



SPRING VALLEY FORMERLY USED DEFENSE SITE PROJECT
RAB Meeting

**May 14, 2019
7:00 – 8:30 p.m.**

**UNDERCROFT MEETING ROOM
ST. DAVID'S EPISCOPAL CHURCH
5150 MACOMB ST. NW, WASHINGTON, DC**

Agenda

- | | | |
|------------------|-------------|---|
| 7:00 p.m. | I. | Administrative Items
Co-Chair Updates <ul style="list-style-type: none">▪ Introductions, Announcements Task Group Updates <ul style="list-style-type: none">▪ TAPP Contractor |
| 7:15 p.m. | II. | USACE Program Updates
Groundwater Study
Site-Wide Remedial Action
Glenbrook Road |
| 8:05 p.m. | III. | Community Items |
| 8:10 p.m. | IV. | Open Discussion & Future RAB Agenda Development
<u>Upcoming Meeting Topics:</u> <ul style="list-style-type: none">▪ (Suggestions?)
<u>*Next meeting:</u> July 9, 2019 |
| 8:20 p.m. | V. | Public Comments |
| 8:30 p.m. | VI. | Adjourn |

**Note: The RAB meets every odd month.*

**U.S. Army Corps of Engineers
Spring Valley Restoration Advisory Board
St. David's Episcopal Church
Minutes of the May 2019 Meeting**

RESTORATION ADVISORY BOARD MEMBERS PRESENT AT THIS MEETING	
Dan Noble	Military Co-Chair/USACE, Spring Valley MMRP Manager
Greg Beumel	Community Co-Chair
Brian Barone	Agency Representative - Department of Energy & Environment
Mary Bresnahan	Community Member
Marguerite Clarkson	At Large Representative - Horace Mann Elementary School
Mary Kathryn Covert Steel	Community Member
Steve Hirsh	Agency Representative - Environmental Protection Agency (EPA) Region III
Lawrence Miller	Community Member
Dan Nichols	At Large Representative - American University
Malcolm Pritzker	Community Member
George Vassiliou	Community Member
RESTORATION ADVISORY BOARD MEMBERS NOT PRESENT AT THIS MEETING	
Jennifer Baine	Community Member
Paul Bermingham	Community Member
Mary Douglas	Community Member
Paul Dueffert	Community Member
William Krebs	Community Member
Lee Monsein	Community Member
Tom Smith	Community Member
John Wheeler	Community Member
ATTENDING PROJECT PERSONNEL	
Alex Zahl	USACE, Spring Valley Technical Manager

Rebecca Yahiel	Spring Valley Community Outreach Program
Whitney Gross	Spring Valley Community Outreach Program
Holly Hostetler	ERT, Inc.
Carlos Lazo	USACE, Government Affairs Liaison
Chris Gardner	USACE, Corporate Communications Office
Ivanna Goldsberry	USACE, Spring Valley Project Manager
Brenda Barber	USACE, Spring Valley Project Manager
HANDOUTS FROM THE MEETING	
I. Final Agenda for the May 14, 2019 RAB Meeting II. Army Corps of Engineers Presentation III. April 2019 Monthly Project Summary IV. Draft Spring Valley Formerly Used Defense Site 'Education and Awareness' Letter V. Draft Spring Valley Formerly Used Defense Site '3Rs Safety Guide' Brochure	

AGENDA

Starting Time: The March 2019 Restoration Advisory Board (RAB) meeting began at 7:09 PM.

I. Administrative Items

A. Co-Chair Updates

Dan Noble, U. S. Army Corps of Engineers (USACE), Spring Valley Project Manager, welcomed everyone and opened the meeting.

1. Introductions

D. Noble introduced Dan Nichols, new American University (AU) Representative to the RAB.

Comment from Dan Nichols, At Large Representative - AU - Thank you. I am Dan Nichols; I am Assistant Vice President for Risk, Safety, and Transportation Programs at AU. I have been there about 8 years. I started off as a director of Public Safety and then moved up to my current position. Because I have risk management and environmental health and safety in my portfolio, they thought that I would be a good fit for the RAB and liaison with USACE. I am glad to be part of the project here and anything you all need from AU, please just let me know.

2. General Announcements

a. Core Project Team Announcements

D. Noble announced the retirement of Alex Zahl, USACE, Spring Valley Technical Manager for the Site-Wide Remedial Action. Tonight is A. Zahl's last RAB meeting.

D. Noble introduced Ivanna Goldsberry, new member of the USACE Baltimore Spring Valley Project Team.

b. Website Updates

D. Noble noted there is a USACE-wide website issue that is preventing some of the updates from appearing on the website. The issue is being addressed. Website updates have been posted, including the March, April, and May Site-Wide Monthly Project Updates, weekly 4825 Glenbrook Road updates and photos, updated RAB Member Roster, and March RAB meeting minutes. The most recent Monthly Project Update is available in the Google Archive.

B. Task Group Updates**RAB Technical Assistance for Public Participation (TAPP) Consultant**

The USACE Baltimore Contracting Office will utilize the governmental 8a program to establish a contract with a new TAPP Consultant. USACE Baltimore compiled a list of 8a firm candidates in the DC/Maryland/Virginia area. D. Noble will contact each of the firms to discuss each contractor's interest in the TAPP Consultant position and the background and experience necessary to be an advisor to the RAB. D. Noble will provide summaries of five or six interested candidates to the RAB. If the RAB does not select any of the candidates on the list, D. Noble will continue the search and provide a new list of candidates. If D. Noble can compile the first list of candidate summaries before the next RAB meeting, he will direct Rebecca Yahiel and Whitney Gross, Spring Valley Community Outreach Program, to distribute the summaries to the RAB members prior to the RAB meeting.

Question from Allen Hengst, Audience Member - Just a quickie about the Partnering meetings. You have on your website that you met April 14. Assuming you did have that meeting, I think you guys agreed to put down the forthcoming meeting, even though you do not have the meeting yet. So, you have the meeting on the 14th with no minutes. But assuming you met, you set a date for the next meeting; I assume in June?

Brenda Barber, USACE, Spring Valley Project Manager confirmed the next Partner Meeting is scheduled for June 27.

Comment from A. Hengst, Audience Member - Well, that should be put on the website.

