

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1372705
OIL & GAS CONSERVATION DIVISION

Form ACO-1
November 2016

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: _____

1372705

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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				

- Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
- Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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>			PRODUCTION INTERVAL: Top _____ Bottom _____	

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:
----------------	-------	---------	------------

Form	ACO1 - Well Completion
Operator	American Warrior, Inc.
Well Name	GILLIG-REIN UNIT 1
Doc ID	1372705

Tops

Name	Top	Datum
Anhydrite	1496	765
Heebner	3730	-1469
Lansing	3776	-1515
Base Kansas City	4088	1827
Pawnee	4199	1938
Ft. Scott	4276	-2015
Cherokee	4269	-2035
Mississippian	4372	-2111

Geological Report

Gillig-Rein #1

2541' FSL & 1180' FEL

Sec. 23 T19s R22w

Ness County, Kansas



American Warrior, Inc.

General Data

Well Data: American Warrior, Inc.
Gillig-Rein #1
2541' FSL & 1180' FEL
Sec. 23 T19s R22w
Ness County, Kansas
API # 15-135-25954-0000

Drilling Contractor: Discovery Drilling Co. Inc. Rig #4

Geologist: Jason T Alm

Spud Date: June 14, 2017

Completion Date: June 21, 2017

Elevation: 2253' Ground Level
2261' Kelly Bushing

Directions: Bazine KS, South 4 mi. to 90 rd. West 1 mi. South 2
½ mi. West into location.

Casing: 220' 8 5/8" surface casing
4408' 5 1/2" production casing

Samples: 10' wet and dry, 4000' to RTD

Drilling Time: 3650' to RTD

Electric Logs: Pioneer Energy Services "J. Hendrickson"
CNL/CDL, DIL

Drillstem Tests: Two, Trilobite Testing, Inc. "Spencer Staab"

Problems: None

Remarks: None

Formation Tops

Formation	American Warrior, Inc. Gillig-Rein #1 Sec. 23 T19s R22w 2541' FSL & 1180' FEL
Anhydrite	1496' +765
Base	1533' -728
Heebner	3730' -1469
Lansing	3776' -1515
BKC	4088' -1827
Pawnee	4199' -1938
Fort Scott	4276' -2015
Cherokee	4296' -2035
Mississippian	4372' -2111
LTD	4409' -2148
RTD	4409' -2148

Sample Zone Descriptions

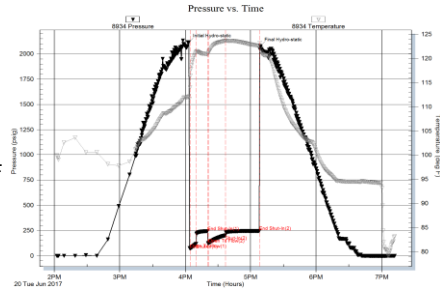
- Cherokee "A" Sand (4300' -2039):** **Covered in DST #1**
 Ss – Quartz, clear to frosted, fine grained, fairly sorted, sub-rounded, fair cementation with fair inter-granular porosity, light to fair spotted oil stain in cluster, show of free oil when broken, light odor, dull yellow fluorescents, fair cut, 55 units hotwire.
- Basil Cher. Sand (4365' -2104):** **Covered in DST #2**
 Ss – Quartz, slightly frosted, fine to medium grained, fairly sorted, Sub-rounded, fair to well cemented with poor inter-granular porosity, light to fair spotted oil stain in cluster, slight show of free oil when broken, 50 units hotwire.
- Mississippian (4372' -2111):** **Covered in DST #2**
 Δ – Dolo – Slightly triptolic, weathered in part with fair to good vuggy porosity, light to fair oil stain and saturation in porosity, show of free oil, fair odor, good yellow fluorescents, good cut, 65 units hotwire.

Drill Stem Tests
 Trilobite Testing, Inc.
 "Spencer Staab"

DST #1 Cherokee "A" Sand

Interval (4294' – 4315') Anchor Length 21'

IHP	– 2113 #	
IFP	– 5" – B.O.B. 2 min.	70-118 #
ISI	– 10" – Built to 1/8 in.	243 #
FFP	– 15" – B.O.B. 3 min.	123-201 #
FSI	– 30" – Dead	245 #
FHP	– 2076 #	
BHT	– 123°F	

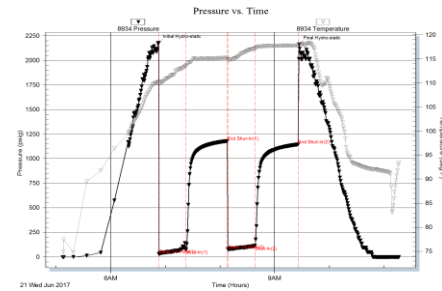


Recovery: 15' OCMW 5% Oil, 50% Water
 190' WCM
 185' MCW

DST #2 Mississippian Osage

Interval (4328' – 4404') Anchor Length 76'

IHP	– 2177 #	
IFP	– 30" – B.O.B. 14 min.	27-77 #
ISI	– 45" – S.B.	1180 #
FFP	– 30" – B.O.B. 10 min.	73-114 #
FSI	– 45" – Dead	1146 #
FHP	– 2161 #	
BHT	– 118°F	



Recovery: 315' GIP
 70' GCO
 20' OCM 20% Oil
 80' OCM 10% Oil
 60' GWMCO 55% Oil, 10% Water

Structural Comparison

	American Warrior, Inc. Gillig-Rein #1 Sec. 23 T19s R22w 2541' FSL & 1180' FEL	American Warrior, Inc. Rein #2-23 Sec. 23 T19s R22w 2150' FNL & 1300' FEL		American Warrior, Inc. Gillig #3-23 Sec. 23 T19s R22w 2030' FSL & 1660' FEL	
Formation					
Anhydrite	1496' +765	1496' +761	(+4)	1500' +763	(+2)
Base	1533' -728	NA	NA	NA	NA
Heebner	3730' -1469	3731' -1474	(+5)	3726' -1463	(-6)
Lansing	3776' -1515	3779' -1522	(+7)	3772' -1509	(-6)
BKC	4088' -1827	NA	NA	NA	NA
Pawnee	4199' -1938	4204' -1947	(+9)	NA	NA
Fort Scott	4276' -2015	4281' -2024	(+9)	4278' -2015	FL
Cherokee	4296' -2035	4300' -2043	(+8)	4298' -2035	FL
Mississippian	4372' -2111	4380' -2123	(+12)	4371' -2108	(-3)

Summary

The location for the Gillig-Rein #1 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. Two Drill Stem Tests were conducted, one of which recovered commercial amounts of oil from the Mississippian Osage Formation. After all gathered data had been examined the decision was made to run 5 ½ inch production casing to further evaluate the Gillig-Rein #1 well.

