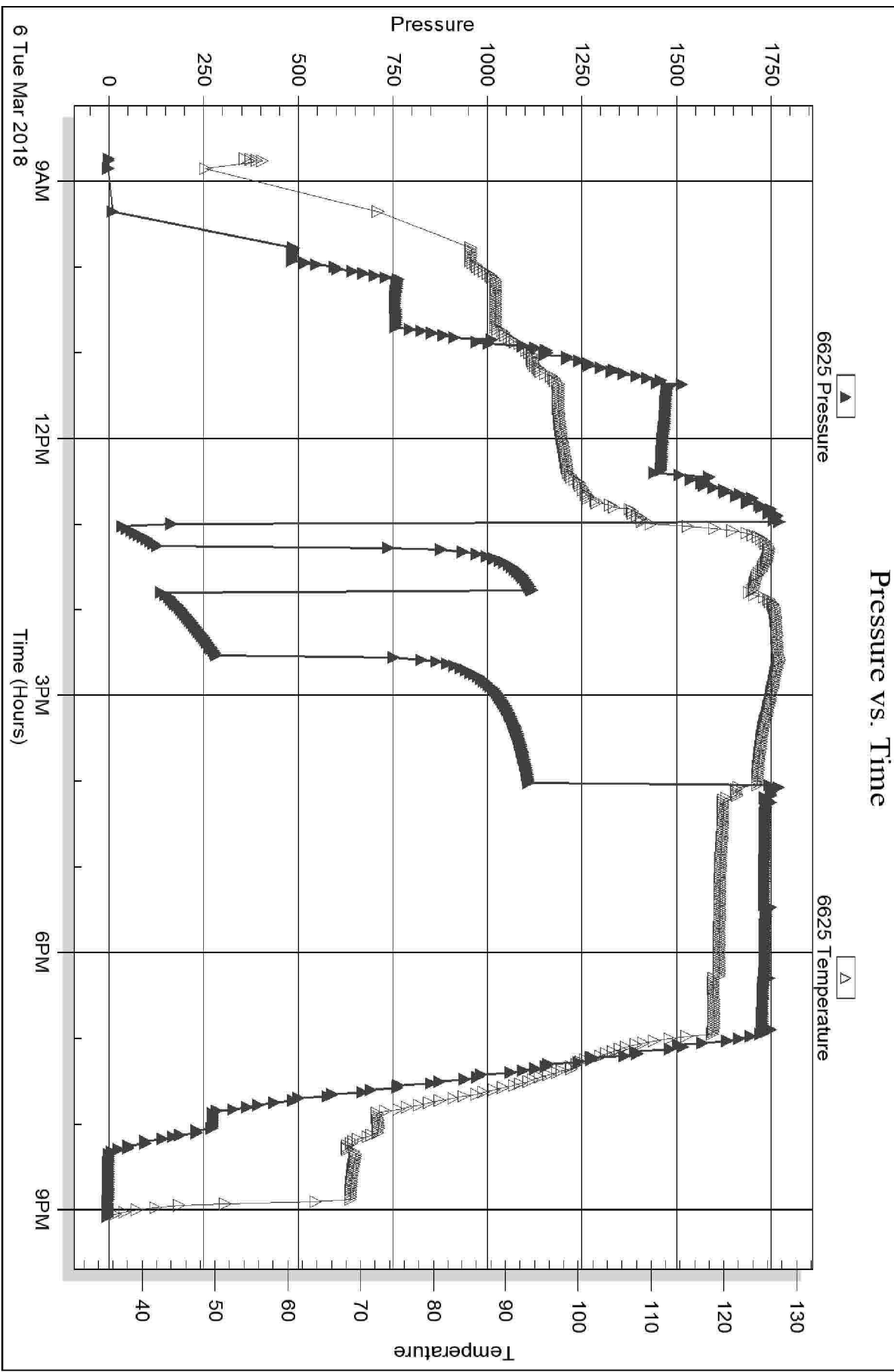
Serial #: 6625

Inside

Pioneer Oil Co. Inc.

Clark Unit #1-5

DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 63366

Printed: 2018.03.14 @ 10:18:08



## DRILL STEM TEST REPORT

Prepared For: **Pioneer Oil Co. Inc.**

400 Main St. PO Box 237  
Vincennes, IN 47501

ATTN: Jim Musgrove

### **Clark Unit #1-5**

#### **5-9s-28w Sheridan,KS**

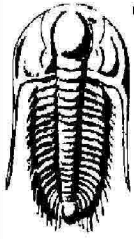
Start Date: 2018.03.07 @ 03:55:00

End Date: 2018.03.07 @ 10:34:45

Job Ticket #: 63367                      DST #: 4

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

Printed: 2018.03.14 @ 10:17:35



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Pioneer Oil Co. Inc.  
 400 Main St. PO Box 237  
 Vincennes, IN 47501  
 ATTN: Jim Musgrove

**5-9s-28w Sheridan, KS**  
**Clark Unit #1-5**  
 Job Ticket: 63367 **DST#: 4**  
 Test Start: 2018.03.07 @ 03:55:00

## GENERAL INFORMATION:

Formation: **Toronto**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:29:00  
 Time Test Ended: 10:34:45  
 Interval: **3810.00 ft (KB) To 3830.00 ft (KB) (TVD)**  
 Total Depth: 3830.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 83  
 Reference Elevations: 2738.00 ft (KB)  
 2730.00 ft (CF)  
 KB to GR/CF: 8.00 ft

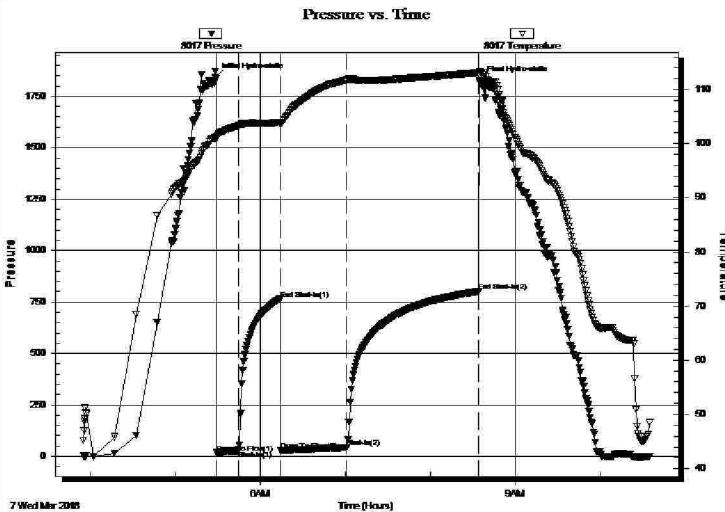
## Serial #: 8017

**Outside**

Press@RunDepth: 43.13 psig @ 3811.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.03.07 End Date: 2018.03.07 Last Calib.: 2018.03.07  
 Start Time: 03:55:05 End Time: 10:34:44 Time On Btm: 2018.03.07 @ 05:28:15  
 Time Off Btm: 2018.03.07 @ 08:35:00

**TEST COMMENT:** 15 - IF: Blow built to 2 1/2"  
 30 - IS: Blow back built to 1/2"  
 45 - FF: Blow built to 2 1/2"  
 90 - FS: Blow back built to about 1/2"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1840.87	101.09	Initial Hydro-static
1	16.43	100.75	Open To Flow (1)
17	26.72	103.26	Shut-In(1)
46	765.10	103.96	End Shut-In(1)
46	27.13	103.55	Open To Flow (2)
93	43.13	111.76	Shut-In(2)
186	801.28	113.12	End Shut-In(2)
187	1828.83	113.27	Final Hydro-static

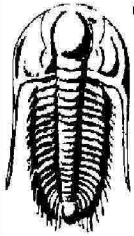
## Recovery

Length (ft)	Description	Volume (bbl)
56.00	MCW w /trace oil 90% m, 10% w	0.41

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Pioneer Oil Co. Inc.  
 400 Main St. PO Box 237  
 Vincennes, IN 47501  
 ATTN: Jim Musgrove

**5-9s-28w Sheridan, KS**  
**Clark Unit #1-5**  
 Job Ticket: 63367 **DST#: 4**  
 Test Start: 2018.03.07 @ 03:55:00

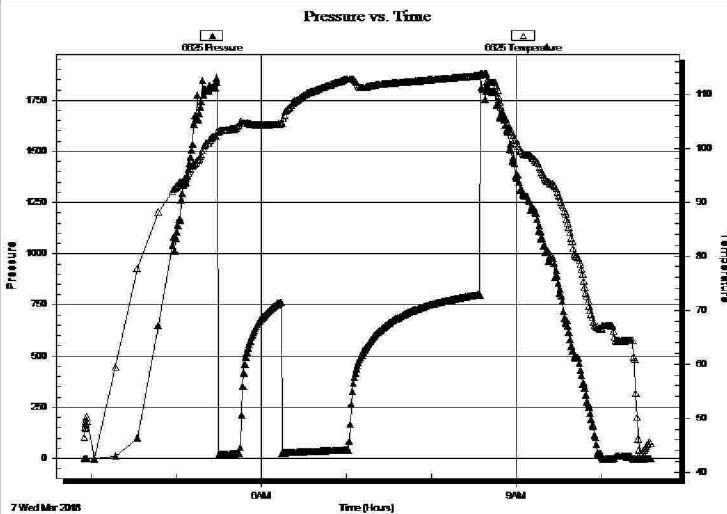
## GENERAL INFORMATION:

Formation: **Toronto**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:29:00  
 Time Test Ended: 10:34:45  
 Interval: **3810.00 ft (KB) To 3830.00 ft (KB) (TVD)**  
 Total Depth: 3830.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 83  
 Reference Elevations: 2738.00 ft (KB)  
 2730.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 6625 Inside

Press@RunDepth: psig @ 3811.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.03.07 End Date: 2018.03.07 Last Calib.: 2018.03.07  
 Start Time: 03:55:05 End Time: 10:35:14 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 15 - IF: Blow built to 2 1/2"  
 30 - ISI: Blow back built to 1/2"  
 45 - FF: Blow built to 2 1/2"  
 90 - FS: Blow back built to about 1/2"



## PRESSURE SUMMARY

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

## Recovery

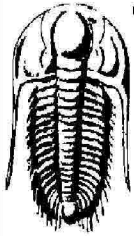
Length (ft)	Description	Volume (bbl)
56.00	MCW w /trace oil 90%m, 10%w	0.41

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63367

**DST#: 4**

ATTN: Jim Musgrove

Test Start: 2018.03.07 @ 03:55:00

## Tool Information

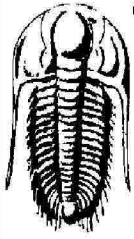
Drill Pipe:	Length: 3497.00 ft	Diameter: 3.80 inches	Volume: 49.05 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 311.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 51.33 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 57000.00 lb
Depth to Top Packer:	3810.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	20.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments: had a hammer union come loose after turning tool for final shut in

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3780.00	
Shut In Tool	5.00			3785.00	
Sampler	2.00			3787.00	
Hydraulic tool	5.00			3792.00	
Jars	5.00			3797.00	
Safety Joint	3.00			3800.00	
Packer	5.00			3805.00	31.00 Bottom Of Top Packer
Packer	5.00			3810.00	
Stubb	1.00			3811.00	
Recorder	0.00	6625	Inside	3811.00	
Recorder	0.00	8017	Outside	3811.00	
Perforations	16.00			3827.00	
Bullnose	3.00			3830.00	20.00 Bottom Packers & Anchor

**Total Tool Length: 51.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63367

**DST#: 4**

ATTN: Jim Musgrove

Test Start: 2018.03.07 @ 03:55:00

## 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:

40000 ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
56.00	MCW w /trace oil 90%m, 10%w	0.411

Total Length: 56.00 ft      Total Volume: 0.411 bbl

Num Fluid Samples: 0

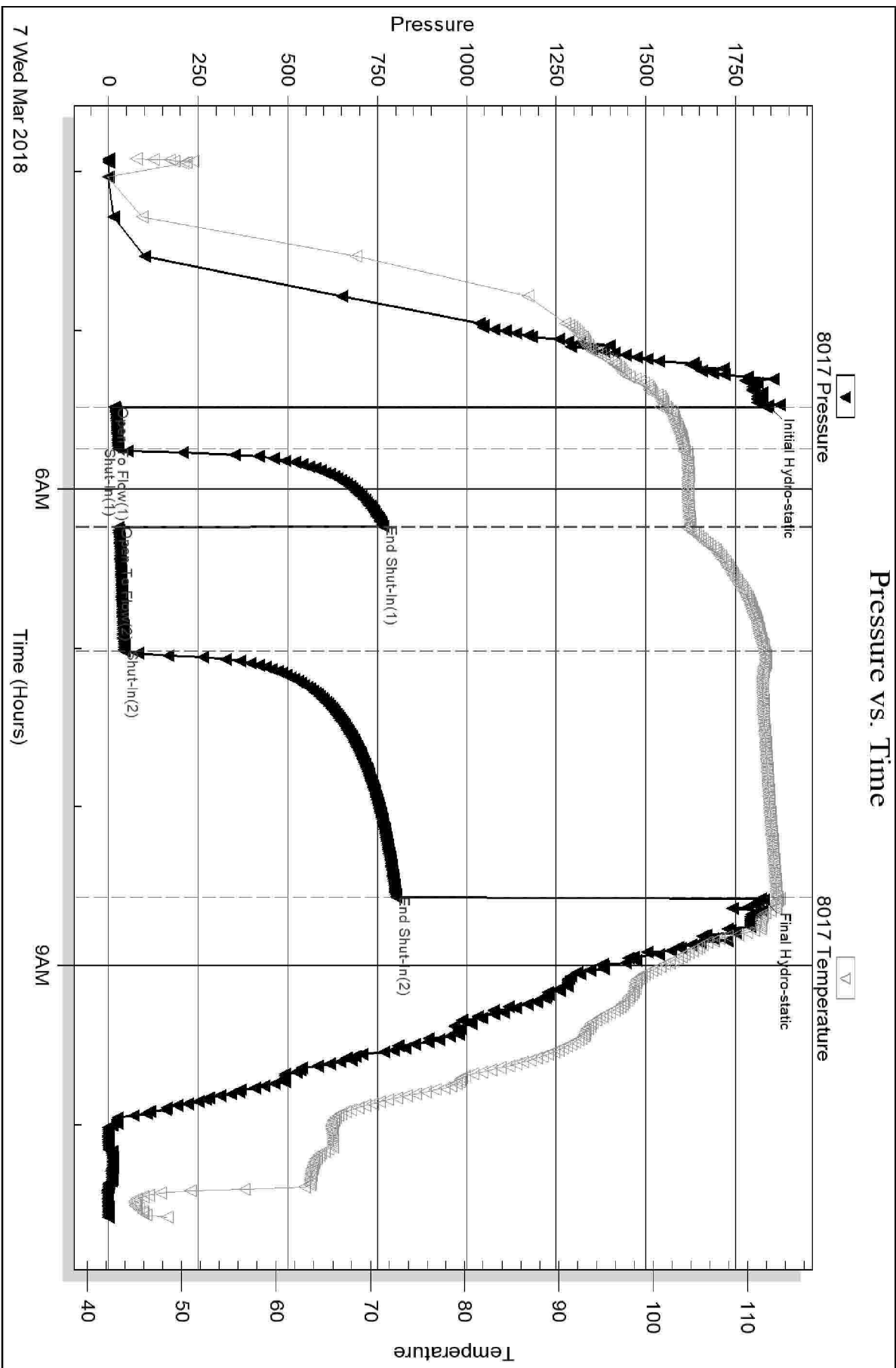
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler = 185 PSI, 1500 mL Water 96%w , 4%m, 800 mL MCW w /trace oil 75%w , 25%m RW = .325 ohms @ 39.5 deg F Chlorides = 40000