Dan confirmed this.

II. USACE Program Updates**A. Groundwater Feasibility Study / Dispute Resolution**

USACE Baltimore received a workplan from the U. S. Geological Survey (USGS), selected to conduct the sampling. The workplan includes the proposed selection of wells and analytes to be sampled for at those wells. Todd Beckwith, USACE Baltimore, is reviewing the workplan and will forward the workplan to DOEE and EPA Region III for approval very soon. More detail about the wells and other sampling information may be available to share with the RAB at the next RAB meeting.

B. Site-Wide Remedial Action (RA)**1. 91 Residential Properties and 13 Federal/City Lots**

USACE Baltimore received a suggestion from a homeowner that a focus presentation on how the Reimbursement and Restoration process works would be a benefit to the RAB and Spring Valley community. This complex process is a concern among many of the homeowners. USACE

Baltimore will create a presentation for an upcoming RAB meeting.

Alex Zahl, USACE, Spring Valley Technical Manager briefly reviewed the Site-Wide Remedial Design (RD)/Remedial Action (RA).

- Working with 42 residential properties.
- To date, 38 civil surveys and 33 arborist surveys have been completed.
- Geophysical clearing walkthroughs completed at 31 properties.
- Vegetation removed from 26 private properties and 7 City/Federal lots.
- Geophysical surveys completed at 20 private properties and 4 City/Federal lots off Dalecarlia Parkway.
- Initial anomaly removal at 14 private properties and 4 City/Federal lots off Dalecarlia Parkway.
- Awaiting approval from Department of Energy & Environment (DOEE) and Environmental Protection Agency (EPA) to issue the first 6 private property assurance letters.

The team continues to work with homeowners to approve the landscape removal plans. Once the plans are approved by the homeowners and USACE, the selected plants are removed with as little disruption to the property as possible. Once the landscaping is cleared, the team installs double-blind seeds and the geophysical survey begins.

The Man-Portable Vector (MPV) is the main device used to conduct geophysical surveys. The MPV sends an electromagnetic signal into the ground to search for metal objects during the dynamic survey. If an object has the correct characteristics, the object will be added to the cued survey for further analysis. During the cued survey, the equipment can produce a 3-dimensional view of the item in the ground. Based on a magnetic impulse, the electromagnetic signal can determine shape, wall thickness, and depth of the item. If the item is tubular and appears to be a munition, the Advance Geophysical Classification (AGC) library can identify the type and size of the munition.

The G-858 magnetometer is used for potential munition burial pit detection.

Once all the data is processed and the excavation list is determined, the excavation list is submitted to DOEE and EPA Region III. The team begins anomaly removals when the excavation list is approved.

The team conducts hand-excavation for target removal and places the soil on a tarp to minimize damage to the property. The team has received several compliments from homeowners because of the team's careful handling of the excavations. In many instances there have been ~30 to ~40 excavations on a property and only ~6 showed signs of excavation activities. The excavation team leaves each property as close to pre-excavation condition as possible.

Detailed notes are made on each target found to ensure that the target's excavation location matches the position identified by the MPV. Photographs are taken with a whiteboard and the object to keep record of what was found in each location.

Question from Marguerite Clarkson, At Large Representative - Horace Mann Elementary School (HMES) - So, are they digging up everything that is detected by one of the instruments?

A. Zahl explained that only selected anomalies are excavated. The AGC has an extensive library of ordnance items that directs the geophysical instruments to identify targets. If an item is identified as a possible munition item, the geophysical instrument will go back to that item during the cued survey to collect more information. Many of the properties had ~500 to ~600 items during

the initial dynamic survey. The AGC library narrows that list of items down to ~100 items that are possible targets. Those targets are reviewed during the cued survey, which results in a list of ~30 targets worth excavation. The team takes a conservative approach, and most items excavated are cultural debris, such as horseshoes or rebar. The AGC allows the team to leave most of the cultural debris in the ground and cause much less damage to the properties.

Double-blind seeds are buried on every property to confirm the equipment is working properly for Quality Assurance/Quality Control (QA/QC). The exact coordinates and depth of the blind seed locations are known within a few centimeters. Each blind seed must be found to ensure the instruments are working properly. The contractor buries several industry standard objects (ISOs) that mimic different munitions items on the property and then survey the blind seed locations. The ISOs typically resemble steel pipe, ~1 ½ to 3 inches long. A second team must find the blind seeds without knowing the locations of the blind seeds. Additionally, USACE buries a second set of blind seeds with undisclosed locations as a double-blind test.

Some of the items found are munitions debris (MD), fragments of exploded ordnance. When MD items are recovered, each item is double bagged in plastic bags and transported to the Federal Trailer. Each item is then headspace scanned by Edgewood Chemical Biological Center (ECBC) to analyze for traces of mustard (HD) and Lewisite (L). To date, no traces of HD or L have been detected from the MD items analyzed.

A recovered item was classified as a Civil War-era, 3.5-inch, 6-lb. case shot cannonball, with fuze intact. Union Civil War gun placements were known to be in the area facing away from Spring Valley, with no known live-fire actions. The cannonball displayed characteristics of a munition item, such as thick walls and spherical shape. Even though the team was not searching for Civil War-era munitions, one of the Unexploded Ordnance (UXO) technicians recognized that the item appeared to be a munition, a type of cannonball with a fuze and a charge inside the item. The team notified the Explosive Ordnance Disposal (EOD) Unit from Ft. Belvoir. EOD responded, x-rayed the cannonball, and confirmed the fuze was intact, the cannonball was filled with case shot, and that the cannonball could have exploded. The cannonball was removed by EOD the same day it was found. The cannonball was likely brought to the site as part of fill material.

A. Zahl pointed out that presentation slide # 13 should reflect that the cannonball was transported to Ft. Belvoir/Quantico for destruction.

Comment from George Vassiliou, Community Member - Congratulations on your retirement.

A. Zahl thanked G. Vassiliou.

Comment from G. Vassiliou, Community Member - I thought they would give you the cannonball as a souvenir!

Comment from A. Zahl, USACE, Spring Valley Technical Manager - No, there are some rules about that, by the way. I would say, I am not leaving because I do not enjoy this project. I enjoy the community, I enjoy the project, and I am leaving because we have places to go. My wife and I have got travel plans, but it has been wonderful working with everybody here and I want to thank you all.

