

Department of Navy
Naval Weapons Industrial Reserve Plant Bethpage
Restoration Advisory Board Meeting

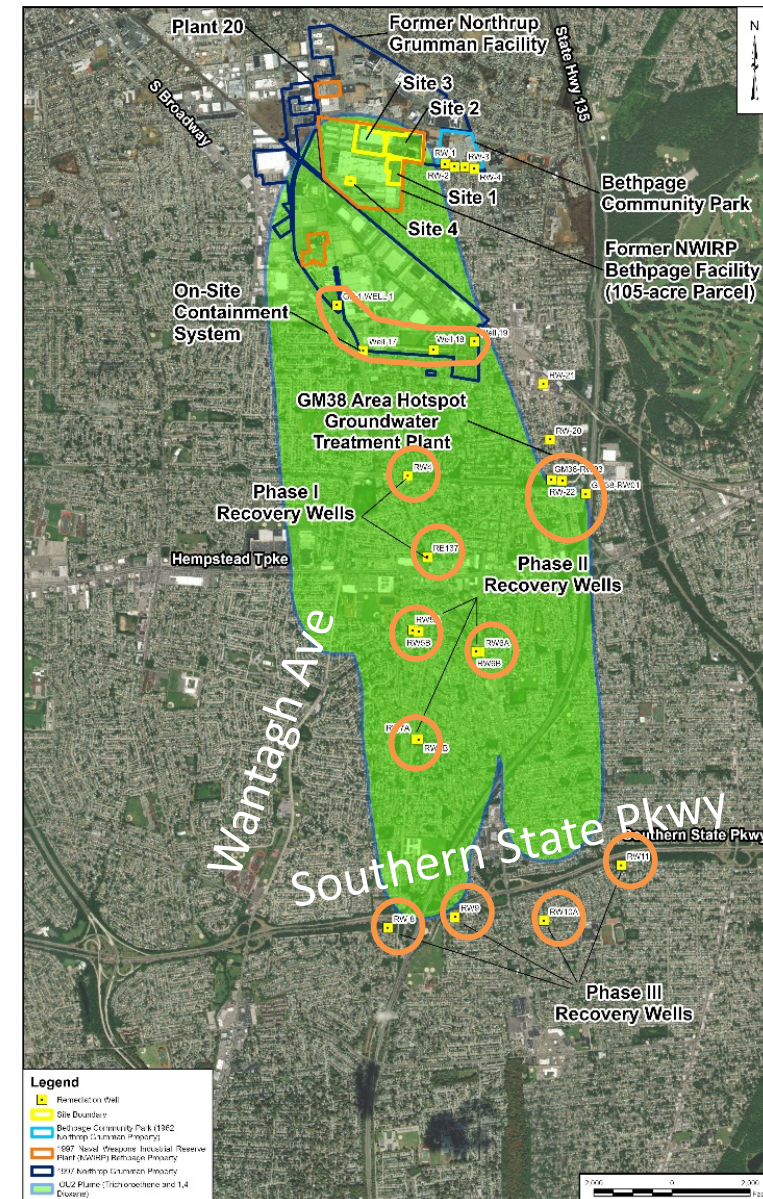
Operable Unit 2 Groundwater Monitoring Results

Presented by:
Rick Moore, Project Manager
Tetra Tech
8 May 2024

OU2 Groundwater Remediation Overview



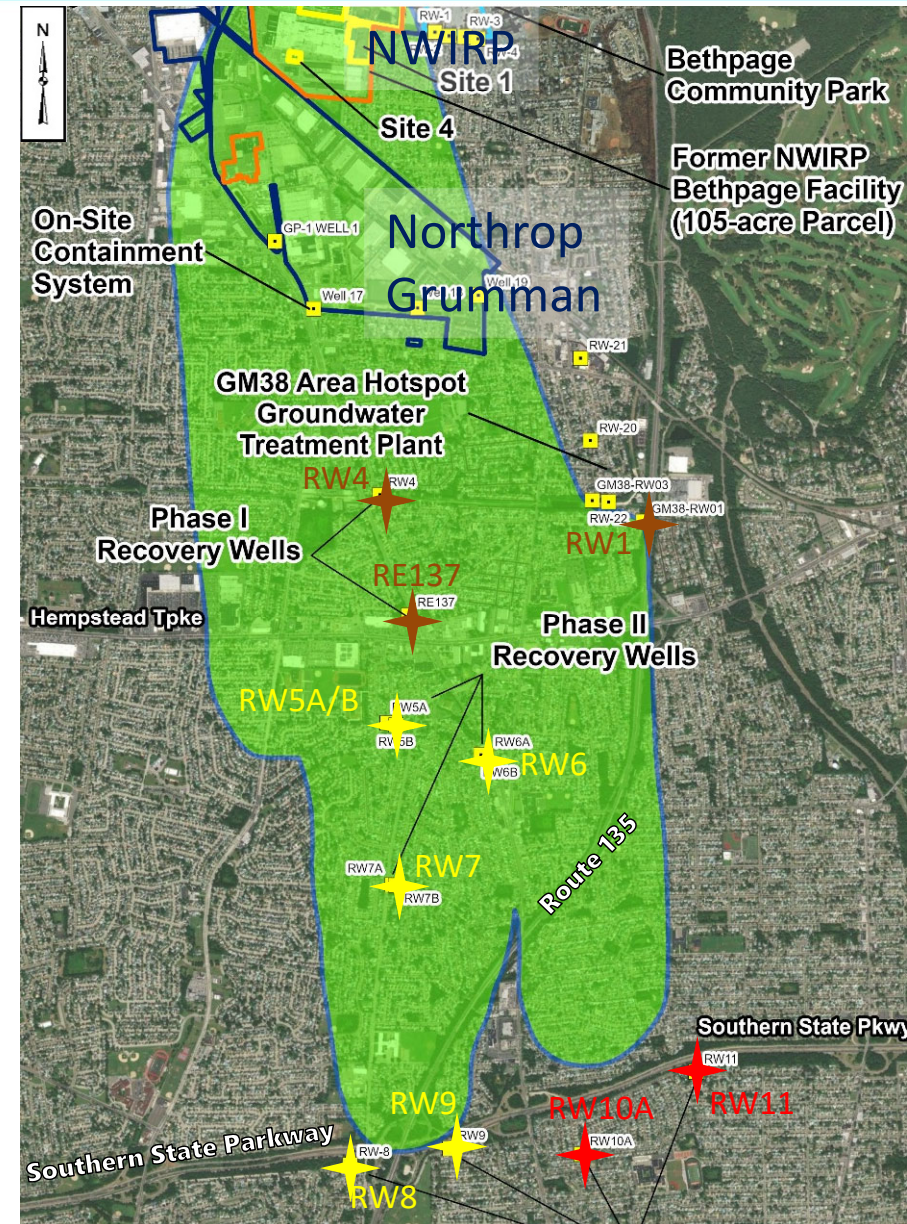
- Northrop Grumman Onsite Containment System – 1998
- Navy GM38 Area Hotspot Treatment System – 2009
 - GM38 System upgraded in May 2021 for 1,4-dioxane removal
- Navy Phase I
 - Recovery Well RW4 to GM38 System – April 2021
 - Navy RE137 Interim Treatment System – March 2022
 - RE137 to be completed to GM38 System
- Navy Phase II
 - Recovery Wells – All 6 wells complete
 - Phase II Treatment System – Under construction
- Navy Phase III
 - Recovery Wells – 2 of 4 wells complete
 - Phase III Treatment System – in design