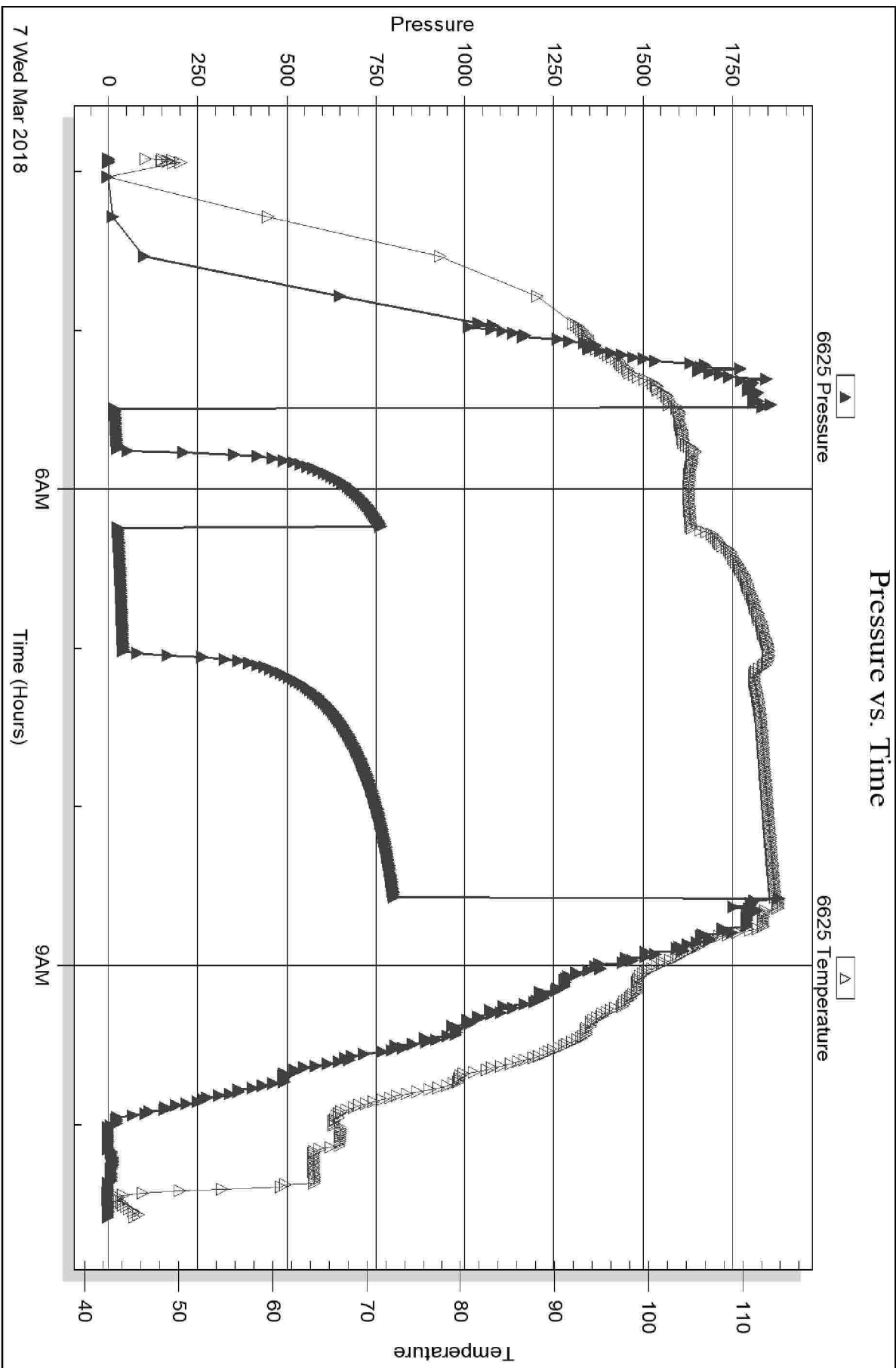
Serial #: 6625

Inside

Pioneer Oil Co. Inc.

Clark Unit #1-5

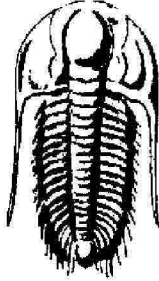
DST Test Number: 4



Triobite Testing, Inc

Ref. No: 63367

Printed: 2018.03.14 @ 10:17:36



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

## DRILL STEM TEST REPORT

Prepared For: **Pioneer Oil Co. Inc.**

400 Main St. PO Box 237  
Vincennes, IN 47501

ATTN: Jim Musgrove

### **Clark Unit #1-5**

### **5-9s-28w Sheridan,KS**

Start Date: 2018.03.07 @ 17:26:00

End Date: 2018.03.08 @ 00:46:00

Job Ticket #: 63368                      DST #: 5

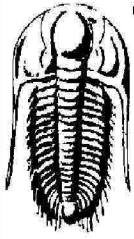
Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2018.03.14 @ 10:17:00

Pioneer Oil Co. Inc.  
5-9s-28w Sheridan,KS  
Clark Unit #1-5  
DST # 5  
LKC "A"  
2018.03.07



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Pioneer Oil Co. Inc.  
 400 Main St. PO Box 237  
 Vincennes, IN 47501  
 ATTN: Jim Musgrove

**5-9s-28w Sheridan, KS**  
**Clark Unit #1-5**  
 Job Ticket: 63368 **DST#: 5**  
 Test Start: 2018.03.07 @ 17:26:00

## GENERAL INFORMATION:

Formation: **LKC "A"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:28:30  
 Time Test Ended: 00:46:00  
 Interval: **3832.00 ft (KB) To 3845.00 ft (KB) (TVD)**  
 Total Depth: 3845.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: James Winder  
 Unit No: 83  
 Reference Elevations: 2738.00 ft (KB)  
 2730.00 ft (CF)  
 KB to GR/CF: 8.00 ft

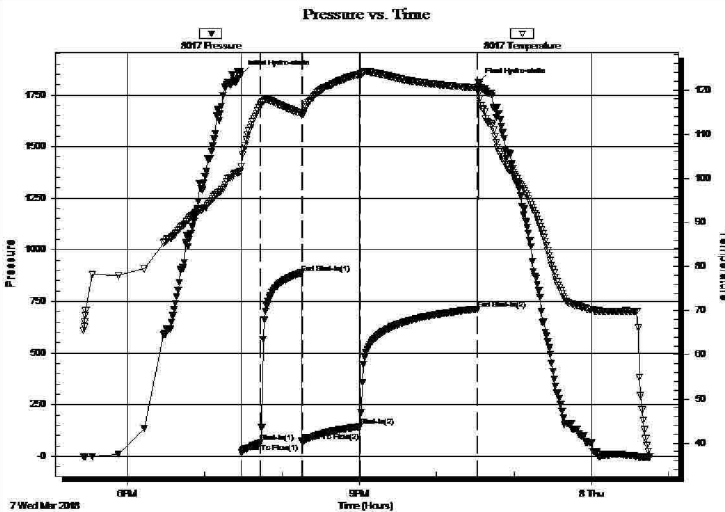
## Serial #: 8017

**Outside**

Press@RunDepth: 143.79 psig @ 3833.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2018.03.07 End Date: 2018.03.08 Last Calib.: 2018.03.08  
 Start Time: 17:26:05 End Time: 00:45:59 Time On Btm: 2018.03.07 @ 19:28:15  
 Time Off Btm: 2018.03.07 @ 22:32:45

**TEST COMMENT:** 15 - IF: Blow built to BOB (11") at 7 min. (Blow built to 21 1/2")  
 30 - IS: Blow back built to 4"  
 45 - FF: Blow built to BOB at 10 min. (Blow built to 38")  
 90 - FS: Blow back built to 6 1/2"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1850.39	102.75	Initial Hydro-static
1	20.67	102.82	Open To Flow (1)
16	67.15	116.68	Shut-In(1)
47	887.87	114.79	End Shut-In(1)
48	72.61	114.48	Open To Flow (2)
93	143.79	123.58	Shut-In(2)
183	713.21	120.54	End Shut-In(2)
185	1808.78	119.38	Final Hydro-static

## Recovery

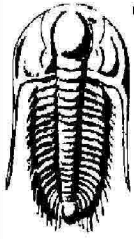
Length (ft)	Description	Volume (bbl)
40.00	GOCM 52% m, 28% o, 20% g	0.29
310.00	CGO 86% o, 13% g, 1% m	2.54
0.00	GIP = 410'	0.00

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63368

**DST#: 5**

ATTN: Jim Musgrove

Test Start: 2018.03.07 @ 17:26:00

### Tool Information

Drill Pipe:	Length: 3497.00 ft	Diameter: 3.80 inches	Volume: 49.05 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 311.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 51.33 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3832.00 ft			Final 57000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	44.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

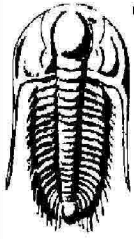
Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Change Over Sub	1.00			3802.00	
Shut In Tool	5.00			3807.00	
Sampler	2.00			3809.00	
Hydraulic tool	5.00			3814.00	
Jars	5.00			3819.00	
Safety Joint	3.00			3822.00	
Packer	5.00			3827.00	31.00 Bottom Of Top Packer
Packer	5.00			3832.00	
Stubb	1.00			3833.00	
Recorder	0.00	6625	Inside	3833.00	
Recorder	0.00	8017	Outside	3833.00	
Perforations	9.00			3842.00	
Bullnose	3.00			3845.00	13.00 Bottom Packers & Anchor

**Total Tool Length: 44.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63368

**DST#: 5**

ATTN: Jim Musgrove

Test Start: 2018.03.07 @ 17:26:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 47.00 sec/qt  
Water Loss: 7.18 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 500.00 ppm  
Filter Cake: 1.00 inches

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

Oil API: 35.8 deg API  
Water Salinity: ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	GOCM 52% <i>m</i> , 28% <i>o</i> , 20% <i>g</i>	0.294
310.00	CGO 86% <i>o</i> , 13% <i>g</i> , 1% <i>m</i>	2.538
0.00	GIP = 410'	0.000

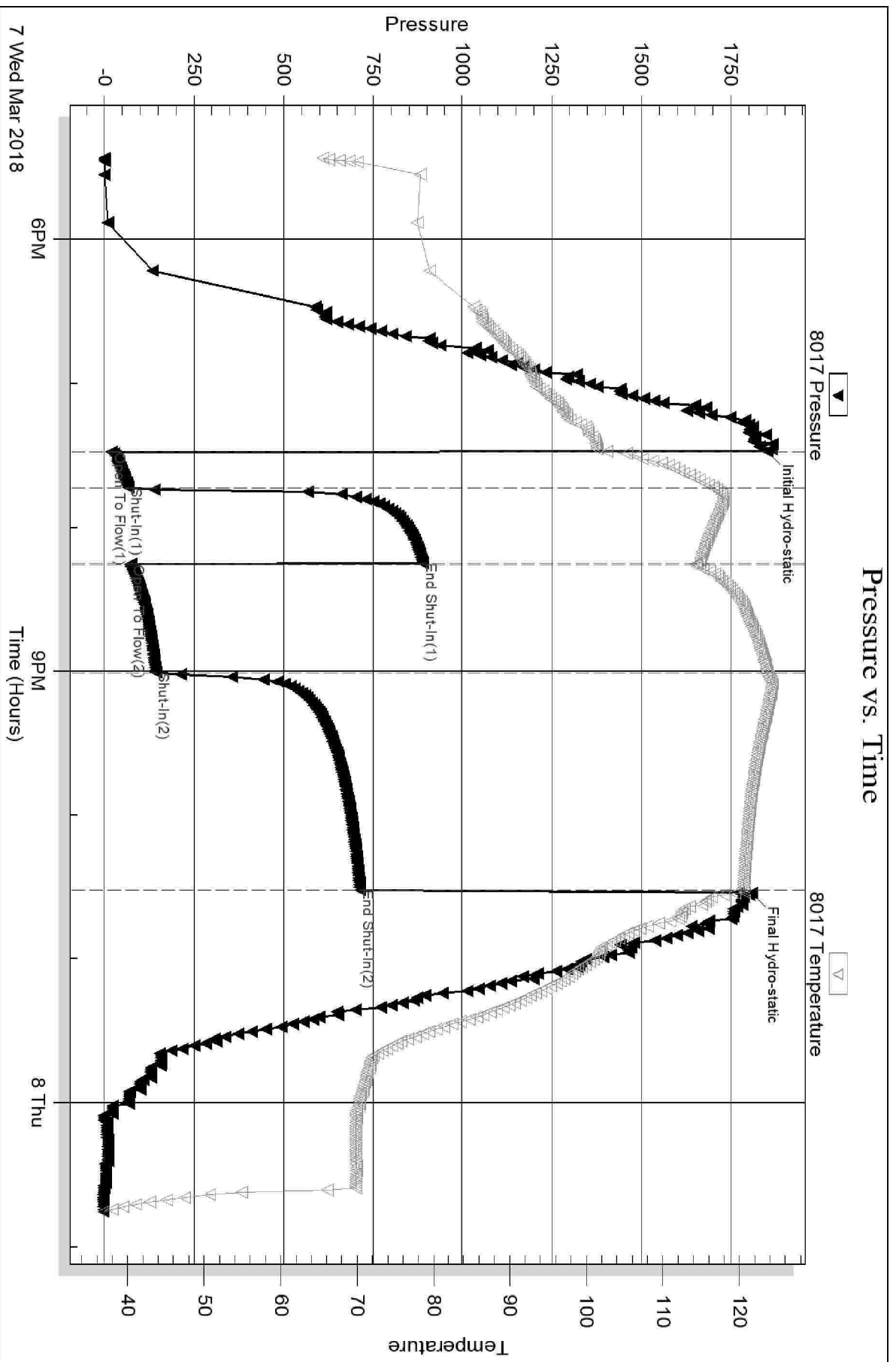
Total Length: 350.00 ft      Total Volume: 2.832 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments: Gravity = 32.6 api @ 28 deg F    Corrected Gravity = 35.8 api  
Sampler = 300 PSI, 2200 mL CO 99%*o*, 1%*m*

