

PHMSA Q1:

Tell me if any of the installed pipe has undergone a hi-res caliper tool run and/or Subpart J hydrotest at this juncture? If so which of the aforementioned segments?

MVP Response Q1:

MVP ran a sizing pig on the Pigg River HDD to determine whether the pipe incurred any unacceptably large deformations after pull back. The run found the pipe to be acceptable. No high-resolution geometry tools have been run to date.

The only 42-inch mainline hydrotest completed thus far was on a portion of the suction, discharge, and bypass piping around the Bradshaw Compressor Station. After the successful completion of this test, only cleaning and drying pigs were used. MVP will run high-resolution caliper pigs through these portions of the pipeline when the adjacent 42-inch mainline is hydrostatically tested and tied-in.

PHMSA Q2:

Please provide CP alignment and design sheets. Just want to better understand “temporary” vs permanent CP design slated for MVP. What will happen with these temp installs?

MVP Response Q2:

The permanent and temporary CP drawings are available in the BOX folder accessible by PHMSA.

MVP plans to install 31 permanent cathodic protection anode beds to protect the pipeline. Currently one of these beds has been installed and is operating (groundbed (b) (4)), which is protecting approximately 12 miles of buried pipe.

The temporary installs will be installed at existing test stations along the project. Upon completion of construction, these beds will be (b) (4)

PHMSA Q3:

Is there a contractual agreement between MVP and the installation contractor to perform post-installation coating surveys (ACVG/DCVG/CIS) to assess quality of construction? If so, what segments have been completed to date? Will these surveys also be pursued if access is granted for temporary CP installs at this time?

MVP Response Q3:

MVP has contracted directly with a corrosion specialist firm to conduct CIS and coating surveys post-construction.

MVP has conducted a number of coating surveys thus far. DCVGs were conducted near the Shulman Hill Road crossing on Spread A in West Virginia and between mileposts 133.45 and 135.75 on Spread E in

Virginia. An ACVG was conducted between milepost 227.7 and 228.7 on Spread H in Virginia. No anomalies were detected during these surveys.

In addition to voltage gradient testing, coating conductance testing was conducted on the Pigg River HDD. The results of the testing showed the coating to be in excellent condition.

MVP is starting an initiative to perform DCVG surveys on tied-in sections of pipe longer than three miles in the coming weeks.

In addition, MVP has successfully energized ground bed **(b)(4)** on Spread **(b)(4)** which effectively protects over 12 miles of 42-inch mainline. Initial pipe-to-soil readings on this section of pipe show favorable results with respect to corrosion mitigation.

PHMSA Q4:

Also, as I am certain the issue will be broached by FERC, MVP's explanation as to the delay in securing temporary CP on MVP - foreseeing the potential issuance of a "stop work" order? Note, as discussed yesterday, ACP apparently had this covered and protected their installs accordingly, albeit less mileage than MVP at this time.

MVP Response Q4:

Prior to shutting down construction for the winter of 2018-2019, MVP hired a corrosion specialist firm to take pipe-to-soil readings at all test stations installed on the pipeline. The readings were reviewed to determine if there were portions of pipe experiencing interference current pick-up and discharge that would elevate the level of corrosion that might occur if left unprotected during the winter. The review of the data showed that there were no areas of concern along the pipeline that required immediate action.

Additionally, magnesium anodes were installed at easily accessible locations along the pipeline to help increase the potentials in these areas in an attempt to minimize the level of corrosion that would occur along the buried sections of the pipeline. Because the majority of these anodes were installed where tie-ins later occurred, much of this temporary protection is no longer operational.

Upon commencement of construction in spring of 2019 MVP's main CP focus was on the installation of the permanent CP groundbeds. When it became apparent in late summer of 2019 that the pipeline would not be continuous, thereby limiting the effectiveness of the permanently designed CP systems, MVP started to look into installing temporary CP on sections of the 42-inch mainline, where necessary. The plan was to install the temporary CP in the fall after pipeline construction stopped for the year. This was to ensure the temporary CP was effective in covering a large portion of the buried pipeline.

However, MVP was issued the stop work order on October 15, 2019. Temporary CP installations were planned to occur over the winter months, starting in November. Upon receipt of the work cessation, MVP began preparing the necessary request to FERC for authorization of this activity.