OU2 Groundwater Monitoring Program



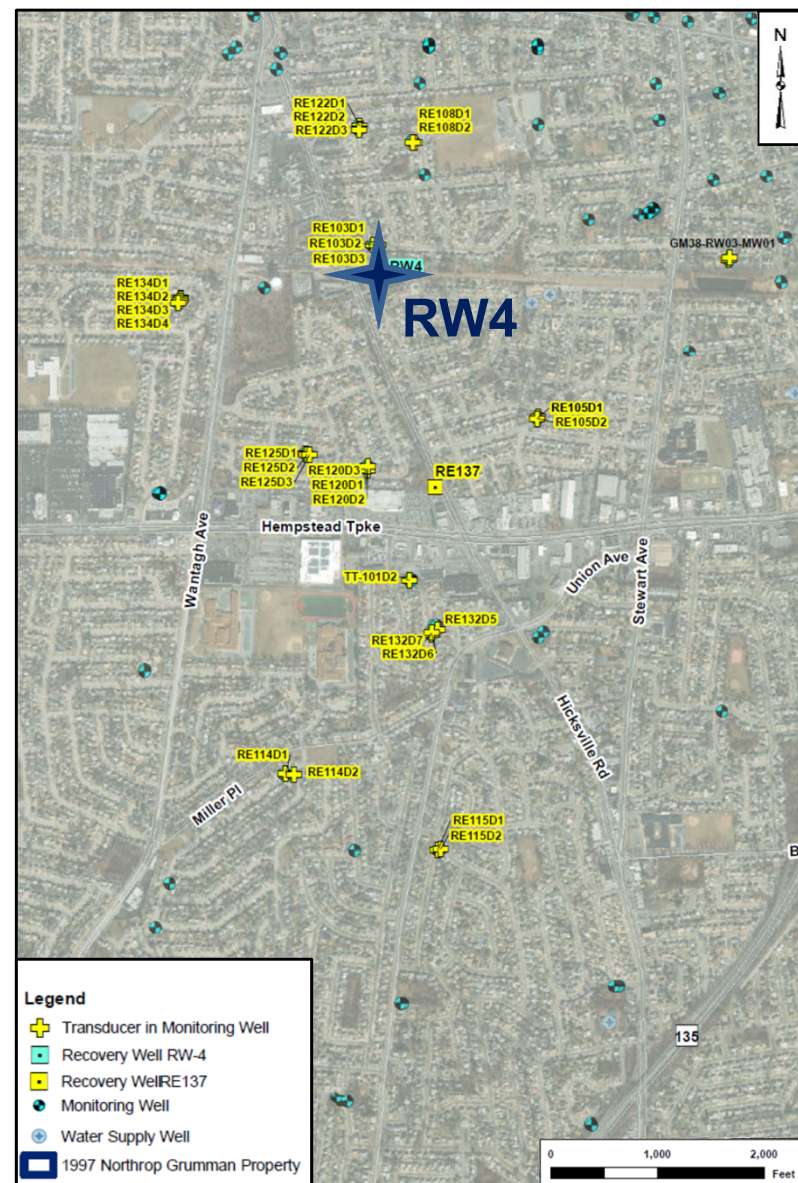
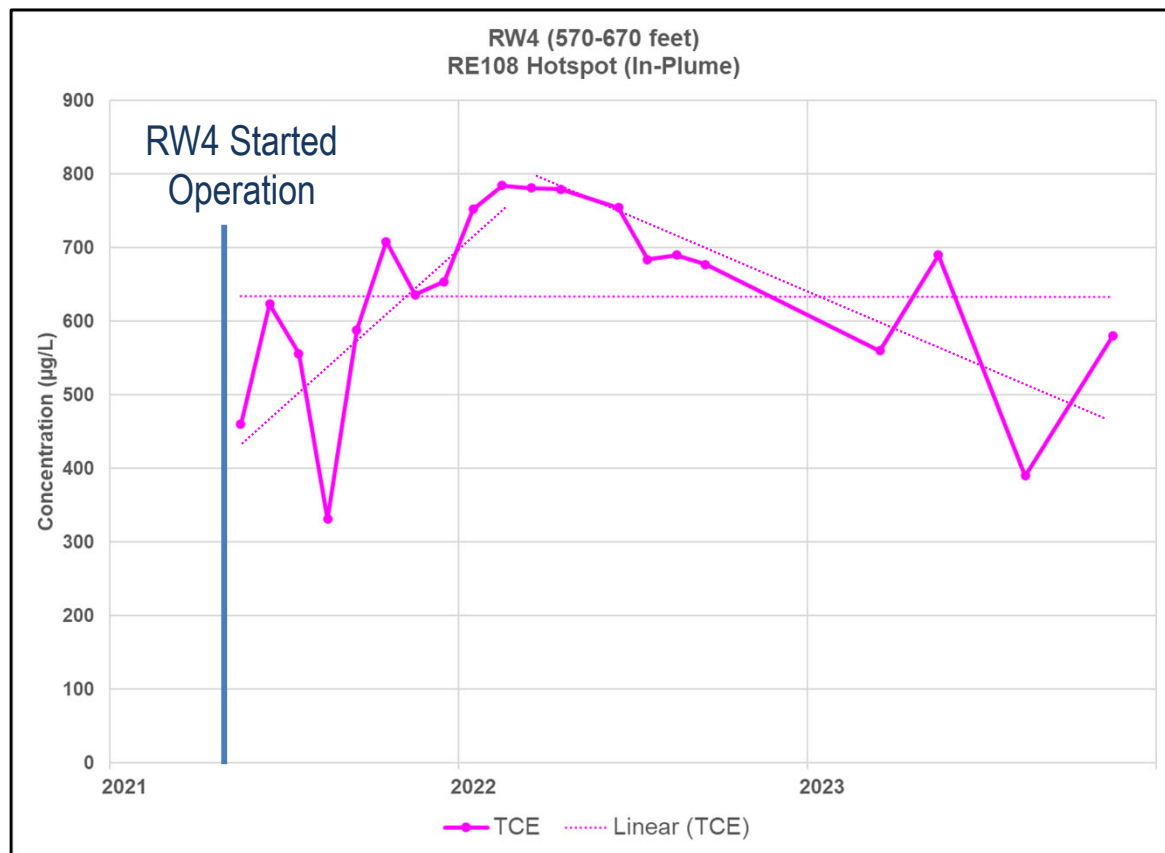
- Monitoring – OU2 plume migration, attenuation, and cleanup
- Groundwater samples – 180 wells on a quarterly, semi-annual, or annual basis, and analyzed for volatile organic compounds (VOCs) and 1,4-dioxane
- Recovery wells RW1, RW4, and RE137 operating
- Recovery wells RW5A/B, RW6A/B, RW7A/B, RW8, and RW9 are installed
- Recovery well RW10A vertical profile boring and monitoring wells are installed. Recovery well design complete and will be installed in Fall 2024



OU2 Groundwater Monitoring – Recovery Well RE4 (Phase I)



