**Field-Test Data from Mini-Frac Tests Conducted in the 16B(78)-32 Well**

**These data support Milestone 3.3 of Utah FORGE project 2439: A Multi-Component Approach to Characterizing In-Situ Stress at the U.S. DOE FORGE EGS Site: Laboratory, Modeling and Field Measurement**

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Summary

This submittal includes the field-test data collected during stress tests conducted in the Utah FORGE 16B(78)-32 wellbore to measure/characterize the stresses in the geothermal reservoir. The type of stress test performed is referred to as a mini-frac test or a micro-frac test. The test is a hydraulic fracture test that involves injecting a small volume of water into a short interval of the reservoir that is isolated by a straddle packer to create a fracture. The test provides information about the minimum and maximum horizontal stress at the test depths. A total of seven mini-frac tests were performed within the upper (vertical or nearly vertical) section of the 9-5/8-inch diameter uncased wellbore, between depths of 5,202 ft MD [5,202 ft TVD] and 5,980 ft MD [5966.18 ft TVD] (Table 1). Two types of data were generated as part of the mini-frac tests. The first type of data is time-series data for each mini-frac test (e.g., injection-rate, test-interval pressure). The second type is geophysical log data. Two types of image logs and acoustic logs were obtained before and after the mini-frac tests to examine each test depth for visual evidence of induced fracture(s) and to measure the azimuth (orientation) of any observed fractures. As shown in Table 2, which outlines the field testing timeline, these data support Milestone 3.3 (Complete field testing as evidenced by field testing notes, logs, acquired data). Analysis of the field-test data is being conducted under Milestone 3.4 (Final analysis of field stress test data completed as evidenced by final analysis plots and calculated stress parameters for all tests performed) and will be documented in a separate report.

Table 1. List of minifrac tests and depths.

| **Log Record** | **Station Depth (MD ft; TVD ft)** |
| --- | --- |
| Minifrac Test 1 | 5657; 5655.2 |
| Minifrac Test 2 | 5495; 5494 |
| Minifrac Test 3 | 5202; 5201.1 |
| Minifrac Test 4 | 5980; 5966.2 |
| Minifrac Test 5 | 5919; 5909 |
| Minifrac Test 6 | 5639; 5637.6 |
| Minifrac Test 7 | 5616; 5614.7 |

Table 2. High-Level Summary of field events during the mini-frac testing program conducted in FORGE Well 16B(78)-32