Recommended Perforations

Primary:

Mississippian Osage **(4391' – 4407')** **DST #2**

Before Abandonment:

Basil Cherokee Sand **(4365' – 4368')** **DST #2**

Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.



Geologic Report

Drilling Time and Sample Log

Operator **American Warrior, Inc.** Elevation **2261'**

Lease **Gillig-Rein** No. **1** KB **2253'**

API # **15-135-25954-0000** Casing Record Surface

Field **Schaben** Production **8 5/8" @ 220'**

Location **2541' FSL & 1180' FEL** Electrical Surveys

Sec. **23** Twp. **19s** Rge. **22w** CNL/CDL, DIL

County **Ness** State **Kansas**

Formation Log Tops Sample Tops Struct Comp

Anhydrite	1496' +765	1497' +764	+4
Base	1533' +728	1533' +728	

Heebner	3730' -1469	3729' -1468	+5
Lansing	3776' -1515	3776' -1515	+7
BKC	4088' -1827	4090' -1829	
Pawnee	4199' -1938	4203' -1942	+9
Fort Scott	4276' -2015	4277' -2016	+9
Cherokee	4269' -2035	4297' -2036	+8
Mississippian	4372' -2111	4376' -2115	+12

Total Depth	4409' -2148	4409' -2148	
-------------	-------------	-------------	--

Reference Well For Structural Comparison **American Warrior, Inc. Rein #2-23**
2150' FNL & 1300' FEL Sec. 23 T19s R22w Ness Co. Kansas

Drilling Contractor **Discovery Drilling Co. Inc.** Rig #**4**

Commenced **6-14-2017** Completed **6-21-2017**

Samples Saved From **4000'** To **RTD**

Drilling Time Kept From **3600'** To **RTD**

Samples Examined From **4000'** To **RTD**

Geological Supervision From **4000'** To **RTD**

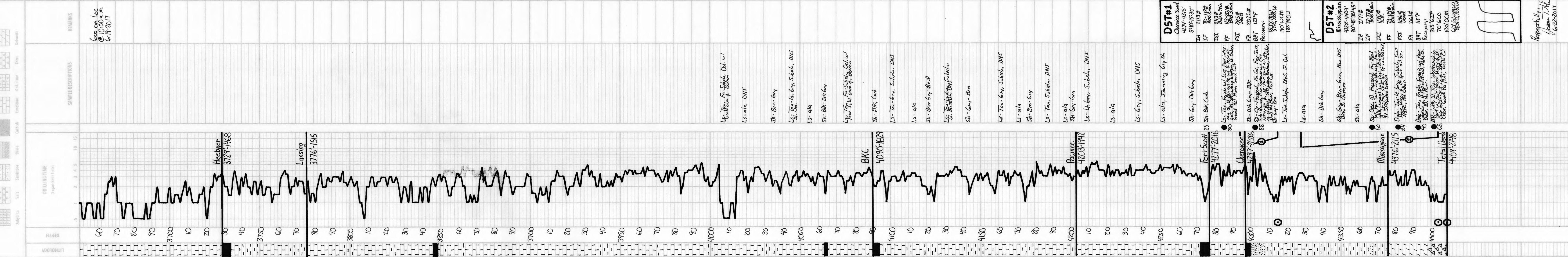
Displacement **3500'** Mud Type **Chemical**

Summary and Recommendations

The location for the Gillig-Rein #1 was found via 3-D seismic survey. The new well ran structurally as expected via the survey. Two Drill Stem Tests were conducted, one of which recovered commercial amounts of oil from the Mississippian Osage Formation. After all gathered data had been examined the decision was made to run 5 1/2 inch production casing to further evaluate the Gillig-Rein #1 well.

Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

American Warrior, Inc.
 PO BOX 399
 Garden City KS 67846
 ATTN: Jason T. Alm

23-19S-22W Ness KS

Gillig-Rein #1

Job Ticket: 63225

DST#: 1

Test Start: 2017.06.20 @ 14:02:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:04:15
 Time Test Ended: 19:12:00
 Interval: **4294.00 ft (KB) To 4315.00 ft (KB) (TVD)**
 Total Depth: 4315.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 2261.00 ft (KB)
 2253.00 ft (CF)
 KB to GR/CF: 8.00 ft

