

**UPDATE FOR THE  
GROUNDWATER AND ENVIRONMENTAL INVESTIGATION  
SERVICES AT THE FORMER RAVENNA ARMY  
AMMUNITION PLANT  
CAMP RAVENNA, PORTAGE AND TRUMBULL COUNTIES,  
OHIO**

**RESTORATION ADVISORY BOARD MEETING**

**Portage County Office of Homeland Security  
November 16, 2016**





# ***Field Activities***

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- **Installation of 4 new background wells**
  - **Installation of 5 new wells south of SR 5**
  - **Installation of 9 permanent and 4 temporary new wells on the installation**
  - **170 wells sampled during the fall event**
  - **288 water levels collected from the wells.**
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# ***Background Wells***

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- The four new BG wells and 8 existing BG wells are going to be sampled for the next 4 quarters.
  - The wells will be sampled for the “Full Suite” of analytical parameters plus cations and anions.
  - The BG wells will be used to determine the background concentration of metals in the unconsolidated, Upper Sharon, and Sharon Conglomerate aquifers.
  - The data collected will be used in a modeling program to determine the background concentrations of the metals.
  - The other analysis will be used to determine if any of the BG wells are contaminated.
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# *New Wells South of SR-5*

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- Five new monitoring wells were installed south of State Route 5 between State Route 225 and Holcomb road.
  - The Purpose of these new wells is to determine if contaminates discovered in wells LL3mw-246 and LL2mw-271 are migrating to the south.
  - LL2mw-271 had one result for HMX 0.21ppb on January 2014 sampling round and has never had a result above detection limits since that sampling round.
  - LL3mw-246 has had results for RDX ranging from 0.15 to 0.25 ppb for the last six rounds of sampling.
  - Five new wells were placed downgradient of these two wells.
  - The five wells are in place to determine the existence of these contaminates in both the Upper Sharron and the Sharon Conglomerate.
  - These wells will be sampled quarterly for one year for the “Full Suite” of analytes.
  - After the quarterly sampling is completed it will be determined how these wells will be used in the future.
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## ***Installation of new on-site wells***

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- The 13 new monitoring wells were installed to fill in data gaps and to better understand the complex geology and hydrogeology underlying former RVAAP/Camp Ravenna.
  - The new locations were all approved by the OEPA in the Remedial Investigation Work Plan (RIWP).
  - The 9 new wells will be sampled quarterly for the next year including “Full Suite” of analytes.
  - The data accumulated from the results will be used in the Remedial Investigation report.
  - After one year of quarterly sampling the 9 permanent wells will be used in the continued sampling as needed.
  - The 4 temporary wells will be sampled one time for the specific analytes found in the soils to determine if they have migrated to the groundwater.
  - When we complete the installation of the new wells we will have a total of 306 monitoring wells across and off site.
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# ***Fall 2016 Sampling Activities***

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- 170 monitoring wells including all the new wells previously discussed will be sampled during the fall event.
  - All wells to be sampled have dedicated bladder pumps installed to eliminate any turbidity problems that have previously occurred.
  - No wells will be sampled without the pump being in place less than 48 hours.
  - All wells are sampled using low flow sampling techniques.
  - Some of the existing monitoring wells were redeveloped to determine if the turbidity could be lowered or a new well was needed.
  - 288 monitoring wells were surveyed to determine the water levels in the wells. It was found during this event that the groundwater had dropped from 5 to 12 feet across the site. We assumed this was due to low snowfall last winter and the lack of rain this spring and summer.
  - The production well abandonments will begin after the first of the year weather permitting.
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# *Conclusion*

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➤ Questions

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