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Date(s)** | **Activity** | **Start** | **Stop** | **Hours** |
| 6/22-6/23 | First circulation before baseline logging run | 8:40 PM (6/22) | 12:45 PM (6/23) | 16.1 |
| 6/23 | Trip out drillpipe | 12:45 PM (6/23) | 6:30 PM (6/23) | 5.75 |
| 6/23 | Safety meeting, prep for baseline run | 6:30 PM (6/23) | 8:00 PM (6/23) | 1.5 |
| 6/23-6/25 | Baseline logging run incl. troubleshooting issues | 8:00 PM (6/23) | 2:30 PM (6/25) | 42.5 |
| 6/25 | Trip in drillpipe while waiting for replacement WL truck | 2:30 PM (6/25) | 6:00 PM (6/25) | 3.5 |
| 6/25-6/27 | Circulate while waiting for replacement WL truck | 6:00 PM (6/25) | 9:45 AM (6/27) | 39.75 |
| 6/27 | Trip out drillpipe | 9:45 AM (6/27) | 1:30 PM (6/27) | 3.75 |
| 6/27-6/28 | TIH with RCX tools to vertical section | 1:30 PM (6/27) | 3:15 AM (6/28) | 13.75 |
| 6/28 | Conduct MF tests 1, 2, 3 in vertical section | 3:15 AM (6/28) | 5:45 PM (6/28) | 14.5 |
| 6/28 | POOH with RCX tools | 5:45 PM (6/28) | 11:10 PM (6/28) | 5.4 |
| 6/28-6/29 | Trip in drillpipe for cooling deviated section | 11:10 PM (6/28) | 3:45 AM (6/29) | 4.6 |
| 6/29 | Cooling for 16 hours | 3:45 AM (6/29) | 7:45 PM (6/29) | 16 |
| 6/29 | Trip out drillpipe | 7:45 PM (6/29) | 12:00 AM (6/29) | 4.2 |
| 6/30 | Trip in RCX tools for deviated section MF tests | 12:00 AM (6/30) | 2:00 PM (6/30) | 14 |
| 6/30 | Attempt to conduct MF test in deviated section, tool failed/no tests completed | 2:00 PM (6/30) | 8:00 PM (6/30) | 6 |
| 6/30-7/1 | Trip out RCX tool | 8:00 PM (6/30) | 3:00 AM (7/1) | 7 |
| 7/1 | Trip in RCX tool; running only on wireline | 3:00 AM (7/1) | 8:00 AM (7/1) | 5 |
| 7/1 | MF tests 4, 5, 6 in vertical section | 8:00 AM (7/1) | 8:30 PM (7/1) | 12.5 |
| 7/1 | Trip out RCX tool to diagnose packer inflation problem | 8:30 PM (7/1) | 12:00 AM (7/1) | 3.5 |
| 7/2 | Trip in RCX tool on wireline | 12:00 AM (7/2) | 5:45 AM (7/2) | 5.8 |
| 7/2 | Finish MF6, conduct MF7; further testing precluded due to tool issues. | 5:45 AM (7/2) | 12:45 PM (7/2) | 7 |
| 7/2 | Trip out RCX tools | 12:45 PM (7/2) | 3:30 PM (7/2) | 2.75 |
| 7/2-7/3 | Rig up logging tools, repeat logging run, rig down | 3:30 PM (7/2) | 1:00 AM (7/3) | 9.5 |

Data Files in this Dataset

This dataset contains data for minifrac tests and well logs for Utah FORGE well 16B(78)-32.

This data submission includes numerous data files organized into two .zip files. One .zip file contains the well log data collected before and after the mini-frac tests (“Baker Hughes Logs.zip”), and the other .zip file contains the raw mini-frac test data (“Baker Hughes Minifrac.zip”). There were two well logging descents into the well, with the baseline descent occurring prior to mini-frac testing using pipe-conveyed logging, while the repeat logging run occurred after the mini-frac testing using wireline conveyance. A summary of well-log acronyms that are used in the file names and descriptions are provided in Table 3.

Table 3. List of well log acronyms and definitions.

|  |  |
| --- | --- |
| BH | Baker Hughes |
| CAL | Caliper |
| CBIL | Circumferential borehole imaging log |
| FMI | Schlumberger Formation (resistivity) Micro imager |
| FORGE | Frontier Observatory for Research in Geothermal Energy |
| MD | Measured depth |
| RCI/RCX | Baker Hughes Reservoir Characterization Instrument/Reservoir Characterization Explorer (straddle packer tool) |
| SLB | Schlumberger |
| STAR | Baker Hughes resistivity imaging tool |
| TD | total depth |
| TVD | total vertical depth |
| TTMR | temperature, tension, mud resistivity |
| UBI | Schlumberger ultrasonic borehole imager |
| UXPL | Baker Hughes Ultrasonic eXplorer borehole imager |

Table 4 lists each log file that is part of the Baker Hughes Logs.zip file. These files include baseline temperature, baseline image, baseline acoustic, repeat temperature, repeat image, repeat acoustic, and caliper logs. Within the zip file, each of the file types described in the previous sentence are divided into separate folders named based on the type of log and whether it was collected before or after the minifrac testing. Temperature logs were collected while descending into the well from the TTMR tool, while the image, acoustic, and caliper logs were collected pulling out of the well. Each of these logs were collected on the same tool string. Schlumberger FMI and UBI image logs previously collected in the well were used to select minifrac test stations in areas without existing fractures. The logging date column in Table 4 indicates the date the well was logged, while the processed date in parentheses corresponds to the date shown in the well log header. Note that despite efforts to correct log headers with Baker Hughes, there is still some erroneous information contained within them. Figure 1 shows an example of an erroneous header, with the date and elevation datums displayed incorrectly. The correct ground level datum is 5415.65 ft, with the elevation of the drill floor and Kelly bushing (reference datum) at 5442.65 ft.