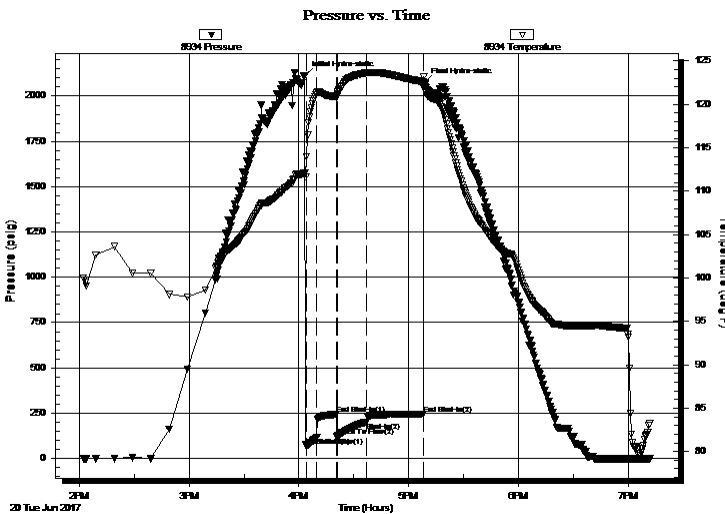
Serial #: 8934

Outside

Press@RunDepth: 201.22 psig @ 4296.00 ft (KB)
 Start Date: 2017.06.20 End Date: 2017.06.20
 Start Time: 14:02:15 End Time: 19:12:00
 Capacity: 8000.00 psig
 Last Calib.: 2017.06.20
 Time On Btm: 2017.06.20 @ 16:03:15
 Time Off Btm: 2017.06.20 @ 17:08:45

TEST COMMENT: 5-IF-Strong Blow ; BOB in 2 mins
 10-ISI-Very Weak Surface Blow ; Built to 1/8"
 15-FF-Strong Blow ; BOB in 3 mins
 30-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2113.47	112.13	Initial Hydro-static
1	70.34	113.98	Open To Flow (1)
7	117.51	121.33	Shut-In(1)
18	242.54	120.84	End Shut-In(1)
18	122.90	121.18	Open To Flow (2)
34	201.22	123.65	Shut-In(2)
65	245.39	122.57	End Shut-In(2)
66	2076.16	122.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
185.00	MCW 5%M 95%W	2.30
190.00	WCM 30%W 70%M	2.67
15.00	OMCW 5%O 45%M 50%W	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

American Warrior, Inc.

23-19S-22W Ness KS

PO BOX 399
Garden City KS 67846

Gillig-Rein #1

Job Ticket: 63225

DST#: 1

ATTN: Jason T. Alm

Test Start: 2017.06.20 @ 14:02:00

GENERAL INFORMATION:

Formation: **Cherokee Sand**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:04:15

Time Test Ended: 19:12:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Spencer J. Staab

Unit No: 84

Interval: **4294.00 ft (KB) To 4315.00 ft (KB) (TVD)**

Reference Elevations: 2261.00 ft (KB)

Total Depth: 4315.00 ft (KB) (TVD)

2253.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9120 Inside

Press@RunDepth: psig @ 4296.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.06.20

End Date:

2017.06.20

Last Calib.:

2017.06.20

Start Time:

14:02:15

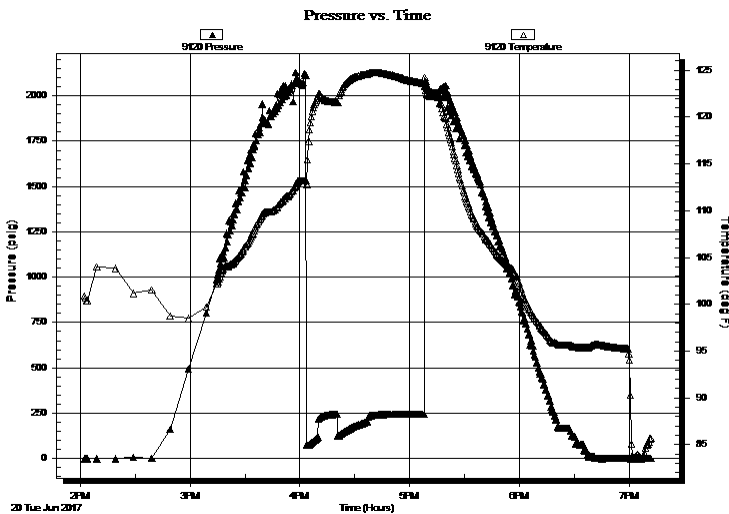
End Time:

19:12:00

Time On Btm:

Time Off Btm:

TEST COMMENT: 5-IF-Strong Blow ; BOB in 2 mins
10-ISI-Very Weak Surface Blow ; Built to 1/8"
15-FF-Strong Blow ; BOB in 3 mins
30-FSI-No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
185.00	MCW 5%M 95%W	2.30
190.00	WCM 30%W 70%M	2.67
15.00	OMCW 5%O 45%M 50%W	0.21

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

American Warrior, Inc.

23-19S-22W Ness KS

PO BOX 399
Garden City KS 67846

Gillig-Rein #1

Job Ticket: 63225

DST#: 1

ATTN: Jason T. Alm

Test Start: 2017.06.20 @ 14:02:00

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:

17500 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
185.00	MCW 5%M 95%W	2.304
190.00	WCM 30%W 70%M	2.665
15.00	OMCW 5%O 45%M 50%W	0.210

Total Length: 390.00 ft Total Volume: 5.179 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