2. Site-Wide Land Use Control Implementation Plan (LUCIP)

The Department of Defense (DoD) 3 Rs (Recognize, Retreat, Report) explosive safety program brochure and the Formerly Used Defense Site (FUDS) Information Notice distributed at tonight's

meeting represent the revised documents that will be sent in the next mailing to the Spring Valley community. RAB members are encouraged to review the documents.

After the March RAB meeting, USACE Baltimore received a few comments for suggested changes to the FUDS Information Notice, and some of the changes have been incorporated. Changes to the brochure were based primarily on comments received during the last RAB meeting. No major written comments were received from the RAB since the last RAB meeting. Changes to the brochure include:

- The map on the inside of the brochure identifies all the major boundary roads that border the Spring Valley site.
- Under the 'Recognize' column, the serious nature of discarded munitions is plainly stated regarding the risk of injury or, in severe cases, death.
- In the 'Background' section, at the end of the first paragraph, the term 'chemical weapons' is included to describe the primary mission of the activities at the American University Experiment Station (AUES).

USACE Baltimore expects to receive feedback from the Spring Valley community after the first mailing and will share that feedback with the RAB. The mailing will be sent out annually; USACE Baltimore will be open to improvements and edits before the next year's mailing.

3. Hotspot Removal of Contaminated Soil at Southern American University (AU) Campus

The hotspot soil removal at three locations within the southern area of the AU campus will likely begin after the former Public Safety Building excavations are completed.

4. Remedial Action Tentative Schedule

- Spring 2019 - Continue to finalize plant removal plans and approved plant removal, continue geophysical surveys. Finalize and distribute the Munitions Education and Awareness packet (first of future annual spring mailings).
- Summer 2019 - Continue geophysical surveys and anomaly removal; obtain Right-of-Entries from the next group of homeowners. Begin soil removal preparations for the southern AU campus exposure unit.
- Fall 2019 - Continue finalizing plant removal plans with subsequent groups in preparation for geophysical surveys.

5. Former Public Safety Building (PSB)

B. Barber provided a brief update on the former Public Safety Building (PSB).

The team continues to work with AU, Washington Gas, and DC to shut off the gas line that runs through the site. For the excavation team to safely remove the concrete slab and remaining walls of the PSB, the Washington Gas contractor will cut and bleed the remaining line and certify that the line is empty. Once the gas line is shut off the team is ready to mobilize and begin removal of the concrete slab and remaining walls. The excavation will reach ~8 feet down to clear the area and is expected to take 2 to 4 months to complete.

Question from A. Hengst, Audience Member - I think I remember that the Public Safety Building was demolished last June, 12 months ago?

B. Barber confirmed this.

Question from A. Hengst, Audience Member - So, you have been negotiating with the gas

company to cut off this line now for quite some time, 9 months?

B. Barber explained that once the workplan was complete and the engineers from the contractor team identified the issue, USACE Baltimore began working with Washington Gas.

Question from A. Hengst, Audience Member - What is taking so long?

B. Barber explained that the way the permit works, USACE Baltimore issued the address based on 4400 Massachusetts Avenue, causing confusion at Washington Gas because that is the address for American University. Even though USACE Baltimore walked the site several times with Washington Gas, there was a miscommunication between Washington Gas and their sub-contractor. USACE Baltimore requested that D. Nichols step in to provide assistance with Washington Gas.

Question from A. Hengst, Audience Member - Dan Nichols helped you with this?

B. Barber confirmed this.

Comment from A. Hengst, Audience Member - So, it looks like you are going to be doing it over the summer when the students are gone, if all goes well.

B. Barber confirmed that working in the summer is the goal. The gas line cut-off does not take long. The workplans and contractor are ready, the site is fenced, and everything is in place for the work to begin once the gas line is removed.

Comment from D. Nichols, At Large Representative - AU - We are satisfied with the progress. We understand the hiccup, so we are good with it.

Question from G. Vassiliou, Community Member - So, where are the hotspots that you showed in the previous slide?

D. Noble explained that the hotspots are a separate issue from the PSB.

Comment from G. Vassiliou, Community Member - I understand.

D. Noble explained that the hotspots are located on the southern AU campus. The hotspots are highlighted on slide # 15 of the presentation.

Question from G. Vassiliou, Community Member - What is the building right next to the hotspot that is closer to the Public Safety Building?

D. Noble explained that the building next to the hotspot close to the PSB is the Hamilton Building. There is a spot behind the Hamilton Building with bamboo growing in that area. The team will have to clear the bamboo to access that sample location. There are two hotspots across the way towards the Watkins Building. In addition to the three hotspots, there will be targeted soil removal of several cobalt hotspot areas within the southern AU exposure unit area to reduce the average concentration of cobalt to the remedial action goal.

D. Noble pointed out that the plan is to have the same crew that is performing the work on the PSB conduct the work on the hotspots.

C. Glenbrook Road

B. Barber provided an update on 4825 Glenbrook Road and 4835 Glenbrook Road.

1. 4825 Glenbrook Road - Excavation Areas

- As a reminder, Areas A and B were the original low probability excavation areas.
- Area C was the area that represented the former Burial Pit 3 efforts; no excavation work was required in this area.
- Areas D, E, and F were the original high probability excavation areas completed under the tent under high probability protocols.
- Areas 1-5 and the driveway apron were created to illustrate the extent of the remaining work after the August 2017 incident safety shutdown.

2. 4825 Glenbrook Road - Area 1

Area 1 excavation work was completed on April 10. After the USACE geologist confirmed that the excavation reached saprolite, confirmation samples were collected. All confirmation samples collected from Area 1 indicate no residual chemical contamination remains. Area 1 is the area where the August 2017 safety incident occurred.

3. 4825 Glenbrook Road - Area 2

Due to encountering glassware in the Area 2 excavation in the front corner of the 4835 Glenbrook Road property earlier this year, the team plans to over-excavate in this area. Because Area 2 continues onto the 4835 Glenbrook Road property, USACE Baltimore's sister District determined that the work is out of scope with the current contractor.

Question from Mary Kathryn Covert Steel, Community Member - What does that mean, 'our sister'?

