

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 Recompletion Date _____ Date Reached TD _____ Completion Date or Recompletion Date _____

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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

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

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

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

| | |
|--|---|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum |
|--|---|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used | | | | | | | |
|---|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc. | | | | | | | |
| Purpose of String | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

| ADDITIONAL CEMENTING / SQUEEZE RECORD | | | | |
|--|------------------|----------------|--------------|----------------------------|
| Purpose: | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
| <input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone | | | | |
| | | | | |

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

| | | | | | |
|---|--|---------|-------------|---------------|---------|
| Date of first Production/Injection or Resumed Production/Injection: | Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____ | | | | |
| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio | Gravity |

| | | |
|---|--|------------------------------------|
| DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i> | PRODUCTION INTERVAL: Top Bottom |
|---|--|------------------------------------|

| 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 | GEMJ Enterprises, LLC |
| Well Name | GEMJ 1-18 |
| Doc ID | 1522649 |

Tops

| Name | Top | Datum |
|--------------------|------|-------|
| Anhydrite | 2137 | +525 |
| Base Anhydrite | 2169 | +493 |
| Topeka | 3291 | -629 |
| Heebner Shale | 3455 | -793 |
| Toronto | 3489 | -827 |
| Lansing | 3500 | -838 |
| Stark Shale | 3654 | -992 |
| Base/Kansas City | 3708 | -1046 |
| Marmaton | 3714 | -1052 |
| Cherokee Lime | 3832 | -1170 |
| Conglomerate | 3850 | -1188 |
| Weathered Granite | 3914 | -1252 |
| Log Total Depth | 3972 | -1310 |
| Rotary total Depth | 3974 | -1312 |



HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202
316-303-9515

Customer:
GEMJ ENTERPRISES
C/O GREG LONG
105 N GRIFFITH AVE
OBERLIN, KS 67749

Invoice Date: 6/11/2020
Invoice #: 0347851
Lease Name: GEMJ
Well #: 1-18 (New)
County: Decatur, Ks
Job Number: ICT3664
District: Medicine Lodge

| Date/Description | HRS/QTY | Rate | Total |
|---------------------|---------|---------|----------|
| 8 5/8" Surface | 0.000 | 0.000 | 0.00 |
| Cement Pozmix 60/40 | 180.000 | 9.100 | 1,638.00 |
| Calcium Chloride | 465.000 | 0.525 | 244.13 |
| Cello Flake | 45.000 | 1.225 | 55.13 |
| Light Eq Mileage | 75.000 | 1.400 | 105.00 |
| Heavy Eq Mileage | 75.000 | 2.800 | 210.00 |
| Ton Mileage | 581.000 | 1.050 | 610.05 |
| Cement Pump Service | 1.000 | 525.000 | 525.00 |

Total 3,387.31

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

SALES TAX: Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

WE APPRECIATE YOUR BUSINESS!



HURRICANE SERVICES INC

| | | | | | |
|------------------|-------------------|---|---|--|--|
| Customer | GEMJ | Lease & Well # | GEMJ 1-18 | Date | 6/11/2020 |
| Service District | MEDICINE LODGE KS | County & State | DECATUR CO KS | Legals S/T/R | 18-2S-26W |
| Job Type | 8 5/8 SURFACE | <input type="checkbox"/> PROD | <input type="checkbox"/> INJ | <input type="checkbox"/> SWD | New Well? <input type="checkbox"/> YES <input type="checkbox"/> No |
| Equipment # | Driver | Job Safety Analysis - A Discussion of Hazards & Safety Procedures | | | |
| 912 | MATTAL | <input type="checkbox"/> Hard hat | <input type="checkbox"/> Gloves | <input type="checkbox"/> Lockout/Tagout | <input type="checkbox"/> Warning Signs & Flagging |
| 526/521 | MCGRAW | <input type="checkbox"/> H2S Monitor | <input type="checkbox"/> Eye Protection | <input type="checkbox"/> Required Permits | <input type="checkbox"/> Fall Protection |
| 165/250 | REBARCHEK | <input type="checkbox"/> Safety Footwear | <input type="checkbox"/> Respiratory Protection | <input type="checkbox"/> Slip/Trip/Fall Hazards | <input type="checkbox"/> Specific Job Sequence/Expectations |
| | | <input type="checkbox"/> FRC/Protective Clothing | <input type="checkbox"/> Additional Chemical/Acid PPE | <input type="checkbox"/> Overhead Hazards | <input type="checkbox"/> Muster Point/Medical Locations |
| | | <input type="checkbox"/> Hearing Protection | <input type="checkbox"/> Fire Extinguisher | <input type="checkbox"/> Additional concerns or issues noted below | |
| Comments | | | | | |

| Product/ Service Code | Description | Unit of Measure | Quantity | Net Amount |
|-----------------------|-------------------------|-----------------|----------|------------|
| CP070 | 60/40/2 Pozmix | sack | 180.00 | \$1,638.00 |
| CP100 | Calcium Chloride | lb | 465.00 | \$244.13 |
| CP120 | Cello-flake | lb | 45.00 | \$55.13 |
| M015 | Light Equipment Mileage | mi | 75.00 | \$105.00 |
| M010 | Heavy Equipment Mileage | mi | 75.00 | \$210.00 |
| M020 | Ton Mileage | tm | 581.00 | \$610.05 |
| C010 | Cement Pump Service | ea | 1.00 | \$525.00 |

| | | | |
|---|--|---|--------------------|
| Customer Section: On the following scale how would you rate Hurricane Services Inc.? | | Net: | \$3,387.30 |
| Based on this job, how likely is it you would recommend HSI to a colleague? | | Total Taxable \$ | - |
| <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | Tax Rate: | |
| Unlikely 1 2 3 4 5 6 7 8 9 10 Extremely Likely | | State tax laws deem certain products and services used on new wells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt. | Sale Tax: \$ - |
| | | Total: | \$ 3,387.30 |
| | | HSI Representative: | <i>Mike Mattal</i> |

TERMS: Cash in advance unless Hurricane Services Inc. (HSI) has approved credit prior to sale. Credit terms of sale for approved accounts are total invoice due on or before the 30th day from the date of invoice. Past due accounts shall pay interest on the balance past due at the rate of 1 1/2% per month or the maximum allowable by applicable state or federal laws. In the event it is necessary to employ an agency and/or attorney to affect the collection, Customer hereby agrees to pay all fees directly or indirectly incurred for such collection. In the event that Customer's account with HSI becomes delinquent, HSI has the right to revoke any discounts previously applied in arriving at net invoice price. Upon revocation, the full invoice price without discount is immediately due and subject to collection. Prices quoted are estimates only and are good for 30 days from the date of issue. Pricing does not include federal, state, or local taxes, or royalties and stated price adjustments. Actual charges may vary depending upon time, equipment, and material ultimately required to perform these services. Any discount is based on 30 days net payment terms or cash. **DISCLAIMER NOTICE:** Technical data is presented in good faith, but no warranty is stated or implied. HSI assumes no liability for advice or recommendations made concerning the results from the use of any product or service. The information presented is a best estimate of the actual results that may be achieved and should be used for comparison purposes and HSI makes no guarantee of future production performance. Customer represents and warrants that well and all associated equipment in acceptable condition to receive services by HSI. Likewise, the customer guarantees proper operational care of all customer owned equipment and property while HSI is on location performing services. The authorization below acknowledges the receipt and acceptance of all terms/conditions stated above, and Hurricane has been provided accurate well information in determining taxable services.