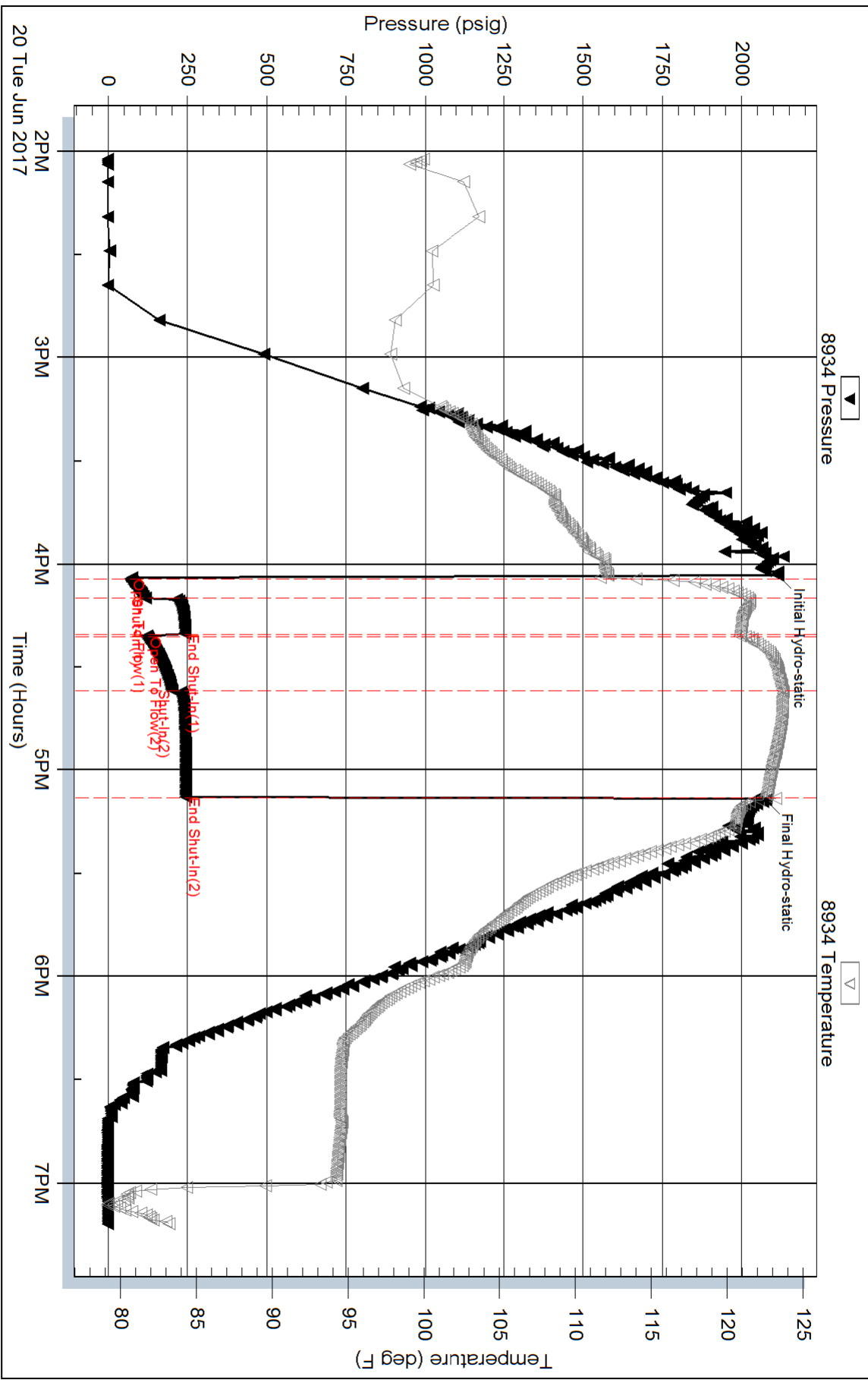
Laboratory Name:

Laboratory Location:

Recovery Comments: 1#LCM

RW=.310@85degrees

Pressure vs. Time



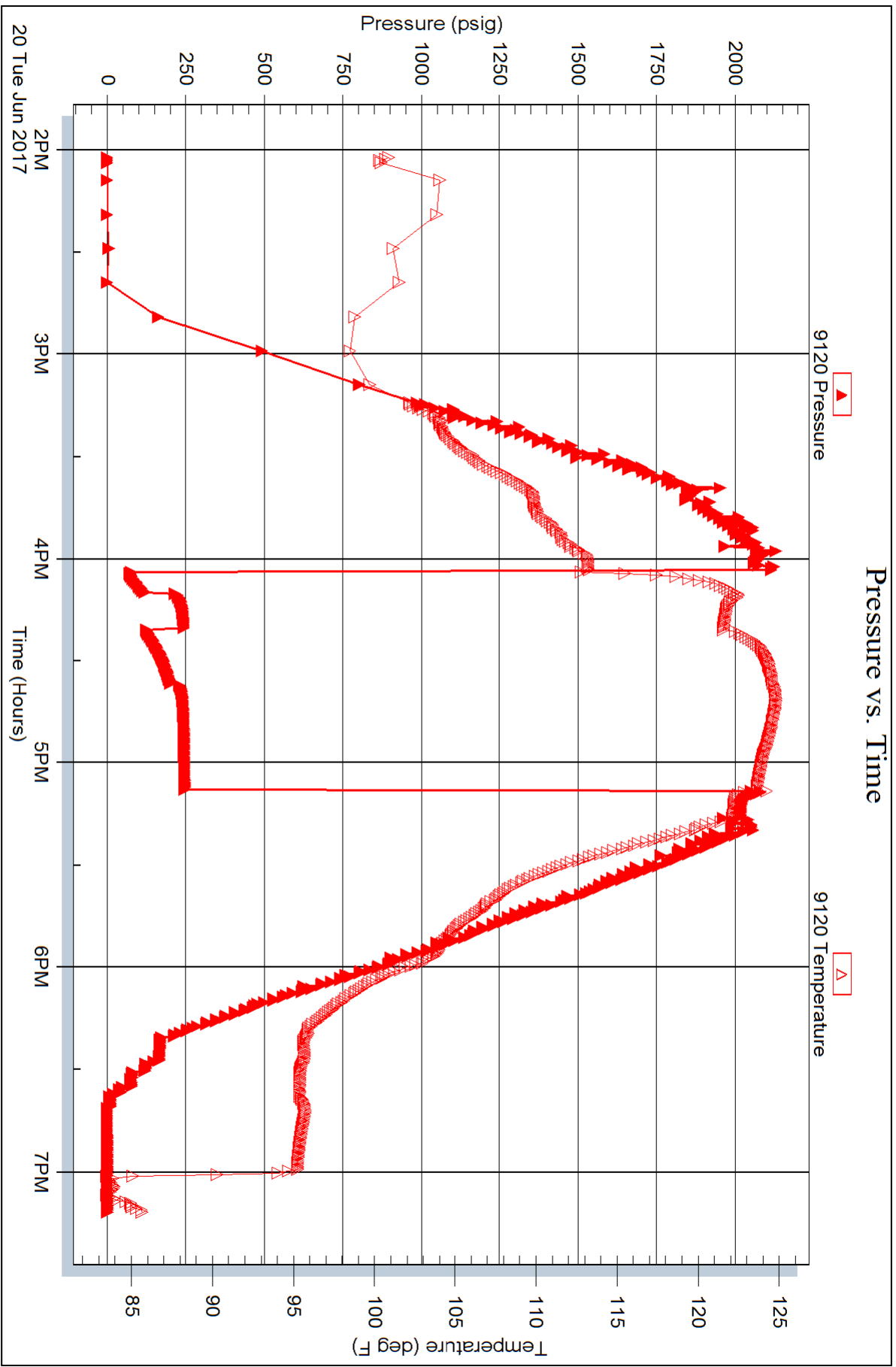
Serial #: 9120

Inside

American Warrior, Inc.