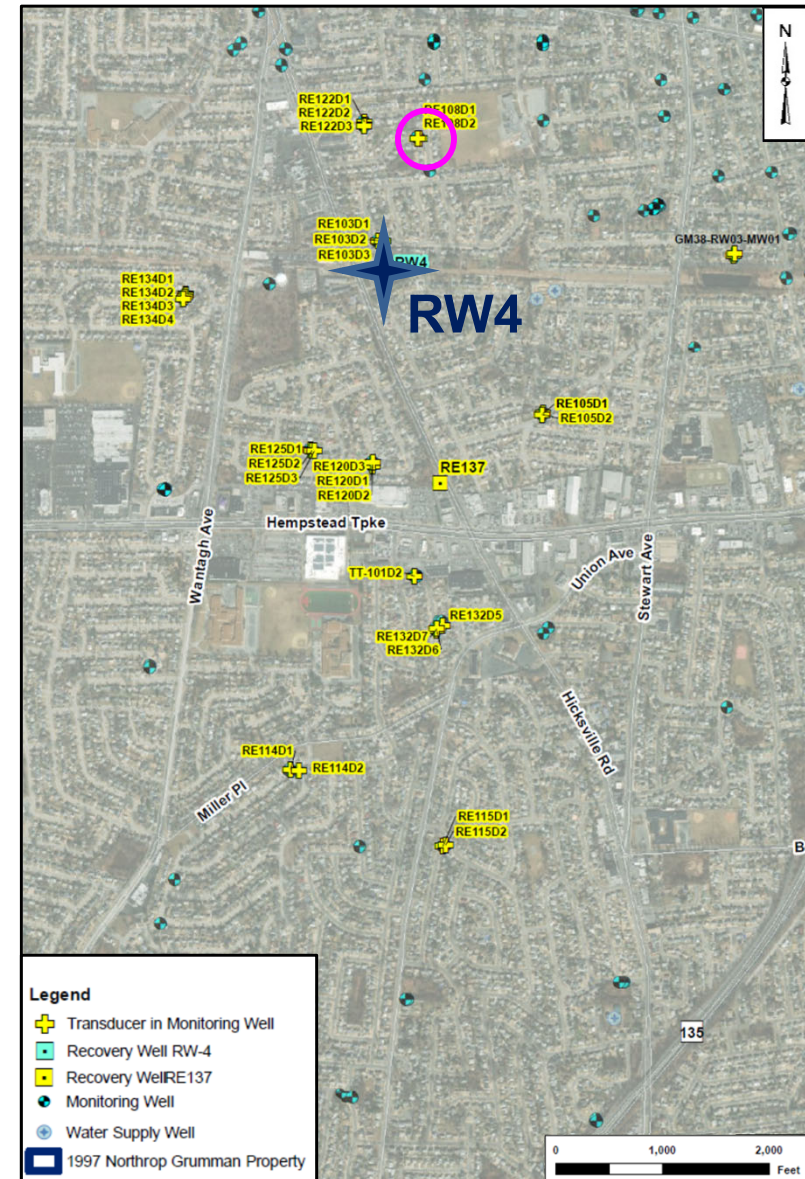
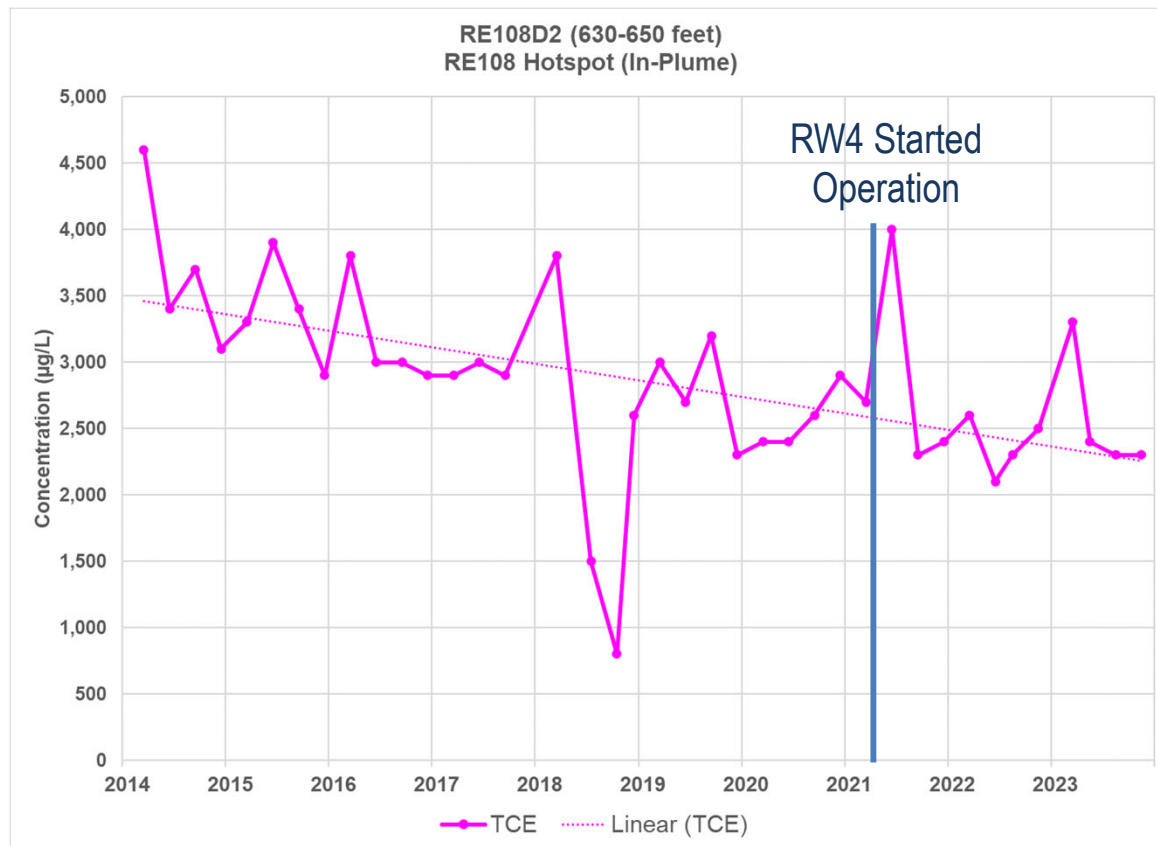
- RW4 started in April 2021, currently pumping 500 gallons per minute (GPM) or 260 million gallons per year
- Groundwater piped to GM38 Plant for treatment



OU2 Groundwater Monitoring – Recovery Well RE4 (Phase I)