B. Barber explained that USACE Baltimore implements the Glenbrook Road project with the USACE Huntsville Design Center. USACE Huntsville holds the primary remedial action contract for the Glenbrook Road site. The contract was set up with specific parameters and the USACE Huntsville Contracting Officer determined that the project had gone outside the boundaries of those contract parameters.

- To ensure that Area 2 is properly addressed, USACE Baltimore decided to partner with ECBC. ECBC has performed work with USACE Baltimore at 4835 Glenbrook Road in the past.
- The ECBC team will hand-excavate in this area because the team continues to encounter glassware. The excavation will extend another foot towards the front porch and another foot towards the street, and the team will scrape the bottom of the excavation to assess if the glassware dissipates. If the glassware does not dissipate, that may be an indication of a larger issue that will need to be discussed with the Partners, including AU. If the glassware does dissipate, the work will be considered complete and the team will collect confirmation samples and backfill the area.
- USACE Baltimore and ECBC will conduct the work as a stand-alone effort similar to work conducted at 4835 Glenbrook Road in the past. Work in this area will be performed with an exemption from the temperature constraint. The Project Delivery Team (PDT) reviewed all the sampling data and daily site logs and found no detection of agent or agent breakdown products (ABP) in that area.
- The PDT also lifted the Level B personal protective equipment (PPE) requirements for Area 2. Work will be conducted open air, in modified Level D PPE; hardhat, long pants and sleeves, vest, safety glasses, boots, and slung mask.
- Work will begin the week of June 17 and take ~3 weeks to complete.

4. 4825 Glenbrook Road - Area 3

Area 3 is in the front portion of the front yard adjacent to where the air conditioning units for 4835 Glenbrook Road were re-located. Area 3 was previously excavated under low probability, and at that time the confirmation samples failed. The team over-excavated the area and collected another round of confirmation samples. The sample results indicate no residual chemical contamination remains, confirming Area 3 is complete.

5. 4825 Glenbrook Road - Area 4

Area 4 is in the front yard of the former residence, site of previous high probability operations involving intact containers and significant debris. At the end of March, the Miniature Chemical Agent Monitoring System (MINICAMS) air monitors detected L twice. Under current protocols, if the MINICAMS ring off the team takes immediate steps to finish the excavation and mitigate the area. In this case, the team pulled all perimeter Depot Area Air Monitoring System (DAAMS) tubes. The DAAMS results indicated that the MINICAMS detections were false positives.

Out of an abundance of caution, the team postponed additional excavation work in Area 4 until further sampling and analysis of the sampling data could occur. The team continued to discuss the issue with the Partners.

a. Area 4 - March 26 MINICAMS Detection

- The first MINICAMS detection occurred on March 26. The MINICAMS at the drum loading station began to ring-off during morning operations at the site.
- The team stopped the excavation, closed all the drums, covered the excavation area, and pulled the DAAMS tubes. There were no other detections or alarms on any of the other downrange instruments or MINICAMS positions.
- The team checked for discoloration or debris. The soil being drummed was not discolored or unusual. There were no fuel spills.
- The temperature outside was ~43 degrees that morning. Typically, the MINICAMS do not ring off when the weather is cold.
- There were no detections for L in the DAAMS or soil analysis.
- This grid is adjacent to where, under previous high probability operations, Dichloronaphthalene was determined to be a likely interferent being detected as L.

Question from M. K. Covert Steel, Community Member - What is that one? I am familiar with Lewisite but not Dichloronaphthalene.

B. Barber explained that Dichloronaphthalene is an agent breakdown product of mustard (HD).

The project delivery team (PDT) convened on March 26.

- Based on the DAAMS results, the PDT decided to continue excavations in Area 4 and would reconvene if other MINICAMS detections occurred.
- The PDT decided to collect a grab sample from the drum being filled at the time of the alarm.

The day after the incident, everything was fine at the site with no issues.

b. Area 4 - March 28 MINICAMS Detection

The MINICAMS alarmed again at both the excavation area and the drum loading station. The team immediately stopped excavation, mitigated both the drums and the excavation area, and began to troubleshoot again.

At the time of the detection, the perimeter DAAMS tubes are set up at all 4 corners of the

excavation, MINICAMS and DAAMS are located as close to the excavation as safely possible, and MINICAMS and DAAMS are also located at the drum-loading facility.

Multiple DAAMS tubes were pulled after the ring-offs.

- There were no detections of HD or L on the DAAMS running at the time of the ring-offs.
- A second set of DAAMS were pulled in the afternoon to confirm there were no issues.
- The team took a further step and ran DAAMS tubes all weekend long to ensure that the site was properly mitigated with no incidents during the weekend.
- The analysis of all the DAAMS tubes indicated all alarms were false. No agent was detected during the analysis of the DAAMS tubes.

Question from M. Clarkson, At Large Representative - HMES - Are the DAAMS tubes, do they have, is it an air quality or...?

B. Barber explained that the DAAMS is an absorbent tube. The DAAMS is a positive/negative test for whether the MINICAMS tubes are, in fact, detecting chemical agent. The MINICAMS are near-real-time, analyzing for peaks, not a positive/negative test. The DAAMS confirm whether there has been a release of agent.

c. Area 4 - Soil Sample Results On and After March 26

A grab sample collected from the drum associated with the March 26 MINICAMS detection did not clear MINICAMS headspace analysis but did clear DAAMS headspace and low-level agent and ABP analysis. The sample was sent to the commercial laboratory APPL for analysis.

APPL Preliminary results:

- All semi-volatile organic compounds (SVOCs) are non-detect and there were no Tentatively Identified Compounds (TICs) detected.
- Volatile organic compounds (VOCs) had a hit for acetone (common lab contaminant) slightly above the limit of quantification (LOQ) and methyl acetate below the LOQ. No other analytes or TICs detected.

A sample intended to be a waste disposal characterization sample collected on March 27 did not clear MINICAMS headspace analysis and did not clear DAAMS headspace analysis.