Gilgig-Rein #1

DST Test Number: 1





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

American Warrior, Inc.
PO BOX 399
Garden City KS 67846
ATTN: Jason T. Alm

23-19S-22W Ness KS

Gillig-Rein #1

Job Ticket: 62979

DST#: 2

Test Start: 2017.06.21 @ 05:07:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:53:00

Time Test Ended: 11:16:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: 4328.00 ft (KB) To 4404.00 ft (KB) (TVD)

Reference Elevations: 2261.00 ft (KB)

Total Depth: 4404.00 ft (KB) (TVD)

2253.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8934

Inside

Press@RunDepth: 113.81 psig @ 4336.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.06.21

End Date:

2017.06.21

Last Calib.:

2017.06.21

Start Time: 05:07:15

End Time:

11:16:00

Time On Btm:

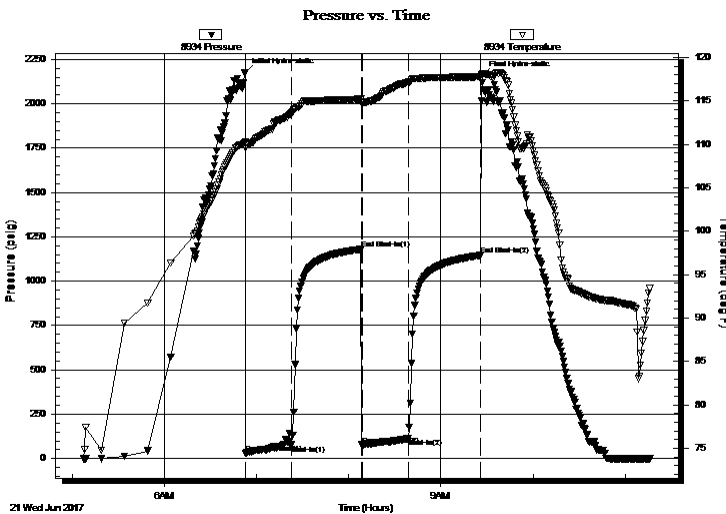
2017.06.21 @ 06:52:45

Time Off Btm:

2017.06.21 @ 09:26:45

TEST COMMENT: 30-IF-Fair Blow ; BOB in 14 mins
45-ISI-Slight Blow Back
30-FF-Fair Blow ; BOB in 10 mins
45-FSI-No Blow Back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2176.65	110.31	Initial Hydro-static
1	27.86	109.61	Open To Flow (1)
30	76.64	113.60	Shut-In(1)
76	1180.20	115.23	End Shut-In(1)
76	73.74	114.88	Open To Flow (2)
106	113.81	117.16	Shut-In(2)
153	1145.79	117.79	End Shut-In(2)
154	2161.21	118.07	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GWMCO 10%G 10%W 25%M 55%O	0.55
80.00	OCM 10%O 90%M	1.12
20.00	OCM 20%O 80%M	0.28
70.00	Clean Gassy Oil 40%G 60%O	0.98
0.00	315' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

American Warrior, Inc.

23-19S-22W Ness KS

PO BOX 399
Garden City KS 67846

Gillig-Rein #1

Job Ticket: 62979

DST#: 2

ATTN: Jason T. Alm

Test Start: 2017.06.21 @ 05:07:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:53:00

Time Test Ended: 11:16:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Spencer J. Staab

Unit No: 84

Interval: 4328.00 ft (KB) To 4404.00 ft (KB) (TVD)

Reference Elevations: 2261.00 ft (KB)

Total Depth: 4404.00 ft (KB) (TVD)

2253.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9120 Inside

Press@RunDepth: psig @ 4336.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.06.21

End Date:

2017.06.21

Last Calib.:

2017.06.21

Start Time: 05:07:15

End Time:

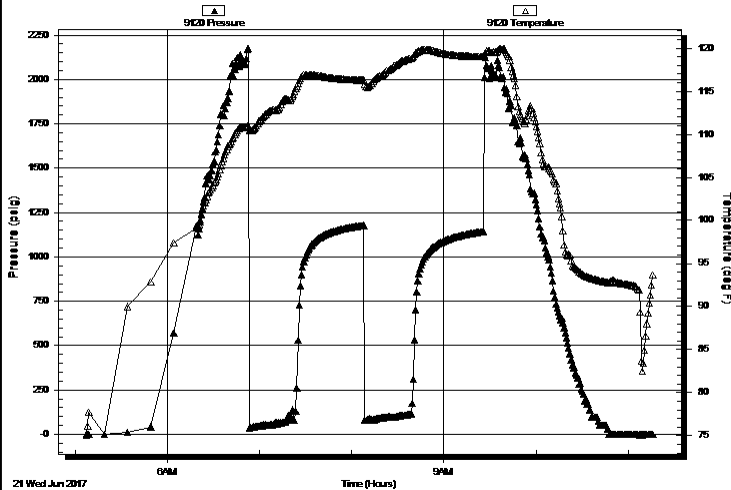
11:16:00

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-Fair Blow ; BOB in 14 mins
45-ISI-Slight Blow Back
30-FF-Fair Blow ; BOB in 10 mins
45-FSI-No Blow Back

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GWMCO 10%G 10%W 25%M 55%O	0.55
80.00	OCM 10%O 90%M	1.12
20.00	OCM 20%O 80%M	0.28
70.00	Clean Gassy Oil 40%G 60%O	0.98
0.00	315' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

American Warrior, Inc.