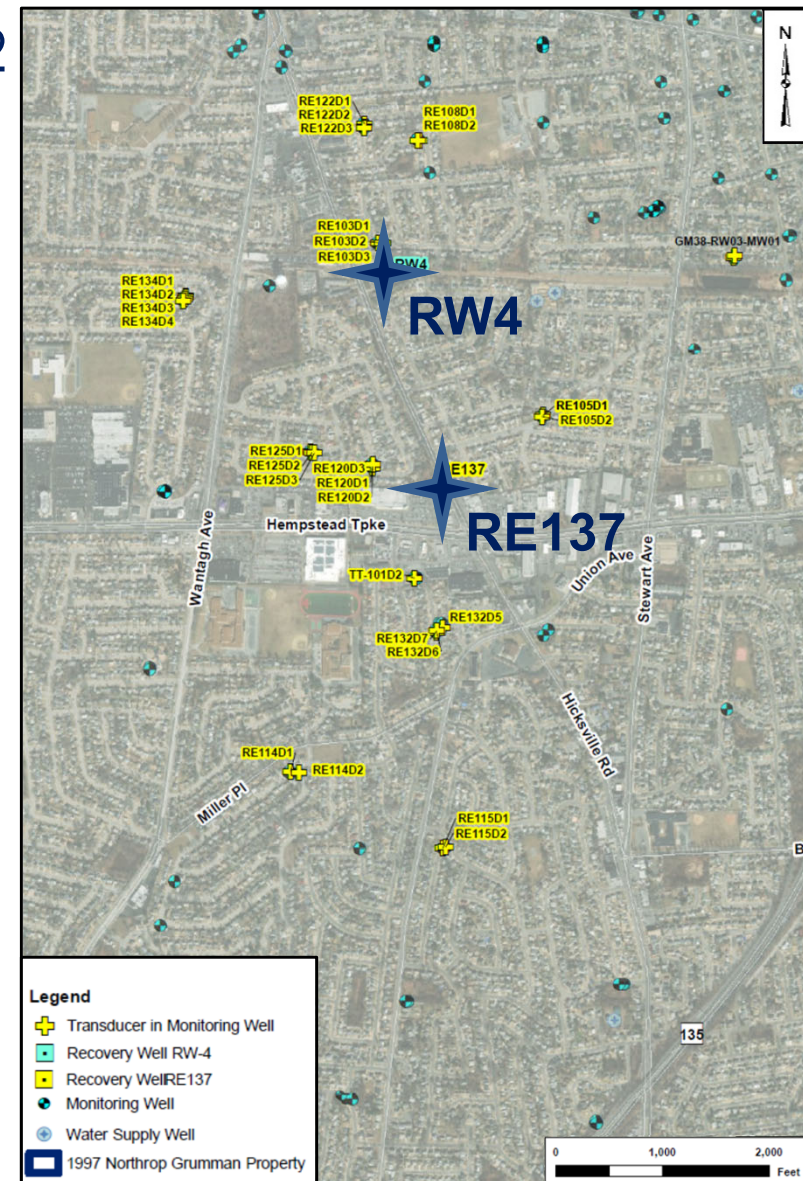
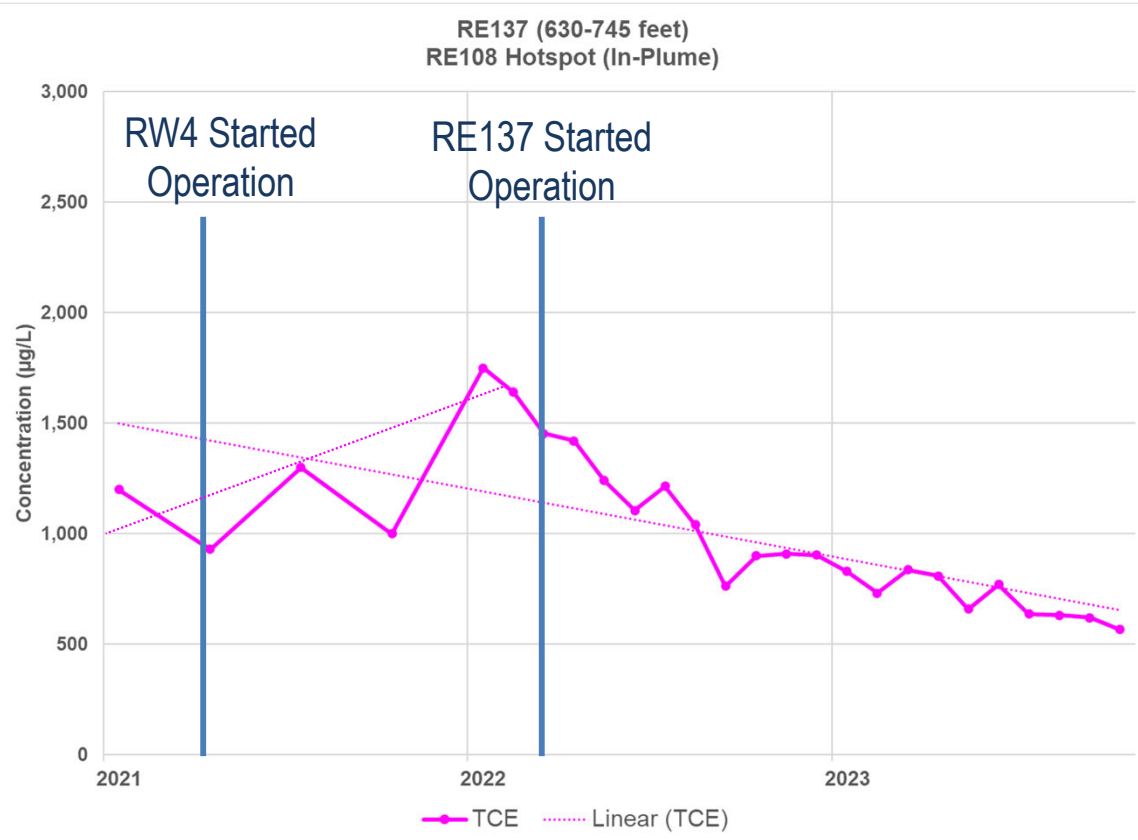
- Changes in water level and VOC concentrations in nearby monitoring wells are used to evaluate the capture and effectiveness of recovery wells



OU2 Groundwater Monitoring – Recovery Well RE137 (Phase I - Interim System)



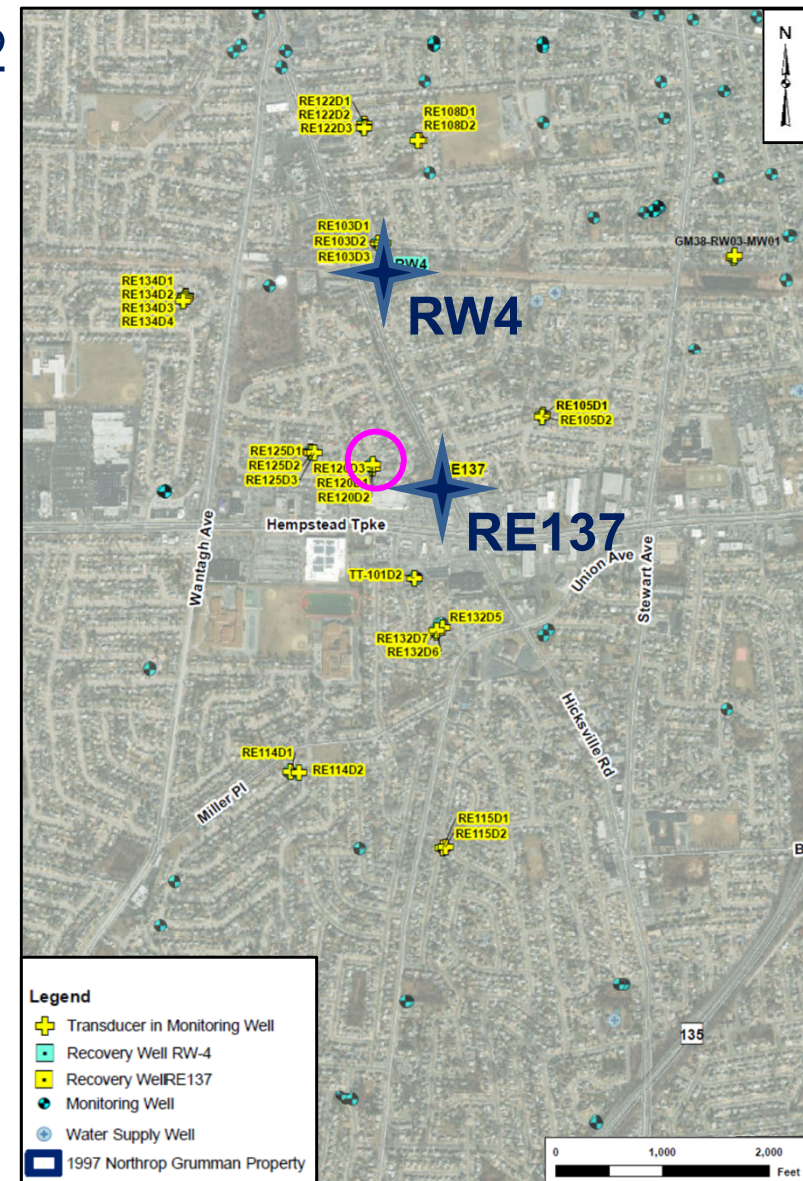
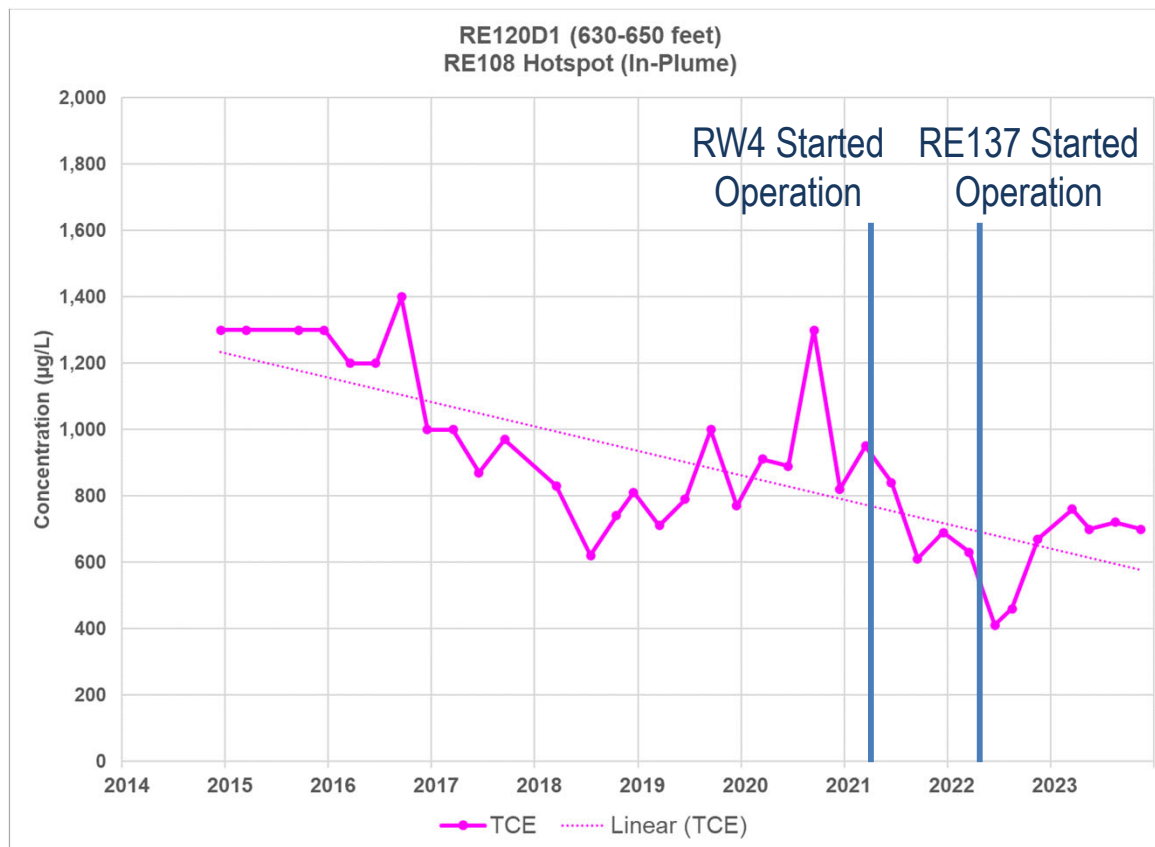
- Pilot testing – Interim system startup in March 2022
- Planned operation until piping complete to GM38 treatment system (2024)
- Pumping between 100 and 360 GPM