The second zip file (“Baker Hughes Minifrac.zip”) contains the raw minifrac test data at the seven different intervals tested. Table 5 shows the mini-frac test file names, station depth, information contained in the file, test date, and file type. Mini-frac testing occurred from June 28, 2023 to July 2, 2023 in Utah FORGE well 16B(78)-32 with the RCX straddle packer tool.

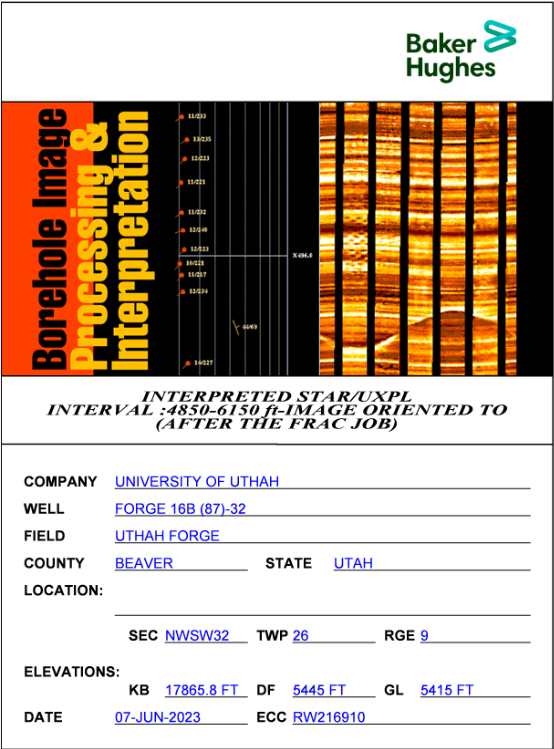


Figure 1. Example of erroneous well header information from a Baker Hughes post minifrac image log.

Table 4. List of log files collected before and after mini-frac testing.