23-19S-22W Ness KS

PO BOX 399
Garden City KS 67846

Gillig-Rein #1

Job Ticket: 62979

DST#: 2

ATTN: Jason T. Alm

Test Start: 2017.06.21 @ 05:07:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

46 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6100.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
60.00	GWMCO 10%G 10%W 25%M 55%O	0.550
80.00	OCM 10%O 90%M	1.122
20.00	OCM 20%O 80%M	0.281
70.00	Clean Gassy Oil 40%G 60%O	0.982
0.00	315' GIP	0.000

Total Length: 230.00 ft

Total Volume: 2.935 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: 1#LCM

Serial #: 8934

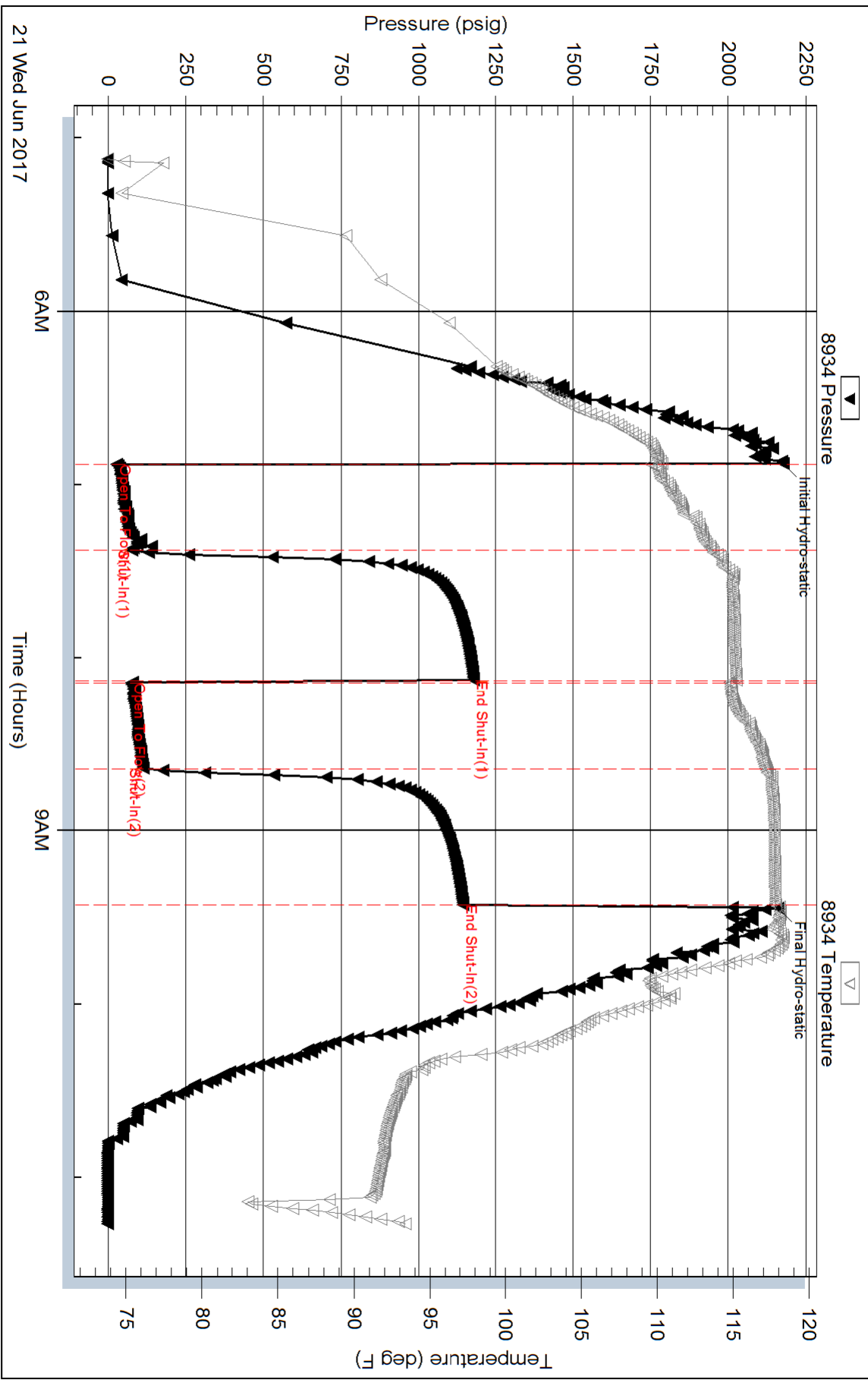
Inside

American Warrior, Inc.