X _____ **CUSTOMER AUTHORIZATION SIGNATURE**



CEMENT TREATMENT REPORT

| | | |
|---------------------------------|------------------------------|-------------------------------|
| Customer: GEMJ | Well: GEMJ 1-18 | Ticket: ICT3664 |
| City, State: NORCATUR KS | County: DECATUR CO KS | Date: 6/11/2020 |
| Field Rep: GREGG LONG | S-T-R: 18-2S-26W | Service: 8 5/8 SURFACE |

Downhole Information

| | |
|-----------------|-------------|
| Hole Size: | in |
| Hole Depth: | ft |
| Casing Size: | in |
| Casing Depth: | ft |
| Tubing / Liner: | in |
| Depth: | ft |
| Tool / Packer: | |
| Tool Depth: | ft |
| Displacement: | bbls |

Calculated Slurry - Lead

| | |
|---------------------|---------------------------------|
| Blend: | 60/40/2 POZMIX |
| Weight: | 14.8 ppg |
| Water / Sx: | 5.2 gal / sx |
| Yield: | 1.21 ft³ / sx |
| Annular Bbls / Ft.: | bbs / ft. |
| Depth: | 307 ft |
| Annular Volume: | 0.0 bbls |
| Excess: | |
| Total Slurry: | 39.0 bbls |
| Total Sacks: | 180 sx |

Calculated Slurry - Tail

| | |
|---------------------|----------------------------|
| Blend: | |
| Weight: | ppg |
| Water / Sx: | gal / sx |
| Yield: | ft³ / sx |
| Annular Bbls / Ft.: | bbs / ft. |
| Depth: | ft |
| Annular Volume: | 0 bbls |
| Excess: | |
| Total Slurry: | 0.0 bbls |
| Total Sacks: | #DIV/0! sx |

| TIME | RATE | PSI | STAGE BBLs | TOTAL BBLs | REMARKS |
|----------|------|-------|------------|------------|--|
| 9:30 PM | | | - | - | ON LOCATION/SAFTEY MEETING |
| 9:35 PM | | | | - | RUN 300' 23# 8 5/8 CASING |
| 10:15 PM | | | | - | CASING ON BOTTOM |
| 10:21 PM | | | | - | HOOK TO CASING/BREAK CIRC WITH RIG |
| 10:35 PM | 4.5 | 150.0 | 3.0 | 3.0 | PUMP 3 BBL WATER |
| 10:36 PM | 5.0 | 150.0 | 39.0 | 42.0 | MIX 180 SKS 60/40/2 POZMIX |
| 10:46 PM | 3.0 | 150.0 | 17.5 | 59.5 | START DISPLACEMENT |
| 10:55 PM | | 150.0 | | 59.5 | PLUG DOWN/SHUT IN WELL CEMENT TO SURFACE |
| | | | | 59.5 | |
| | | | | 59.5 | |
| | | | | 59.5 | |
| | | | | 59.5 | |
| | | | | 59.5 | JOB COMPLETE/THANK YOU! |
| | | | | 59.5 | MIKE MATTAL |
| | | | | 59.5 | MIKE&MICHAEL |
| | | | | 59.5 | |
| | | | | 59.5 | |
| | | | | 59.5 | |
| | | | | 59.5 | |
| | | | | 59.5 | |
| | | | | 59.5 | |
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| | | | | 59.5 | |
| | | | | 59.5 | |
| | | | | 59.5 | |
| | | | | 59.5 | |
| | | | | 59.5 | |

| CREW | | UNIT | SUMMARY | | |
|----------------|------------------|---------|--------------|------------------|-------------|
| Cementer: | MATTAL | 912 | Average Rate | Average Pressure | Total Fluid |
| Pump Operator: | MCGRAW | 526/621 | 4.2 bpm | 150 psi | 60 bbls |
| Bulk #1: | REBARCHEK | 165/250 | | | |
| Bulk #2: | | | | | |



HURRICANE SERVICES INC

Remit To: Hurricane Services, Inc.
250 N. Water, Suite 200
Wichita, KS 67202
316-303-9515

Customer:
GEMJ ENTERPRISES
C/O GREG LONG
105 N GRIFFITH AVE
OBERLIN, KS 67749

Invoice Date: 6/19/2020
Invoice #: 0347961
Lease Name: GemJ
Well #: 1-18
County: Decatur, Ks
Job Number: ICT3712
District: Medicine Lodge

| Date/Description | HRS/QTY | Rate | Total |
|---------------------|---------|---------|----------|
| PTA | 0.000 | 0.000 | 0.00 |
| H-Plug | 290.000 | 9.100 | 2,639.00 |
| Light Eq Mileage | 75.000 | 1.400 | 105.00 |
| Heavy Eq Mileage | 75.000 | 2.800 | 210.00 |
| Ton Mileage | 938.000 | 1.050 | 984.90 |
| Cement Pump Service | 1.000 | 770.000 | 770.00 |
| Wooden plug 8 5/8" | 1.000 | 105.000 | 105.00 |

| | |
|--------------|-----------------|
| Net Invoice | 4,813.90 |
| Sales Tax: | 256.08 |
| Total | 5,069.98 |

TERMS: Net 30 days. Interest may be charged on past due invoice at rate of 1 ½% per month or maximum allowed by applicable state or federal laws. HSI has right to revoke any discounts applied in arriving at net invoice price if invoice is past due. If revoked, full invoice price without discount plus additional sales tax, as applicable, is due immediately and subject to interest charges. Customer agrees to pay all collection costs directly or indirectly incurred by HSI in the event HSI engages a third party to pursue collection of past due invoice.

SALES TAX: Services performed on oil, gas and water wells in Kansas are subject to sales tax, with certain exceptions. HSI relies on the well information provided by the customer in identifying whether the services performed on wells qualify for exemption.

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CEMENT TREATMENT REPORT

| | | |
|--------------------------------|----------------------------|-------------------------|
| Customer: GEMJ | Well: GEMJ 1-18 | Ticket: ICT 3712 |
| City, State: | County: DECATUR, KS | Date: 6/19/2020 |
| Field Rep: SCOTT PILAND | S-T-R: 18-2S-26W | Service: PTA |

| Downhole Information | |
|----------------------|------------------|
| Hole Size: | in |
| Hole Depth: | ft |
| Casing Size: | 4.5 dp in |
| Casing Depth: | ft |
| Tubing / Liner: | in |
| Depth: | ft |
| Tool / Packer: | |
| Depth: | ft |
| Displacement: | bbbls |

| Calculated Slurry | |
|-------------------|---------------------------------|
| Weight: | 13.78 # / sx |
| Water / Sx: | 6.92 gal / sx |
| Yield: | 1.43 ft³ / sx |
| Bbls / Ft.: | |
| Depth: | ft |
| Annular Volume: | 0 bbls |
| Excess: | |
| Total Slurry: | 0.0 bbls |
| Total Sacks: | 290 sx |

| Product | % / # | # |
|-------------------|--------------|---------------|
| Class A | 60.00 | 9870 |
| Poz | 40.00 | 5180 |
| Gel | 4.00 | 602 |
| CaCl | | |
| Gypsum | | |
| Metso | | |
| Kol Seal | | |
| Pio Seal | | |
| Salt (brw) | | |
| Total | | 15,652 |

| TIME | RATE | PSI | BBLs | REMARKS |
|--------|------|-------|------|--|
| 2:00AM | | | | ON LOCATION/ SPOT EQUIPMENT AND RIG UP |
| 2:30AM | | | | HOOK UP TO 4.5" D.P. |
| 5:20AM | | | | 1ST PLUG @ 3880' WITH 50 SKS |
| 5:30AM | 6.0 | 200.0 | 12.7 | MIX CEMENT @13.78PPG |
| 5:32AM | 6.0 | 200.0 | 10.0 | H2o DISPLACEMENT |
| 5:35AM | 6.0 | 100.0 | 42.0 | MUD DISPLACEMENT |
| 6:40AM | | | | 2ND PLUG @ 2155' WITH 50 SKS |
| 6:41AM | 6.0 | 150.0 | 12.7 | MIX CEMENT @13.78PPG |
| 6:45AM | 6.0 | 100.0 | 10.0 | H2o DISPLACEMENT |
| 6:48AM | 6.0 | 50.0 | 17.0 | MUD DISPLACEMENT |
| 7:15AM | | | | 3RD PLUG @ 1400' WITH 100 SKS |
| 7:18AM | 6.0 | 100.0 | 25.5 | MIX CEMENT @13.78PPG |
| 7:30AM | 6.0 | 50.0 | 13.3 | H2o DISPLACEMENT |
| 8:15AM | | | | 4TH PLUG @ 360' WITH 50 SKS |
| 8:18AM | 5.0 | 50.0 | 12.7 | MIX CEMENT @13.78PPG |
| 8:20AM | 5.0 | - | 1.8 | H2o DISPLACEMENT |
| 9:25AM | | | 3.0 | 5TH PLUG @ 40' WITH 10 SKS |
| 9:30AM | 3.0 | - | | CEMENT TO SURFACE |
| 9:40AM | | - | 7.0 | PLUG RATHOLE WITH 30 SKS |
| | | | | JOB COMPLETE, |

| CREW | | UNIT | SUMMARY | | |
|----------------|-----------------|----------------|--------------|------------------|-------------|
| Cementer: | LESLEY | 75 | Average Rate | Average Pressure | Total Fluid |
| Pump Operator: | OSBOURNE | 524-322 | 5.54545 bpm | 83 psi | 168 bbls |
| Bulk #1: | OCHS | 205 | | | |
| Bulk #2: | | | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **GemJ Enterprises LLC**