| File name | Logging Record | Interval (ft MD) | Remarks | Logging Date (Processed Date) | File Type |
| --- | --- | --- | --- | --- | --- |
| TEMPERATURE\_LOGDOWN\_062223.las | Baseline Temperature | Total log interval: 4837-9000 | Temperature file LAS, temperature log down including data regarding: Depth, Temperature of borehole, Hours, Minutes, Seconds. | 6/22/2023 | LAS |
| FORGE 16B (78)-32\_STAR\_CBIL\_4848\_6150ft\_BEFOR\_MINI\_FRAC\_1\_20\_NORTH | Baseline Image Logs | Total log interval: 4848-6150 | Processed image log before minifrac testing. In the vertical section the images were oriented to the North, and in the deviated section images were oriented to the high side (up). | 6/23/2023 (a) | TIFF |
| STAR\_CBIL\_4848\_6150ft\_BEFOR\_MINI\_FRAC\_1\_20\_TO\_THE \_NORTH | Baseline Image Logs | Total log interval: 4848-6150 | See above description. | 6/23/2023 (a) | PDF |
| STAR\_CBIL\_4848\_6150ft\_BEFOR\_MINI\_FRAC\_1\_20\_TO\_THE\_NORTH.meta | Baseline Image Logs | Total log interval is: 4848-6150. | See above description. | 6/23/2023 | META |
| STAR\_CBIL\_4848\_9165\_BEFOR\_MINI\_FRAC\_1\_20\_NORTH\_AND\_HIGH\_SIDE | Baseline Image Logs | Total log interval is: 4848-9165. | Processed image TIFF file before minifrac testing. In the vertical section the images were oriented to the North, and in the deviated section images were oriented to the high side (up). | 6/23/2023 (a) | TIFF |
| STAR\_CBIL\_4848\_9165\_BEFOR\_MINI\_FRAC\_1\_20\_NORTH\_AND\_HIGH\_SIDE | Baseline Image Logs | Total log interval is: 4848-9165. | Processed image TIFF file before minifrac testing. In the vertical section the images were oriented to the North, and in the deviated section images were oriented to the high side (up). | 6/23/2023 ([[1]](#footnote-1)) | PDF |
| 1-FORGE 16B (78)-32\_PROCESSED\_CBIL\_4848-5838ft\_ORIENTED\_NORTH.dlis | Baseline Image Logs | Total log interval is: 4848-5838. | DLIS file for specified range before minifrac testing. In the vertical section the images were oriented to the North, and in the deviated section images were oriented to the high side (up). | 6/23/2023 | DLIS |
| 1-FORGE 16B (78)-32\_PROCESSED\_STAR\_4721-5842ft\_ORIENTED\_NORTH.dlis | Baseline Image Logs | Total log interval is: 4721-5842. | DLIS file for specified range before minifrac testing. In the vertical section the images were oriented to the North, and in the deviated section images were oriented to the high side (up). | 6/23/2023 | DLIS |
| 2-FORGE 16B (78)-32\_PROCESSED\_CBIL\_5943-8193ft\_ORIENTED\_NORTH.dlis | Baseline Image Logs | Total log interval is: 5943-8193. | DLIS file for specified range before minifrac testing. In the vertical section the images were oriented to the North, and in the deviated section images were oriented to the high side (up). | 6/23/2023 | DLIS |
| 2-FORGE 16B (78)-32\_PROCESSED\_STAR\_5865-8193ft\_ORIENTED\_NORTH.dlis | Baseline Image Logs | Total log interval is: 5865-8193. | DLIS file for specified range before minifrac testing. In the vertical section the images were oriented to the North, and in the deviated section images were oriented to the high side (up). | 6/23/2023 | DLIS |
| Forge\_16B\_78\_32\_XMAC\_TI\_Anisotropy\_Pre\_MicroFrac | Baseline Acoustic Logs | Total log interval is: 4845-6900. | This file contains an Acoustic waveform Processing with X multiple array acoustic log (MAC) and anisotropy analysis. | 6/23/2023 (6/28/2023) | PDF |
| Forge\_16B\_78\_32\_XMAC\_TI\_Anisotropy\_Pre\_MicroFrac | Baseline Acoustic Logs | Total log interval is: 4800-6900. | See above description. | 6/23/2023 (7/7/2023) | LAS |
| Forge\_16B\_78\_32\_XMAC\_TI\_Anisotropy\_Pre\_MicroFrac.meta | Baseline Acoustic Logs | Total log interval is: 4800-6900. | See above description. | 6/23/2023 | META |
| Forge\_16B\_78\_32\_XMAC\_DTC\_DTS\_Pre\_MicroFrac | Baseline Acoustic Logs | Total log interval is: 4845-6900. | This file contains Acoustic waveform processing with X multipole array acousticlog (XMAC) information regarding compressional and shear wave slowness inside the tracks. | 6/23/2023 (6/27/2023) | PDF |