Gilg-Rein #1

DST Test Number: 2

Pressure vs. Time



Triobite Testing, Inc

Ref. No: 62979

Printed: 2017.06.21 @ 11:53:37

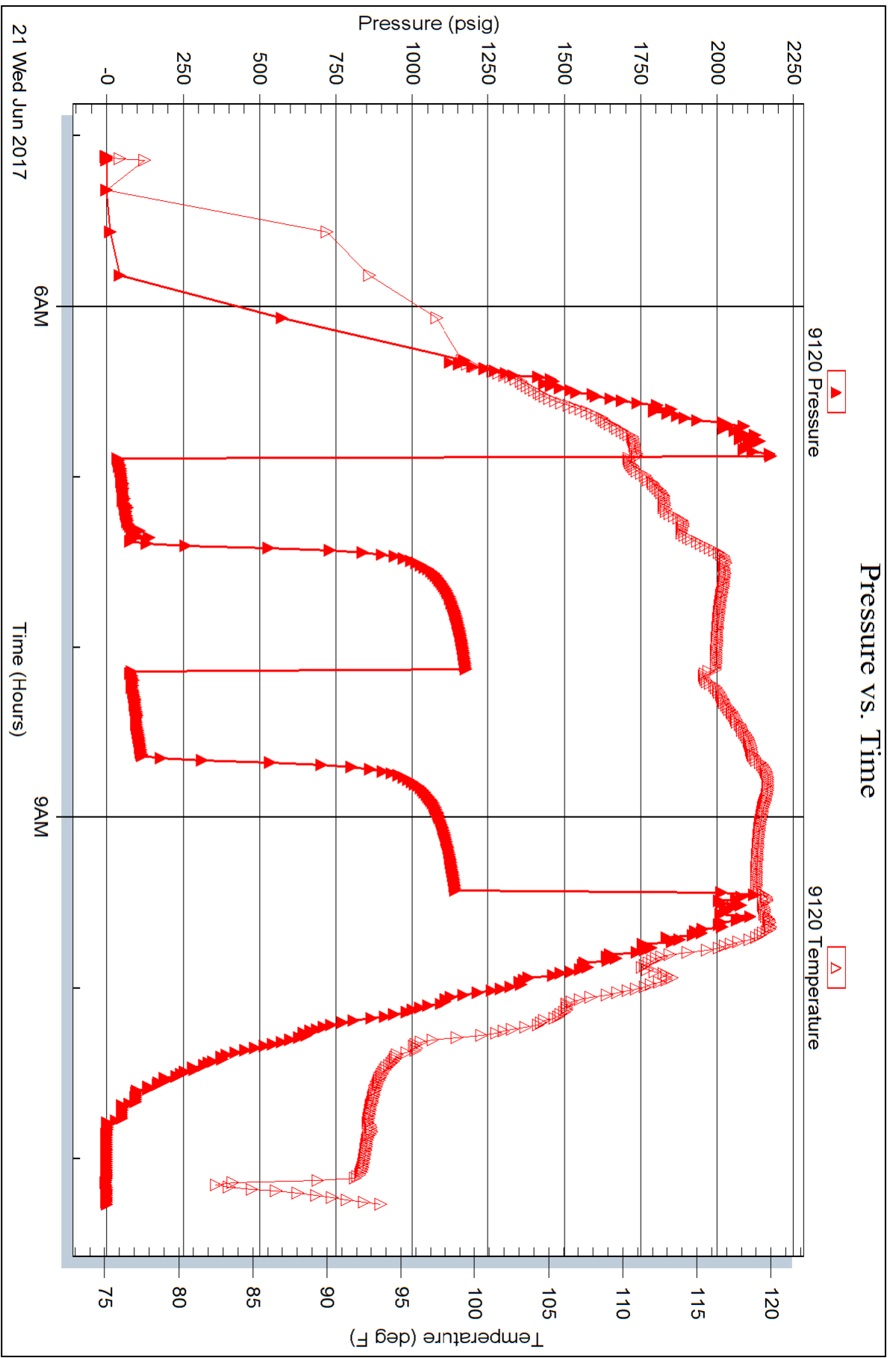
Serial #: 9120

Inside

American Warrior, Inc.

Giliga-Rein #1

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 62979

Printed: 2017.06.21 @ 11:53:37



Services, Inc.

CHARGE TO: 785-798-2300
 ADDRESS: 11111
 CITY, STATE, ZIP CODE:

TICKET NUMBER: 50000

PAGE 1 OF 1

SERVICE LOCATIONS	WELL/PROJECT NO.	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. <u>Hyatt Co. KS</u>		<u>5-11-9-Perm</u>	<u>Neosho</u>	<u>KS</u>	<u>Bazine</u>	<u>14 Jun 17</u>	
2.	TICKET TYPE	CONTRACTOR	RIG NAME NO.	SHIPPED	DELIVERED TO	ORDER NO.	
	<input type="checkbox"/> SERVICE			<input checked="" type="checkbox"/> BY	<u>11261.000</u>		
	<input type="checkbox"/> SALES						
3.	WELL TYPE	WELL CATEGORY	JOB PURPOSE	WELL PERMIT NO.	WELL LOCATION		
		<u>Perm</u>	<u>General purpose pipe</u>		<u>23-19-21</u>		
4.	REFERRAL LOCATION	INVOICE INSTRUCTIONS					

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
574		1			MILEAGE TRAVEL	20	mi			5.00	100.00
5165		1			Road Charge	1	ea			800.00	800.00
325		1			STANDARD COMPONENT	150	ea			12.85	1837.50
379		1			Berkshire gas	300	lb	3	ea	25.00	75.00
378		1			Calumet Chlorine	350	lb	9	ea	40.00	360.00
390		1			D-air	1	gal			420.00	420.00
581		1			Service charge	150	hr			1.50	225.00
583		1			Dryage (M.A.)	1	ea	1430	lb	250.00	250.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED: TIME SIGNED:

A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UN-DECIDED	DIS-AGREE
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	

CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL: 3669.50

TAX:

TOTAL:

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES: APPROVAL

SWIFT OPERATOR:

Thank You!

JOB LOG

6

SWIFT Services, Inc.

DATE 14 Jun 17	PAGE NO. 1
TICKET NO. 30390	

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								150 sk Standard cement 2% gel 3% CC
								8 5/8" 24" casing 5 jts 221'
	21:00							on loc TRK 114
								start 8 5/8" 24" casing in well
	21:45							circulate well
	21:50	3 1/2	37			100		min STD cement 2% 3% C 14 1/2 gal <u>150 sk</u>
	22:04	3 1/2				100		Displace w/ H ₂ O
	22:15	3 1/2	12.5			300		→ cement to surface ← Kickout
	22:18							shot in 8 5/8" casing
	22:22							150 sk cement 15 sk top
								unload truck
								Rack up
	22:45							job complete
								Thanks
								Blaine, Flint & Scott



Services, Inc.