- Low-level agent and ABP analysis detected 1,4 Dithiane. The sample would not be accepted by the regular commercial lab that USACE Baltimore utilizes due to the low-level agent detection. USACE Baltimore sent the sample to RTI for Grab Sample Parameters.
- RTI results: Aluminum (Al), vanadium (V), arsenic (As), and cobalt (Co) are the only analytes that exceed the comparison values. No VOC TICs were identified. For SVOCs, the lab reported the top 20 TICs and of interest to the project, 1,4-Dichloronaphthalene was detected with a good quality match. This further indicates that the interferent is likely causing the MINICAMS false positive ring-offs.

d. Area 4 - Next Steps

After coordination with the regulatory Partners, the team decided to collect a round of confirmation samples in Area 4. The team will use the data to develop a risk assessment to determine if the sample results will allow the team to consider the excavation work complete.

The excavation is currently scraping saprolite rock (16 to 20 feet below ground surface). Additional excavation is limited.

- A total of 8 confirmation samples were collected, including side wall samples and scraped-rock crushings.
- A total of 4 samples cleared low-level analysis and were sent to the standard commercial lab.
- Four samples did not pass low-level analysis. Those 4 samples were sent to RTI for processing. The results are expected in ~1 week.

6. 4825 Glenbrook Road - Area B

Area B was one of the low probability areas with high levels of As. The team completely diverted excavation work into Area B while troubleshooting Area 4. The USACE geologist was at the site today and confirmed that the excavation achieved saprolite. The team collected confirmation samples and, pending sample analysis, Area B is complete.

7. 4825 Glenbrook Road Remaining Work

With the new revised standard operating procedure (SOP) to resume work, the team implemented a temperature restriction to not conduct intrusive work when temperatures reached 75 degrees or above. With the increasing temperatures and seasonal weather, the team is working to maximize excavation operations. The team schedules excavation operations in the morning and non-intrusive sampling, maintenance, and other activities in the afternoon.

For the driveway area and Area 5, the excavation contractor presented the PDT with an exemption letter to consider lifting the temperature restriction and the Level B PPE requirement. The PDT reviewed the data work plan for these two areas. USACE Baltimore and USACE Huntsville concurred that the exemption is warranted based on the data presented. Work in the driveway and Area 5 will be completed in modified Level D PPE and open air, with no modifications to the air monitoring plan. The perimeter DAAMS tubes and all MINICAMS locations will continue to be utilized. With the temperature limitation lifted, the team will be able to excavate throughout the day, accelerating the completion of the two areas. The team will continue to be conscientious about safety. If any odors, debris, or glassware are encountered, the team will stop work and implement mitigation immediately.

8. 4835 Glenbrook Road - Soil Gas Sampling

Now that the source soil was removed from along the shared property line, the ECBC team will perform a second round of soil gas sampling in the basement of 4835 Glenbrook Road. The sampling equipment will be set up the week of June 17 and run for three weeks. ECBC will then collect the samplers for analysis. The analysis takes 4-6 weeks. The results of the second round of soil gas sampling are expected by mid-August.

Question from A. Hengst, Audience Member - Are you doing the soil gas samplings at the exact same locations?

B. Barber confirmed that the soil gas samplers are at the same locations as the first round of soil gas sampling. Each of the sampling locations was set with a PVC-slotted cap so the sampling could be repeated if necessary.

9. Tentative Schedule

- Late Summer 2019 - Completion of all low probability operations at 4825/4335 Glenbrook Road. Working hours: Monday - Friday from 6:30 AM to 5:00 PM. Heavy equipment operations do not begin until after 7:00 AM.
- Winter 2020 - Potential completion of intrusive activities at 4825 Glenbrook Road. Start of

site restoration for 4825/4835 Glenbrook Road sites.

- Summer 2020 - Anticipated project completion.

Question from M. Bresnahan, Community Member - Really done, done?

B. Barber confirmed that is the current goal.

Question from M. Bresnahan, Community Member - Did everything start in 1993?

B. Barber confirmed this.

D. Noble noted that Dichloronaphthalene is in a class of chemicals on the historical lists of AUES chemicals that have stand-alone independent use, associated with making smokes and obscurants rather than agent. Dichloronaphthalenes were in the glassware that was thrown away and were encountered together with agent as co-contamination in Area 4 during the high probability operations. Dichloronaphthalene registers on the near-real-time air monitoring as Lewisite.

III. Community Items

IV. Open Discussion and Future RAB Agenda Development

Comment from M. K. Covert Steel, Community Member - I would love a groundwater sampling deep-dive, just sort of how that would work, what it would entail, and what we expect to get back.

D. Noble confirmed this.

A. Upcoming Meeting Topics

- Groundwater FS Study/Policy Issues between USACE, EPA, and DOEE
- Site-Wide RD/RA
- 4825 Glenbrook Road/4835 Glenbrook Road

B. Next RAB Meeting:

Tuesday, July 9, 2019

C. Open Discussion

V. Public Comments

VI. Adjourn

The meeting was adjourned at 7:59 PM.

SPRING VALLEY FORMERLY USED DEFENSE SITE

Restoration Advisory Board Meeting 14 May 2019

“The USACE Mission in Spring Valley is to identify, investigate and remove or remediate threats to human health, safety or to the environment resulting from past Department of Defense activities in the area.”

“The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation.”



AGENDA REVIEW

Co-Chair Updates

- Introduction, Announcements

Task Group Updates

- TAPP Contractor

USACE Updates

- Groundwater Study
- Site-Wide Remedial Action
- Glenbrook Road

Community Items

Open Discussion & Future RAB Agenda Development

Public Comments



CO-CHAIR UPDATES

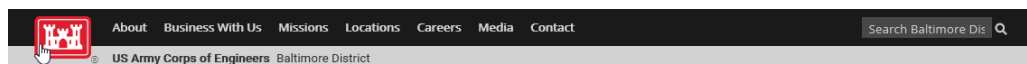
Introductions

- New AU Representative: Dan Nichols



CO-CHAIR UPDATES

4



Home / Spring Valley

Announcements

Next Restoration Advisory Board Meeting - March 12, 2019

The next RAB meeting is scheduled to be held on **Tuesday, March 12 at 7 pm**. These meetings are open to the public. Currently, the RAB meets every other month for 60-90 minutes in the 'Undercroft' meeting room at St. David's Episcopal Church, 5150 Macomb Street NW, D.C.

