Proven Benefits of Target Drilling, Inc.'s In-mine Directional Drilling Technology for Abandoned Mine Verification

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ABSTRACT

Target Drilling, Inc. (Target), based 12 miles south of Pittsburgh, PA, has directionally drilled over 1,200,000 feet of in-mine horizontal borehole for coalbed methane recovery, coalbed exploration, abandoned mine verification, and water drainage since spring 1995, applying its real-time directional drilling techniques using its DDM MECCA (downhole drill monitor utilizing modular electrically connected cable assembly). This includes an in-mine horizontal longhole directionally drilled to 5,045 feet and fifty-nine (59) boreholes directionally drilled to greater than 4,000 feet in length.

The purpose of this presentation is to briefly describe Target's directional drilling procedures applied to Abandoned Mine Verification Boreholes including 1) wellhead control; 2) monitoring changes in directional drilling parameters indicating if a mine void is intercepted; 3) borehole placement accuracy and 4) obtaining borehole roof and floor markers to verify coal seam thickness. Target's presentation will provide actual case study results at several coal mines where Target has directionally drilled Abandoned Mine Verification Boreholes to establish that a safe coal barrier exists relative to future mine development with the borehole serving as a known boundary and where abandoned mine workings were intercepted to accurately establish a safe coal barrier.