CHARGE TO: American Lubricant Inc.
ADDRESS
CITY, STATE, ZIP CODE

TICKET 6-21-17

PAGE 1 OF 2

1. SERVICE LOCATIONS	WELL/PROJECT NO. 11	LEASE	COUNTY/PARISH	STATE	CITY	DATE	OWNER
1. Address 111111		Galla-Bain	Adess	KS	Bazine	6-21-17	Swain
2. TICKET TYPE	CONTRACTOR	RIG NAME/NO.	SHIPPED VIA	DELIVERED TO	WELL PERMIT NO.	ORDER NO.	
3. SALES	Discovery Drilling	44	WCT	Location			
4. REFERRAL LOCATION	WELL TYPE	WELL CATEGORY	JOB PURPOSE	WELL LOCATION			
	01	Development	Rement 5 1/2" Longstring	Bazine 15-4 1/2" 15-15-15			
INVOICE INSTRUCTIONS							

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE			20	mi	5.00	100.00
578					Plumb Charge - Longstring			1	job	1250.00	1250.00
402					Conventionalizer			5	ea	60.00	300.00
403					Current Brackets			2	ea	250.00	500.00
404					Port Collar			1	ea	2500.00	2500.00
406					Latch Down Plug + Bar Me			1	ea	225.00	225.00
407					Insert Float Shoe w/Auto Fill			1	ea	300.00	300.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED 6-21-17 TIME SIGNED 2:30 P.M.

REMIT PAYMENT TO:
SWIFT SERVICES, INC.
P.O. BOX 466
NESS CITY, KS 67560
785-798-2300

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	PAGE TOTAL #1	5175.00
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?				TOTAL	4797.00
WE UNDERSTOOD AND MET YOUR NEEDS?				TAX	207.50
OUR SERVICE WAS PERFORMED WITHOUT DELAY?					
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?					
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO			

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR David Wushin APPROVAL

Thank You!



PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 11 30591

CUSTOMER
American Petroleum Products Inc.

WELL
Gilling-Rem #1

DATE
6-21-17

PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELL		UNIT PRICE		AMOUNT	
		LOC	ACCT	DR			QTY	U/M	QTY	U/M		
305						Standard Cement (E.A.D.)			12	125	2143	75
284						Calcrete	5	9/8	30	60	240	00
283						Salt	10	1/6	00	180	180	00
285						CFR-1	1/2	1/6	4	50	450	00
286						Bulk L-1	1/4	1/6	80	50	400	00
277						Gravel	1/4	1/6	2	25	112	50
270						D-Ar	2	gal	42	50	84	00
581						Mud Wash	500	gal	1	25	625	00
221						Emp. KCL	2	gal	25	50	50	00
582						Mud Pump Discharge Charge	1	ea	250	50	250	50
581						Mileage Charge	175		1	50	262	50

CONTINUATION TOTAL 4797.50

JOB LOG

SWIFT Services, Inc.

DATE 6-21-17 PAGE NO. 1

CUSTOMER American Waxing WELL NO. #1 LEASE Gillig-Rein JOB TYPE Longstring TICKET NO. # 30591

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2200							on location 5 1/2" 15.5"
								RTD-4409' LTD-4404' TP-4416' SS- #1 43.38 P.C. - #69 1473' out - #104 centralizer - #1 2" 3" 4" #68 Basket - *5 #69
	2315							Start 5 1/2" 15.5" casing in well
6-22-17	0105							Drop Ball Circulate
	0135	6 1/2	12		✓	350		Pump 500 gal Mud Flush
		6 1/2	20		✓	350		Pump 20 bbl KCL Flush
			7-5					Plug R11-MH (30-20)
	0155	4 1/2	30		✓	200		mix 125 sls EA-2 @ 15.5 ppg
								wash out Pump + Lines Release Latch Down Plug
	0210	6 1/2	0		✓	100		Start Displacement
		6 1/2	81		✓	300		Lift Pressure
		6 1/2	103		✓	800		Max Lift Pressure
	0230	6 1/2	104		✓	1700		Land Latch Down Plug
								Release Pressure * Plug Hold*
								wash up truck
	0300							Job Complete
								Thank You Dave Preston Russ



Services, Inc.

CHARGE TO: 111
 ADDRESS: 1111111111
 CITY, STATE, ZIP CODE: 111111

TICKET 000000
 PAGE 1 OF 1

SERVICE LOCATIONS: 11111111 WELL/PROJECT NO: 1 LEASE: C. Ryan COUNTY/PARISH: MOBILE STATE: AL CITY: MOBILE DATE: 7/11/17 OWNER: 1

TICKET TYPE: SERVICE CONTRACTOR: 1 RIG NAME/NO.: 1 SHIPPED VIA: BT DELIVERED TO: 11111111 ORDER NO.: 1

WELL TYPE: 1 WELL CATEGORY: 1 JOB PURPOSE: 1 WELL PERMIT NO.: 1 WELL LOCATION: 23-19-22

INVOICE INSTRUCTIONS: 1

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
675					MILEAGE	80	mi			5.00	400.00
576 D					Equip Charge	1	ea			1250.00	1250.00
330					SWIFT contract	135	hr			15.75	2126.25
276					Electric	30	lb			2.25	67.50
290					D. oil	2	gal			43.00	86.00
104					Tool box, power tool rental	52	hr			200.00	10400.00
581					Service Charge	175	hr			1.50	262.50
582					D. oil	1	hr			250.00	250.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, **PAYMENT, RELEASE, INDEMNITY,** and **LIMITED WARRANTY** provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS

DATE SIGNED: 7/11/17 TIME SIGNED: 11:11 A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UN-DECIDED	DIS-AGREE
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			
ARE YOU SATISFIED WITH OUR SERVICE?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	

PAGE TOTAL 4340.25

TOTAL 4501.30

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR: 111111 APPROVAL: 111111

Thank You!