| Forge\_16B\_78\_32\_XMAC\_DTC\_DTS\_Pre\_MicroFrac | Baseline Acoustic Logs | Total log interval is: 4845-6900. | See above description. | 6/23/2023 (6/27/2023) | LAS |
| Forge\_16B\_78\_32\_XMAC\_DTC\_DTS\_Pre\_MicroFrac.meta | Baseline Acoustic Logs | Total log interval is: 4845-6900. | See above description. | 6/23/2023 | META |
| Forge\_16B\_78\_32\_XMAC\_Azimuthal\_Anisotropy\_Pre\_MicroFrac | Baseline Acoustic Logs | Total log interval is: 4845-6900. | This file contains a multipole array acoustic log, including azimuthal anistropy analysis. | 6/23/2023 (6/28/2023) | PDF |
| Forge\_16B\_78\_32\_XMAC\_Azimuthal\_Anisotropy\_Pre\_MicroFrac | Baseline Acoustic Logs | Total log interval is: 4800-6900. | See above description. | 6/23/2023 (6/28/2023) | LAS |
| Forge\_16B\_78\_32\_XMAC\_Azimuthal\_Anisotropy\_Pre\_MicroFrac.meta | Baseline Acoustic Logs | Total log interval is: 4800-6900. | See above description. | 6/23/2023 | META |
| Forge\_16B\_78\_32\_XMAC\_DSWI\_Pre\_MicroFrac | Baseline Acoustic Logs | Total log interval is: 4800-6900. | X multipole array acoustilog with deep shear wave imaging before minifrac tests. | 6/23/2023 (9/11/2023) | PDF |
| Forge\_16B\_78\_32\_XMAC\_DSWI\_Pre\_MicroFrac.meta | Baseline Acoustic Logs | Total log interval is: 4800-6900. | See above description. | 6/23/2023 | META |
| Forge\_16B\_78\_32\_XMAC\_Shear\_Radial\_Profile\_Pre\_MicroFrac\_Updated | Baseline Acoustic Logs | Total log interval is: 4800-6900. | X multiple array acoustilog with shear wave radial profile before minifrac tests. | 6/23/2023 (9/11/2023) | PDF |
| Forge\_16B\_78\_32\_XMAC\_Shear\_Radial\_Profile\_Pre\_MicroFrac | Baseline Acoustic Logs | Total log interval is: 4800-6900. | See above description. | 6/23/2023 (9/28/2023) | LAS |
| Forge\_16B\_78\_32\_XMAC\_Shear\_Radial\_Profile\_Pre\_MicroFrac\_Updated.meta | Baseline Acoustic Logs | Total log interval is: 4800-6900. | See above description. | 6/23/2023 | META |
| Batelle\_Forge\_16B\_78\_32\_XMAC\_DT\_AZ\_TI\_RP\_Pre\_MicroFrac.dlis | Baseline Acoustic Logs | Total log interval is: 4845-6900. | This dlis file contains raw data for all pre minifrac acoustic files above. | 6/23/2023 | DLIS |
| Caliper.las | Caliper | Total log interval is: 4702-6077. | CALIPER LAS PDF file, including the following logs: Depth, Bit radius, Casing radius, Deviation for STAR, Gamma ray, Maximum caliper diameter, Minimum caliper diameter, Minimum radius 1, Minimum radius 2, Maximum radius 1, Maximum radius 2, Tool-to-centroid radius, Differential tension. | 7/2/2023 | LAS |
| FORGE-16B(78)-32\_CALIPER\_6100\_4800\_2JUL2023.PDF | Caliper | Total log interval is: 4837-6100. | See above description. | 7/2/2023 | PDF |
| FORGE-16B(78)-32\_CALIPER\_6100\_4800\_2JUL2023.cgm | Caliper | Total log interval is: 4837-6100. | See above description. | 7/2/2023 | CGM |
| STAR\_CBIL\_4850\_6150ft\_PROCESSED\_AFTER\_MINI\_FRAC.dlis | Repeat Image Logs | Total log interval is: 4850-6150. | Processed image log after minifrac testing. In the vertical section the images were oriented to the North, and in the deviated section images were oriented to the high side (up). | 7/2/2023 | DLIS |
| STAR\_CBIL\_4850\_6150ft\_INTERPRETED\_AFTER\_MINI\_FRAC\_1\_20 | Repeat Image Logs | Total log interval is: 4850-6150. | See above description. | 7/2/2023 (a) | PDF |
| STAR\_CBIL\_4850\_6150ft\_INTERPRETED\_AFTER\_MINI\_FRAC\_1\_20 | Repeat Image Logs | Total log interval is: 4850-6150. | See above description. | 7/2/2023 (a) | TIFF |
| STAR\_CBIL\_4850\_6150ft\_INTERPRETED\_AFTER\_MINI\_FRAC\_1\_20.meta | Repeat Image Logs | Total log interval is: 4850-6150. | See above description. | 7/2/2023 | META |
| IMAGES\_MAIN\_RUN2.dlis | Repeat Image Logs | Total log interval is: 4850-6150. | Raw DLIS file for repeat image log data. | 7/2/2023 | DLIS |
