



DEPARTMENT OF THE ARMY  
BADGER ARMY AMMUNITION PLANT  
S7273 BLUFF ROAD  
MERRIMAC, WISCONSIN 53561

October 26, 2016

SUBJECT: Submittal of September 2016 Monitoring Well Groundwater Data  
Badger Army Ammunition Plant

Mr. Shawn Wenzel  
Hydrogeologist  
Wisconsin Department of Natural Resources - South Central Region  
2514 Morse Street  
Janesville, WI 53545

Dear Mr. Wenzel:

Enclosed is the Badger Army Ammunition Plant (BAAP) September 2016 Monitoring Well Groundwater Data. This was a semi-annual sampling event. SpecPro Professional Services, LLC (SPS) collected groundwater samples from 133 monitoring wells associated with the Deterrent Burning Ground Plume, Nitrocellulose Production Area Plume, and Propellant Burning Ground Plume. Monitoring wells in the Central Plume will be sampled during November 2016 and June 2017. The enclosed compact disc contains copies of the signed Environmental Monitoring Data Certification Forms, a list of wells sampled, and a map showing the well locations.

Based on the WDNR *2014 Monitoring Well Optimization Plan* email approval dated May 27, 2014, 47 monitoring wells associated with the Deterrent Burning Ground (DBG) Plume were sampled during September 2016. Biennial sampling (every other year) was conducted at two (2) monitoring wells, ELN-0802A and ELN-0802C. The groundwater results indicate that dinitrotoluene (DNT) concentrations in the DBG Plume have continued to decrease over the past year.

Per the WDNR's October 3, 2014 request, we have included DNT groundwater data from seven (7) wells located near the former DNT Screen House. These monitoring wells help define the extents of DNT in the Nitrocellulose Production Area Plume. The groundwater results indicate that DNT concentrations in this area have decreased since September 2015.

Based on the WDNR *Propellant Burning Ground Monitoring Requirements* dated January 5, 2015, 79 monitoring wells associated with the Propellant Burning Ground (PBG) Plume were sampled during September and October 2016. Biennial sampling was conducted at five (5) monitoring wells, PBM-8909, PBM-9002D, PBN-9102B, PBN-9102C, and PBN-1405F. The groundwater results indicate that volatile organic compounds (VOCs) concentrations in the PBG Plume were relatively unchanged since April 2016. DNT concentrations near the PBG source areas have continued to decrease over the past year. DNT concentrations downgradient of the PBG were relatively unchanged since April 2016.

SPS conducted an internal quality control review of the groundwater data. The internal review did find that laboratory volatile organic compound trip blanks and/or method blanks were contaminated with the following compounds at varying concentrations: acetone, chloromethane, and

tetrahydrofuran. The SPS environmental professional did note that acetone was detected in four samples, chloromethane was detected in 36 samples, and tetrahydrofuran (THF) was detected in 42 samples. The following compounds were also detected: 2-butanone in one sample, benzene in 25 samples, bromodichloromethane in 27 samples, chloroethane in one sample, dibromochloromethane in two samples. All these detections were flagged and rejected based on professional judgment.

All groundwater samples were analyzed by CT Laboratories, LLC (CT Lab) in Baraboo, Wisconsin. CT Lab is a WDNR Chapter NR 149 certified laboratory and accredited by the Department of Defense Environmental Laboratory Accreditation Program (DoD ELAP).

Please do not hesitate to contact me at 608-434-5374 if you have any questions.

Sincerely,

Robert M. Sitton  
Commander's Representative

Enclosure

Copy furn: Roger Walton, Contracting Officer's Representative