OU2 Groundwater Monitoring – Recovery Well RE137 (Phase I - Interim System)



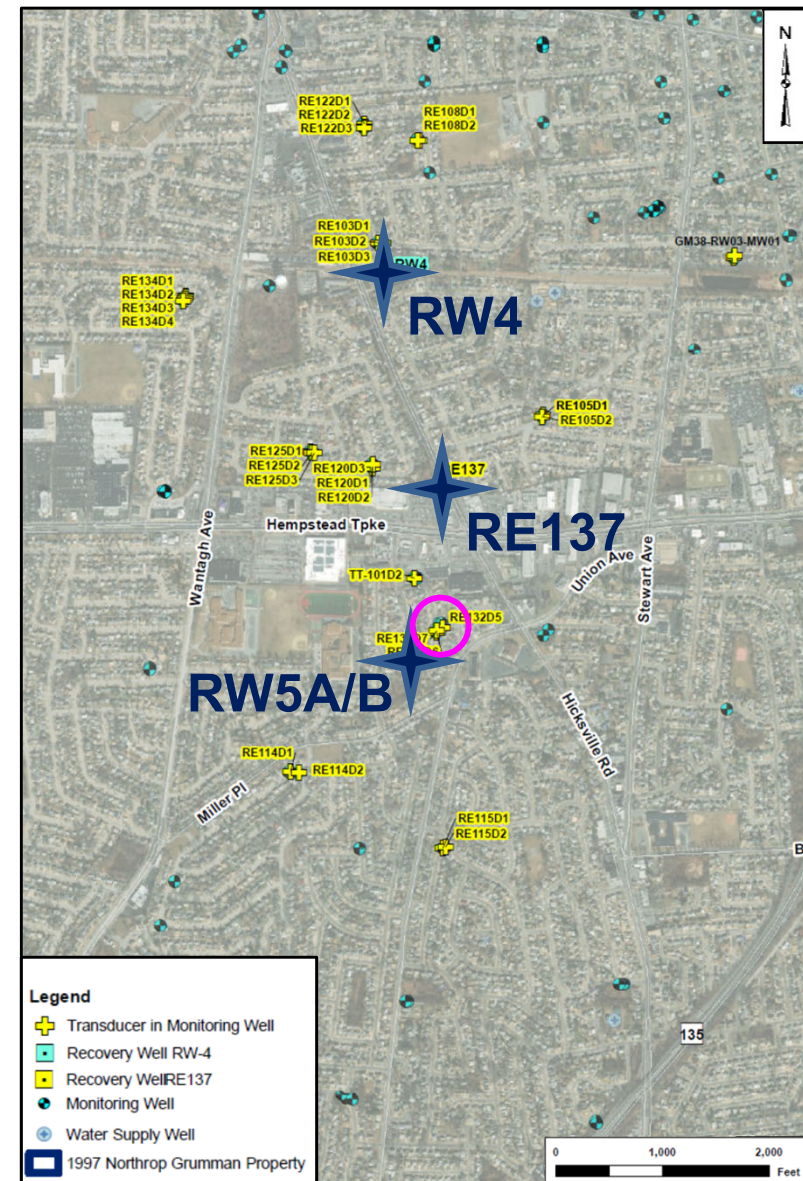
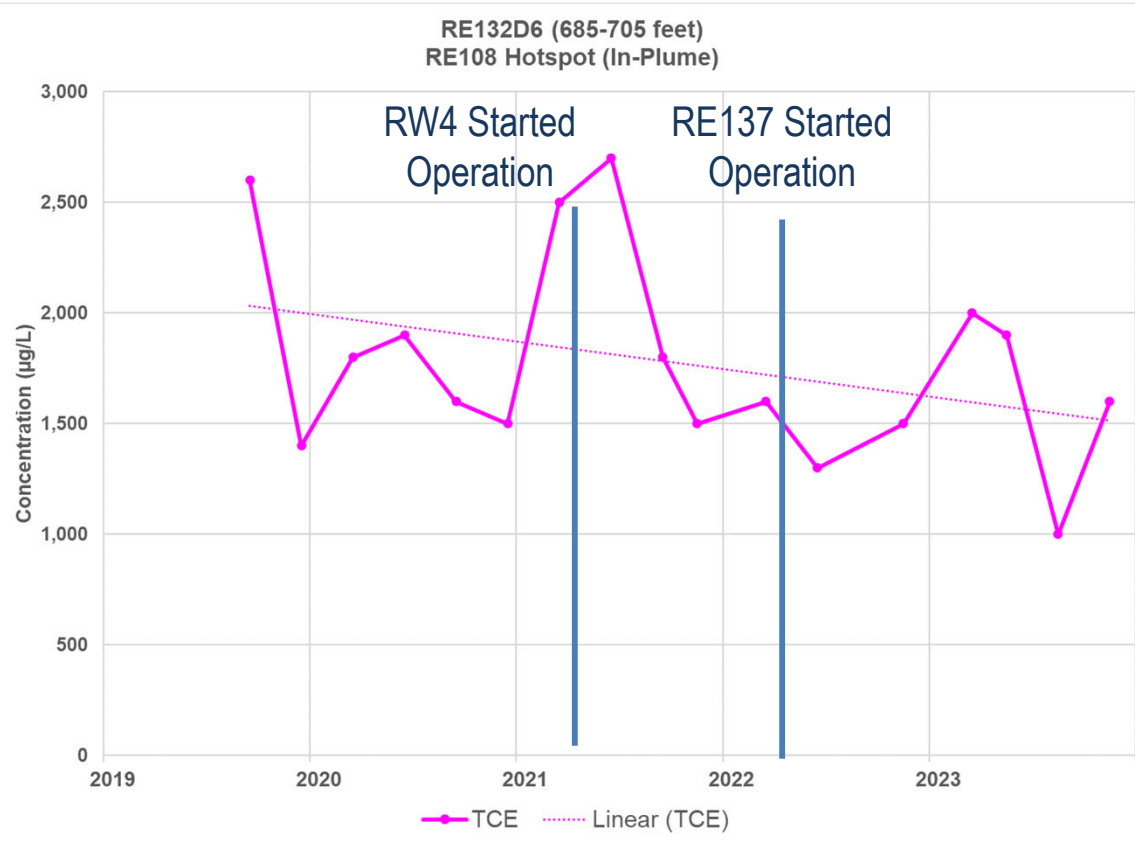
- Pilot testing – Interim system startup in March 2022
- Planned operation until piping complete to GM38 treatment system (2024)