105 N. Griffith Ave
Oberlin, KS 67749+2108

ATTN: Clayton Erickson / G

GemJ #1-18

18-2s-26w Decatur KS

Start Date: 2020.06.15 @ 16:04:00

End Date: 2020.06.15 @ 22:44:30

Job Ticket #: 66504 DST #: 1

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2020.06.19 @ 09:29:05

GemJ Enterprises LLC

18-2s-26w Decatur KS

GemJ #1-18

DST # 1

LKC "A"

2020.06.19



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GemJ Enterprises LLC

18-2s-26w Decatur KS

105 N. Griffith Ave
Oberlin, KS 67749+2108

GemJ #1-18

Job Ticket: 66504

DST#: 1

ATTN: Clayton Erickson / G

Test Start: 2020.06.15 @ 16:04:00

GENERAL INFORMATION:

Formation: **LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:02:00

Time Test Ended: 22:44:30

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 83

Interval: **3460.00 ft (KB) To 3520.00 ft (KB) (TVD)**

Reference Elevations: 2662.00 ft (KB)

Total Depth: 3520.00 ft (KB) (TVD)

2655.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8652

Outside

Press@RunDepth: 35.49 psig @ 3461.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.06.15

End Date: 2020.06.15

Last Calib.: 2020.06.17

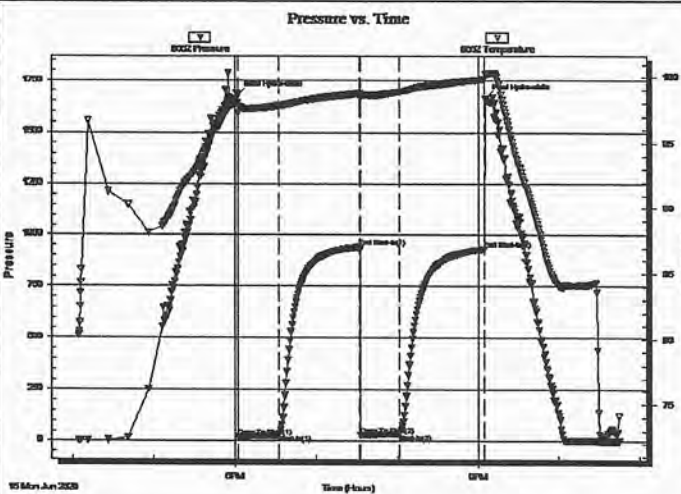
Start Time: 16:04:05

End Time: 22:44:29

Time On Btm: 2020.06.15 @ 18:01:45

Time Off Btm: 2020.06.15 @ 21:05:45

TEST COMMENT: 30 - IF: Blow built to 1/2"
60 - IS: No blow back
30 - FF: Surface blow, built slightly
60 - FS: No blow back



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1676.87 | 98.08 | Initial Hydro-static |
| 1 | 19.95 | 97.23 | Open To Flow (1) |
| 31 | 27.12 | 97.81 | Shut-In(1) |
| 91 | 940.73 | 98.77 | End Shut-In(1) |
| 91 | 29.50 | 98.39 | Open To Flow (2) |
| 120 | 35.49 | 98.90 | Shut-In(2) |
| 183 | 931.45 | 99.86 | End Shut-In(2) |
| 184 | 1662.89 | 100.22 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---|--------------|
| 30.00 | Mud w /Oil spots 99% _m , 1% _o | 0.15 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

| | Choke (Inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|--|----------------|-----------------|------------------|
| | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

GemJ Enterprises LLC

18-2s-26w Decatur KS

105 N. Griffith Ave
Oberlin, KS 67749+2108

GemJ #1-18

Job Ticket: 66504

DST#: 1

ATTN: Clayton Erickson / G

Test Start: 2020.06.15 @ 16:04:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3327.00 ft | Diameter: 3.80 inches | Volume: 46.67 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 2.75 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 120.00 ft | Diameter: 2.25 inches | Volume: 0.59 bbl | Weight to Pull Loose: 56000.00 lb |
| | | | <u>Total Volume: 47.26 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 20.00 ft | | | String Weight: Initial 45000.00 lb |
| Depth to Top Packer: | 3460.00 ft | | | Final 45000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 60.00 ft | | | |
| Tool Length: | 93.00 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 | | | 3428.00 | |
| Shut In Tool | 5.00 | | | 3433.00 | |
| Hydraulic tool | 5.00 | | | 3438.00 | |
| Jars | 5.00 | | | 3443.00 | |
| EM Tool | 4.00 | | | 3447.00 | |
| Safety Joint | 3.00 | | | 3450.00 | |
| Packer | 5.00 | | | 3455.00 | 33.00 Bottom Of Top Packer |
| Packer | 5.00 | | | 3460.00 | |
| Stubb | 1.00 | | | 3461.00 | |
| Recorder | 0.00 | 6625 | Inside | 3461.00 | |
| Recorder | 0.00 | 8652 | Outside | 3461.00 | |
| Perforations | 22.00 | | | 3483.00 | |
| Blank Spacing | 33.00 | | | 3516.00 | |
| Perforations | 1.00 | | | 3517.00 | |
| Bullnose | 3.00 | | | 3520.00 | 60.00 Bottom Packers & Anchor |
| Total Tool Length: | 93.00 | | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

GemJ Enterprises LLC
105 N. Griffith Ave
Oberlin, KS 67749+2108
ATTN: Clayton Erickson / G

18-2s-26w Decatur KS
GemJ #1-18
Job Ticket: 66504 DST#: 1
Test Start: 2020.06.15 @ 16:04:00

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: 46.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.97 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 900.00 ppm | | | |
| Filter Cake: 2.00 inches | | | |

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|--|---------------|
| 30.00 | Mud w/Oil spots 99% _m , 1% _o | 0.148 |