(Please note - The St. David's Episcopal Church staff have asked that we refrain from using the outside stairwells as a safety precaution due to water issues, poor lighting, and lack of stairs with grips; and use the bell tower entrance (which has internal stairs and an elevator). There will be signs clearly posted to direct RAB meeting attendees to the new entrance. We thank you in advance for following the request of our hosts, the St. David's Episcopal Church.)

Final Site-Wide Decision Document Now Available:

The Final Site-Wide Decision Document is complete and is now available at the Information Repository and for download here on our site. The Decision Document outlines the selected remedies to address both unacceptable risks posed by soil contamination and unacceptable explosive hazards posed by the possible presence of munitions and explosives of concern (MEC).

[Click here to visit the Site-Wide section of the Spring Valley page where the Final Site-Wide Decision Document can be downloaded](#)



Spring Valley Overview

The Spring Valley Formerly Used Defense Site (FUDS) consists of approximately 660 acres in the northwest section of Washington, D.C. During the World War I-era, the site was known as the American University Experiment Station, and was used by the U.S. government for research and testing of chemical agents, equipment, and munitions. Today, the site encompasses approximately 1,600 private properties, including several embassies and foreign properties, as well as the American University and Wesley Seminary.

The U.S. Army Corps of Engineers, Baltimore District has the lead responsibility for investigation and cleanup actions at the Spring Valley FUDS and has entered into a formal partnering process with the U.S. Environmental Protection Agency and the Washington, D.C. District Department of the Environment. The three organizations, referred to as the partners, have agreed to prioritize the project work by risk, addressing the highest risks first. The Corps investigation includes the identification and removal of arsenic-contaminated soil, a groundwater investigation, and the search for additional munitions, both in burial pits and isolated items on residential properties.

Project Efforts

[Project Update](#)

[4825 Glenbrook Road](#)

[Site-Wide](#)

[Groundwater](#)

[Community Participation](#)

[Partners](#)

[History](#)

Project Documents

These are just a few of the project documents. More key documents can be found in the Information Repository at the Tenley-Friendship Branch Library.
[Project Documents](#)

Associated Organizations

[Agency for Toxic Substances and Disease Registry](#)
[American University](#)
[District Department of the Environment](#)
[U.S. Environmental Protection Agency](#)

Announcements

Website Updates:

- March RAB meeting minutes
- March, April and May Monthly Site-Wide Project Updates
- Weekly 4825 Glenbrook Rd Project Updates with photos
- Updated RAB member roster



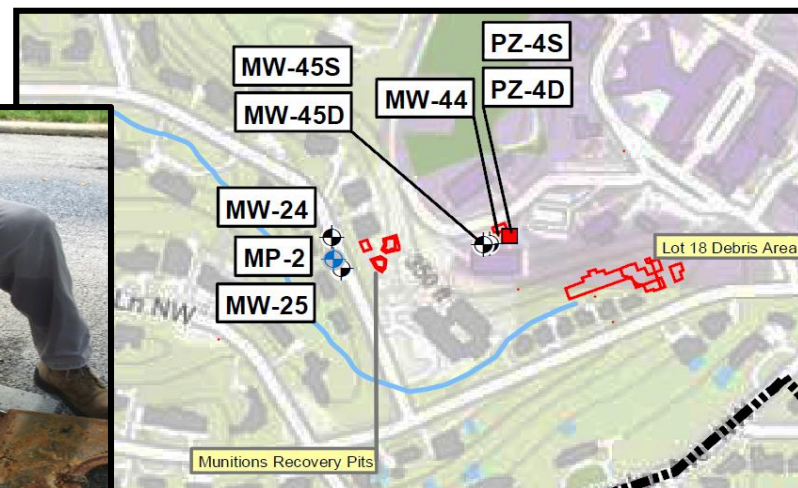
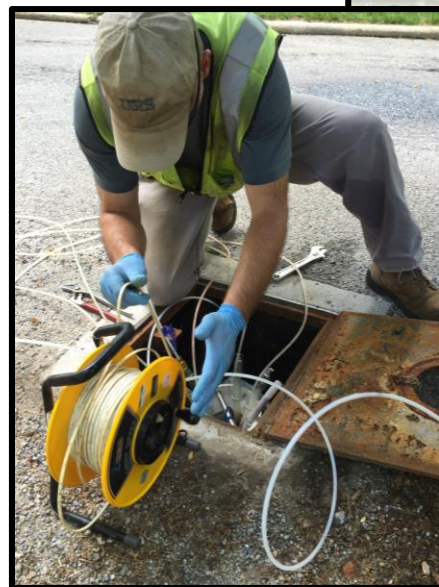
TASK GROUP UPDATES

- New TAPP Contractor



GROUNDWATER STUDY

USACE Updates



DISPUTE RESOLUTION

As a reminder, the Dispute Resolution was paused at Tier 2 while the Army Corps and their Partners discussed conducting additional groundwater data collection. The Corps is moving forward with a new round of groundwater sampling in order to obtain more current information that will allow us to evaluate if there are any significant changes in groundwater concentrations since the last sampling event (4 years ago). After this sampling is completed, the Partners will meet to discuss the results and to determine the requirements for any future groundwater sampling.



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SITE-WIDE REMEDIAL ACTION (RA)