OU2 Groundwater Monitoring – Recovery Wells RW5A/B (Phase II)



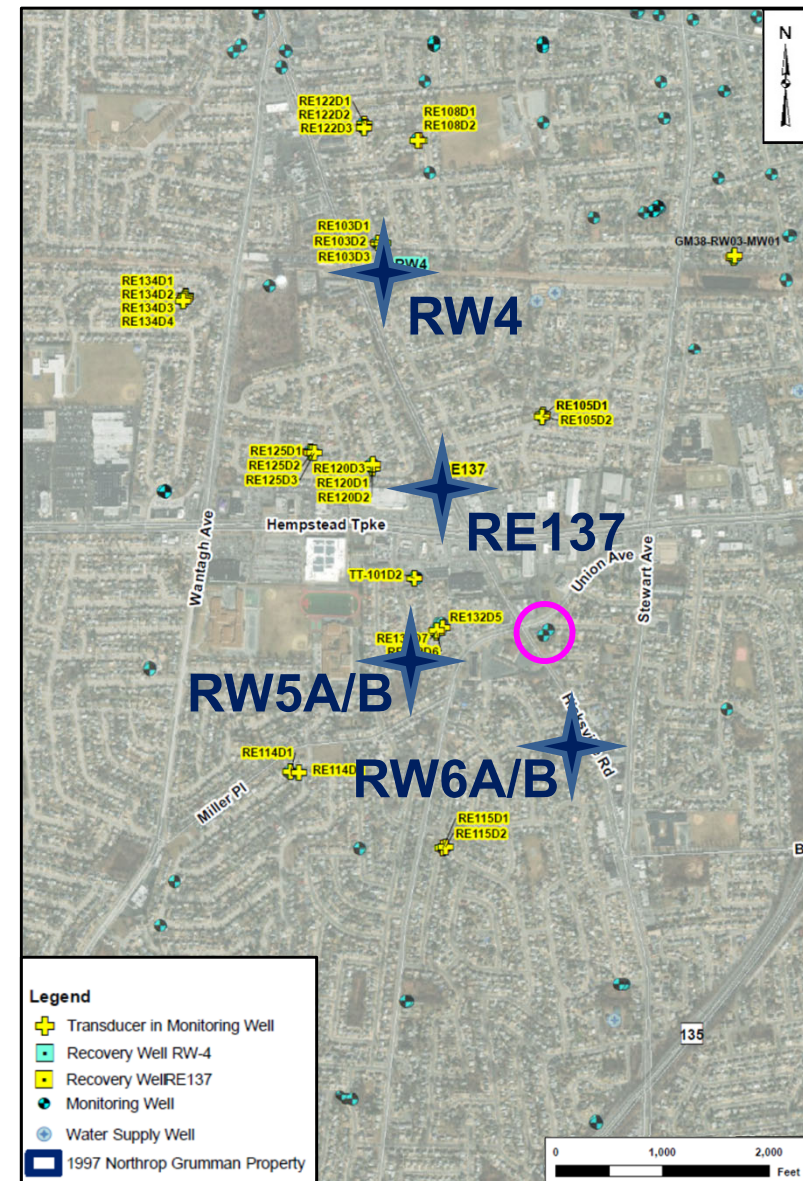
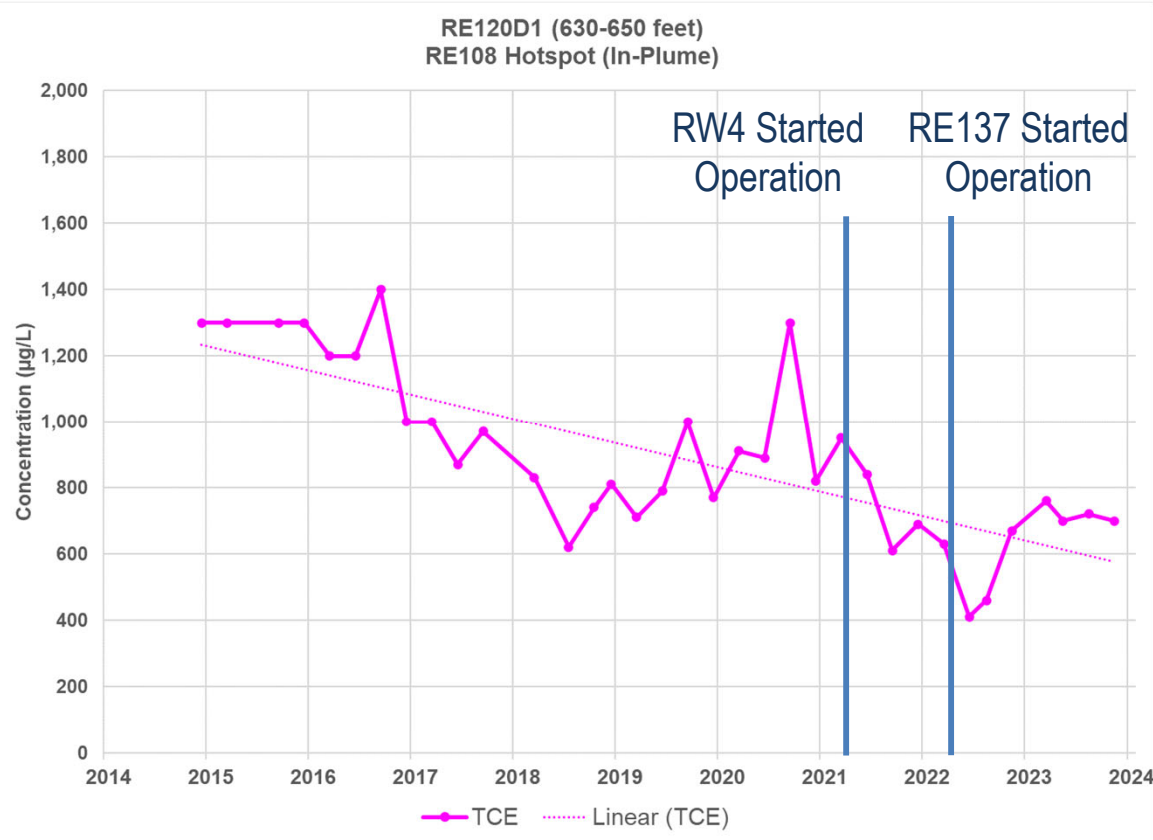
- RW5A/B are installed
- Planned connection to Phase II Treatment Plant
- Interim system planned for mid-2024



