

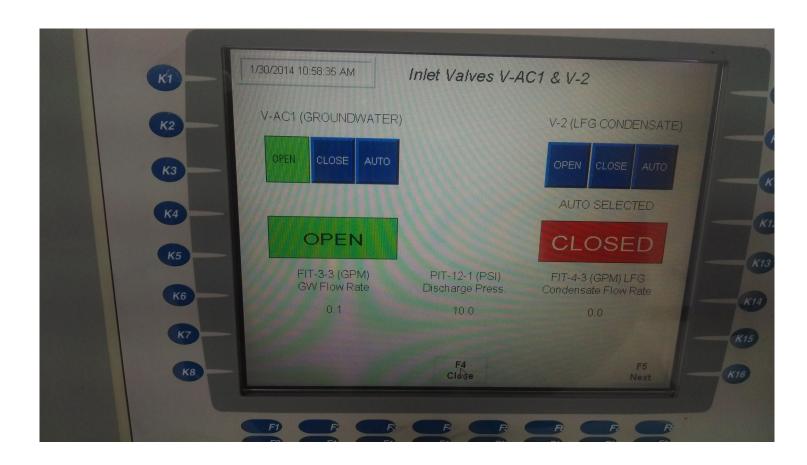
Pipe containing contaminated groundwater pumped from the groundwater wells (second from right in the assembly) comes into the GW building near the foundation and is routed up over to the collection tank of the treatment system.

After ground water is cleaned, it is routed out (processed water) through a pipe to be carried to the sewer system.





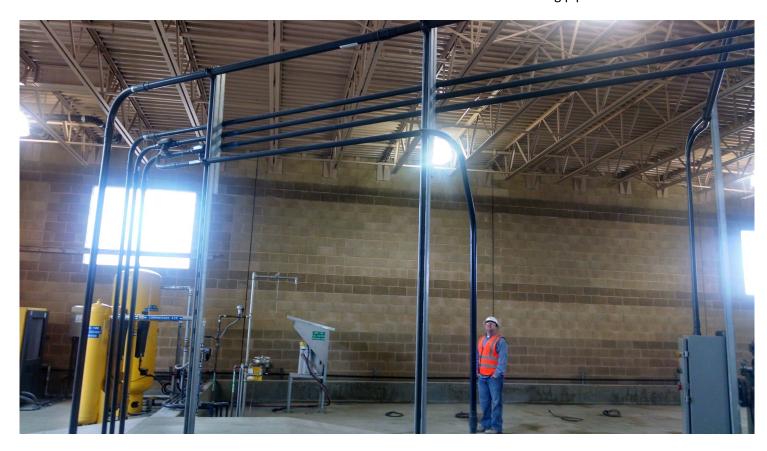
The GW treatment system is computer controlled and automated. The control panels are shown above and a closeup of the control screen on the panel is shown below. At any time if a mal function occurs, the system will shut down (the pumping wells, the gw inflow, the tanks being filled, the treatment units, and the processed water outflow) until an operations and maintenance operator determines and fixes the problem and manually turns the system back on.





Above: Groundwater is piped into the building and into the large collection tank (above left in photo). Sediment is filtered out before the untreated water goes into the treatment units. The filtered and untreated water is then piped (below) to the treatment units.

Untreated GW goes through an air sparging treatment where compressed air is mixed with the water in several stages. The air sparging helps to release the volatile compounds from the GW into the air stream within the air sparger. The dirty air is piped into Granulated Active Carbon (GAC) treatment units where the volatile compounds are absorbed onto the GAC for removal from the site. The partially treated GW/processed water is piped into GAC treatment tanks for further removal of volatile and non-volatile contaminants from the water before being piped to the sewer.





Above: Partially processed water is piped from the air sparger to GAC tanks for further removal on contaminants.

Below: Contaminated air stream from the air sparger is piped to GAC tanks to be cleaned.





Above: Another view of the GAC tanks for vapor/air treatment to remove contaminants from the sparged process water.

Below: Photo of the front of the building facing the Landfill Gas pad. The building and roof are completed except for the final installation of the fire water system prior to operation.