USACE Updates



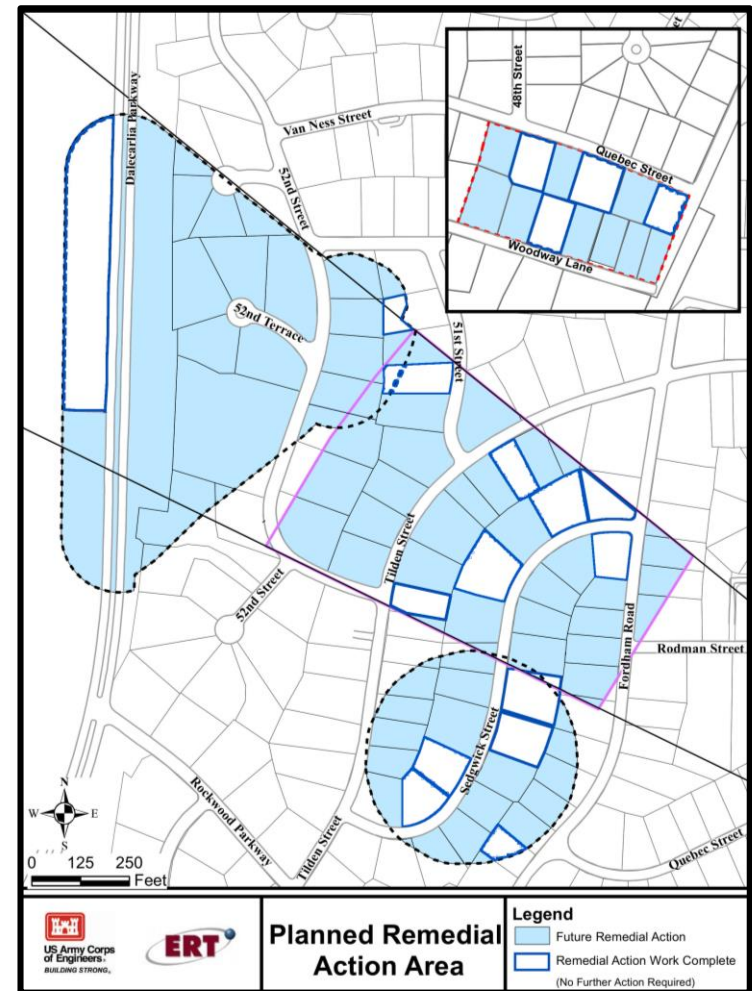
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SITE-WIDE REMEDIAL ACTION

8

Final survey effort at 92 residential properties and 13 Federal/City Lots:

- Working with 42 residential properties.
- 38 civil surveys and 33 arborist surveys have been completed.
- Geophysical clearing walkthroughs completed at 31 properties.
- Vegetation removed from 26 private properties and 7 City/Fed lots.
- Geophysical surveys completed at 20 private properties and 4 City/Fed lots off Dalecarlia Parkway.
- Initial anomaly removal at 14 private properties and 4 City/Fed lots off Dalecarlia Parkway.
- Awaiting Regulatory approval to issue first 6 private property assurance letters.



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SITE-WIDE REMEDIAL ACTION

9

The team continues to work with homeowners to approve of their landscape removal plans.

Once the plans are approved by the homeowners and the Corps, the approved plants are removed.



SITE-WIDE REMEDIAL ACTION

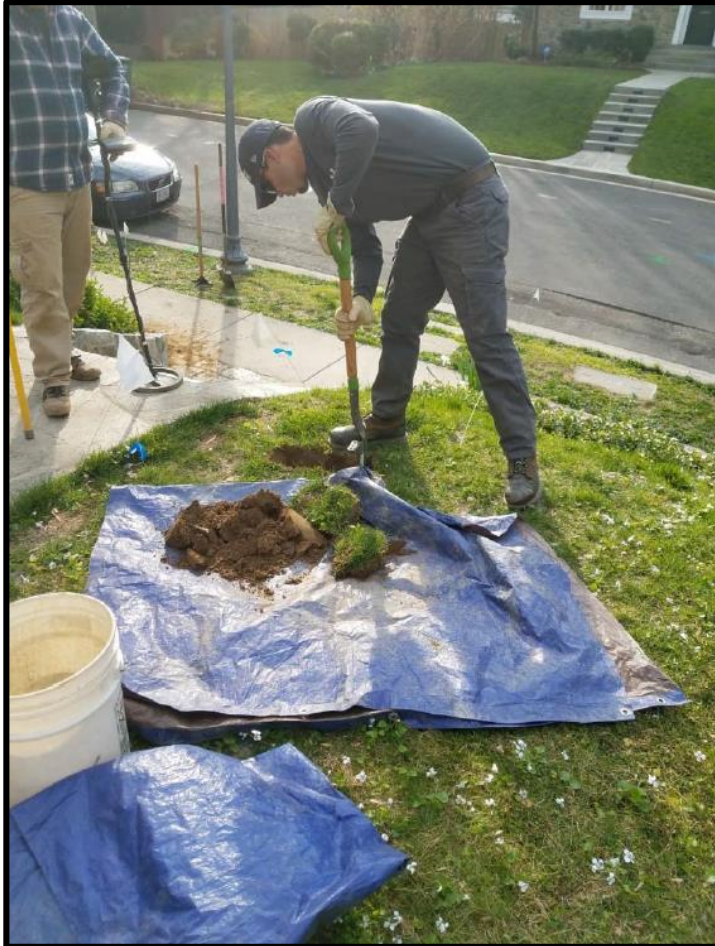
Geophysicists conducting surveys

10



SITE-WIDE REMEDIAL ACTION

Anomaly Excavations Completed at Nine More Private Properties



The team carefully excavates each target, checks each location with a metal detector to ensure the metal anomaly was removed, and fills the clear hole with soil.



