



**RADIAL CEMENT BOND  
GAMMA RAY/CCL/VDL**

Company ANTERO RESOURCES CORPORATION  
 Well SPOCK UNIT 1H  
 Field MARCELLUS  
 County TYLER  
 State W.V.

Company ANTERO RESOURCES CORPORATION  
 Well SPOCK UNIT 1H  
 Field MARCELLUS  
 County TYLER State W.V.

Location: API #: 47095024780000

Other Services

|                        |      |     |           |     |           |
|------------------------|------|-----|-----------|-----|-----------|
| SEC                    | TWP  | RGE | Elevation | N/A | Elevation |
| Permanent Datum        | G.L. |     | K.B.      | N/A |           |
| Log Measured From      | G.L. |     | D.F.      | N/A |           |
| Drilling Measured From | K.B. |     | G.L.      | N/A |           |

|                        |                 |      |               |      |        |      |       |
|------------------------|-----------------|------|---------------|------|--------|------|-------|
| Date                   | 2/4/19          |      |               |      |        |      |       |
| Run Number             | ONE             |      |               |      |        |      |       |
| Depth Driller          | 16479           |      |               |      |        |      |       |
| Depth Logger           | 6808            |      |               |      |        |      |       |
| Bottom Logged Interval | 6808            |      |               |      |        |      |       |
| Top Log Interval       | SURFACE         |      |               |      |        |      |       |
| Open Hole Size         | 8.5"            |      |               |      |        |      |       |
| Type Fluid             | H2O             |      |               |      |        |      |       |
| Density / Viscosity    | N/A             |      |               |      |        |      |       |
| Max. Recorded Temp.    | 141 DEG         |      |               |      |        |      |       |
| Estimated Cement Top   | 200 FT          |      |               |      |        |      |       |
| Time Well Ready        | N/A             |      |               |      |        |      |       |
| Time Logger on Bottom  | N/A             |      |               |      |        |      |       |
| Equipment Number       | 340             |      |               |      |        |      |       |
| Location               | BRIDGEPORT.WV   |      |               |      |        |      |       |
| Recorded By            | K.LINGER        |      |               |      |        |      |       |
| Witnessed By           | JAY TEPPER      |      |               |      |        |      |       |
| Run Number             | Borehole Record |      | Casing Record |      |        |      |       |
|                        | Bit             | From | To            | Size | Weight | From | To    |
|                        |                 |      | 5.5           | 23   | 0      |      | 16479 |

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

THANK YOU FOR USING KLX ENERGY SERVICES  
 TOP OF CEMENT @ 200 FT  
 BOTTOM HOLE TEMP- 141 DEG  
 MARKER JOINT @ 5663-5673



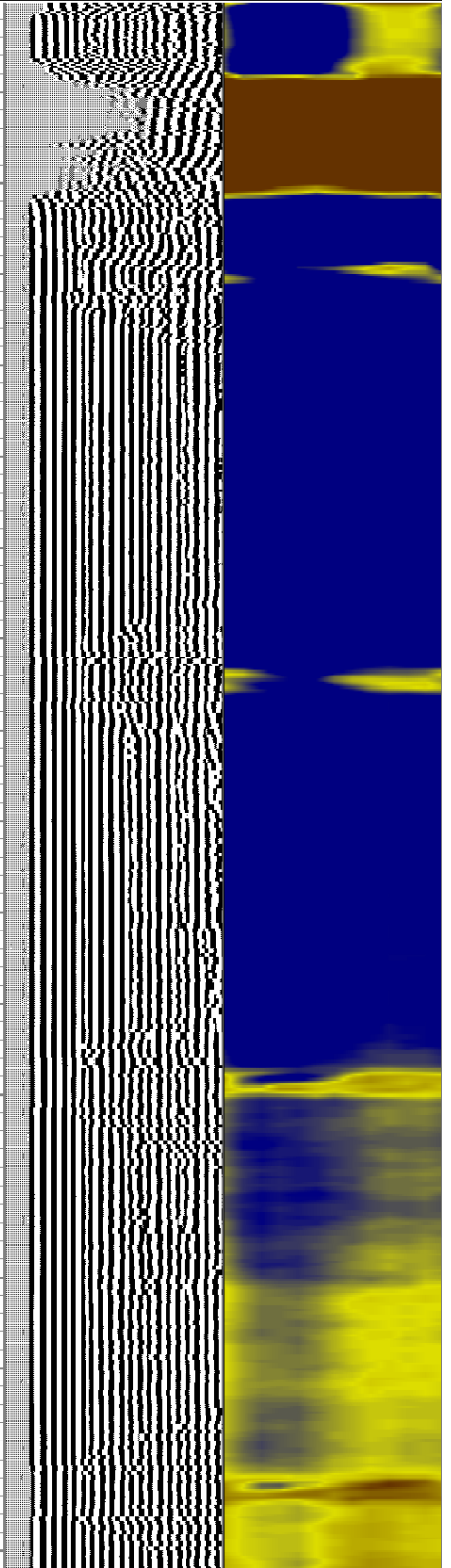
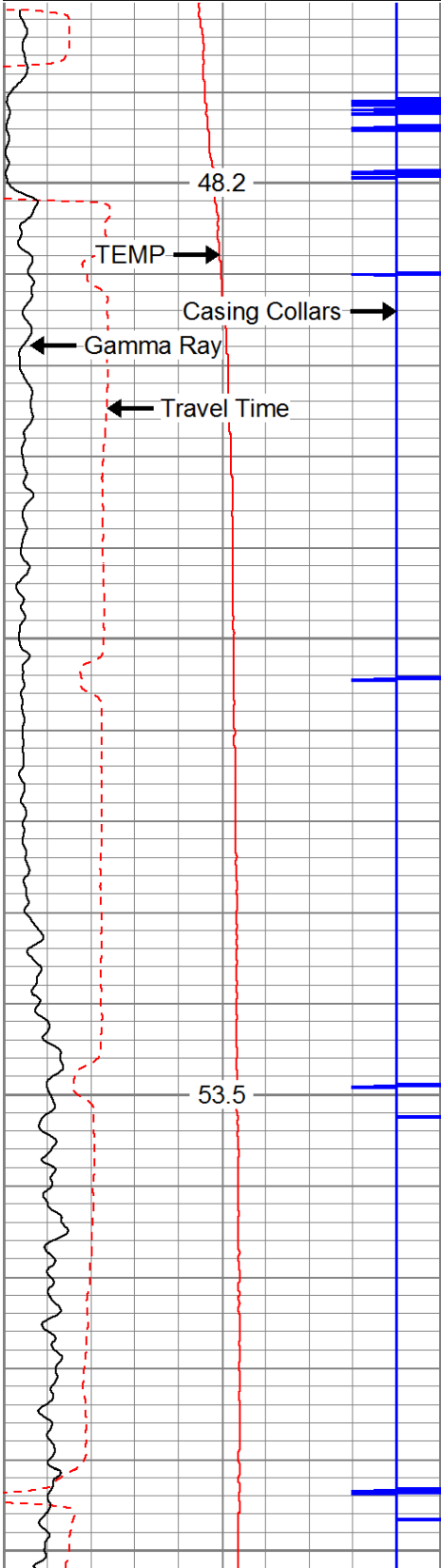
**MAIN PASS 1500 PSI**