OU2 Groundwater Monitoring – Recovery Wells RW6A/B (Phase II)



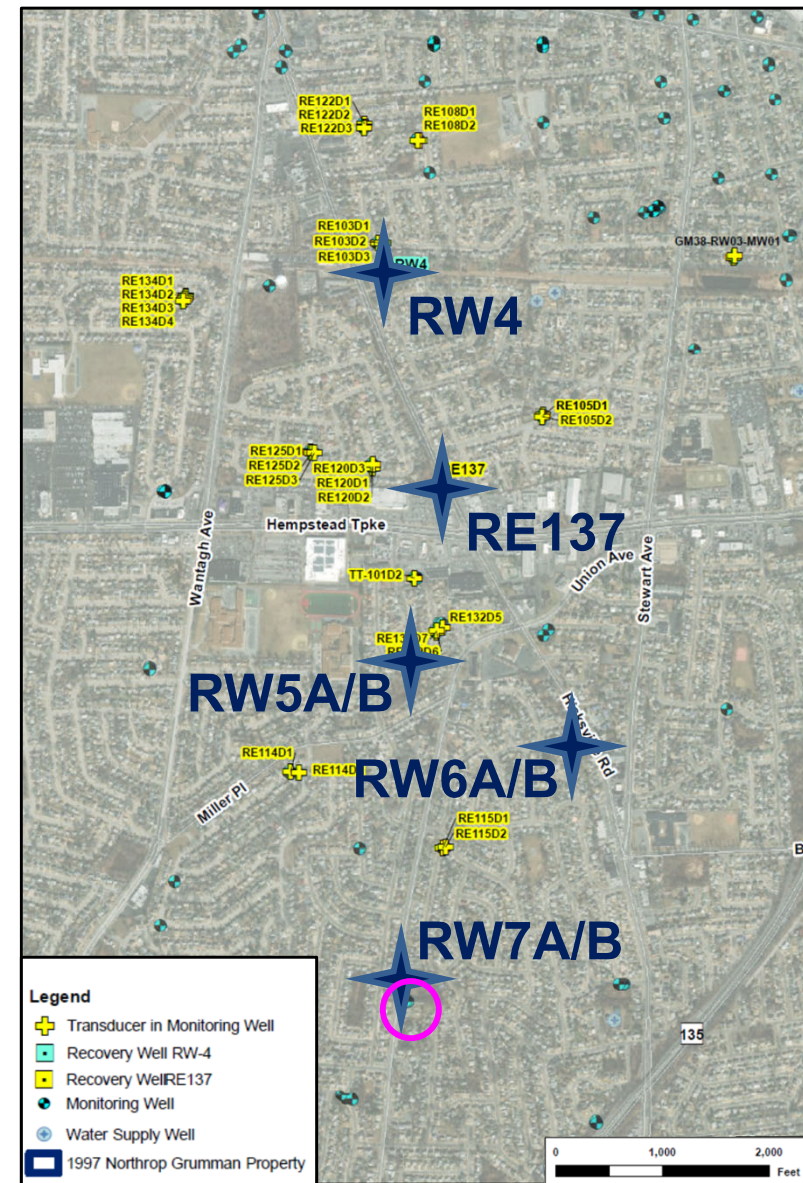
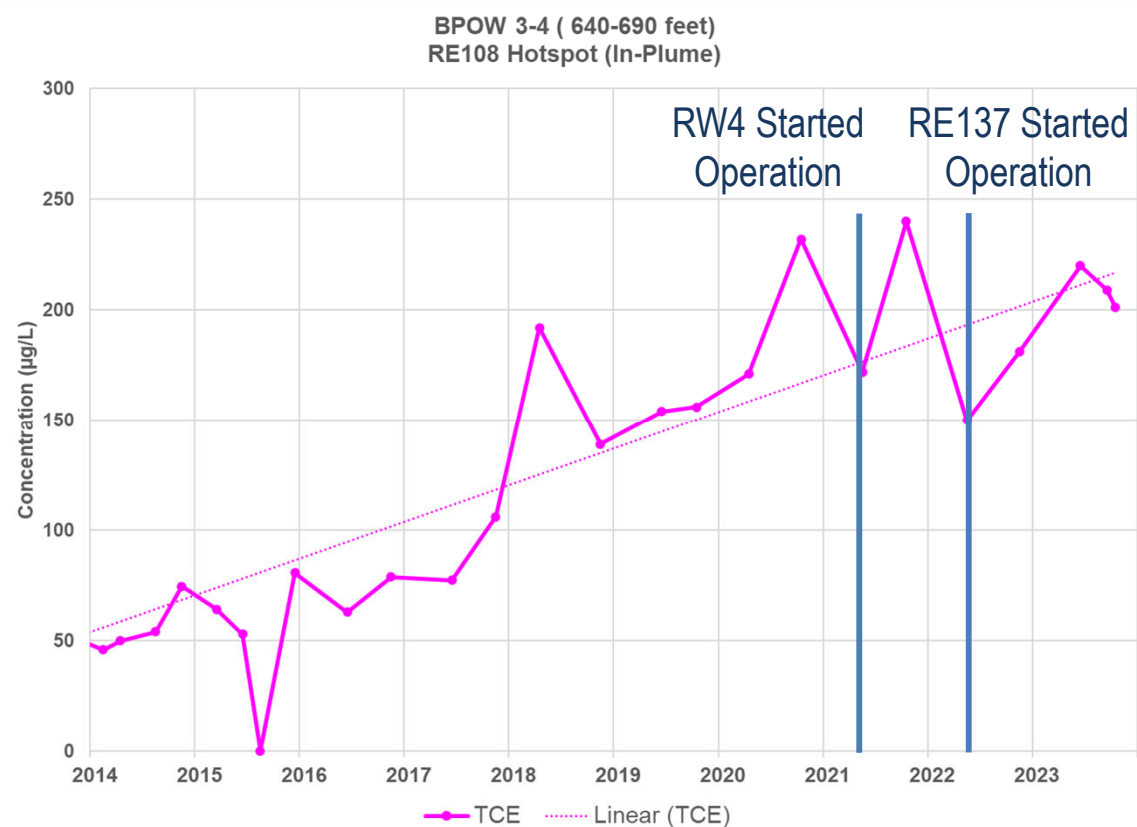
- RW6A/B are installed
- Planned connection to Phase II Treatment Plant



OU2 Groundwater Monitoring – Recovery Wells RW7A/B (Phase II Extension)