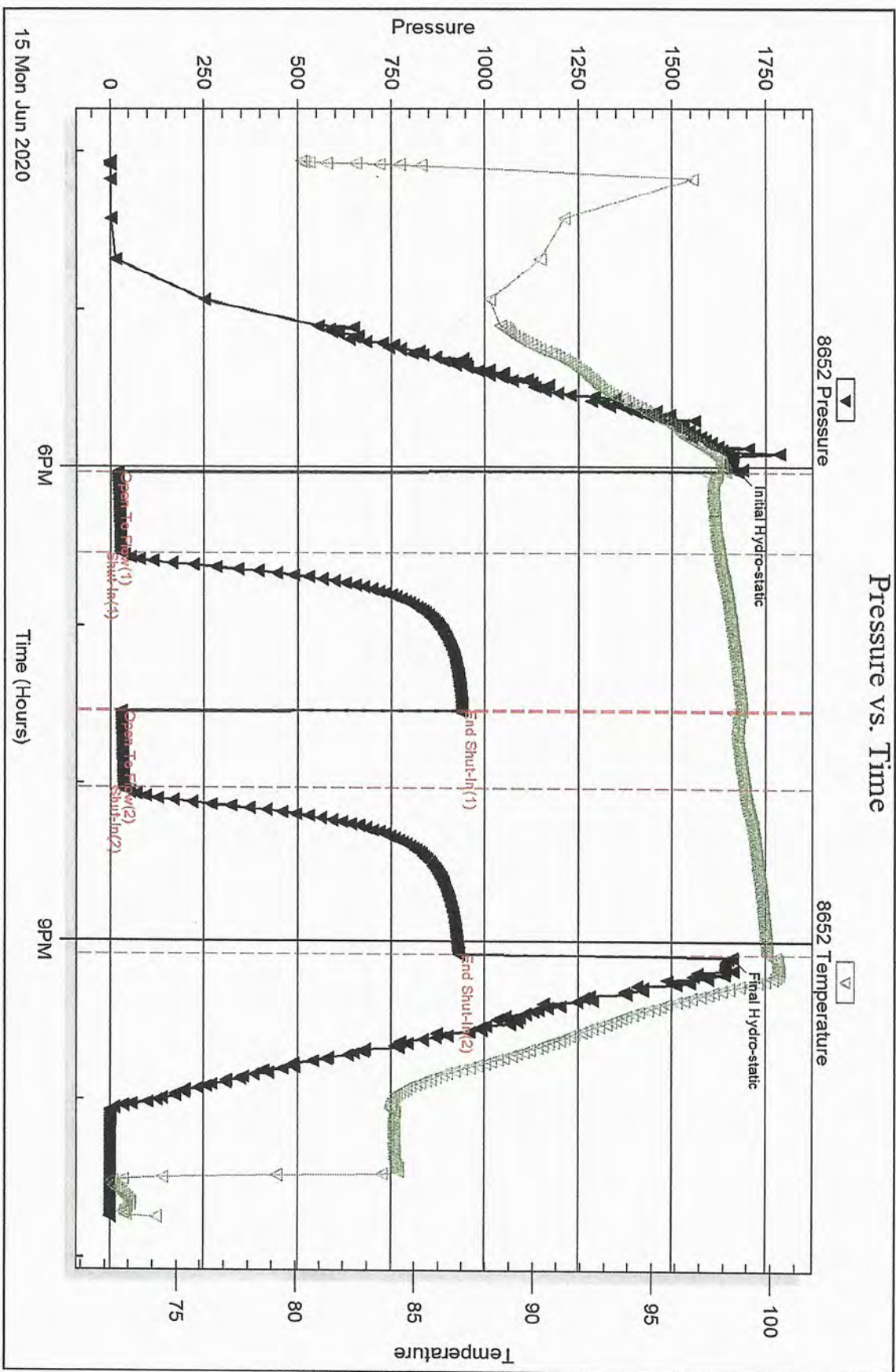
Total Length: 30.00 ft Total Volume: 0.148 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8652

Outside Genl Enterprises LLC

Genl #1-18

DST Test Number: 1



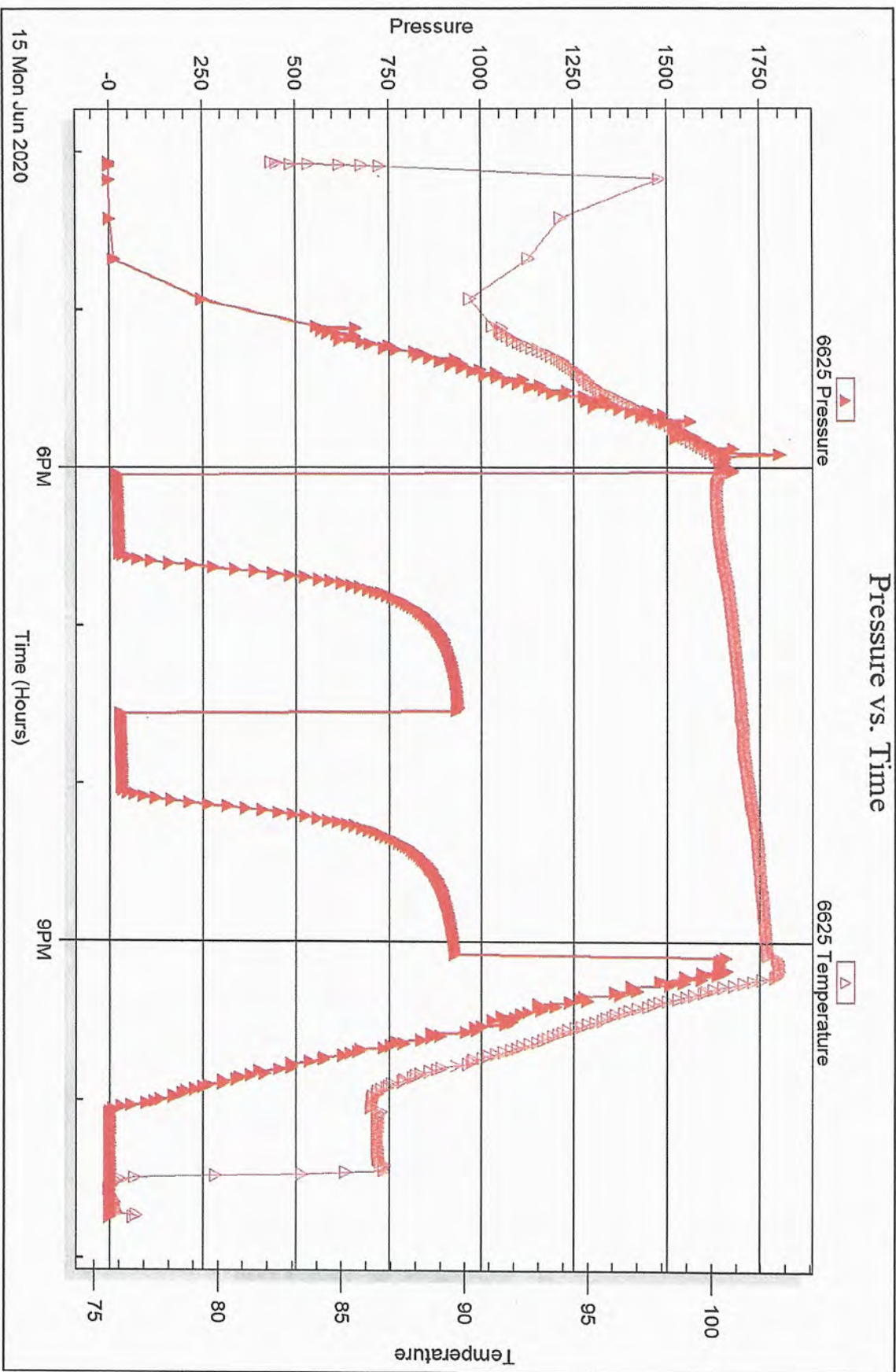
Serial #: 6625

Inside

GemJ Enterprises LLC

GemJ #1-18

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 66504

Printed: 2020.06.19 @ 09:29:07



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GemJ Enterprises LLC

18/2s/26w Decatur KS

105 N. Griffith Ave
Oberlin, KS 67749+2108

GemJ #1-18

Job Ticket: 66505

DST#: 2

ATTN: Clayton Erickson/ Gr

Test Start: 2020.06.16 @ 06:38:00

GENERAL INFORMATION:

Formation: **Pollnow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:36:30

Time Test Ended: 12:41:45

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 3514.00 ft (KB) To 3542.00 ft (KB) (TVD)

Reference Elevations: 2662.00 ft (KB)

Total Depth: 3542.00 ft (KB) (TVD)

2655.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8652 Outside

Press@RunDepth: 20.61 psig @ 3515.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.06.16

End Date:

2020.06.16

Last Calib.:

2020.06.16

Start Time: 06:38:05

End Time:

12:41:44

Time On Btm:

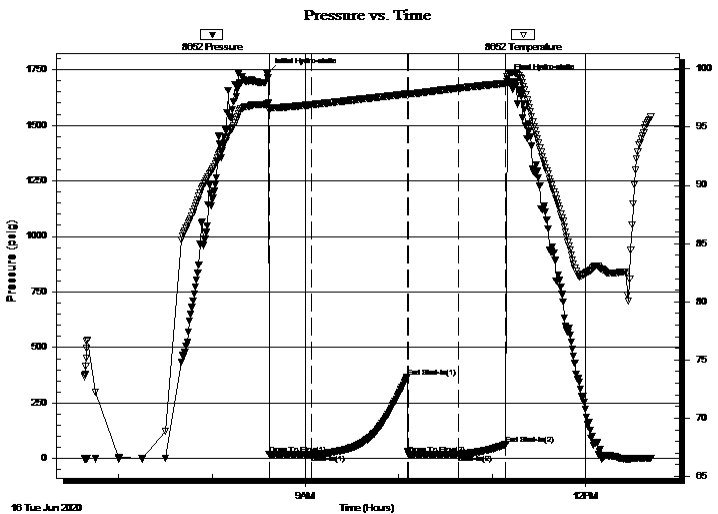
2020.06.16 @ 08:36:15

Time Off Btm:

2020.06.16 @ 11:09:45

TEST COMMENT: 30 - IF: Surface blow through open
60 - IS: No blow back
30 - FF: No blow
30 - FS: No blow

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1737.61 | 97.09 | Initial Hydro-static |
| 1 | 18.16 | 96.46 | Open To Flow (1) |
| 28 | 19.79 | 96.93 | Shut-In(1) |
| 89 | 367.00 | 97.85 | End Shut-In(1) |
| 90 | 19.75 | 97.86 | Open To Flow (2) |
| 122 | 20.61 | 98.34 | Shut-In(2) |
| 153 | 65.24 | 98.76 | End Shut-In(2) |
| 154 | 1708.27 | 99.36 | Final Hydro-static |

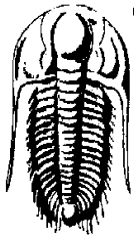
Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 1.00 | Mud 100% | 0.00 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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

* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

GemJ Enterprises LLC

18/2s/26w Decatur KS

105 N. Griffith Ave
Oberlin, KS 67749+2108

GemJ #1-18

Job Ticket: 66505

DST#: 2

ATTN: Clayton Erickson/ Gr

Test Start: 2020.06.16 @ 06:38:00

GENERAL INFORMATION:

Formation: **Pollnow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:36:30

Time Test Ended: 12:41:45

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 3514.00 ft (KB) To 3542.00 ft (KB) (TVD)

Reference Elevations: 2662.00 ft (KB)

Total Depth: 3542.00 ft (KB) (TVD)

2655.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 6625 Inside

Press@RunDepth: psig @ 3515.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.06.16

End Date: 2020.06.16

Last Calib.: 2020.06.16

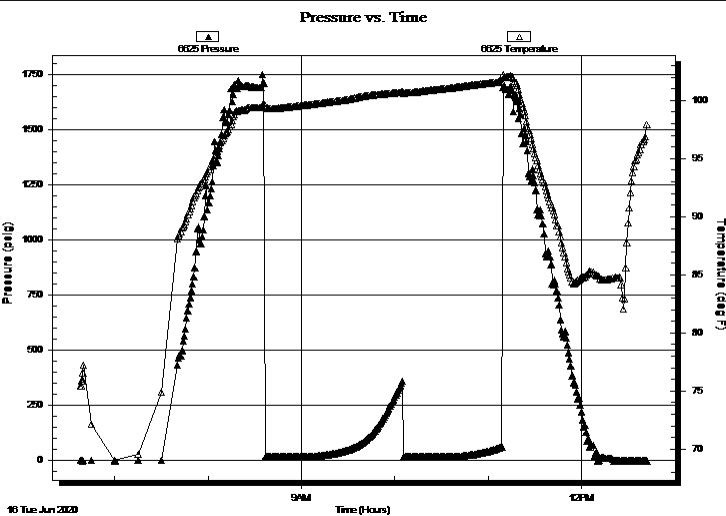
Start Time: 06:38:05

End Time: 12:41:44

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Surface blow through open
60 - IS: No blow back
30 - FF: No blow
30 - FS: No blow



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 1.00 | Mud 100% | 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

GemJ Enterprises LLC

18/2s/26w Decatur KS

105 N. Griffith Ave
Oberlin, KS 67749+2108

GemJ #1-18

Job Ticket: 66505

DST#: 2

ATTN: Clayton Erickson/ Gr

Test Start: 2020.06.16 @ 06:38:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 1.00 | Mud 100% | 0.005 |

Total Length: 1.00 ft Total Volume: 0.005 bbl

Num Fluid Samples: 0

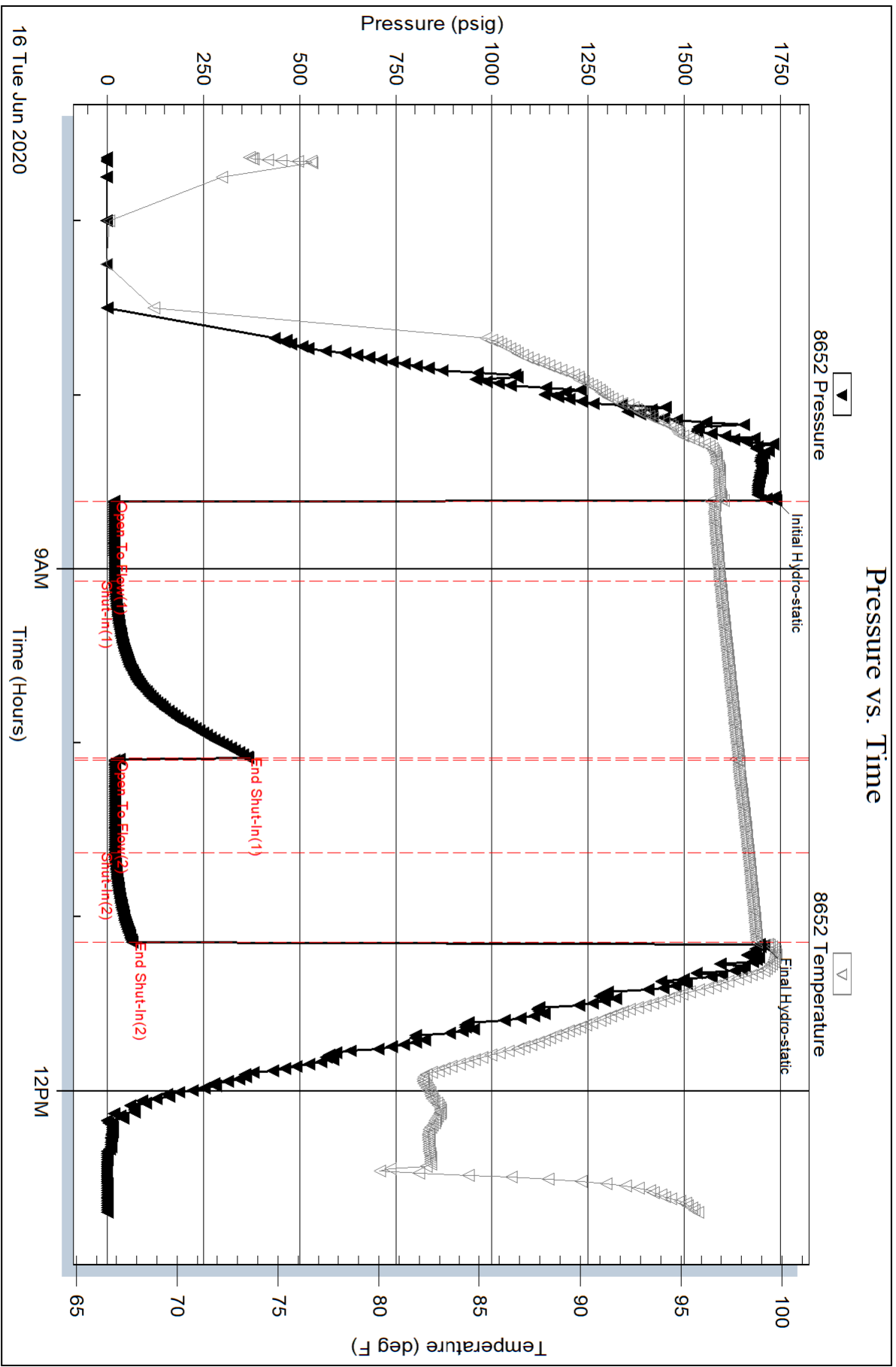
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