# Pressure vs. Time



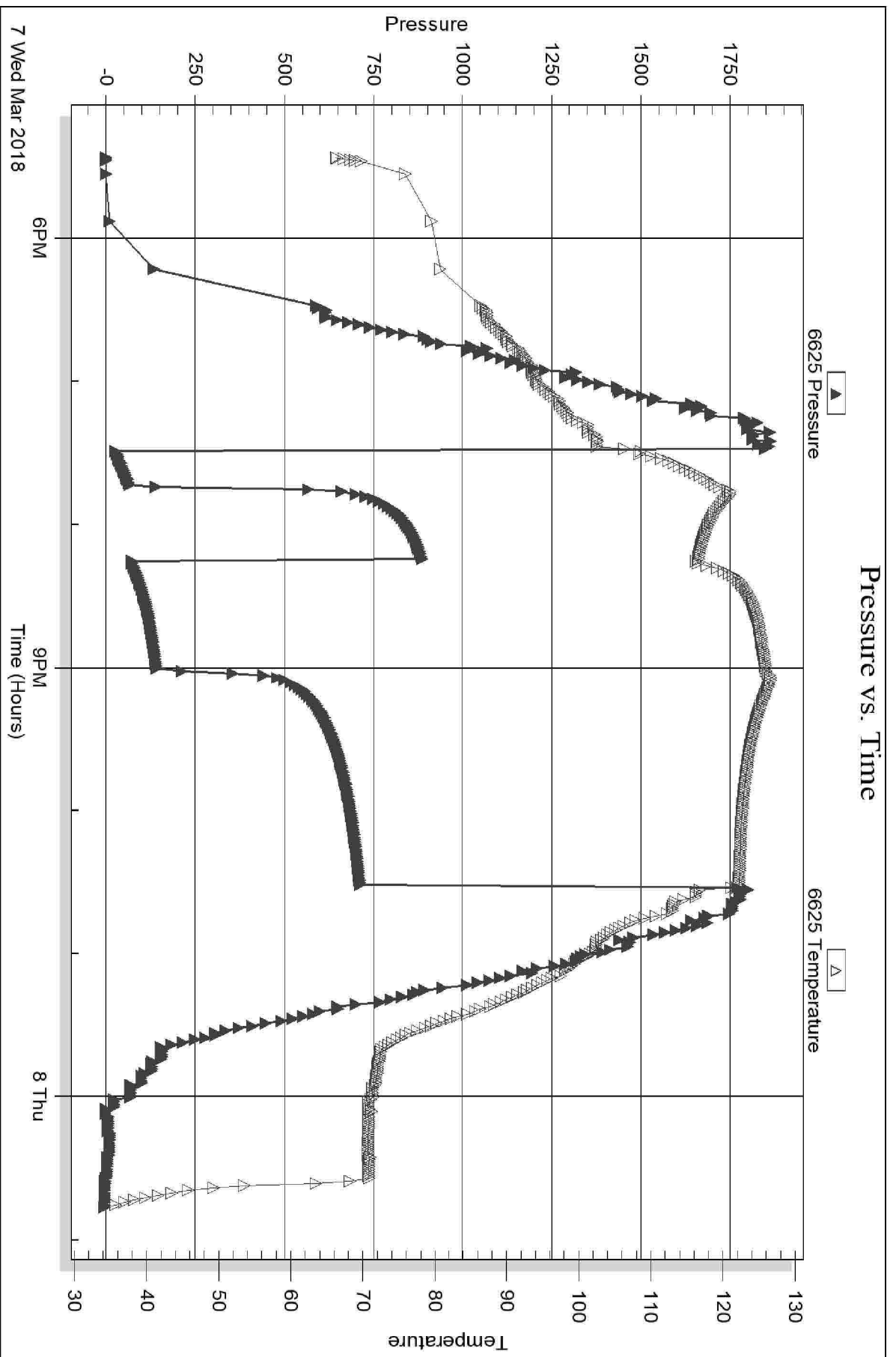
Serial #: 6625

Inside

Pioneer Oil Co. Inc.

Clark Unit #1-5

DST Test Number: 5



Trilobite Testing, Inc

Ref. No: 63368

Printed: 2018.03.14 @ 10:17:02



## DRILL STEM TEST REPORT

Prepared For: **Pioneer Oil Co. Inc.**

400 Main St. PO Box 237  
Vincennes, IN 47501

ATTN: Jim Musgrove

### **Clark Unit #1-5**

#### **5-9s-28w Sheridan,KS**

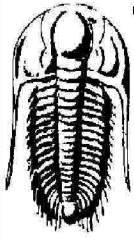
Start Date: 2018.03.08 @ 09:28:00

End Date: 2018.03.08 @ 16:48:00

Job Ticket #: 63369                      DST #: 6

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

Printed: 2018.03.14 @ 10:16:24



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Pioneer Oil Co. Inc.  
400 Main St. PO Box 237  
Vincennes, IN 47501  
ATTN: Jim Musgrove

**5-9s-28w Sheridan, KS**  
**Clark Unit #1-5**  
Job Ticket: 63369 **DST#: 6**  
Test Start: 2018.03.08 @ 09:28:00

## GENERAL INFORMATION:

Formation: **LKC "C"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 11:23:15  
Time Test Ended: 16:48:00  
Interval: **3861.00 ft (KB) To 3879.00 ft (KB) (TVD)**  
Total Depth: 3879.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 2738.00 ft (KB)  
2730.00 ft (CF)  
KB to GR/CF: 8.00 ft  
Test Type: Conventional Bottom Hole (Reset)  
Tester: James Winder  
Unit No: 83

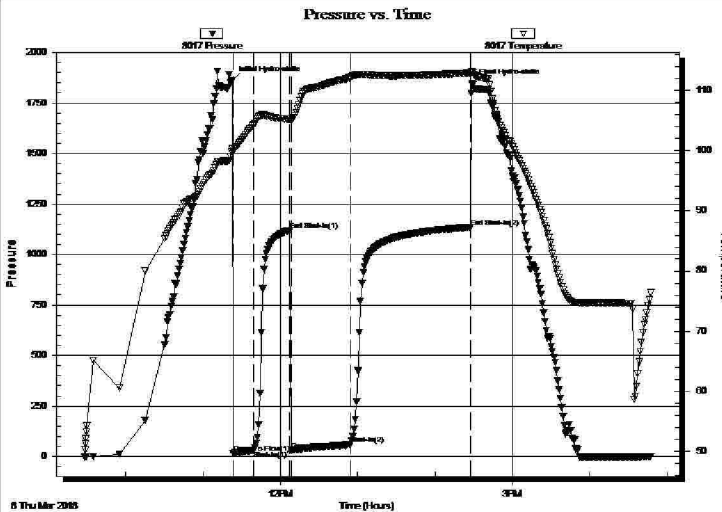
## Serial #: 8017

## Outside

Press@RunDepth: 59.13 psig @ 3862.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2018.03.08 End Date: 2018.03.08 Last Calib.: 2018.03.08  
Start Time: 09:28:05 End Time: 16:47:59 Time On Btm: 2018.03.08 @ 11:23:00  
Time Off Btm: 2018.03.08 @ 14:28:45

**TEST COMMENT:** 15 - IF: Blow built to 3 3/4"  
30 - ISI: Blow back built to 1/2"  
45 - FF: Blow built to 11 3/4"  
90 - FS: Blow back built to 1 1/4"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1860.39	100.37	Initial Hydro-static
1	17.27	99.88	Open To Flow (1)
16	30.37	104.29	Shut-In(1)
45	1120.68	105.31	End Shut-In(1)
46	33.12	105.01	Open To Flow (2)
91	59.13	112.17	Shut-In(2)
185	1135.02	112.96	End Shut-In(2)
186	1845.37	113.22	Final Hydro-static

## Recovery

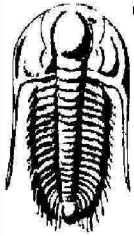
Length (ft)	Description	Volume (bbl)
60.00	OM 55% m, 40% o, 5% g	0.44
40.00	SMCO 90% o, 8% m, 2% g	0.29
0.00	GIP = 100'	0.00

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63369

**DST#: 6**

ATTN: Jim Musgrove

Test Start: 2018.03.08 @ 09:28:00

### Tool Information

Drill Pipe:	Length: 3528.00 ft	Diameter: 3.80 inches	Volume: 49.49 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 311.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 51.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 56000.00 lb
Depth to Top Packer:	3861.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

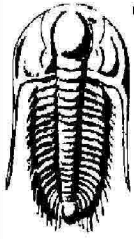
Tool Comments:

### Tool Description

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

Change Over Sub	1.00			3831.00	
Shut In Tool	5.00			3836.00	
Sampler	2.00			3838.00	
Hydraulic tool	5.00			3843.00	
Jars	5.00			3848.00	
Safety Joint	3.00			3851.00	
Packer	5.00			3856.00	31.00 Bottom Of Top Packer
Packer	5.00			3861.00	
Stubb	1.00			3862.00	
Recorder	0.00	6625	Inside	3862.00	
Recorder	0.00	8017	Outside	3862.00	
Perforations	14.00			3876.00	
Bullnose	3.00			3879.00	18.00 Bottom Packers & Anchor

**Total Tool Length: 49.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63369

**DST#: 6**

ATTN: Jim Musgrove

Test Start: 2018.03.08 @ 09:28:00

## Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 52.00 sec/qt  
Water Loss: 6.39 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 500.00 ppm  
Filter Cake: 1.00 inches

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

Oil API: 32.4 deg API  
Water Salinity: 29000 ppm

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OM 55% <i>m</i> , 40% <i>o</i> , 5% <i>g</i>	0.441
40.00	SMCO 90% <i>o</i> , 8% <i>m</i> , 2% <i>g</i>	0.294
0.00	GIP = 100'	0.000

Total Length: 100.00 ft      Total Volume: 0.735 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

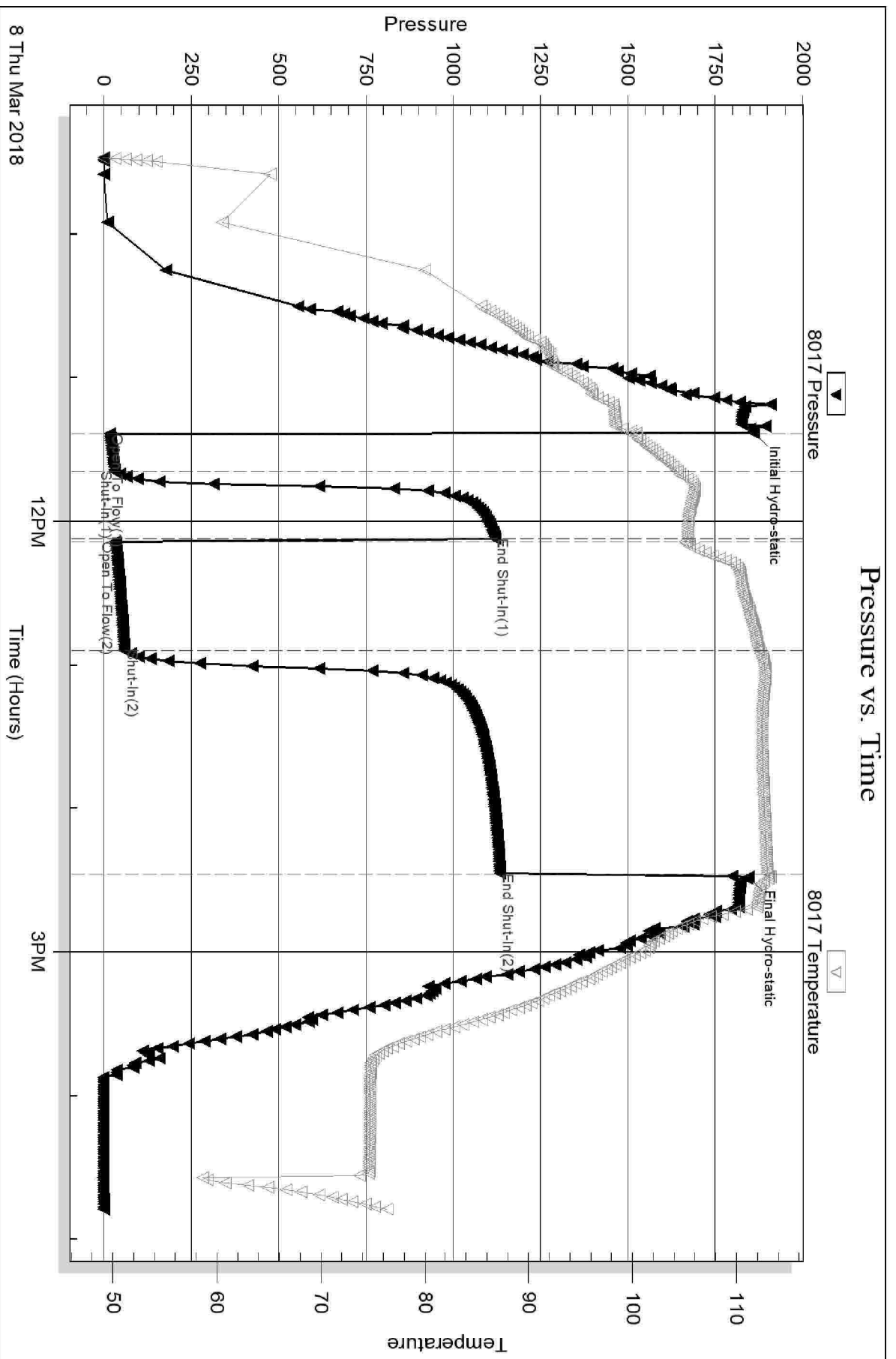
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 34 api @ 76 deg F Corrected Gravity = 32.4 api

Sampler = 320 PSI, 1100 mL Oil 97%*o*, 3%*m*, 1000 mL OWM 38%*m*, 37%*w*, 22%*o*, 3%*g*      RW =  
.242 ohms @ 73.4 deg F Chlorides = 29,000 ppm