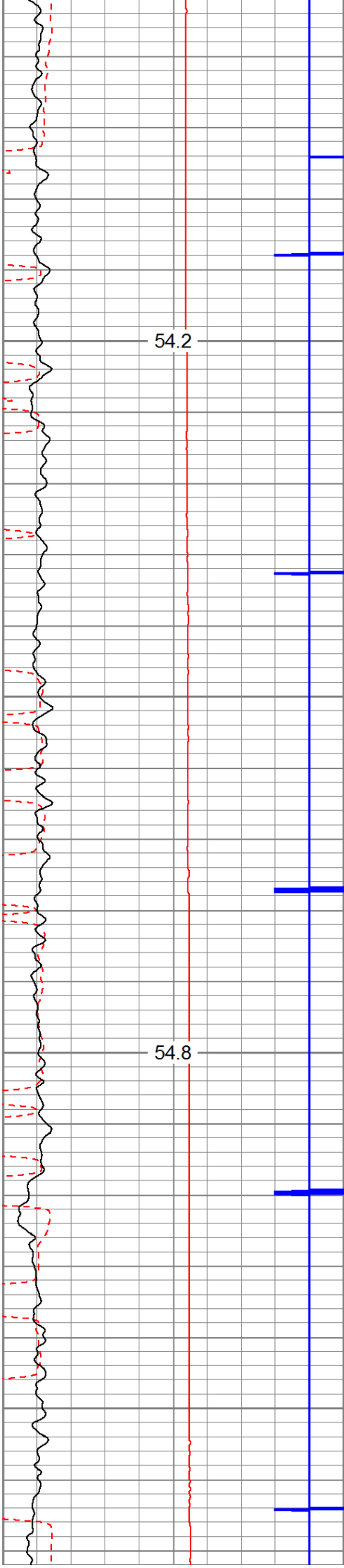
Database File: f:\2019 antero\pyle run\spock\_1h.db  
 Dataset Pathname: pass7.1  
 Presentation Format: antero  
 Dataset Creation: Mon Feb 04 03:56:32 2019 by Calc 7.0 B1  
 Charted by: Depth in Feet scaled 1:240

|             |                    |     |
|-------------|--------------------|-----|
| 225         | Travel Time (usec) | 125 |
| 9           | Casing Collars     | -1  |
| 0           | Gamma Ray          | 180 |
| 0           | TEMP (degF)        | 100 |
| TEMP (degF) |                    |     |

|            |     |         |     |     |     |      |
|------------|-----|---------|-----|-----|-----|------|
| Amplitude  | 0   | Amp Avg | 150 | 200 | VDL | 1200 |
| (mV)       | 100 | Amp Max | 150 |     |     |      |
| AmpX5 (mV) | 20  | Amp Min | 150 |     |     |      |
| BONDIX     | 0   |         |     |     |     |      |

|    |            |    |
|----|------------|----|
| 1  | Sector Map | 12 |
| 20 |            | 60 |





200

300