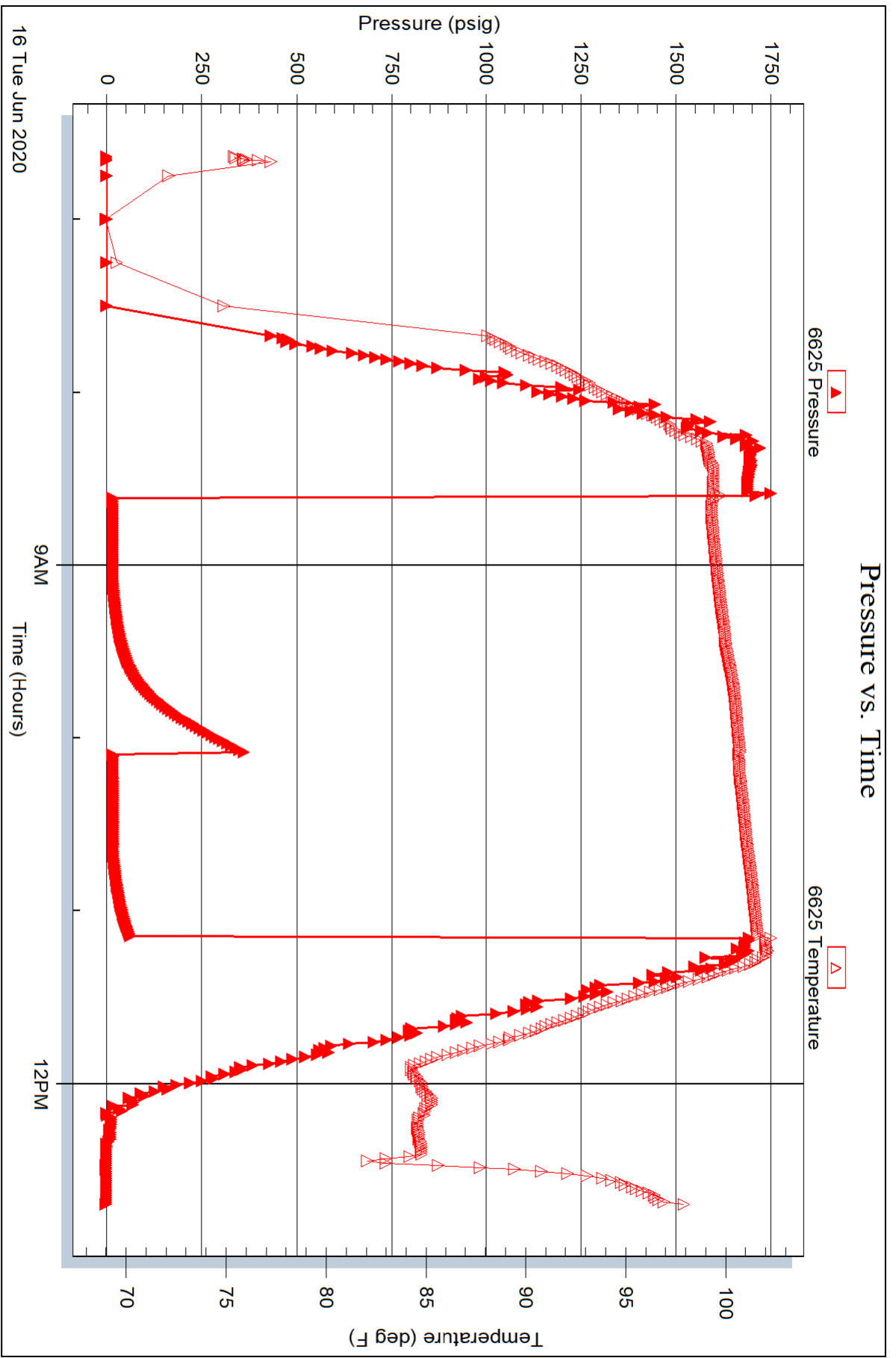
Serial #: 6625

Inside

Genu Enterprises LLC

Genu #1-18

DST Test Number: 2





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GemJ Enterprises LLC

18/2s/26w Decatur KS

105 N. Griffith Ave
Oberlin, KS 67749+2108

GemJ #1-18

Job Ticket: 66506

DST#: 3

ATTN: Clayton Erickson/ Gr

Test Start: 2020.06.17 @ 06:02:00

GENERAL INFORMATION:

Formation: **LKC "J - L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:01:15

Time Test Ended: 12:44:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 3620.00 ft (KB) To 3715.00 ft (KB) (TVD)

Reference Elevations: 2662.00 ft (KB)

Total Depth: 3715.00 ft (KB) (TVD)

2655.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8652 Outside

Press@RunDepth: 1112.06 psig @ 3621.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.06.17 End Date: 2020.06.17

Last Calib.: 2020.06.17

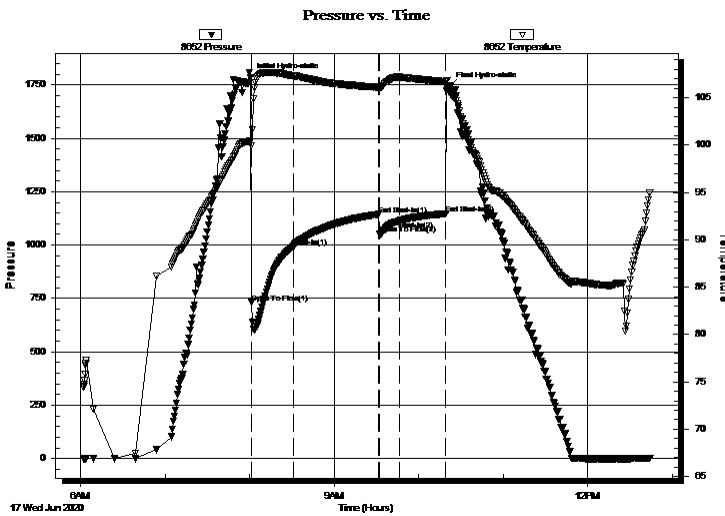
Start Time: 06:02:05 End Time: 12:44:29

Time On Btm: 2020.06.17 @ 08:00:45

Time Off Btm: 2020.06.17 @ 10:22:00

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 30 sec., built to 408"
60 - IS: No blow back
15 - FF: Blow built to BOB at 45 sec., built to 76"
30 - FS: No blow back

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1782.91 | 100.34 | Initial Hydro-static |
| 1 | 730.81 | 99.94 | Open To Flow (1) |
| 30 | 990.05 | 107.31 | Shut-In(1) |
| 91 | 1143.49 | 106.11 | End Shut-In(1) |
| 92 | 1051.58 | 106.06 | Open To Flow (2) |
| 106 | 1112.06 | 107.17 | Shut-In(2) |
| 139 | 1148.03 | 106.72 | End Shut-In(2) |
| 142 | 1743.79 | 105.67 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------|--------------|
| 1380.00 | SMCW 96%w, 4%m | 18.26 |
| 375.00 | MCW 83%w, 17%m | 5.26 |
| 600.00 | MW 55%w, 45%m | 8.42 |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GemJ Enterprises LLC

18/2s/26w Decatur KS

105 N. Griffith Ave
Oberlin, KS 67749+2108

GemJ #1-18

Job Ticket: 66506

DST#: 3

ATTN: Clayton Erickson/ Gr

Test Start: 2020.06.17 @ 06:02:00

GENERAL INFORMATION:

Formation: **LKC "J - L"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:01:15

Time Test Ended: 12:44:30

Test Type: Conventional Bottom Hole (Reset)

Tester: James Winder

Unit No: 83

Interval: 3620.00 ft (KB) To 3715.00 ft (KB) (TVD)

Reference Elevations: 2662.00 ft (KB)

Total Depth: 3715.00 ft (KB) (TVD)

2655.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 6625 Inside

Press@RunDepth: psig @ 3621.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.06.17 End Date: 2020.06.17