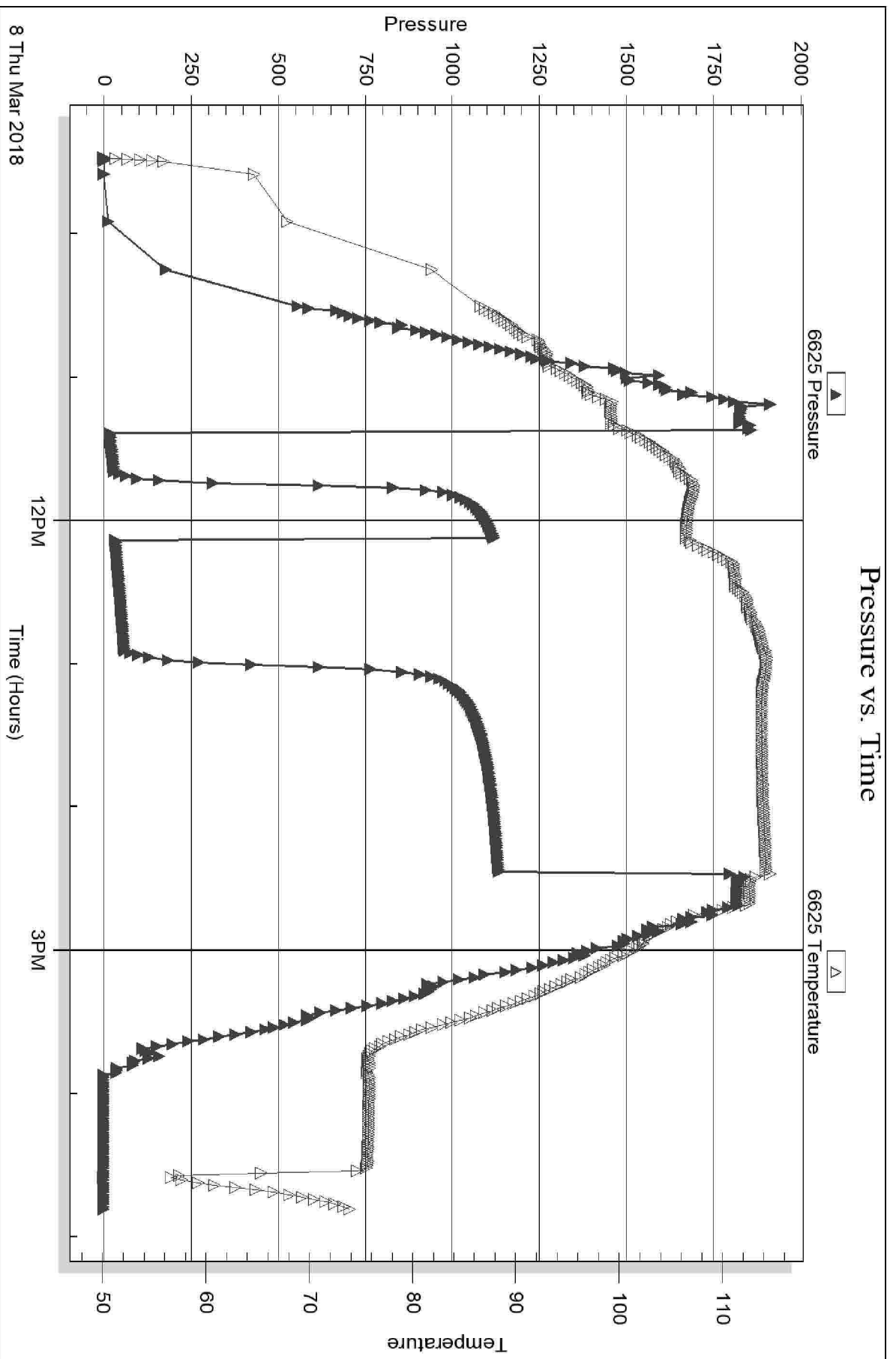
Serial #: 6625

Inside

Pioneer Oil Co. Inc.

Clark Unit #1-5

DST Test Number: 6



Trilobite Testing, Inc

Ref. No: 63369

Printed: 2018.03.14 @ 10:16:25



## DRILL STEM TEST REPORT

Prepared For: **Pioneer Oil Co. Inc.**

400 Main St. PO Box 237  
Vincennes, IN 47501

ATTN: Jim Musgrove

### **Clark Unit #1-5**

#### **5-9s-28w Sheridan,KS**

Start Date: 2018.03.11 @ 17:40:00

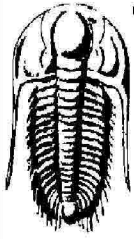
End Date: 2018.03.12 @ 02:10:00

Job Ticket #: 63370                      DST #: 7

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

Printed: 2018.03.14 @ 10:14:12

Pioneer Oil Co. Inc.  
5-9s-28w Sheridan,KS  
Clark Unit #1-5  
DST # 7  
LKC "D"  
2018.03.11



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Pioneer Oil Co. Inc.  
400 Main St. PO Box 237  
Vincennes, IN 47501  
ATTN: Jim Musgrove

**5-9s-28w Sheridan, KS**  
**Clark Unit #1-5**  
Job Ticket: 63370 **DST#: 7**  
Test Start: 2018.03.11 @ 17:40:00

## GENERAL INFORMATION:

Formation: **LKC "D"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 20:28:00  
Time Test Ended: 02:10:00  
Interval: **3854.00 ft (KB) To 3890.00 ft (KB) (TVD)**  
Total Depth: 4578.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Straddle (Reset)  
Tester: James Winder  
Unit No: 83  
Reference Elevations: 2738.00 ft (KB)  
2730.00 ft (CF)  
KB to GR/CF: 8.00 ft

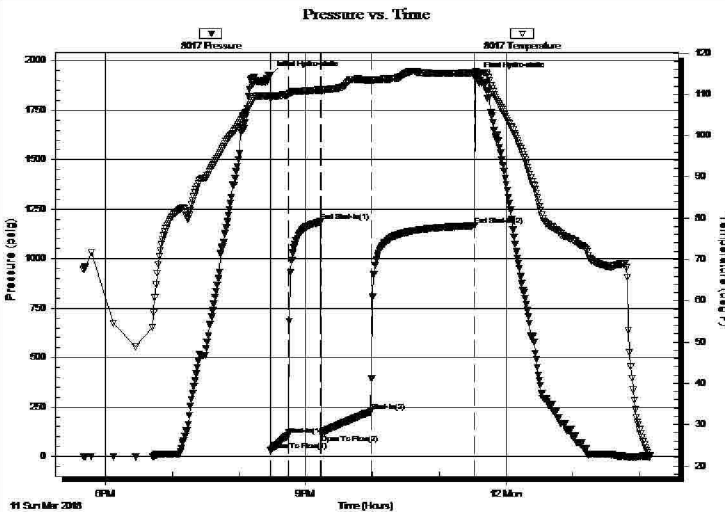
## Serial #: 8017

**Outside**

Press@RunDepth: 226.69 psig @ 3855.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2018.03.11 End Date: 2018.03.12 Last Calib.: 2018.03.12  
Start Time: 17:40:05 End Time: 02:09:59 Time On Btm: 2018.03.11 @ 20:27:45  
Time Off Btm: 2018.03.11 @ 23:34:30

**TEST COMMENT:** 15 - IF: Blow built to BOB (11") at 6 1/4 min., Blow built to 28 1/2"  
30 - IS: Blow back built to 5 1/2"  
45 - FF: Blow built to BOB at 8 min., Blow built to 73"  
90 - FS: Blow back built to 9 1/2"

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1927.78	109.72	Initial Hydro-static
1	28.42	108.90	Open To Flow (1)
17	106.23	109.89	Shut-In(1)
46	1186.88	111.10	End Shut-In(1)
47	114.37	110.81	Open To Flow (2)
91	226.69	113.33	Shut-In(2)
185	1166.99	115.25	End Shut-In(2)
187	1923.60	114.64	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
125.00	GOWCM 49% <i>m</i> , 20% <i>w</i> , 20% <i>g</i> , 11% <i>o</i>	0.92
10.00	SW/GOM 34% <i>m</i> , 32% <i>o</i> , 27% <i>g</i> , 7% <i>w</i>	0.07
415.00	CGO 88% <i>o</i> , 12% <i>g</i>	4.65
0.00	GIP = 640'	0.00

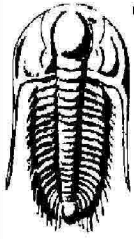
\* Recovery from multiple tests

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63370

**DST#: 7**

ATTN: Jim Musgrove

Test Start: 2018.03.11 @ 17:40:00

**Tool Information**

Drill Pipe:	Length: 3538.00 ft	Diameter: 3.80 inches	Volume: 49.63 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 311.00 ft	Diameter: 2.75 inches	Volume: 2.28 bbl	Weight set on Packer: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 82000.00 lb
			<u>Total Volume: 51.91 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	18.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3854.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	3890.00 ft			
Interval between Packers:	36.00 ft			
Tool Length:	747.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

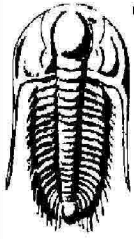
Tool Comments:

**Tool Description**

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

Change Over Sub	1.00			3832.00	
Shut In Tool	5.00			3837.00	
Sampler	2.00			3839.00	
Hydraulic tool	5.00			3844.00	
Packer	5.00			3849.00	23.00 Bottom Of Top Packer
Packer	5.00			3854.00	
Stubb	1.00			3855.00	
Recorder	0.00	6625	Inside	3855.00	
Recorder	0.00	8017	Outside	3855.00	
Perforations	30.00			3885.00	
Blank Off Sub	1.00			3886.00	
Blank spacing	4.00			3890.00	36.00 Tool Interval
Packer	0.00			3890.00	
Packer - Shale	0.00			3890.00	
Stubb	1.00			3891.00	
Recorder	0.00	8652	Below	3891.00	
Perforations	14.00			3905.00	
Drill Pipe	670.00			4575.00	
Bullnose	3.00			4578.00	688.00 Bottom Packers & Anchor

**Total Tool Length: 747.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Pioneer Oil Co. Inc.

**5-9s-28w Sheridan,KS**

400 Main St. PO Box 237  
Vincennes, IN 47501

**Clark Unit #1-5**

Job Ticket: 63370

**DST#: 7**

ATTN: Jim Musgrove

Test Start: 2018.03.11 @ 17:40:00

## 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: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
125.00	GOWCM 49% <i>m</i> , 20% <i>w</i> , 20% <i>g</i> , 11% <i>o</i>	0.918
10.00	SW/GOM 34% <i>m</i> , 32% <i>o</i> , 27% <i>g</i> , 7% <i>w</i>	0.073
415.00	CGO 88% <i>o</i> , 12% <i>g</i>	4.646
0.00	GIP = 640'	0.000

Total Length: 550.00 ft      Total Volume: 5.637 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

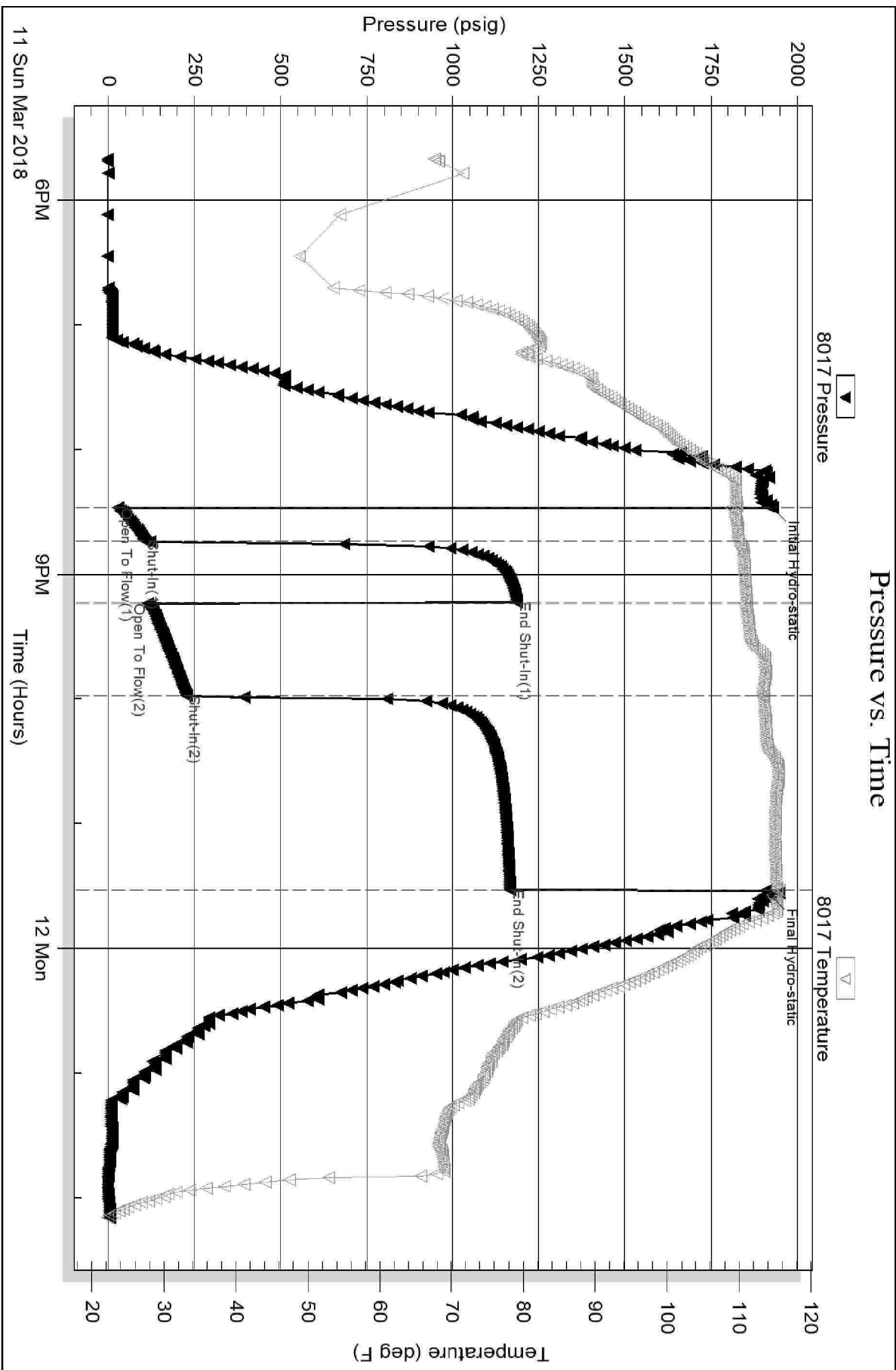
Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 32.8 api @ 22 deg F Corrected Gravity = 36.6 api

Sampler = 370 PSI, 1100 mL CO 99%*o*, 1%*m*, 300 mL SWMCO 92%*o*, 6%*m*, 2%*w*      Unable to check chlorides





