

varian

TECHNICAL ADVISORY GROUP MEETING VARIAN, BEVERLY

April 27, 2021

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AGENDA

- ▶ Update on Residential Indoor Air and Soil Vapor Testing
- ▶ Update on Sampling at Commercial Properties
- ▶ Review of MassDEP Workplan Activity
- ▶ Initial Conversations and Meeting with TRS
- ▶ Discussion & Next Meeting



ASSESSMENT PROGRESS (VAPOR INTRUSION)

- ▶ Sampling of soil vapor and indoor air at 21 homes completed
 - > Did not identify a pathway of concern for chemicals from the former Varian site into any homes (21 of 21 results reviewed)
 - > Three homes are recommended for resampling due to inconsistent results
 - > Report will be issued April 30th



ASSESSMENT PROGRESS (VAPOR INTRUSION)

- ▶ APTIM collected soil vapor and indoor air samples at three commercial buildings on Tozer Road. Test results do not indicate significant risk and will be communicated to property owners.
- ▶ Varian is obtaining access to the fourth commercial property for assessment of potential vapor intrusion.



ASSESSMENT PROGRESS (STREAM A)

- ▶ Stream A sampled on March 26th
- ▶ Data provided to MassDEP
- ▶ Highest concentrations in groundwater discharge (GDS-03). However, VOC in surface water adjacent to groundwater discharge much lower

cis-1,2-DCE: 270 ppb
TCE: 130 ppb



Cis-1,2-DCE: 7 ppb
TCE: 6 ppb



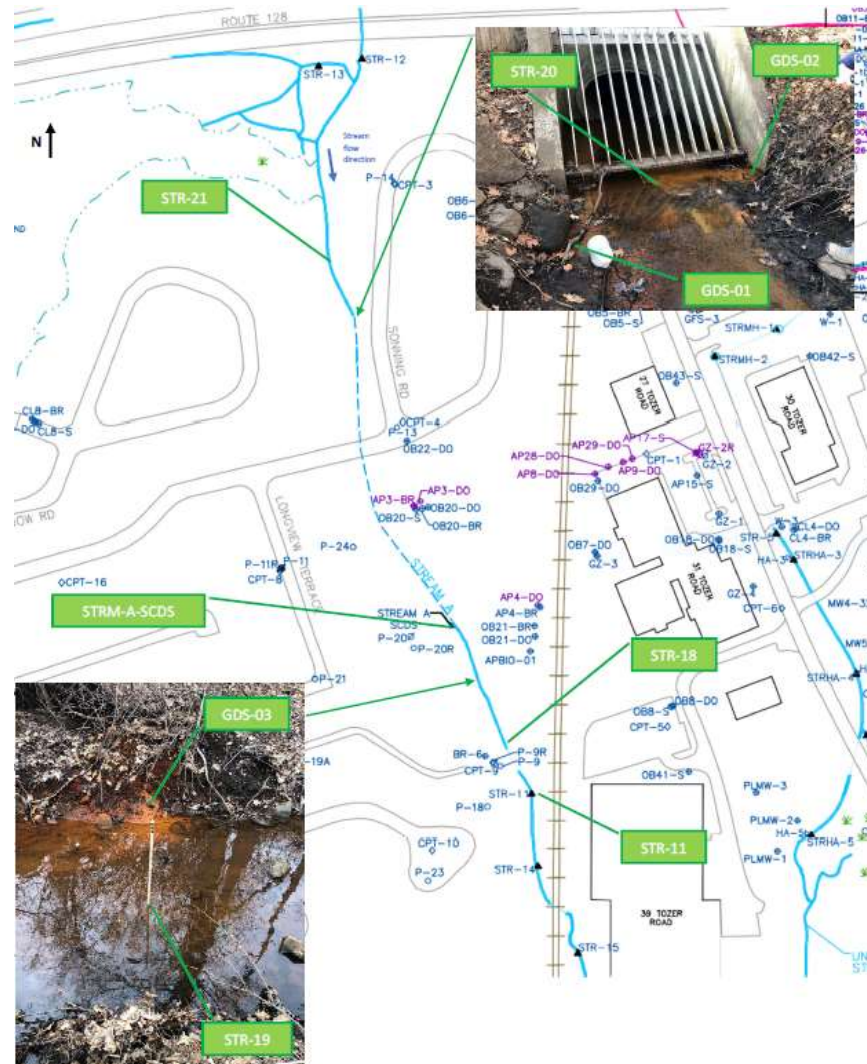
ASSESSMENT PROGRESS (STREAM A)

- ▶ VOC in surface water are stable at STRM-A-SCDS since 2016
- ▶ VOCs in surface water were similar at STR-11 compared to prior data
- ▶ Preliminary evaluation suggests maximum concentrations in surface water are unlikely to pose an unacceptable risk to children wading



ASSESSMENT PROGRESS (STREAM A)

- ▶ cis-1,2-DCE was detected in two sediment locations, STR-18 and STR-11
- ▶ TCE was only detected at STR-11
- ▶ Maximum concentrations in sediment below ecologic screening levels, also reviewing other screening values to see if those are applicable in this setting



ASSESSMENT PROGRESS

- ▶ Results of soil vapor sampling beneath Shore Country Day school buildings were consistent with MassDEP indoor air sampling. Both sets of data indicated no impacts from Varian Site.
- ▶ Wells at school field sampled and data provided to school. No detections in the shallow well. Results in the deep well are consistent with historic concentrations.
- ▶ New shallow monitoring wells were installed on April 19th & 20th.
- ▶ Installation of new on-site wells started April 26th.



ASSESSMENT PROGRESS

- ▶ Site-wide sampling of monitoring wells planned for May 2021.
- ▶ Sampling of surface water at Stream A and sediment and surface water at Unnamed Stream planned for May 2021.
- ▶ Sump sampling will occur when conditions are appropriate. Current water levels not high enough for sample collection.



REVIEW OF SOURCE TREATMENT WITH TRS

- ▶ APTIM met with TRS and CPI on April 23rd

- ▶ TRS inspected the treatment area and agreed with the complexities of the site.
 - > active manufacturing building
 - > presence of known and unknown underground utilities and piping
 - > existence of numerous floor and foundation penetrations
 - > utility materials ability to withstand thermal heating
 - > risk to employees and visitors
 - > scheduling and logistics

- ▶ TRS is evaluating if thermal treatment can be safely applied but may need to have another expert person inspect the site – should be completed in four weeks



REVIEW OF SOURCE TREATMENT WITH TRS

- ▶ If thermal treatment can be safely applied, a conceptual design could be ready in about 8 weeks.
- ▶ Additional assessment may be needed to determine if thermal treatment can be safely conducted or before a design can be finalized
- ▶ Thermal Treatment likely would not remove all of the contamination. Risk based goals will be applied to efficacy of treatment.



SITE REPORTS

- ▶ Source area assessment summary and recommendations on additional source assessment, June 30, 2021
- ▶ Next six-month status report with data summary and update of risk assessment, July 30, 2021
- ▶ Remedial summary and recommendations on optimizing treatment or possible change in source area treatment, September 30, 2021



DISCUSSION





Expect the Extraordinary.