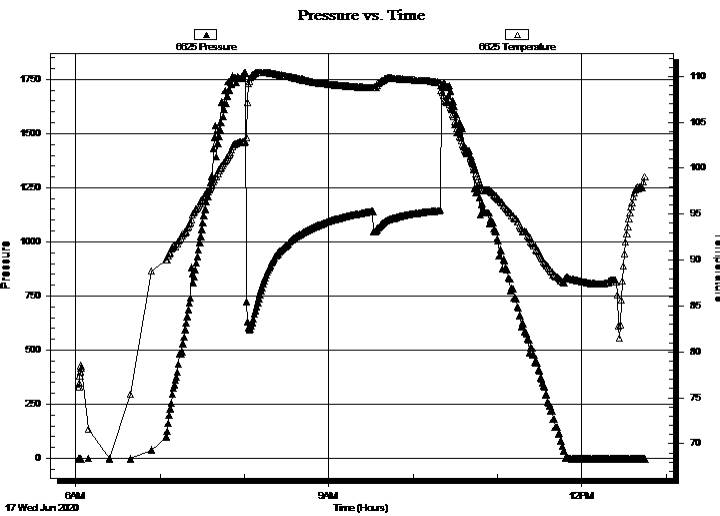
Last Calib.: 2020.06.17

Start Time: 06:02:05 End Time: 12:44:44

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 30 sec., built to 408"
60 - IS: No blow back
15 - FF: Blow built to BOB at 45 sec., built to 76"
30 - FS: No blow back



PRESSURE SUMMARY

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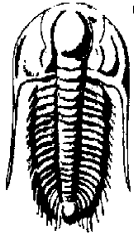
Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|----------------|--------------|
| 1380.00 | SMCW 96%w, 4%m | 18.26 |
| 375.00 | MCW 83%w, 17%m | 5.26 |
| 600.00 | MW 55%w, 45%m | 8.42 |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

GemJ Enterprises LLC

18/2s/26w Decatur KS

105 N. Griffith Ave
Oberlin, KS 67749+2108

GemJ #1-18

Job Ticket: 66506

DST#: 3

ATTN: Clayton Erickson/ Gr

Test Start: 2020.06.17 @ 06:02:00

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:

38000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-----------------|---------------|
| 1380.00 | SMCW 96%w , 4%m | 18.265 |
| 375.00 | MCW 83%w , 17%m | 5.260 |
| 600.00 | MW 55%w , 45%m | 8.416 |

Total Length: 2355.00 ft Total Volume: 31.941 bbl

Num Fluid Samples: 0

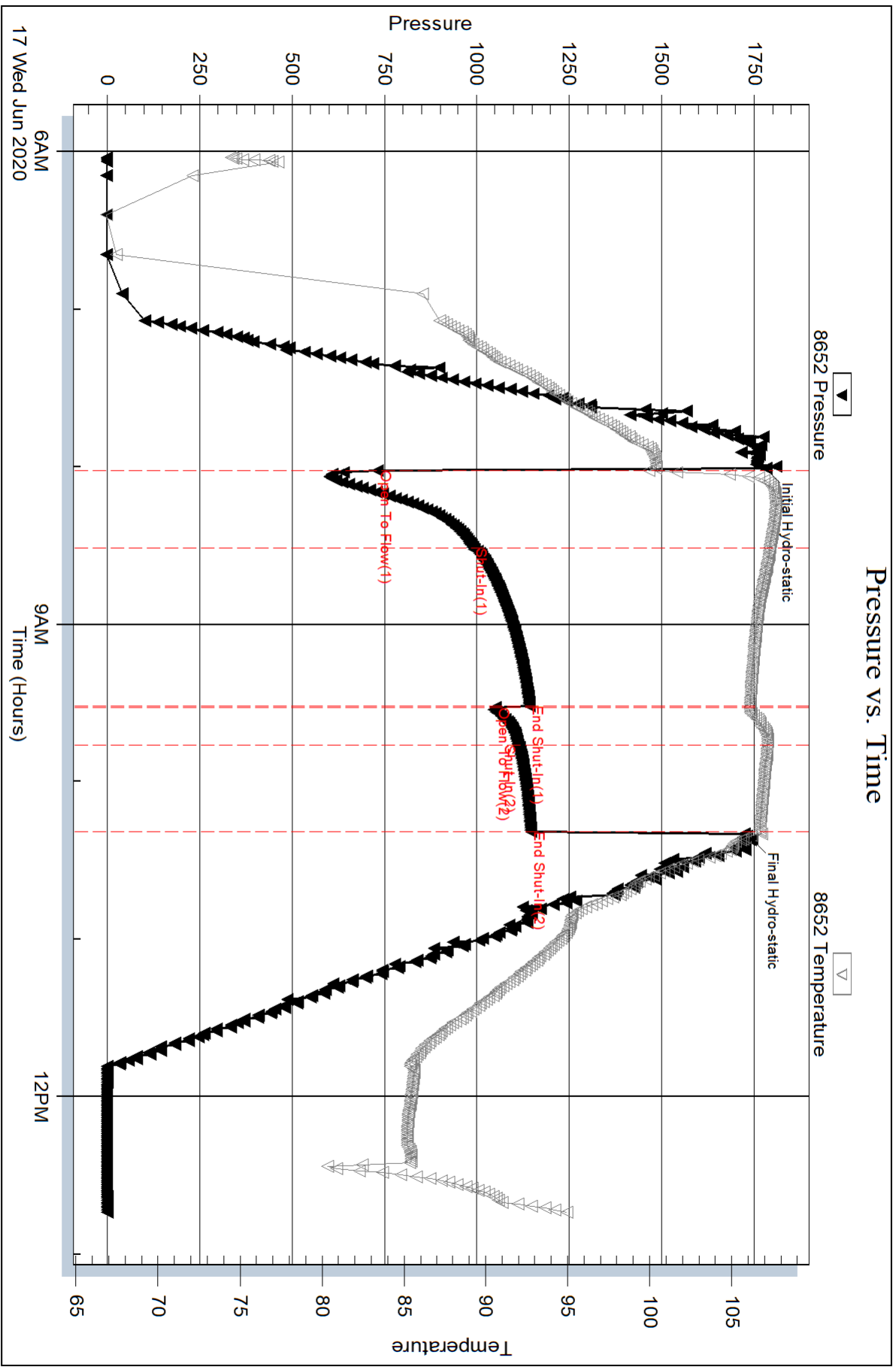
Num Gas Bombs: 0

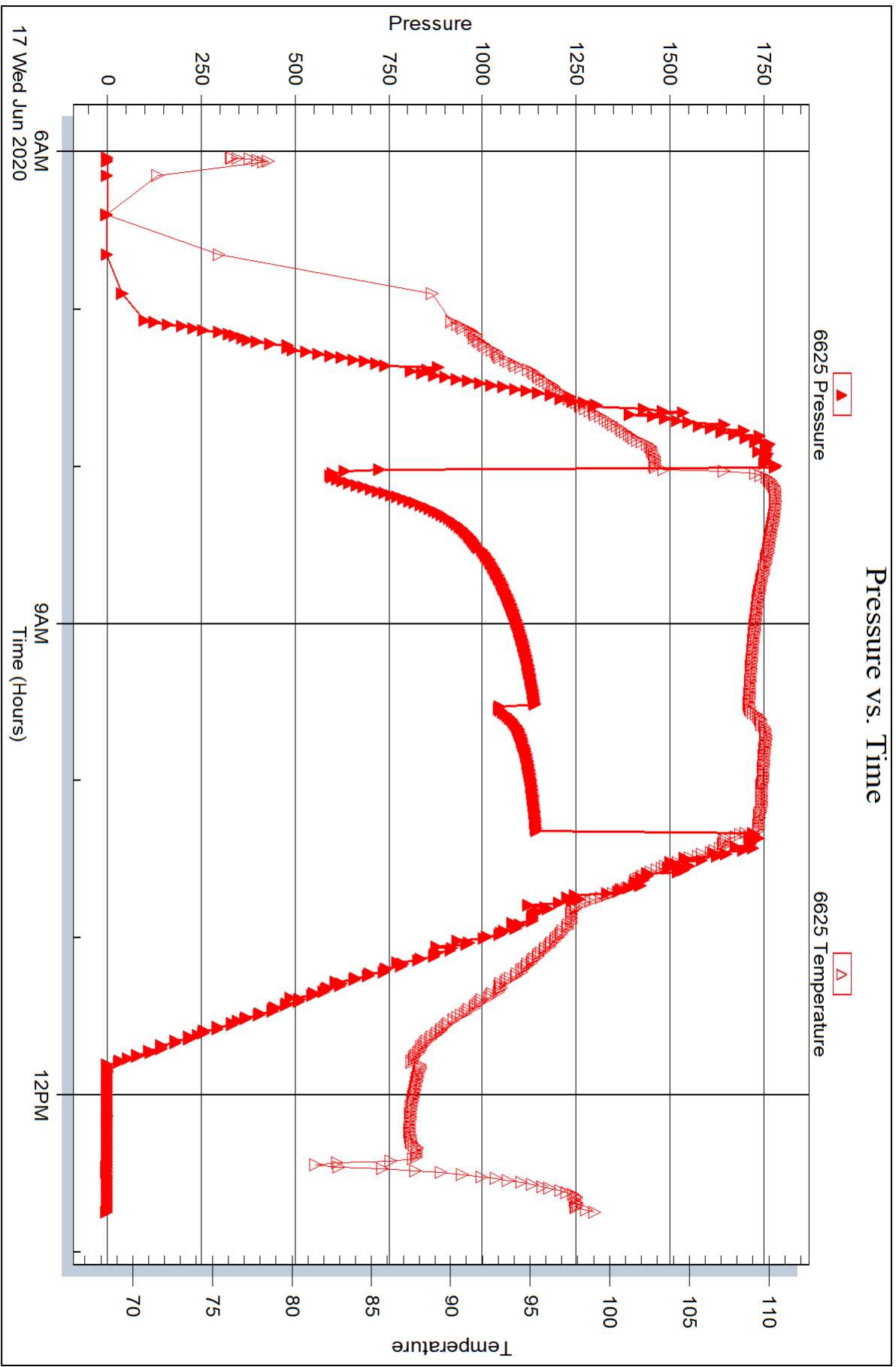
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .151 ohms @ 89.1 deg F Chlorides = 38,000 ppm







TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GemJ Enterprises LLC

18/2s/26w Decatur KS

105 N. Griffith Ave
Oberlin, KS 67749+2108

GemJ #1-18

Job Ticket: 66507

DST#: 4

ATTN: Clayton Erickson/ Gr

Test Start: 2020.06.18 @ 13:01:00

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:50:45

Time Test Ended: 20:39:00

Test Type: Conventional Straddle (Reset)

Tester: James Winder

Unit No: 83

Interval: 3507.00 ft (KB) To 3584.00 ft (KB) (TVD)

Reference Elevations: 2662.00 ft (KB)

Total Depth: 3974.00 ft (KB) (TVD)

2655.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8652 Outside

Press@RunDepth: 140.23 psig @ 3508.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.06.18

End Date:

2020.06.18

Last Calib.:

2020.06.18

Start Time:

13:01:05

End Time:

20:38:59

Time On Btm:

2020.06.18 @ 14:50:30

Time Off Btm:

2020.06.18 @ 18:38:15

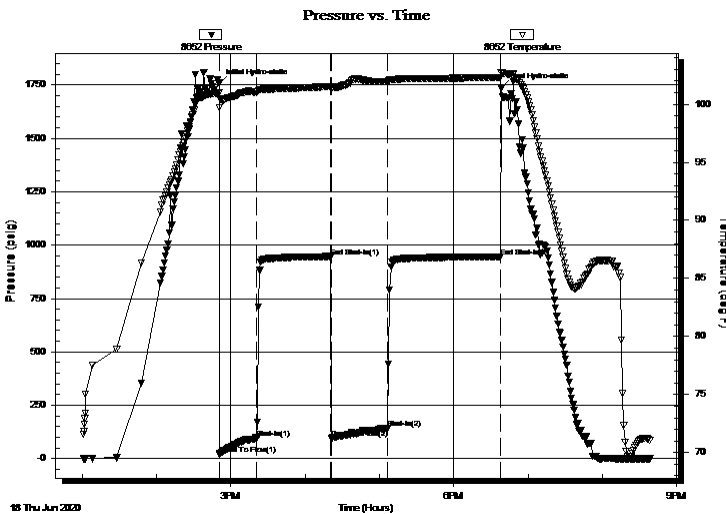
TEST COMMENT: 30 - IF: 1/4" Blow at open, built to 7 1/4"

60 - IS: No blow back

45 - FF: Blow built to 9"

90 - FS: No blow back

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1757.57 | 100.96 | Initial Hydro-static |
| 1 | 22.08 | 99.68 | Open To Flow (1) |
| 31 | 96.63 | 101.05 | Shut-In(1) |
| 91 | 946.29 | 101.53 | End Shut-In(1) |
| 91 | 96.14 | 101.24 | Open To Flow (2) |
| 136 | 140.23 | 101.96 | Shut-In(2) |
| 228 | 945.36 | 102.32 | End Shut-In(2) |
| 228 | 1735.70 | 102.74 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------|--------------|
| 120.00 | WM w/trace oil 58%w, 42%w | 0.59 |
| 125.00 | Mud 100% | 1.75 |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

GemJ Enterprises LLC

18/2s/26w Decatur KS

105 N. Griffith Ave
Oberlin, KS 67749+2108

GemJ #1-18

Job Ticket: 66507

DST#: 4

ATTN: Clayton Erickson/ Gr

Test Start: 2020.06.18 @ 13:01:00

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:50:45

Time Test Ended: 20:39:00

Test Type: Conventional Straddle (Reset)

Tester: James Winder

Unit No: 83

Interval: 3507.00 ft (KB) To 3584.00 ft (KB) (TVD)

Reference Elevations: 2662.00 ft (KB)

Total Depth: 3974.00 ft (KB) (TVD)

2655.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 8167

Below (Straddle)

Press@RunDepth: psig @ 3585.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2020.06.18

End Date:

2020.06.18

Last Calib.:

2020.06.18

Start Time:

13:01:05

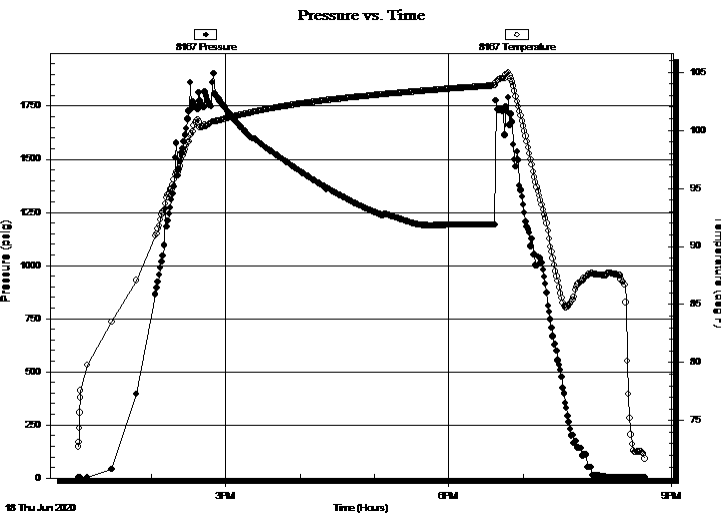
End Time:

20:38:29

Time On Btm:

Time Off Btm:

TEST COMMENT: 30 - IF: 1/4" Blow at open, built to 7 1/4"
60 - IS: No blow back
45 - FF: Blow built to 9"
90 - FS: No blow back



PRESSURE SUMMARY

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

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|---------------------------|--------------|
| 120.00 | WM w/trace oil 58%w, 42%w | 0.59 |
| 125.00 | Mud 100% | 1.75 |
| | | |
| | | |
| | | |

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

GemJ Enterprises LLC

18/2s/26w Decatur KS

105 N. Griffith Ave
Oberlin, KS 67749+2108

GemJ #1-18

Job Ticket: 66507

DST#: 4

ATTN: Clayton Erickson/ Gr

Test Start: 2020.06.18 @ 13:01:00

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:

21000 ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbbl |
|--------------|--------------------------|----------------|
| 120.00 | WMw/trace oil 58%m, 42%w | 0.590 |
| 125.00 | Mud 100% | 1.753 |

Total Length: 245.00 ft Total Volume: 2.343 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .312 ohms @ 72.9 deg F Chlorides = 21,000 ppm