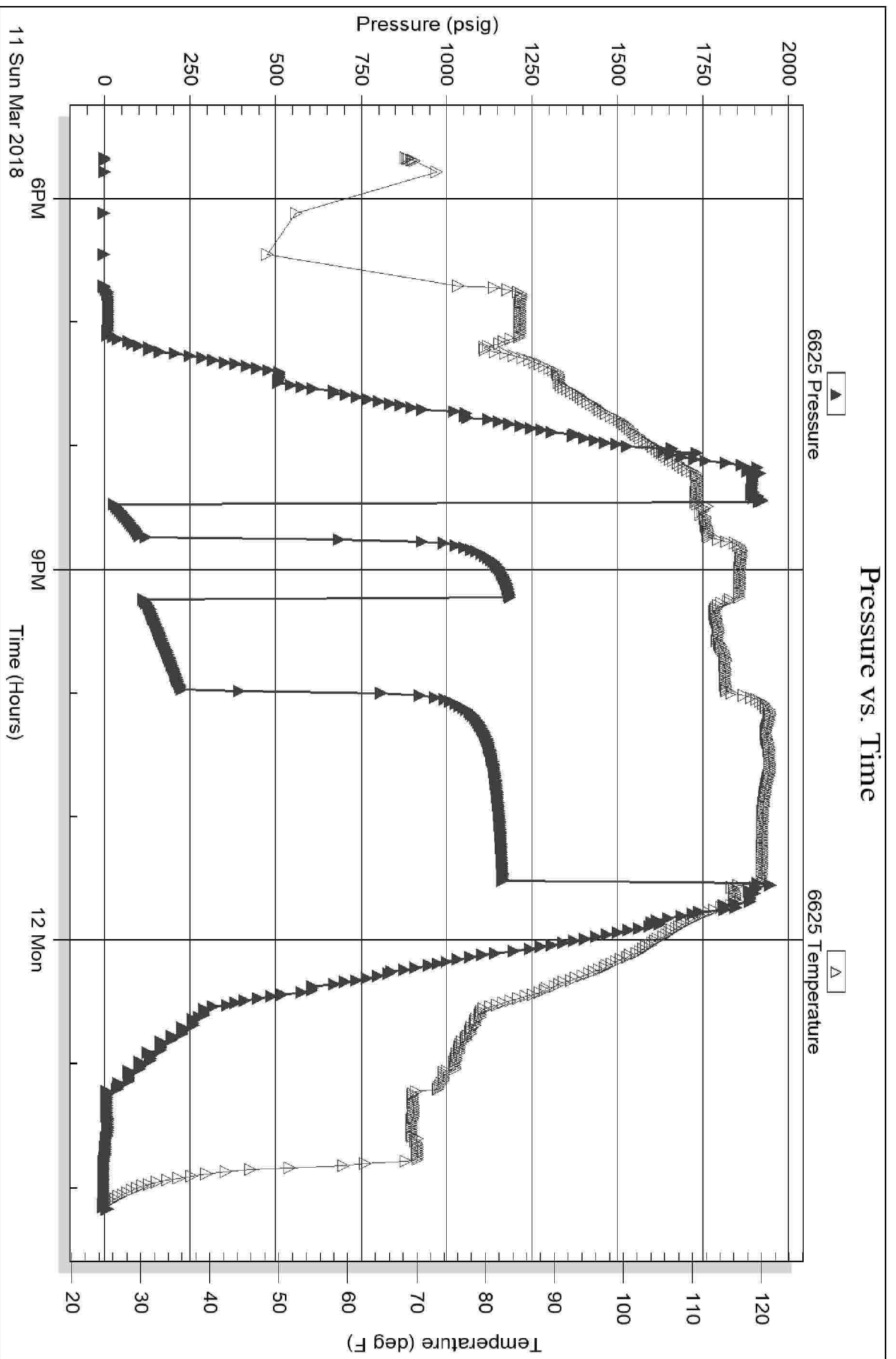
Serial #: 6625

Inside

Pioneer Oil Co. Inc.

Clark Unit #1-5

DST Test Number: 7



Trilobite Testing, Inc

Ref. No: 63370

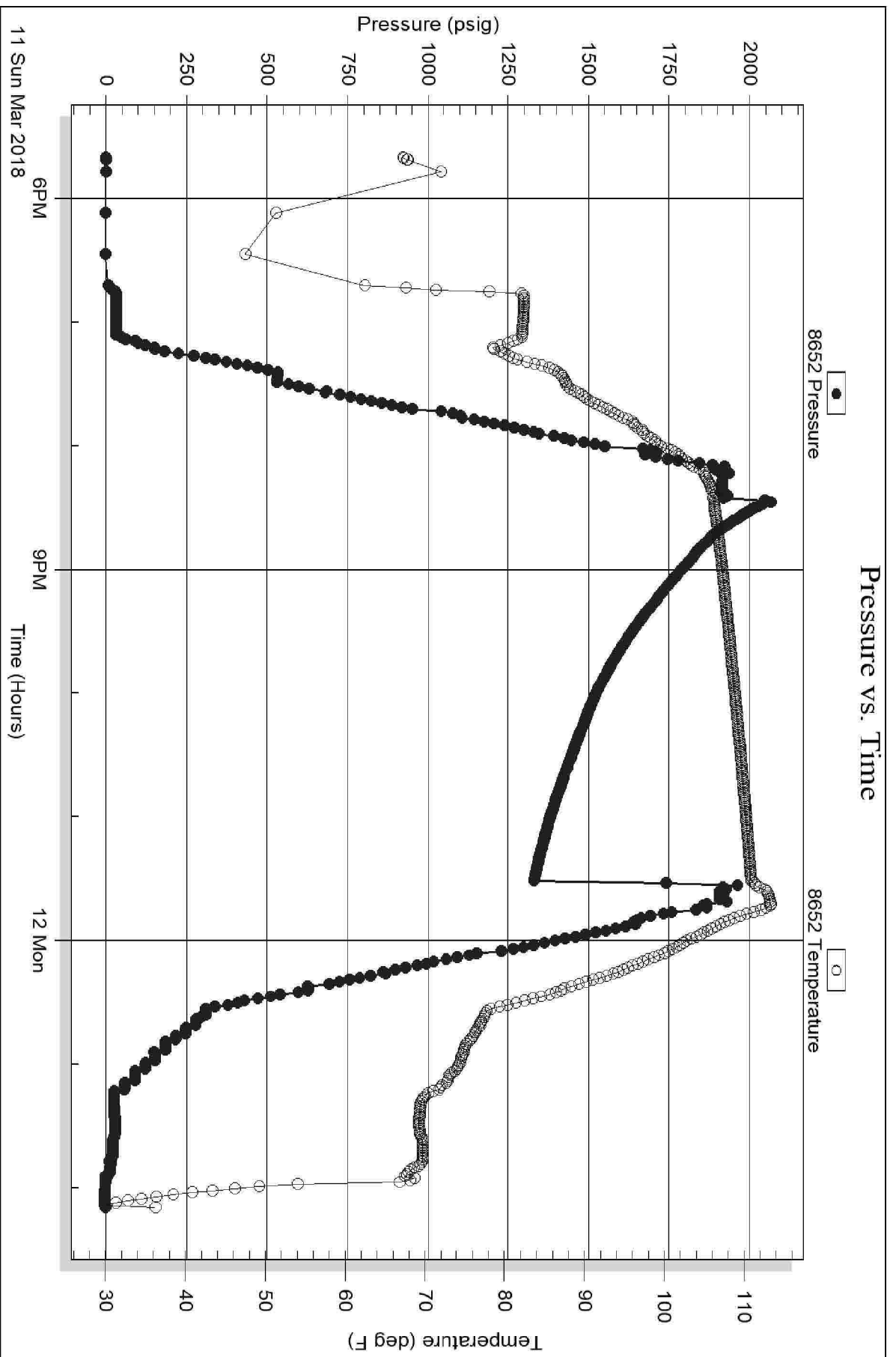
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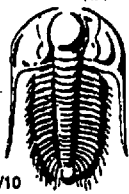
Serial #: 8652

Below (Stratton) Oil Co. Inc.

Clark Unit #1-5

DST Test Number: 7





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63364

Well Name & No. Clark Unit #1-5 Test No. 1 Date 3-4-18  
 Company Pioneer Oil Co Inc Elevation 2738 KB 2730 GL  
 Address 400 Main St PO Box 237 Vincennes IN 47501  
 Co. Rep / Geo. Jim Musgrove Rig Discovery #1  
 Location: Sec. 5 Twp. 9s Rge. 28w Co. Sheridan State KS

Interval Tested 3464 - 3512 Zone Tested Elmont  
 Anchor Length 48 Drill Pipe Run 3147 Mud Wt. 8.7  
 Top Packer Depth 3459 Drill Collars Run - Vis 55  
 Bottom Packer Depth 3464 Wt. Pipe Run 311 WL 7.6  
 Total Depth 3512 Chlorides 750 ppm System LCM 2 1/2

Blow Description IF: 3/4" Blow at open, built to 4 1/4"  
ISI: No blowback (Blow stayed at 4 1/4")  
FF: Blow built to 7"  
FSI: No blowback (Blow slowly decreased)

Rec	Feet of	%gas	%oil	%water	%mud
<u>83</u>	<u>50cm</u>	<u>5</u>	<u>-</u>	<u>95</u>	<u>95</u>
<u>62</u>	<u>50/wcm</u>	<u>2</u>	<u>18</u>	<u>80</u>	<u>80</u>
<u>    </u>	<u>A Few inches of oil on top</u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>

Rec Total 145 BHT 108 Gravity 20.4 API RW .345 @ 55 °F Chlorides 25,000 ppm

(A) Initial Hydrostatic <u>1627</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>12:35</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>14:04</u>
(C) First Final Flow <u>40</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>15:51</u>
(D) Initial Shut-In <u>994</u>	<input type="checkbox"/> Circ Sub <u>    </u>	T-Pulled <u>18:56</u>
(E) Second Initial Flow <u>43</u>	<input type="checkbox"/> Hourly Standby <u>    </u>	T-Out <u>21:30</u>
(F) Second Final Flow <u>87</u>	<input checked="" type="checkbox"/> Mileage <u>86 RT</u> <u>86</u>	Comments <u>    </u>
(G) Final Shut-In <u>993</u>	<input checked="" type="checkbox"/> Sampler <u>250</u>	<u>    </u>
(H) Final Hydrostatic <u>1598</u>	<input type="checkbox"/> Straddle <u>    </u>	<input type="checkbox"/> Ruined Shale Packer <u>    </u>
Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer <u>    </u>	<input type="checkbox"/> Ruined Packer <u>    </u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer <u>    </u>	<input type="checkbox"/> Extra Copies <u>    </u>
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder <u>    </u>	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby <u>    </u>	Total <u>1711</u>
	<input type="checkbox"/> Accessibility <u>    </u>	MP/DST Disc't <u>    </u>
	Sub Total <u>1711</u>	

Approved By \_\_\_\_\_ Our Representative James Winder

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# TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 63364 Date 3-4-18  
 Company Name Pioneer Oil Co Inc  
 Lease Clark Unit #1-5 Test No. 1  
 County Sheridan Sec. 5 Twp. 9s Rng. 28w

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil \_\_\_\_\_ ML  
 Mud \_\_\_\_\_ ML  
 Water \_\_\_\_\_ ML  
 Other 2200mL WCM  
50 / ~~2000~~ 58% m 38% w 4% o ML  
 Pressure 170 PSI ML  
 Total 2200 ML

### PIT MUD ANALYSIS

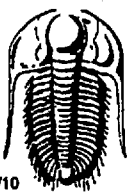
Chlorides 750 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 55  
 Mud Weight 8.7  
 Filtrate 7.6  
 Other \_\_\_\_\_

### SAMPLER ANALYSIS

Resistivity 330 ohms @ 53 F  
 Chlorides 27,000 ppm.  
 Gravity \_\_\_\_\_ corrected @60F

### PIPE RECOVERY

**TOP**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
**MIDDLE**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
**BOTTOM**  
 Resistivity 345 ohms @ 55 F  
 Chlorides 25,000 ppm.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63365

Well Name & No. Clark Unit #1-5 Test No. 2 Date 3-5-18  
 Company Pioneer Oil Co. Inc Elevation 2738 KB 2730 GL  
 Address 400 Main St PO Box 237 Vincennes IN 47501  
 Co. Rep / Geo. Jim Musgrove Rig Discovery #1  
 Location: Sec. 5 Twp. 9s Rge. 28w Co. Sheridan State KS

Interval Tested 3566-3584 Zone Tested Howard "C"  
 Anchor Length 18 Drill Pipe Run 3243 Mud Wt. 8.8  
 Top Packer Depth 3561 Drill Collars Run ~~3243~~ - Vis 52  
 Bottom Packer Depth 3566 Wt. Pipe Run 311 WL 7.6  
 Total Depth 3584 Chlorides 750 ppm System LCM 2 1/2

Blow Description IF: 2 3/4" ~~at~~ blow at open, built to 3 1/2"  
ISI: No blowback  
FF: Weak surface blow, built to 1/8"  
FSI: No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>30</u>	<u>mud</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 30 BHT 110 Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1688  Test 1050 T-On Location 7:45  
 (B) First Initial Flow 41  Jars 250 T-Started 9:40  
 (C) First Final Flow 39  Safety Joint 75 T-Open 12:41  
 (D) Initial Shut-In 1022  Circ Sub \_\_\_\_\_ T-Pulled 15:45  
 (E) Second Initial Flow 40  Hourly Standby 1.25h 100 T-Out 18:10  
 (F) Second Final Flow 38  Mileage 86RT 86  
 (G) Final Shut-In 1091  Sampler 250  
 (H) Final Hydrostatic 1672  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_

Initial Open 15  Ruined Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Ruined Packer \_\_\_\_\_  
 Final Flow 45  Extra Copies \_\_\_\_\_  
 Final Shut-In 90  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1811  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total 1811

Approved By \_\_\_\_\_ Our Representative James Winkler

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# TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 63365 Date 3-5-18  
 Company Name Pioneer Oil Co. Inc  
 Lease Clark Unit #1-5 Test No. 2  
 County Sheridan Sec. 5 Twp. 9s Rng. 28w

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil \_\_\_\_\_ ML  
 Mud 2000 Mw/trace oil ML  
 Water \_\_\_\_\_ ML  
 Other \_\_\_\_\_ ML  
 Pressure 130 ML  
 Total 2000 ML

### PIT MUD ANALYSIS

Chlorides 750 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 52  
 Mud Weight 8.8  
 Filtrate 7.6  
 Other \_\_\_\_\_

### SAMPLER ANALYSIS

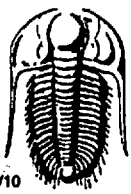
Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
 Gravity \_\_\_\_\_ corrected @60F

### PIPE RECOVERY

**TOP**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.

**MIDDLE**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.

**BOTTOM**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63366

Well Name & No. Clark Unit #1-5 Test No. 3 Date 3-6-18  
 Company Pioneer Oil Co. Inc Elevation 2738 KB 2730 GL  
 Address 400 main St. PO Box 237 Vincennes IN 47501  
 Co. Rep / Geo. Jim Musgrove Rig Discovery #1  
 Location: Sec. 5 Twp. 9s Rge. 28w Co. Sheridan State KS

Interval Tested 3754 3772 Zone Tested Plattsmouth  
 Anchor Length 18 Drill Pipe Run 3432 Mud Wt. 9.0  
 Top Packer Depth 3749 Drill Collars Run - Vis 49  
 Bottom Packer Depth 3754 Wt. Pipe Run 311 WL 7.2  
 Total Depth 3772 Chlorides 500 ppm System LCM 2 1/2  
 Blow Description IF: Blow built to BOB(11") at 9 1/4 min. - (Built to 17")  
ISI: Pressure held steady to slight increase  
OFF: Blow built to BOB(11") at 11 min - (Built to 36")  
FSI: Pressure held steady

Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>mcw w/trace oil</u>	<u>trace</u>		<u>84</u>	<u>16</u>
<u>500</u>	<u>smcw w/trace oil</u>	<u>trace</u>		<u>96</u>	<u>4</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 590 BHT 124 Gravity API RW 238 @ 31.7° F Chlorides 71,000 ppm

(A) Initial Hydrostatic <u>1779</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>7:15</u>
(B) First Initial Flow <u>29</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>8:44</u>
(C) First Final Flow <u>131</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>13:00</u>
(D) Initial Shut-In <u>1121</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>16:02</u>
(E) Second Initial Flow <u>141</u>	<input type="checkbox"/> Hourly Standby <u>?</u>	T-Out <u>21:00</u>
(F) Second Final Flow <u>285</u>	<input checked="" type="checkbox"/> Mileage <u>86 RT</u> <u>86</u>	Comments <u>Big on hold due to wind - started out again around 19:00</u>
(G) Final Shut-In <u>1113</u>	<input checked="" type="checkbox"/> Sampler <u>250</u>	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1776</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>15</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Total <u>1711</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1711</u>	

Approved By \_\_\_\_\_ Our Representative James Winder  
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# TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 63366 Date 3-6-18  
 Company Name Pioneer Oil Co. Inc  
 Lease Clark Unit #1-5 Test No. 3  
 County Sheridan Sec. 5 Twp. 9s Rng. 28w

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil \_\_\_\_\_ ML  
 Mud \_\_\_\_\_ ML  
 Water 2300 mL 99%w 1%o ML  
 Other Trace of oil ML  
 Pressure 270 PSI ML  
 Total 2300 ML

### PIT MUD ANALYSIS

Chlorides 500 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 49  
 Mud Weight 9.0  
 Filtrate 7.2  
 Other \_\_\_\_\_

### SAMPLER ANALYSIS

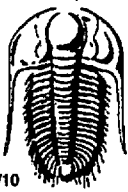
Resistivity .226 ohms @ 33.9 F  
 Chlorides 70,000 ppm.  
 Gravity \_\_\_\_\_ corrected @60F

### PIPE RECOVERY

**TOP**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.

**MIDDLE**  
 Resistivity .238 ohms @ 31.7 F  
 Chlorides \_\_\_\_\_ ppm.

**BOTTOM**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63367

Well Name & No. ~~XXXX~~-Clark Unit #1-5 Test No. 4 Date 3-7-18  
 Company Pioneer Oil Co Inc Elevation 2738 KB 2730 GL  
 Address 400 Main St. PO Box 237 Vincennes IN 47501  
 Co. Rep / Geo. Jim Musgrove Rig Discovery #1  
 Location: Sec. 5 Twp. 9s Rge. 28w Co. Sheridan State KS

Interval Tested 3810-3830 Zone Tested Toronto  
 Anchor Length 20 Drill Pipe Run 3497 Mud Wt. 9.0  
 Top Packer Depth 3805 Drill Collars Run - Vis 49  
 Bottom Packer Depth 3810 Wt. Pipe Run 311 WL 7.2  
 Total Depth 3830 Chlorides 500 ppm System LCM 2 1/2

Blow Description IF: Blow built to 2 1/2"  
 IST: Blowback built to 1/2"  
 FF: Blow built to 2 1/2"  
 FSI: Blowback built ~~to~~ about a 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
56	WCM w/trace oil	trace	10	90	

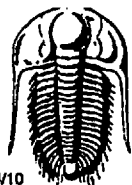
Rec Total 56 BHT 113 Gravity API RW 325 @ 39.5 °F Chlorides 40000 ppm

(A) Initial Hydrostatic 1841  Test 1050 T-On Location 3:45  
 (B) First Initial Flow 16  Jars 250 T-Started 3:55  
 (C) First Final Flow 27  Safety Joint 75 T-Open 5:29  
 (D) Initial Shut-In 765  Circ Sub T-Pulled 8:34  
 (E) Second Initial Flow 27  Hourly Standby T-Out 10:30  
 (F) Second Final Flow 43  Mileage 86RT 86 Comments Found loose hammer  
 (G) Final Shut-In 801  Sampler 250 union on hose after 2nd  
 (H) Final Hydrostatic 1829  Straddle closing  
 Ruined Shale Packer  
 Shale Packer  
 Ruined Packer  
 Extra Packer  
 Extra Copies  
 Extra Recorder  
 Day Standby  
 Accessibility  
 Sub Total 1711  
 Total 1711  
 MP/DST Disc't

Approved By \_\_\_\_\_ Our Representative James Winder

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# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63368

Well Name & No. Clark Unit #1-5 Test No. 5 Date 3-7-18  
 Company Pioneer Oil Co. Inc Elevation 2738 KB 2730 GL  
 Address 400 main St PO Box 237 Vincennes IN 47501  
 Co. Rep / Geo. Jim Musgrave Rig Discovery #1  
 Location: Sec. 5 Twp. 9s Rge. 28w Co. Sheridan State KS

Interval Tested 3832 - 3845 Zone Tested LKC "A"  
 Anchor Length 13 Drill Pipe Run 3497 Mud Wt. 9.1  
 Top Packer Depth 3827 Drill Collars Run - Vis 47  
 Bottom Packer Depth 3832 Wt. Pipe Run 311 WL 7.2  
 Total Depth 3845 Chlorides 500 ppm System LCM 2 1/2

Blow Description IF: Blow built to BOB(11") at 7min. (Blow built to ~~21~~ 21 1/2")  
ISI: Blowback built 4"  
FF: Blow built to BOB at 10min (Blow built to 38")  
FST: Blowback built to ~~6~~ 6 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>310</u>	<u>CGO</u>	<u>13</u>	<u>86</u>	<u>-</u>	<u>1</u>
<u>40</u>	<u>GOCM</u>	<u>20</u>	<u>28</u>	<u>-</u>	<u>52</u>
<u>    </u>	<u>GIP= 410'</u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>
<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>

Rec Total 350 BHT 121 Gravity 35.8 API RW @ °F Chlorides      ppm

(A) Initial Hydrostatic 1850  Test 1050 T-On Location 16:35 27  
 (B) First Initial Flow 21  Jars 250 T-Started 17:26  
 (C) First Final Flow 67  Safety Joint 75 T-Open 19:28  
 (D) Initial Shut-In 888  Circ Sub      T-Pulled 22:31  
 (E) Second Initial Flow 73  Hourly Standby      T-Out 00:45 3/8  
 (F) Second Final Flow 144  Mileage 86 RT 86  
 (G) Final Shut-In 713  Sampler 250  
 (H) Final Hydrostatic 1809  Straddle       
 Shale Packer       
 Extra Packer       
 Extra Recorder       
 Day Standby       
 Accessibility       
 Sub Total 1711

Initial Open 15  
 Initial Shut-In 30  
 Final Flow 45  
 Final Shut-In 90

Ruined Shale Packer       
 Ruined Packer       
 Extra Copies       
 Sub Total 0  
 Total 1711  
 MP/DST Disc't     

Approved By \_\_\_\_\_ Our Representative James Under

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# TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 63368 Date 3-7-18  
 Company Name Pioneer Oil Co. Inc  
 Lease Clark Unit #1-5 Test No. 5  
 County Sheridan Sec. 5 Twp. 9S Rng. 28W

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil 2200 99% 1% m ML  
 Mud \_\_\_\_\_ ML  
 Water \_\_\_\_\_ ML  
 Other \_\_\_\_\_ ML  
 Pressure 300 PSI ML  
 Total 2200 ML

### PIT MUD ANALYSIS

Chlorides 500 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 47  
 Mud Weight 9.1  
 Filtrate 7.2  
 Other \_\_\_\_\_

### SAMPLER ANALYSIS

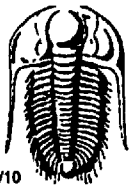
Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
 Gravity 35.8 corrected @60F

### PIPE RECOVERY

**TOP**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.

**MIDDLE**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.

**BOTTOM**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63369

Well Name & No. Clark Unit #1-5 Test No. 6 Date 3-8-18  
 Company Pioneer Oil Co. Inc Elevation 2738 KB 2730 GL  
 Address 400 Main St PO Box 237 Vincennes IN 47501  
 Co. Rep / Geo. Jim Musgrove Rig Discovery #1  
 Location: Sec. 5 Twp. 9s Rge. 28w Co. Sheridan State KS

Interval Tested 3861 - 3879 Zone Tested LKC "C"  
 Anchor Length 18 Drill Pipe Run 3528 Mud Wt. 9.0  
 Top Packer Depth 3856 Drill Collars Run - Vis 52  
 Bottom Packer Depth 3861 Wt. Pipe Run 311 WL 6.4  
 Total Depth 3879 Chlorides 500 ppm System LCM 2

Blow Description IF: Blow built to 3 3/4"  
ISI: Blowback built to 1/2"  
FF: Blow built to 11 3/4"  
FSI: Blowback built ~~10~~ 1 1/4"

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>SMCO</u>	<u>2</u>	<u>90</u>	<u>-</u>	<u>8</u>
<u>60</u>	<u>OM</u>	<u>5</u>	<u>40</u>		<u>55</u>
	<u>GIP=100'</u>				

Rec Total 100 BHT 113 Gravity 32.4 API RW @ ° F Chlorides ppm

(A) Initial Hydrostatic 1860  Test 1050 T-On Location 8:10  
 (B) First Initial Flow 17  Jars 250 T-Started 9:28  
 (C) First Final Flow 30  Safety Joint 75 T-Open 11:23  
 (D) Initial Shut-In 1121  Circ Sub \_\_\_\_\_ T-Pulled 14:27  
 (E) Second Initial Flow 33  Hourly Standby \_\_\_\_\_ T-Out 16:45  
 (F) Second Final Flow 59  Mileage 86 RT X 2 172  
 (G) Final Shut-In 1135  Sampler 250  
 (H) Final Hydrostatic 1845  Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1797  
 MP/DST Disc't \_\_\_\_\_

Initial Open 15  
 Initial Shut-In 30  
 Final Flow 45  
 Final Shut-In 90

Approved By [Signature] Our Representative James Winder

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# TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 63369 Date 3-8-18  
 Company Name Pioneer Oil Co. Inc  
 Lease Clark Unit #1-5 Test No. 6  
 County Sheridan Sec. 5 Twp. 9s Rng. 28w

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil 1100ml 97%o 3%w ML  
 Mud \_\_\_\_\_ ML  
 Water \_\_\_\_\_ ML  
 Other 1000ml OWM 38%o 37%w 22%o 3%g ML  
 Pressure 320 ML  
 Total 2100 ML

### PIT MUD ANALYSIS

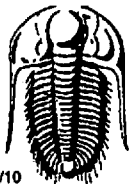
Chlorides 500 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 52  
 Mud Weight 9.0  
 Filtrate 6.4  
 Other \_\_\_\_\_

### SAMPLER ANALYSIS

Resistivity 0.242 ohms @ 73.4 F  
 Chlorides 29000 ppm.  
 Gravity 32.4 corrected @60F

### PIPE RECOVERY

**TOP**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
**MIDDLE**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.  
**BOTTOM**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 63370

Well Name & No. Clark Unit #1-5 Test No. 7 Date 3-11-18  
 Company Pioneer Oil Co. Inc Elevation 2738 KB 2730 GL  
 Address 400 Main St. PO Box 237 Vincennes IN 47501  
 Co. Rep / Geo. Keith Reavis Rig Discovery #1  
 Location: Sec. 5 Twp. 9S Rge. 28W Co. Sheridan State KS

Interval Tested 3854 - 3890 Zone Tested LKC "D"  
 Anchor Length 36 Anchor 688 Tail Drill Pipe Run 3538 Mud Wt. 9.4  
 Top Packer Depth 3849 - 3854 Drill Collars Run - Vis 53  
 Bottom Packer Depth 3890 (shale) Wt. Pipe Run 311 WL 7.2  
 Total Depth 4578 Chlorides 800 ppm System LCM 5  
 Blow Description IF: Blow built to BOB (11") at 6 1/4 min. - Built to 28 1/2"  
ISI: Blowback built about 5 1/2"  
FF: Blow built to BOB at 8 min. - Built to 73"  
FSI: Blowback built to 9 1/2"

Rec	Feet of	%gas	%oil	%water	%mud
<u>415</u>	<u>CGO</u>	<u>12</u>	<u>88</u>		
<u>10</u>	<u>SW/GOM</u>	<u>27</u>	<u>32</u>	<u>7</u>	<u>34</u>
<u>125</u>	<u>GOWCM</u>	<u>20</u>	<u>11</u>	<u>20</u>	<u>49</u>
	<u>GIP = 640'</u>				

Rec Total 550 BHT 115 Gravity 36.6 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic 1928  Test 1150 T-On Location ~~14:15~~ 3/11  
 (B) First Initial Flow 28  Jars 250 T-Started ~~16:40~~ 17:40  
 (C) First Final Flow 106  Safety Joint 75 T-Open 20:28  
 (D) Initial Shut-In 1187  Circ Sub \_\_\_\_\_ T-Pulled 23:32  
 (E) Second Initial Flow 114  Hourly Standby \_\_\_\_\_ T-Out 2:00 3/12  
 (F) Second Final Flow 227  Mileage 86 RT 86 Comments I went to rig early  
 (G) Final Shut-In 1167  Sampler 250 unable to check chlorides  
 (H) Final Hydrostatic 1924  Straddle 600  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 15  Shale Packer \_\_\_\_\_  
 Initial Shut-In 30  Extra Packer \_\_\_\_\_  
 Final Flow 45  Extra Recorder \_\_\_\_\_  
 Final Shut-In 90  Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 2411 Sub Total 2411 MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative James Windsor  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.





