DEPARTMENT OF THE ARMY
CAMP STANLEY STORAGE ACTIVITY, MCAAP
25800 RALPH FAIR ROAD, BOERNE, TX 78015-4800

January 5, 2007

U-022-07

Mr. David Laughlin
Texas Commission on Environmental Quality
Water Supply Division
P.O. Box 13087 (MC-153)
Austin, TX 78711-3087

Subject: Supplementary Reconditioning of Production Well CS-9,
Camp Stanley Storage activity, Boerne Texas
PWS I.D. 0150117

Dear Mr. Laughlin:

The Camp Stanley Storage Activity (CSSA), McAlester Army Ammunition Plant, US Army Field Support Command, Army Materiel Command, U.S. Army is submitting notification of our plans to recondition groundwater supply well CS-9 in mid-January 2007.

CSSA completed the general rehabilitation/maintenance on Well CS-9 in June 2006. Results from the quarterly groundwater monitoring taken that same month revealed concentrations of lead and mercury above the MCL. Further investigation was conducted. CSSA has been sampling Well CS-9 for approximately 10 years to ensure and enhance the post's groundwater monitoring sample data is complete.

Then investigation revealed an obstruction in Well CS-9 at approximately 553 feet. The debris appeared to be a section of 6-inch diameter steel pipe of unknown length that may have been lodged against the borehole wall by fallen rock and other debris. The metal pipe and other man-made debris may be the source of lead and mercury detected when the well was sampled in June 2006. A description of recent Well CS-9 investigation activities is included in the attached General Summary.

CSSA proposes to close the bottom of Well CS-9 by placing cement grout approximately 2 to 3 feet above the top of the pipe obstruction. This would encase the obstruction and seal off any potentially lead-containing parts from the rest of the well and circulating waters. A "neat" cement grout would be pressure-injected into Well CS-9 via tremie pipe, from the lowest depth attainable by the tremie pipe and upward in accordance with 16 Texas Administrative Code (TAC) Chapter 76, and 30 TAC Chapter 290 Subchapter D §290.41. "Neat" cement grout in this case would consist of cement without any additives mixed with 6 to 7 gallons of clean water per 94-lbs of dry Portland cement. This would insure maximum flow into the spaces, crevasses, and voids in and around the debris and surrounding borehole wall. A final lift of grout capping the sealed debris and separating it from the remaining open portion of the well above would have a 2 to 3 percent bentonite addition to prevent potential minor shrinkage and small scale cracking that might occur during curing of the cement seal.

After the grout has cured, Well CS-9 will be purged and sampled for metals. If the sample analysis results reveal metal concentrations below drinking water MCLs, then CSSA would proceed with disinfection and bacteriological analyses before returning the well to service. The grouting may cause a slight drop in well yield due to the closing of minor water-bearing zones. CSSA believes any reduction to water yield would be minimal and not affect the overall well performance and production. In addition to PWS sampling requirements, CSSA plans to continue sampling Well CS-9 for lead to supplement CSSA groundwater monitoring data as needed.

Well CS-9 is a critical component to the facility water system and the overall CSSA mission. The well serves as a supplemental water source to Wells CS-1 and CS-10. The ongoing area drought, depressed water levels, and the facility fire protection requirements are additional reasons to retain Well CS-9 as a backup supply well for future use.

If you have any questions please feel free to contact Glare Sanchez, Environmental Program Manager, at (210) 295-7416.

Sincerely,

Jason D. Shirley
Installation Manager

Attachment

cc: Ms. Glare Sanchez, CSSA Environmental Program Manager
Mr. Greg Lyssy, EPA Region 6
Mr. Sonny Rayos, TCEQ Central Office
Ms. Mary Knipfer, TCEQ Central Office
Ms. Abigail Power, TCEQ Region 13
Ms. Julie Burdey, Parsons
Ms. Kimberly Vaughn, Parsons