| Forge\_16B\_78\_32\_XMAC\_DTC\_DTS\_Post\_MicroFrac | Repeat Acoustic Logs | Total log interval is: 4800-6150. | X-Multipole Array Acoustic from repeat logging run. | 7/2/2023 ([[2]](#footnote-2)) | PDF |
| Forge\_16B\_78\_32\_XMAC\_DTC\_DTS\_Post\_MicroFrac | Repeat Acoustic Logs | Total log interval is: 4800-6150. | See above description. | 7/2/2023 (7/5/2023) | LAS |
| Forge\_16B\_78\_32\_XMAC\_DTC\_DTS\_Post\_MicroFrac.meta | Repeat Acoustic Logs | Total log interval is: 4800-6150. | See above description. | 7/2/2023 | META |
| Forge\_16B\_78\_32\_XMAC\_Azimuthal\_Anisotropy\_Post\_MicroFrac | Repeat Acoustic Logs | Total log interval is: 4800-6150. | Multipole array repeat acoustic log, including azimuthal anistropy analysis. | 7/2/2023 ([[3]](#footnote-3)) | PDF |
| Forge\_16B\_78\_32\_XMAC\_Azimuthal\_Anisotropy\_Post\_MicroFrac | Repeat Acoustic Logs | Total log interval is: 4800-6150. | See above description. | 7/2/2023  (7/5/2023) | LAS |
| Forge\_16B\_78\_32\_XMAC\_Azimuthal\_Anisotropy\_Post\_MicroFrac.meta | Repeat Acoustic Logs | Total log interval is: 4800-6150. | See above description. | 7/2/2023 | META |
| Forge\_16B\_78\_32\_XMAC\_TI\_Anisotropy\_Post\_MicroFrac | Repeat Acoustic Logs | Total log interval is: 4800-6150. | This file contains Acoustic waveform Processing with X multipole array acousticlog (XMAC). Logs include: Shear-TI anisotropy, Bit size, CAL, Inversion-fitted traveltime delay, Compressional wave slowness, Horizontal shear wave slowness, Stoneley wave slowness, Computed Iso-Stoneley Slowness, Inversion-fitted frequency shift, Permeability lower bound error, Differential tension | 7/2/2023 (7/6/2023) | PDF |
| Forge\_16B\_78\_32\_XMAC\_TI\_Anisotropy\_Post\_MicroFrac | Repeat Acoustic Logs | Total log interval is: 4800-6150. | See above description. | 7/2/2023 (7/6/2023) | LAS |
| Forge\_16B\_78\_32\_XMAC\_TI\_Anisotropy\_Post\_MicroFracy.meta | Repeat Acoustic Logs | Total log interval is: 4800-6150. | See above description. | 7/2/2023 | META |
| Forge\_16B\_78\_32\_XMAC\_DSWI\_Post\_MicroFrac | Repeat Acoustic Logs | Total log interval is: 4800-6150. | X multipole array acoustilog with deep shear wave imaging after minifrac tests. | 7/2/2023 (9/11/2023) | PDF |
| Forge\_16B\_78\_32\_XMAC\_DSWI\_Post\_MicroFrac.meta | Repeat Acoustic Logs | Total log interval is: 4800-6150. | See above description. | 7/2/2023 | META |
| Forge\_16B\_78\_32\_XMAC\_Shear\_Radial\_Profile\_Post\_MicroFrac\_Updated | Repeat Acoustic Logs | Total log interval is: 4800-6150. | X multiple array acoustilog with shear wave radial profile after minifrac tests. | 7/2/2023 (9/11/2023) | PDF |
| Forge\_16B\_78\_32\_XMAC\_Shear\_Radial\_Profile\_Post\_MicroFrac | Repeat Acoustic Logs | Total log interval is: 4800-6150. | See above description. | 7/2/2023 (9/28/2023) | LAS |
| Forge\_16B\_78\_32\_XMAC\_Shear\_Radial\_Profile\_Post\_MicroFrac\_Updated.meta | Repeat Acoustic Logs | Total log interval is: 4800-6150. | See above description. | 7/2/2023 | META |
| Batelle\_Forge\_16B\_78\_32\_XMAC\_DT\_AZ\_TI\_RP\_Post\_MicroFrac.dlis | Repeat Acoustic Logs | Total log interval is: 4800-6150. | This dlis file contains raw data for all post minifrac acoustic files above. | 7/2/2023 | DLIS |
| FORGE-16B(78)-32\_TEMP\_4705\_6000\_2JUL2023 | Repeat Temperature | Total log interval is: 4705-6000. | TEMPERATURE file LAS, temperature temperature log down including data regarding: Depth, Temperature of borehole, Gamma Ray. | 7/2/2023 | LAS |
| FORGE-16B(78)-32\_TEMP\_4705\_6000\_2JUL2023.dlis | Repeat Temperature | Total log interval is: 4705-6000. | See above description. | 7/2/2023 | DLIS |
| FORGE-16B(78)-32\_TEMP\_4705\_6000\_2JUL2023 | Repeat Temperature | Total log interval is: 4705-6000. | See above description. | 7/2/2023 | PDF |
| FORGE-16B(78)-32\_TEMP\_4705\_6000\_2JUL2023.meta | Repeat Temperature | Total log interval is: 4705-6000. | See above description. | 7/2/2023 | META |