# TRILOBITE TESTING, INC.

1515 Commerce Parkway • Hays, Kansas 67601

## FLUID SAMPLER DATA

Ticket No. 63370 Date 3-11-18  
 Company Name Pioneer Oil Co. Inc.  
 Lease Clark Unit #1-5 Test No. 7  
 County Sheridan Sec. 5 Twp. 9S Rng. 28W

### SAMPLER RECOVERY

Gas \_\_\_\_\_ ML  
 Oil 1100ml 99% 1%om ML  
 Mud \_\_\_\_\_ ML  
 Water \_\_\_\_\_ ML  
 Other 300ml SMWCO 92% 6%om 2%ow ML  
 Pressure 370 PSI ML  
 Total 1400 ML

### PIT MUD ANALYSIS

Chlorides 800 ppm.  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Viscosity 53  
 Mud Weight 9.4  
 Filtrate 7.2  
 Other \_\_\_\_\_

### SAMPLER ANALYSIS

Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides unable to check ppm.  
 Gravity 3606 corrected @60F

### PIPE RECOVERY

**TOP**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.

**MIDDLE**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.

**BOTTOM**  
 Resistivity \_\_\_\_\_ ohms @ \_\_\_\_\_ F  
 Chlorides \_\_\_\_\_ ppm.



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

**PRESSURE PUMPING Job Log**

Customer:	Pioneer Oil Company	Cement Pump No.:	70897-19570 5 hrs	Operator TRK No.:	98815		
Address:	PO Box 237	Ticket #:	1718-15632 L	Bulk TRK No.:	30464-37725	14354-19578	
City, State, Zip:	Vincennes, IN 47591	Job Type:	Z42 - Cement Production Casing				
Service District:		Well Type:	OIL				
Well Name and No.:	Clark Unit 1-5	Well Location:	5,9,28	County:	Sheridan	State:	Ks

Type of Cmt	Sacks	Additives	Truck Loaded On		
A-CON BLEND	275	3%CaCl, 1/4#POLYFLAKE	30464-37725	Front	Back
AA-2	175	5%W-60, 10%SALT, .5% C-17, 1/4# DEFOAMER, 5# GILSONITE	14354-19578	Front	Back
				Front	Back

Lead/Tail:	Weight #1 Gal.	Cu/FV/sk	Water Requirements	CU. FT.	Man Hours / Personnel	
<b>Lead:</b>	11.2	3.16	19.63	869	Man Hours:	54
<b>Tail:</b>	14.8	1.51	6.65	264.25	# of Men on Job:	4

Time (am/pm)	(BPM)	Volume (BBLS)	Pumps		Pressure(Psi)		Description of Operation and Materials
			T	C	Tubing	Casing	
10:45							ON LOC, SAFTEY MTG, R.U.
11:25							START F.E.
1:07 PM							ON BOTTOM, BREAK CIRC
2:24 PM						5230	TEST LINES
2:26 PM	3.3	12				150	PUMP MUD FLUSH
14:31	3.4	20				210	PUMP KCL
14:39							PLUG R & M
2:54 PM	6.5					270	START MIXING LEAD @ 11.2#
15:18	6	155				80	ON TAIL @ 14.8#
15:31		47					SHUT DOWN, WASHUP
15:35	6.5					150	START DISPLACEMENT
15:51	2.3	86				810	SLOW RATE
15:57		96				1000-1670	PLUG DOWN
16:00						1670-40	RELEASE PSI, FLOWING BACK
16:02						1730	REPRESSURE PLUG
16:04						1730-0	RELEASE PSI, PLUG HELD
							JOB COMPLETE
							THANK YOU FOR YOUR BUSINESS!!!!

Size Hole		Depth			TYPE	
Size & Wt. Csg.	5 1/2 17#	Depth	4103.9	New / Used	Packer Shoe	yes
tbg.		Depth			Retainer	Depth
Top Plugs		Type			Perfs	CIBP

Customer Signature:	Basic Representative:	CHAD HINZ
	Basic Signature:	
	Date of Service:	3/12/2018



1700 S. Country Estates Road  
 Liberal, KS 67901  
 PH (620)-624-2277 FAX (620) 624-2280

SERVICE ORDER - 1718-15632 L

Date: 3/12/2018

Well Name:  
 Clark Unit 1-5  
 County - State:  
 Sheridan, Ks

Location:  
 5,9,28  
 RRC #:

Customer's Order #:

Type Of Service:  
 Z42 - Cement Production Casing  
 Customer: Pioneer Oil Company

Address: PO Box 237  
 Vincennes, IN 47591

As a consideration, the above named Customer agrees to pay Basic Energy Services in accord with the rates and terms stated in Basic Energy Services current price list. Invoices are payable NET 30 (SEE 102) after date of invoice. Upon Customer's default in payment of Customers accounts by such date, Customer agrees to pay interest thereon after default at 16% per annum. In the event it becomes necessary to employ an attorney to enforce collection of said account, Customer agrees to pay all the collection costs and attorney fees. These terms and conditions shall be governed by the laws of the state where services are performed or equipment or materials are furnished.

Basic Energy Services, warrants only title to the products, supplies and materials and that the same are free from defects in workmanship. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE WHICH EXTEND BEYOND THOSE STATED IN THE IMMEDIATELY PRECEDING SENTENCE. Basic Energy Services, liability and Customer's exclusive remedy in any cause of action (whether in contract, tort, product liability, breach of warranty or otherwise) arising out of the sale or use of any products, supplies, or materials upon their return to Basic Energy Services, is expressly limited to the replacement of such products, supplies or materials or, at Basic Energy Services' option, in the absence to the Customer of credit for the cost of such items. In no event shall Basic Energy Services be liable for special, indirect, punitive or consequential damages.

CODE	QTY	UOM	DESCRIPTION	PRICE	TOTAL
				18.60	5115.00
CL101	275	Sk	'A-Con' Blend	18.20	3185.00
CL105	178	8k	AA2 Cement	16.00	800.00
CL100	50	Sk	Premium / Common	0.75	618.75
CC113	825	Lb	Gypsum	0.50	486.00
CC111	972	Lb	Salt	20.00	1660.00
CC148	83	LB	C-17	4.00	168.00
CC105	42	Lb	C-41P	0.67	586.25
CC201	875	Lb	Gilsonite	1.05	815.85
CC109	777	Lb	Calcium Chloride	3.70	255.30
CC102	69	Lb	Celloflake	25.00	1300.00
CC130	52	Lb	C-51	1700.00	1700.00
CF1101	1	Ea	Cementing Shoe Basket Type, 5 1/2" (Blue)	290.00	1740.00
CF1901	6	Ea	5 1/2" Basket (Blue)	110.00	1320.00
CF1651	12	Ea	Turbolizer, 5 1/2" (Blue)	400.00	400.00
CF607	1	Ea	Latch Down Plug & Baffle, 5 1/2" (Blue)	1.50	750.00
CC151	500	Gal	Mud Flush	44.00	440.00
C708	10	Gal	CC-1, KCL Substitute	7.50	2250.00
E101	300	Mi	Heavy Equipment Mileage	1.40	700.00
CE240	500	Sk	Blending & Mbing Service Charge	2.50	5887.50
E113	2355	Tn/Mi	Proppant and Bulk Delivery Charges, per ton mile	2520.00	2520.00
CE205	1	4 Hrs	Depth Charge; 400'-5000'	250.00	250.00
CE504	1	Job	Plug Container Utilization Charge	4.50	450.00
E100	100	MI	Unit Mileage Charge-Pickups, Small Vans & Cars (one way)	175.00	175.00
S003	1	Ea	Service Supervisor, first 8 hrs on loc.	550.00	550.00
T105	1	Ea	Cement Data Acquisition Monitor / Strip Chart Recorder		
				Book Total:	\$34,122.85
				Taxes:	
				Disc. Price:	\$22,535.84

PUMP TRUCK NUMBER: 70897-19570  
 DRIVER:

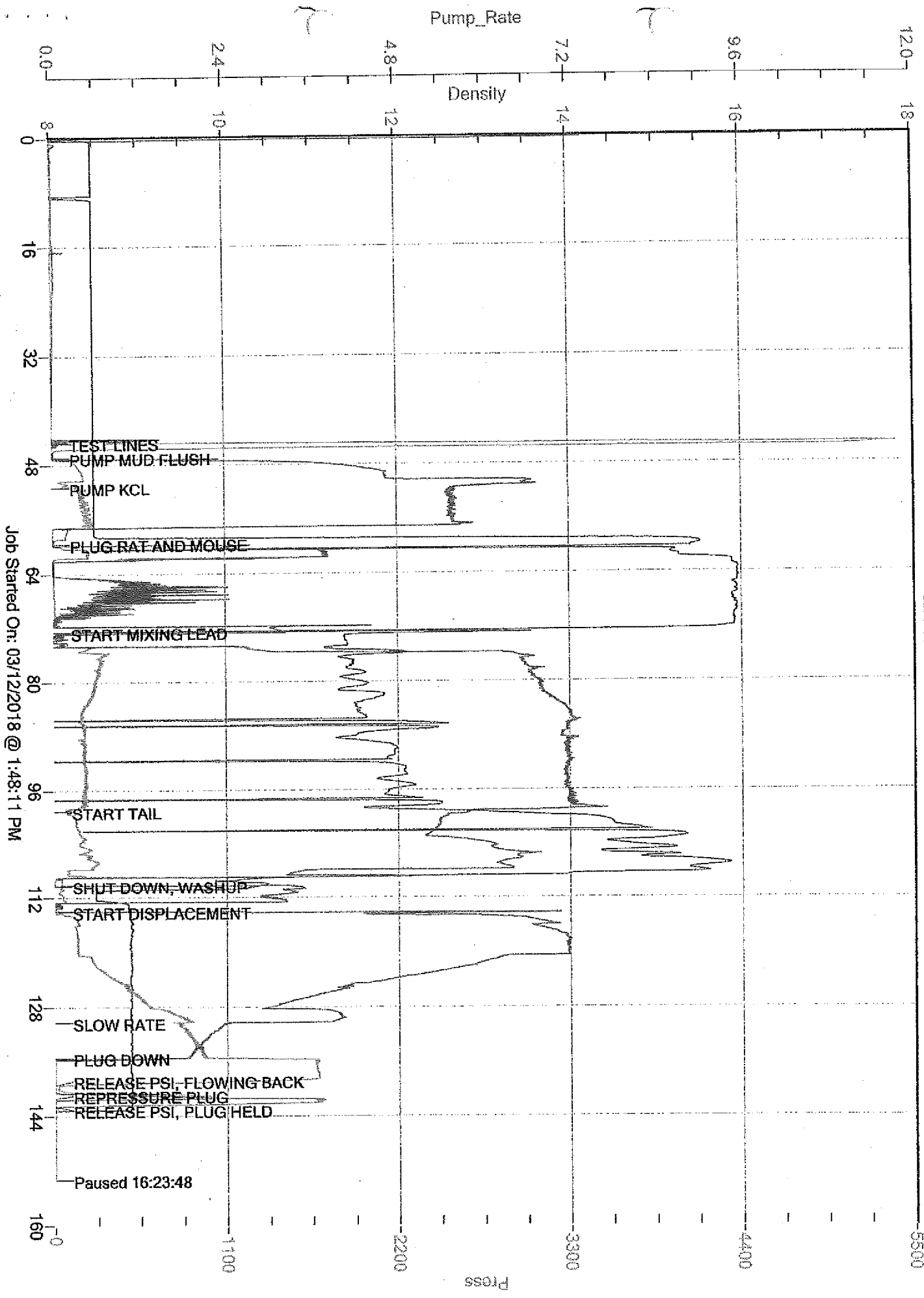
THIS JOB WAS SATISFACTORILY COMPLETED  YES  NO  
 OPERATION OF EQUIPMENT WAS SATISFACTORY  YES  NO  
 PERFORMANCE OF PERSONEL WAS SATISFACTORY  YES  NO

CUSTOMER OR HIS AGENT

BASIC ENERGY SERVICES

Customer Comments or Concerns:

PIONEER OIL COMPANY  
CLARK UNIT 1-5



Job Started On: 03/12/2018 @ 1:48:11 PM



REMIT TO  
 QES Pressure Pumping LLC  
 Dept:970  
 P.O.Box 4346  
 Houston, TX 77210-4346

MAIN OFFICE  
 P.O.Box884  
 Chanute,KS 66720  
 620/431-9210,1-800/467-8676  
 Fax 620/431-0012

Invoice Invoice# 812572

Invoice Date: 02/28/18 Terms: Net 30 Page 1

PIONEER OIL CO  
 BOX 142-B RR4  
 LAWRENCEVILLE IL 62439  
 USA  
 6189435314

CLARK UNIT 1-5

Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0471	Cement Pump Charge 301' - 500' (Coalbed/Methane)	1.000	1,150.0000	30.000	805.00
CE0002	Equipment Mileage Charge - Heavy Equipment	30.000	7.1500	30.000	150.15
CE0711	Minimum Cement Delivery Charge	1.000	660.0000	30.000	462.00
CC5871	Surface Blend II, 2% Gel/3% CaCl	165.000	24.0000	30.000	2,772.00
CC5800A	Class A Cement - Sack	30.000	20.0000	30.000	420.00

Subtotal 6,584.50  
 Discounted Amount 1,975.35  
 SubTotal After Discount 4,609.15

Amount Due 6,972.10 If paid after 03/30/18

Tax: 271.32  
 Total: 4,880.47



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

FIELD TICKET & TREATMENT REPORT  
 CEMENT

TICKET NUMBER 55009  
 LOCATION Oakley Ks  
 FOREMAN Jerry

Invoice # 812572

10/4/10  
 10035

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
2-28-10	6224	Clark Unit 1-5	5	9S	28W	Sheridan
CUSTOMER Pioneer Oil			Rick Popp (620) 786-5000 No 40s 1 1/2 w SS.			
MAILING ADDRESS			TRUCK #	DRIVER	TRUCK #	DRIVER
400 Main St. Box 237			731	Cory D		
CITY Vincennes			1530 T129	P.D. W		
STATE IN		ZIP CODE 47501				

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 235 CASING SIZE & WEIGHT 8 5/8 23#  
 CASING DEPTH 233 DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 15.2 SLURRY VOL 1.24 WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 20'  
 DISPLACEMENT 13 1/2 DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety meeting & rig up on Discovery 1 circulate casing mix 165SKs com 38cc 2 1/2 gal wash up & displace with 13 1/2 bbl water or shut in a tag cement 26' down & 1" with 30 SKs class A bring in cement to surface

Thank you  
 Jerry & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0471	1	PUMP CHARGE	1150.00	1150.00
CE0002	30	MILEAGE	7.15	214.50
CE0711	776 9.17	ton mileage delivery (min)	660.00	660.00
CC5871	165 SKs	surface blend II	24.00	3960.00
CC5800	30 SKs	class A	20.00	600.00
		Subtotal		6584.50
		-30%		1975.35
		Subtotal		4609.15
		SALES TAX		271.32
		ESTIMATED TOTAL		4880.47

AUTHORIZATION [Signature] TITLE \_\_\_\_\_ DATE \_\_\_\_\_

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



## TERMS AND CONDITIONS

### ATTENTION: THESE TERMS AND CONDITIONS CONTAIN INDEMNITY PROVISIONS FOR DAMAGE TO PERSONS AND PROPERTY.

All Services or Products provided by QES Pressure Pumping LLC (f/k/a Consolidated Oil Well Services LLC) are subject to these Terms and Conditions unless superseded by a Master Service Agreement signed by the parties. In the event Customer does not accept these Terms and Conditions as written, Customer must request a Master Service Agreement from QES' Contracts Administration Department at [msa@qesllp.com](mailto:msa@qesllp.com).

The operations, services, supplies, materials, personnel or goods to be provided ("Services" or "Products" as applicable) by QES Pressure Pumping LLC ("QES") will be provided to you as Customer ("Customer") in accordance with the following terms and conditions ("Agreement"). QES and Customer may be referred to as "Party" or "Parties".

**1. Price and Taxes.** Customer will pay QES for the Services or Products in accordance with QES' quoted price which exclude applicable taxes or process license fees. Customer shall pay all applicable taxes and process license fees related to the Services and/or Products. QES' prices are subject to change without notice.

