



August 20, 2024

Mr. Clayton Wein  
Environmental Protection Specialist  
Colorado Division of Reclamation, Mining and Safety  
1313 Sherman Street, Room 215  
Denver, CO 80203

**RE: New Horizon Mine (Permit No. C-1981-008)  
Minor Revision No. 131 (MR-131)  
Pond 013 Hydrogeologic Investigation Wells**

Dear Mr. Wein:

Tri-State Generation and Transmission Association Inc. (Tri-State), is the parent company to Elk Ridge Mining and Reclamation, LCC (ERMR), New Horizon Mine. Therefore, Tri-State on behalf of ERMR is submitting minor revision 131 (MR-131) to Permit No. C-1981-008.

MR-131 proposes seven wells to be installed adjacent to Pond 013 to conduct a hydrogeologic investigation of groundwater conditions in the vicinity of Pond 013. The wells will help define hydrologic condition of the pond to assist in long-term planning for Pond 013. It is requested the Division calculate the reclamation liability associated with the proposed wells.

If you have any questions about the enclosed minor revision, please contact Tony Tennyson at (970) 824-1232 or [tony.tennyson@tristategt.org](mailto:tony.tennyson@tristategt.org).

Sincerely,

DocuSigned by:

*Chris Gilbreath*

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Chris Gilbreath  
Senior Manager,  
Remediation and Reclamation

CG:TT

Enclosures

cc: Tony Tennyson (via email)  
File: G474-11.3(21)b-5

The location of seven monitoring wells designed to evaluate groundwater conditions around Pond 013 for long-term development of a water treatment plan can be found in Attachment 2.05.6(3)-4.

**ATTACHMENT 2.05.6(3)-4**  
**POND 013 HYDROGEOLOGIC INVESTIGATION WELLS**

The location of seven (7) monitoring wells for a hydrogeologic investigation of groundwater designed to evaluate groundwater conditions around Pond 013 are shown on Figure 2.05.6(3)-1.

All the monitoring wells will be 2" in diameter with total well depths as follows:

<u>Well Name</u>	<u>Casing Size (in.)</u>	<u>Total Estimated Depth (ft.)</u>	<u>Plugging &amp; Abandonment Volume (ft<sup>3</sup>)</u>
PW-01	2	25	0.55
PW-02	2	25	0.55
PW-03	2	25	0.55
PW-04	2	25	0.55
PW-05	2	25	0.55
PW-06	2	25	0.55
SW-01*	NA	NA	NA

\* NA indicates not applicable. SW-01 is a stilling well location where casing will not penetrate more than 0.5 feet into the base of Pond 013. SW-01 will monitor surface water within Pond 013, not groundwater. The primary SW-01 structure that will penetrate the ground surface is a 0.75-inch galvanized steel support post that will be driven approximately 2.5ft below ground surface. During SW-01 abandonment, the support post will be removed along with the 2-inch PVC casing mounted to it.

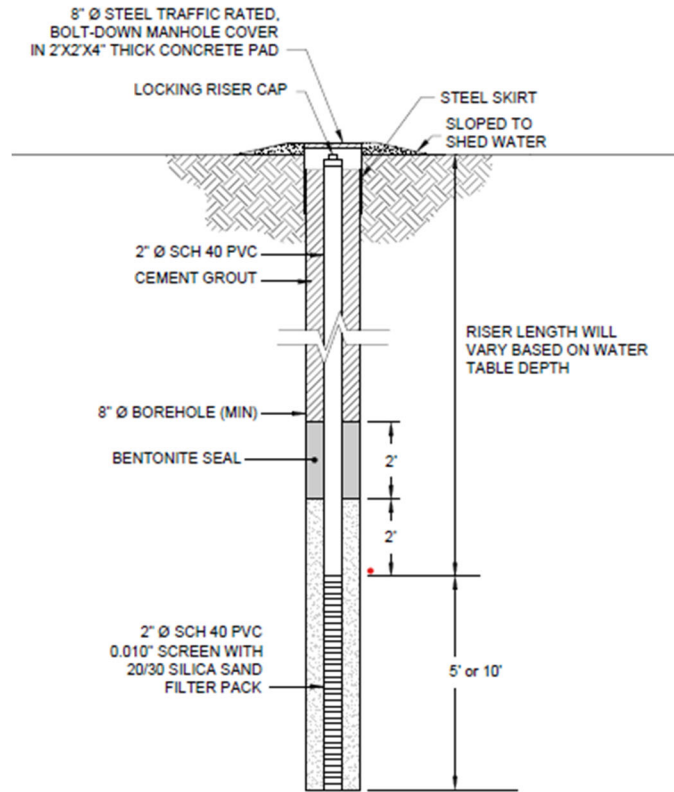
Well construction and protection of the hydrology balance measures will be taken to mitigate the intrusion of non-native water at the well during borehole drilling, well construction, and post-construction to prevent contamination of groundwater. Details demonstrating how this will be achieved are described below.

Monitoring well boreholes will be completed utilizing a track mounted sonic drilling rig. Boreholes will be hand cleared to approximately 5 feet (ft) below ground surface (bgs) with a combination of hand auger and posthole digger tooling. A pan designed to collect liquid wastes generated during drilling will be placed on the ground surface at the borehole. The pan has an opening through which the advancement of casing occurs, and the pan will be sealed around the borehole with a bentonite seal. An example of the pan is depicted in the image below.

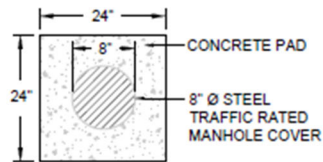


Advancement of 4-inch casing with 6-inch override casing is completed through the opening in the pan so that water utilized during the drilling process can be captured and containerized. Liquids captured in the pan will be pumped into 55-gallon steel drums for disposal. While telescopically extending the 4-inch and 6-inch casing, the 6-inch casing serves as an additional surface seal. The top of the 6-inch casing will extend above the ground surface so that the advancement of the 4-inch casing occurs inside the casing preventing the downward migration water from the surface. Potable water will be utilized during the drilling process.

Once the borehole is advanced to the desired well depth, 4-inch casing will be removed and the well-constructed utilizing the 6-inch casing. The 6-inch casing will be incrementally removed as the well's filter pack and seal are placed and as the remaining annular space is sealed with bentonite grout to approximately 1 foot below ground surface (bgs). The well will be completed and sealed at the surface by constructing a sloped 2-foot by 2-foot concrete flush mount well pad around the top of the well with an 8-inch steel manhole for well access. After the manhole is installed, the remaining annular space in the borehole will be filled with grout to approximately 0.5-feet below top of casing completing the surface seal and preventing migration of surface water down the borehole. The diagram below depicts the planned well construction.



TYPICAL  
OBSERVATION WELL DETAIL  
NOT TO SCALE



TYPICAL OBSERVATION WELL PLAN VIEW  
NOT TO SCALE