Table 5. Files containing mini-frac test data

| **File name** | **Log Record** | **Station Depth (MD ft; TVD ft)** | **Remarks** | **Test Date** | **File Type** |
| --- | --- | --- | --- | --- | --- |
| MF\_station1\_5657ftMD\_FINAL.las | Minifrac Test 1 | 5657; 5655.2 | Data included: System time since record start, Quartzdyne gauge pressure, Cumulative pump-through volume, Depth of 1970DB straddle packer, Quartzdyne pressure gauge temperature, Packer element pressure, Rate (injection and flowback), Continuous pump-through volume, Absolute packer element pressure. | 6/28/2023 | LAS |
| MF\_station2\_5495ftMD\_FINAL.las | Minifrac Test 2 | 5495; 5494 | See above description. | 6/28/2023 | LAS |
| MF\_station3\_5202ftMD\_FINAL.las | Minifrac Test 3 | 5202; 5201.1 | See above description. | 6/28/2023 | LAS |
| MF\_station4\_5980ftMD\_FINAL.las | Minifrac Test 4 | 5980; 5966.2 | See above description. | 7/1/2023 | LAS |
| MF\_station5\_5919ftMD\_FINAL.las | Minifrac Test 5 | 5919; 5909 | See above description. | 7/1/2023 | LAS |
| MF\_station6\_5639ftMD\_FINAL.las | Minifrac Test 6 | 5639; 5637.6 | See above description. | 7/1/2023 | LAS |
| MF\_station7\_5616ftMD\_FINAL.las | Minifrac Test 7 | 5616; 5614.7 | See above description. | 7/2/2023 | LAS |

1. Note that date shown in log header is incorrect. [↑](#footnote-ref-1)
2. Note that date shown in log header is incorrect. [↑](#footnote-ref-2)
3. Note that date shown in log header is incorrect. [↑](#footnote-ref-3)