**2. Terms of Payment.** Customer will pay QES cash in advance for Services and Products unless QES has approved credit prior to the performance of the Services and/or delivery of the Products. Credit terms for approved accounts require full payment of the invoiced amount within 30 days from the date of invoice. All invoices not paid within 30 days will be charged an interest rate of 1 1/2% per month or the maximum rate allowed under applicable state law, whichever is higher. Customer will be responsible for any fees incurred by QES in the collection of any amounts owed to QES including but not limited to attorney's fees and/or collection fee costs.

**3. Proof of Services or Delivery of Products.** QES will furnish verification of proof of Services performed and Product delivered to Customer's representative at the time of performance of the Services or Product delivery. Customer agrees to sign and return such verification indicating Customer's acceptance of the Services or Products.

**4. Delivery or Completion.** All liability and responsibility of QES ceases when (1) Products are delivered to the Customer by QES and no longer in the care, custody and control of QES or (2) when the carrier receives the Products and/or shipment. QES will not be responsible for loss or damage to Products in transit or for delays of carriers in delivering goods. In case of shortage, non-conformance, or apparent damage, it is the Customer's responsibility to secure written acknowledgement from the carrier before Customer accepts delivery. Additionally, QES will not be liable for any damage for delays in delivery or completion due to a Force Majeure (as defined below), acts or omissions of the Customer, third party material or manufacturing delays, impossibility or impracticability of performance or any other cause or causes beyond the control of QES. In the event of a delay caused by the aforesaid, the delivery or completion date will be extended for a period equal to any such delay, and the purchase or service will not be void or voidable as a result thereof.

**5. Well or Service Site Conditions.** Customer, having custody and control of the well and/or service site, and having superior knowledge of the same and the conditions surrounding them, warrant that the well and/or service site will be in proper condition to receive and accommodate Services and Products. Upon QES' request, Customer will provide documentation to verify that the well or service site is adequate to support the Services and the delivery of Products. Customer also warrants that QES' personnel and equipment will be able to safely access the well and service site and that any special equipment or road improvements required for such access will be the responsibility of Customer, unless otherwise agreed to by the parties.

**6. Chemical Handling and Hazardous Materials.** Customer agrees that for any waste created as part of the Services, Customer will be considered the "generator" for purposes of any applicable laws or regulations pertaining to the transportation, storage and handling of chemicals and hazardous materials.

**7. Data, Data Transmission and Storage.** QES does not warrant or guarantee the accuracy of any research analysis, survey, or other data generated for the Services. QES is not responsible for any accidental or intentional interception of such data by third parties and it is the responsibility of the Customer to safeguard such data against loss including any need to secure digital or paper copies for storage.

### 8. WARRANTIES - LIMITATION OF LIABILITY.

a) QES warrants that the Services and Products will: (i) be free from defects in materials and workmanship; (ii) be performed in a good and workmanlike manner, in accordance with good oilfield servicing practices; and (iii) conform to the plans, specifications and technical information provided in writing by Customer until the Services or Products are accepted by Customer or QES' contractual obligations are met. In the event that Customer discovers a defect in the Services or Products within the warranty period specified above, Customer will notify QES of such defect. In the event that QES confirms that the Services or Products are defective, QES's liability and Customer's exclusive remedy in any cause of action (whether in tort, contract, breach of warranty or otherwise) arising out of the sale or use of any Services or Products is expressly limited to, at QES' option, the (i) replacement of such Services or Products upon their return to QES or (ii) a credit to Customer for the full price paid by Customer for the defective segment of the Services or Products upon their return to QES. In the case of products or parts not wholly of QES' manufacture, QES' liability will be limited to the extent of its recovery from the manufacturer of such products or parts under its liability to QES. QES will not be liable for any damages, claims, losses or expenses of Customer resulting from such defects or for damages resulting from delays, loss of use, or other direct, indirect, incidental, punitive or consequential damages of any kind. QES will not be responsible for: (i) failures of Services that have been in any way tampered with or altered by anyone other than an authorized representative of QES; (ii) failures due to lack of compliance with recommended maintenance procedures; and (iii) products requiring replacement due to normal wear and tear.

b) EXCEPT FOR THE WARRANTIES EXPRESSLY STATED ABOVE, THERE ARE NO OTHER WARRANTIES. THE PARTIES EXPRESSLY EXCLUDE AND CUSTOMER WAIVES ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

c) IN NO EVENT WILL QES' ENTIRE LIABILITY (IN TORT, CONTRACT, WARRANTY, INFRINGEMENT OR OTHERWISE) TO CUSTOMER EXCEED THE PURCHASE PRICE ACTUALLY PAID BY CUSTOMER FOR THE SERVICES OR PRODUCTS THAT GIVE RISE TO A DISPUTE. THIS PROVISION WILL SURVIVE ANY TERMINATION OF THIS AGREEMENT.

### 9. INDEMNIFICATION AND WAIVER OF CONSEQUENTIAL DAMAGES.

9.1 For purpose of this Section 9, the following definitions will apply: "QES Group" means QES Pressure Pumping LLC, its parent company, and affiliated companies, and its and their officers, directors, employees, contractors, subcontractors and invitees. "Customer Group" means Customer, its parent (if any), subsidiary and affiliated companies, co-owners, co-venturers, partners and any entity with whom Customer has an economic interest with respect to the Services, including Customer's joint interest owners and partners and its and their officers, directors, employees, contractors (not including QES), subcontractors and invitees.

**9.2 QES INDEMNITY.** QES AGREES TO PROTECT, DEFEND, INDEMNIFY AND HOLD HARMLESS CUSTOMER GROUP FROM AND AGAINST ALL CLAIMS, DEMANDS, AND CAUSES OF ACTION OF EVERY KIND AND CHARACTER, ARISING IN CONNECTION WITH THE SERVICES, ON ACCOUNT OF BODILY INJURY, ILLNESS, OR DEATH OF ANY MEMBER OF QES GROUP OR, DAMAGE TO OR LOSS OF PROPERTY OF ANY MEMBER OF QES GROUP.

**9.3 CUSTOMER INDEMNITY.** CUSTOMER AGREES TO PROTECT, DEFEND, INDEMNIFY AND HOLD HARMLESS QES GROUP FROM AND AGAINST ALL CLAIMS, DEMANDS, AND CAUSES OF ACTION OF EVERY KIND AND CHARACTER, ARISING IN CONNECTION WITH THE SERVICES, ON ACCOUNT OF BODILY INJURY ILLNESS, OR DEATH OF ANY MEMBER OF CUSTOMER GROUP OR DAMAGE TO OR LOSS OF PROPERTY OF ANY MEMBER OF CUSTOMER GROUP.

**9.4 WELL.** CUSTOMER WILL RELEASE, PROTECT, DEFEND, AND INDEMNIFY QES GROUP FROM AND AGAINST ALL CLAIMS, DEMANDS AND CAUSES OF ACTION OF EVERY KIND AND CHARACTER IN THE EVENTS OF: (i) LOSS OR DAMAGE TO ANY GEOLOGICAL FORMATION, STRATA OR OIL OR GAS RESERVOIR OR MINERAL OR WATER RESOURCE BENEATH THE SURFACE OF THE LAND OR WATER, (ii) LOSS OR DAMAGE TO THE HOLE OR WELL, (iii)

IMPAIRMENT OF PROPERTY RIGHTS OR OTHER INTERESTS IN OR TO OIL, GAS, MINERAL OR WATER RESOURCES, AND (iv) REGAINING CONTROL OF ANY WILD WELL OR OUT OF CONTROL WELL, UNDERGROUND OR ABOVE THE SURFACE, INCLUDING REMOVAL OF WRECK, DEBRIS, EQUIPMENT, AND HAZARDOUS MATERIALS AND REMEDIATING ENVIRONMENTAL DAMAGE.

**9.5 POLLUTION RESPONSIBILITY.** Subject to paragraphs 9.2 and 9.3, It is understood and agreed between Customer and QES that the responsibility for pollution shall be as follows:

(a) QES WILL ASSUME RESPONSIBILITY FOR CONTROL AND REMOVAL OF AND WILL PROTECT, DEFEND AND INDEMNIFY CUSTOMER GROUP FROM AND AGAINST ALL CLAIMS, DEMANDS AND CAUSES OF ACTION OF EVERY KIND OF CHARACTER ARISING FROM POLLUTION OR CONTAMINATION WHICH ORIGINATES ABOVE THE SURFACE OF THE LAND OR WATER FROM THE EQUIPMENT OF ANY MEMBER OF QES GROUP MAINTAINED IN QES GROUP'S CARE, CUSTODY AND CONTROL, AND ARISING FROM THE PERFORMANCE OF THE SERVICES.

(b) CUSTOMER WILL ASSUME RESPONSIBILITY FOR CONTROL AND REMOVAL OF AND WILL PROTECT, DEFEND AND INDEMNIFY QES GROUP FROM AND AGAINST ALL CLAIMS, DEMANDS AND CAUSES OF ACTION OF EVERY KIND AND CHARACTER ARISING FROM POLLUTION OTHER THAN THAT DESCRIBED IN SECTION 9.5(A) ABOVE, WHICH MAY OCCUR DURING THE CONDUCT OF OPERATIONS HEREUNDER, INCLUDING, BUT NOT LIMITED TO, POLLUTION RESULTING FROM FIRE, BLOWOUT, CRATERING, SEEPAGE OR OTHER UNCONTROLLED FLOW OF OIL, GAS OR OTHER SUBSTANCE.

**9.6 WAIVER OF CONSEQUENTIAL DAMAGES.** NOTWITHSTANDING ANY PROVISION TO THE CONTRARY, CUSTOMER AND QES FURTHER AGREE THAT NEITHER PARTY WILL BE LIABLE TO THE OTHER OR EACH OTHER'S RESPECTIVE GROUP FOR ANY CONSEQUENTIAL, INCIDENTAL OR INDIRECT DAMAGES, INCLUDING BUT NOT LIMITED TO, LOSS OF PROFIT, LOSS OF PRODUCTION, REVENUE, OR ANTICIPATED BUSINESS ("LOSSES"). CUSTOMER AGREES TO INDEMNIFY AND HOLD QES GROUP HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS FOR SUCH LOSSES ASSERTED BY MEMBERS OF CUSTOMER GROUP. QES AGREES TO INDEMNIFY AND HOLD CUSTOMER GROUP HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS FOR SUCH LOSSES ASSERTED BY MEMBERS OF QES GROUP.

**9.7 EXCEPT AS OTHERWISE EXPRESSLY LIMITED BY THIS AGREEMENT OR BY LAW, ALL RELEASES, INDEMNITY OBLIGATIONS AND OTHER LIABILITIES ASSUMED UNDER THIS AGREEMENT WILL BE WITHOUT LIMIT AND WITHOUT REGARD TO THE CAUSE OR CAUSES, INCLUDING, WITHOUT LIMITATION, PREEXISTING CONDITIONS, UNSEAWORTHINESS, STRICT LIABILITY, WILLFUL MISCONDUCT, AND THE SOLE, JOINT, GROSS, OR CONCURRENT NEGLIGENCE OF ANY PARTY.**

**9.8.** Each Party hereunder agrees to support its Indemnity obligations with liability insurance coverage with limits of liability not less than ten million dollars (\$10,000,000). It is the express intention of the Parties that the Indemnities contained herein apply to the fullest extent permitted by applicable law, and in no event will a Party's indemnity obligation be limited to the amount of insurance carried by each Party.

**THIS SECTION 9 WILL SURVIVE THE TERMINATION OR EXPIRATION OF THIS AGREEMENT.**

**10. Insurance.** All insurance policies of either Party, in any way related to the Services, whether or not required by this Agreement, shall to the extent of the risks and liabilities assumed by such party; (i) name the other party group as additional insured (except for worker's compensation, OEE/COW, or professional liability policies), (ii) waive subrogation as to the other party group; and (iii) be primary and non-contributory to any insurance of the other party group.

**11. Force Majeure.** Except the obligation to make payments when due, neither QES nor Customer will be liable nor deemed to be in breach of this Agreement for any delay or failure in performance resulting from the acts of God, civil or military authority, material change of law, any governmental action, acts of public enemy, war, accidents, fires, explosions, earthquakes, floods, failure of transportation, national strikes, acute or unusual labor, material or equipment shortages, or any similar or dissimilar cause beyond the reasonable control of either Party. The Party so affected will as soon as such a cause or event occurs promptly notify the other Party in writing concerning the cause and the estimated effect and take reasonable measures with proper dispatch to remedy the condition. In the event Customer declares a force majeure occurrence, QES will be compensated at the standard daily rate for the materials and personnel that are standing idle as a consequence of the force majeure occurrence until Customer terminates the work order or work resumes.

**12. Governing Law.** This Agreement will be governed by the laws of the State of Texas, without regard to its conflicts of law provisions. The Parties agree to submit to the exclusive jurisdiction of the federal or state courts located in Houston, Harris County, Texas with respect to any and all disputes that arise out of or are related in any way to the subject matter of this Agreement. This Section 12 will survive the termination or expiration of this Agreement.

**13. Independent Contractor.** QES will be an independent contractor with respect to the Services performed, and neither QES nor anyone employed by QES will be deemed for any purpose to be the employee, agent, servant, borrowed servant or representative of Customer.

**14. Severability.** In the event any provision of this Agreement is inconsistent with or contrary to any applicable law, rule or regulation, the provision will be deemed modified to the extent required to comply, and the remaining terms, as modified, will remain in full force and effect.

**15. Waiver.** A waiver on the part of either Party of any breach of any term, provision or condition of this Agreement will not constitute a precedent and not bind either Party hereto to a waiver of any succeeding or other breach of the same or any other term, provision or condition of this Agreement.

**16. Entire Agreement.** This Agreement contains the entire agreement of the Parties with regard to the subject matter hereof and supersedes any prior oral and written agreements, contracts, representations or warranties between the Parties relating to the subject matter hereof. No amendment or modification of this Agreement will be effective unless it is in writing and signed by an authorized representative of each Party. If the Parties enter into a Master Service Agreement, then any term or condition herein which conflicts with the provisions of such Master Service Agreement will be deemed invalid.

# STATE OF KANSAS



CORPORATION COMMISSION  
CONSERVATION DIVISION  
266 N. MAIN ST., STE. 220  
WICHITA, KS 67202-1513

PHONE: 316-337-6200  
FAX: 316-337-6211  
<http://kcc.ks.gov/>

GOVERNOR JEFF COLYER, M.D.

SHARI FEIST ALBRECHT, CHAIR | JAY SCOTT EMLER, COMMISSIONER | DWIGHT D. KEEN, COMMISSIONER

July 16, 2018

Brandi Stennett  
Pioneer Oil Company, Inc.  
400 MAIN STREET  
PO BOX 237  
VINCENNES, IN 47501-0237

Re: ACO-1  
API 15-179-21441-00-00  
CLARK UNIT 1-5  
NE/4 Sec.05-09S-28W  
Sheridan County, Kansas

Dear Brandi Stennett:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 02/28/2018 and the ACO-1 was received on July 13, 2018 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department