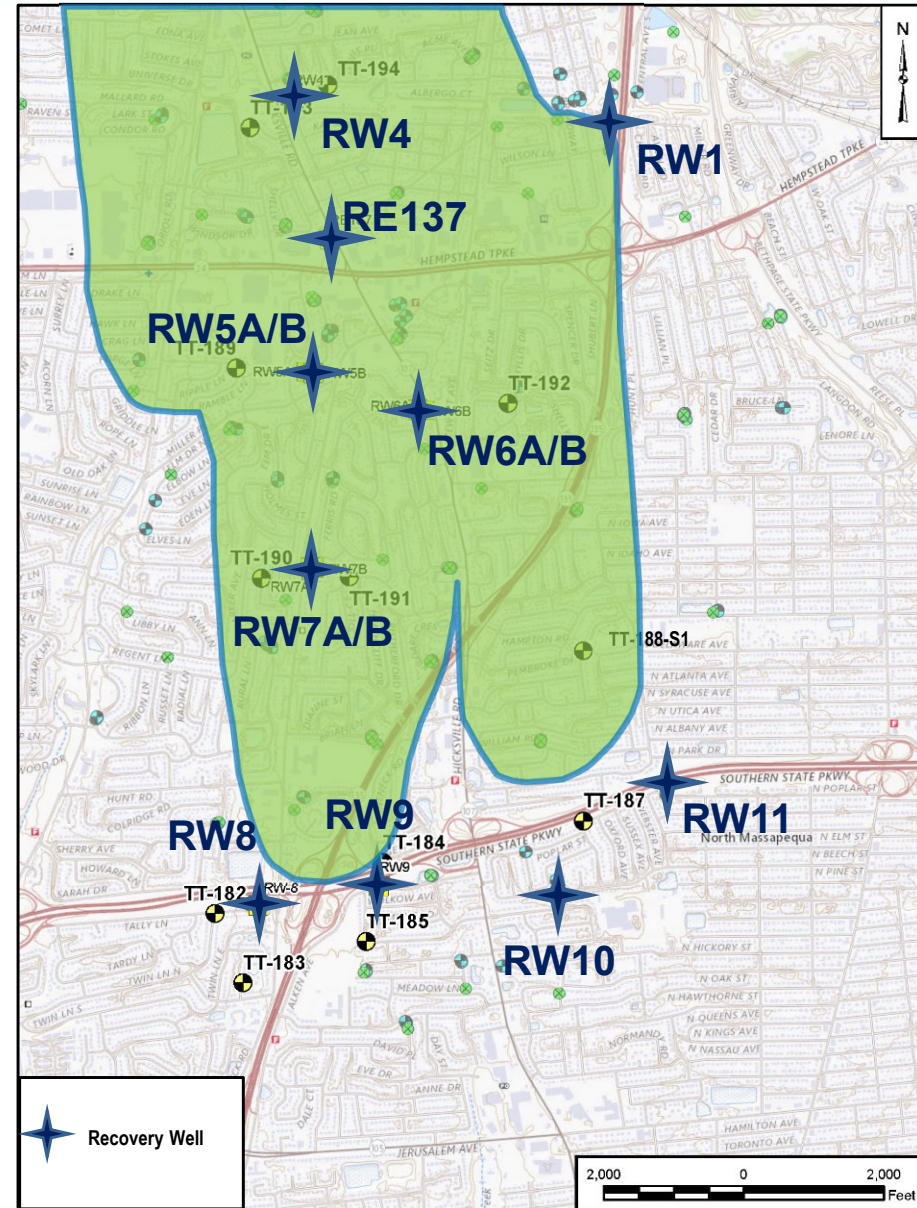
- RW7A/B are installed
- Planned connection to Phase II Treatment Plant
- Interim system planned for mid-2024



OU2 Groundwater Monitoring – Recovery Well RW8 to RW11 (Phase III)



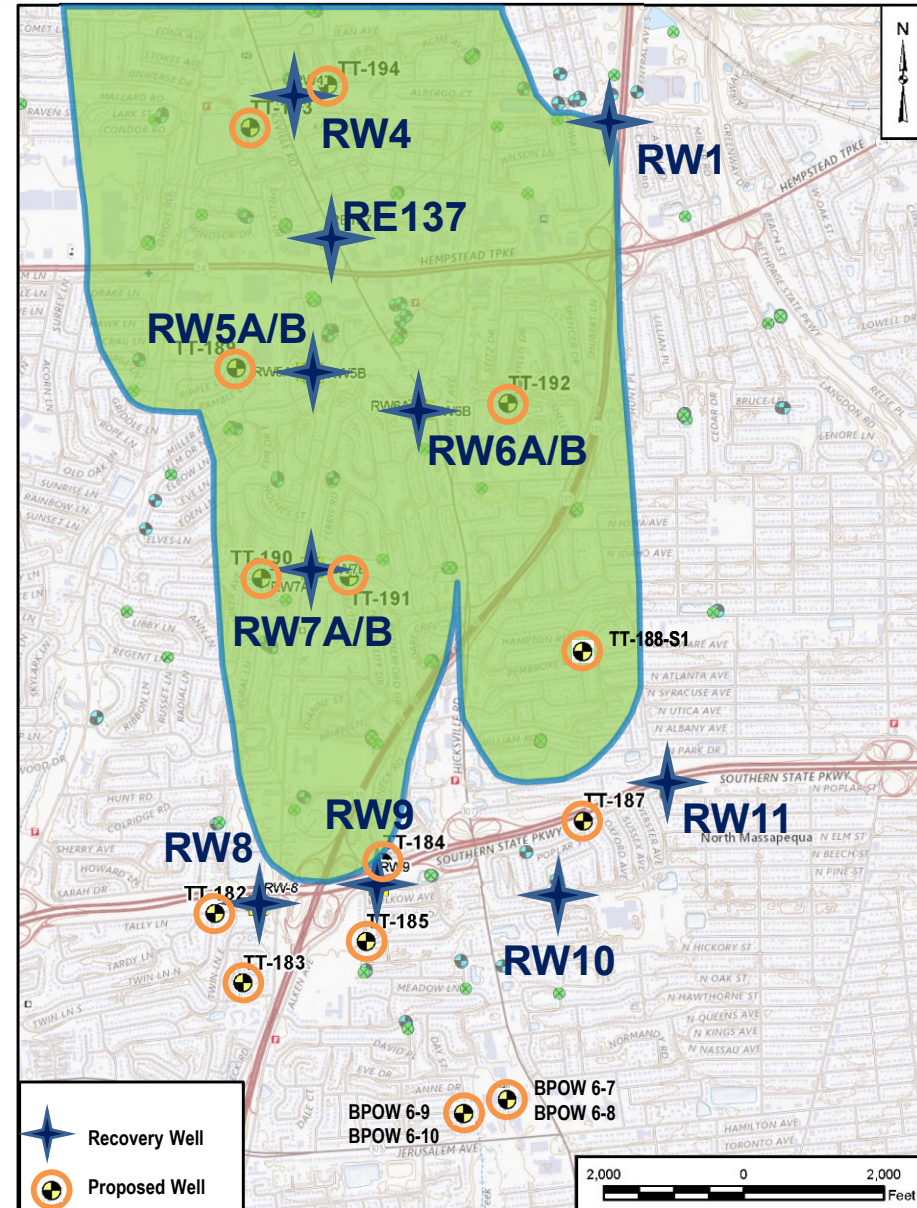
- Recovery wells RW8 and RW9 target deep groundwater at monitoring well RE117
- RW8 and RW9 are installed, pumping tests completed in December 2022
- RW10A/ RW11 VPB and monitoring wells completed
- Recovery well RW10A planned for fall of 2024
- Evaluating the need for RW11
- Monitoring wells planned to evaluate the performance of groundwater recovery wells and OU2 plume migration
- Phase III design activities are nearing completion



Planned Monitoring Wells and Recovery Wells



- Recovery well RW10A planned for Fall 2024
- Monitoring wells planned to evaluate the performance of groundwater recovery wells and OU2 plume migration
- Southern outpost wells being installed now
- Additional monitoring wells will be added as necessary





RAB Member Questions (10 minutes)