Some anomalies are removed from under hardscape

The depth of each recovered anomaly is documented

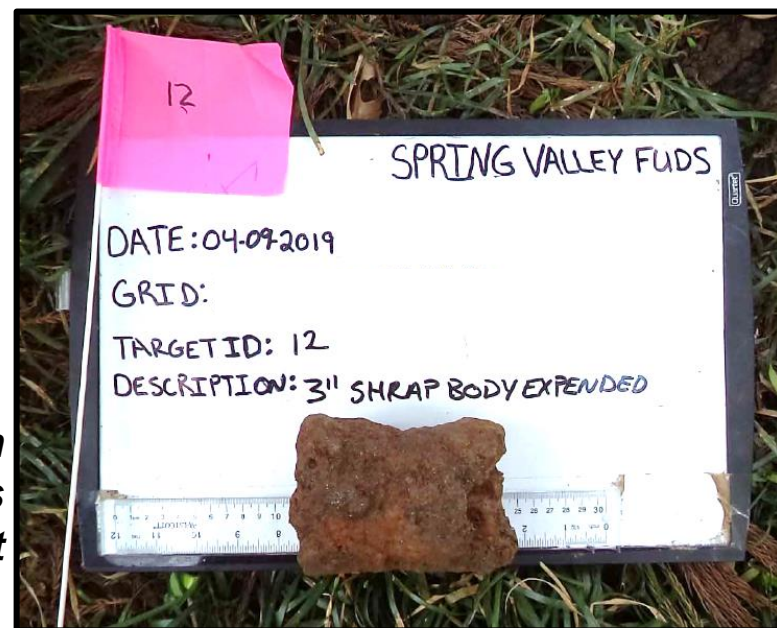


SITE-WIDE REMEDIAL ACTION

Anomaly Excavations Finds



**Recovered
quality control
'blind seed'**



**Recovered 3-inch
non-hazardous
munition fragment**



Recovered Munition Debris



**Non-munition
related scrap
metal**



SITE-WIDE REMEDIAL ACTION

Anomaly Excavations Finds

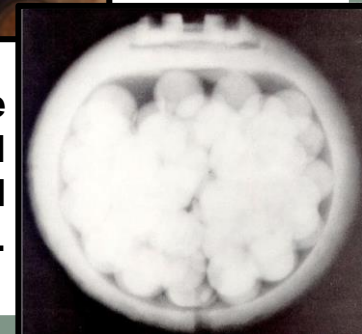


The X-ray helped the Army EOD (Explosive Ordnance Disposal) team confirm that this item was fuzed and filled with shots. Since it's being classified as having an explosive hazard (it was most likely made to detonate upon landing and send the shot out like shrapnel), they removed it from the property and will safely destroy it at Fort Belvoir, VA.

A recovered item was classified as a Civil War era 3.5-inch, smooth bore, 6-lb case shot cannonball. It was found at about 9.5 inches below ground surface.



This x-ray image shows a cannon ball LIKE the one found (size, shape, etc).



SITE-WIDE REMEDIAL ACTION

Munition Education and Awareness

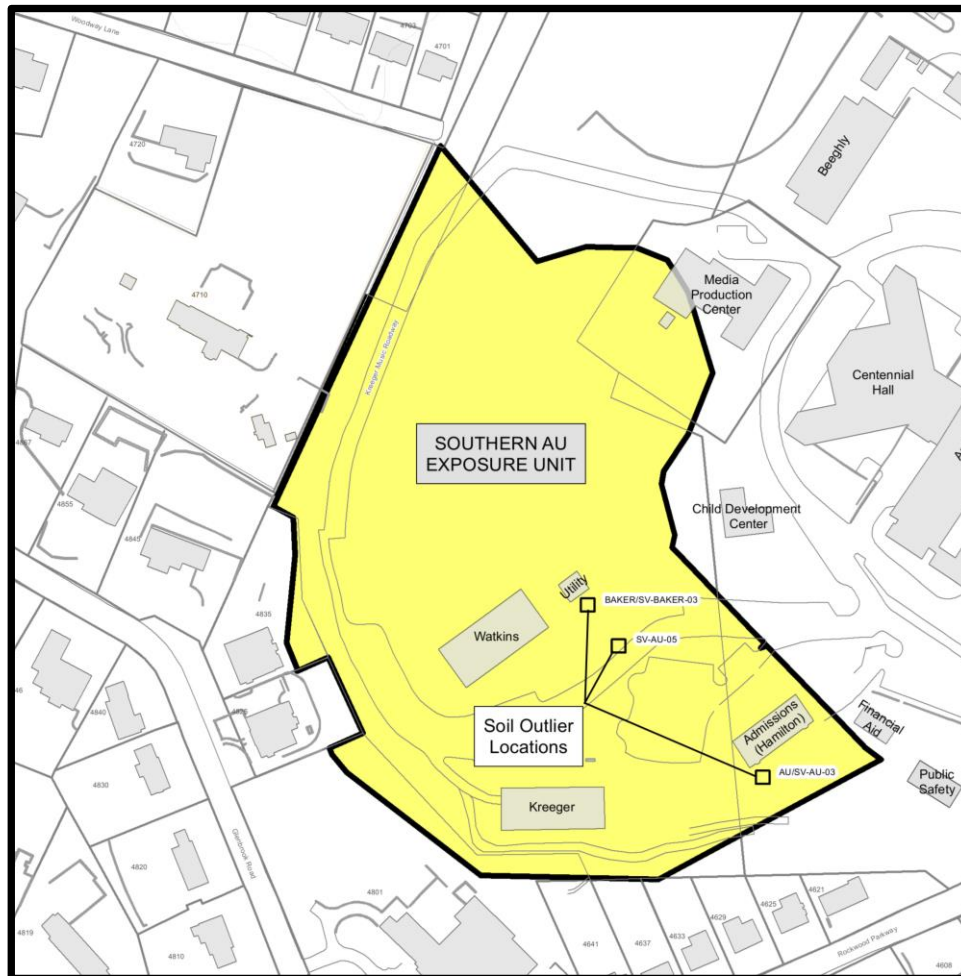
The 'Land Use Control Implementation Plan,' or LUCIP is finalized. The LUCIP entails continuing the 3Rs of the Explosive Safety Education Program (*Recognize, Retreat, Report*), and 5-year reviews to ensure that human health and the environment continue to be protected.



The team continues to prepare a FUDS information notice, along with a brochure about the 3Rs, to distribute to the community now they have been reviewed by the Spring Valley Partners, the RAB. Initial distribution is anticipated this Spring. Then distributed annually every spring.



SITE-WIDE REMEDIAL ACTION



The hot spot soil removal at three locations within the southern area of the American University campus will likely begin after the former Public Safety Building excavations are completed.

Soil Excavation Areas



Remedial Action - Tentative Schedule

Spring 2019	<p>Continue to finalize plant removal plans and approved plant removal; continue geophysical surveys.</p> <p>Finalize and distribute the Munitions Education and Awareness packet (first of future annual spring mailings).</p>
Summer 2019	<p>Continue geophysical surveys and anomaly removal; obtain Rights-of-Entry from the next group of homeowners.</p> <p>Begin soil removal preparations for the southern AU campus exposure unit.</p>
Fall 2019	<p>Continue finalizing plant removal plans with subsequent groups in preparation for geophysical surveys.</p>

AU'S FORMER PUBLIC SAFETY BUILDING

The team continues to work with American University's Government Relations Office, Washington Gas and DC to shut off the gas line that passes along the edge of the PSB foundation and cinder block walls.

- The slab and soil removal work is expected to begin after the gas line is shut off.
- Once the gas line shutoff has been completed, the team will mobilize to the site and excavation work will take 2-4 months to complete.



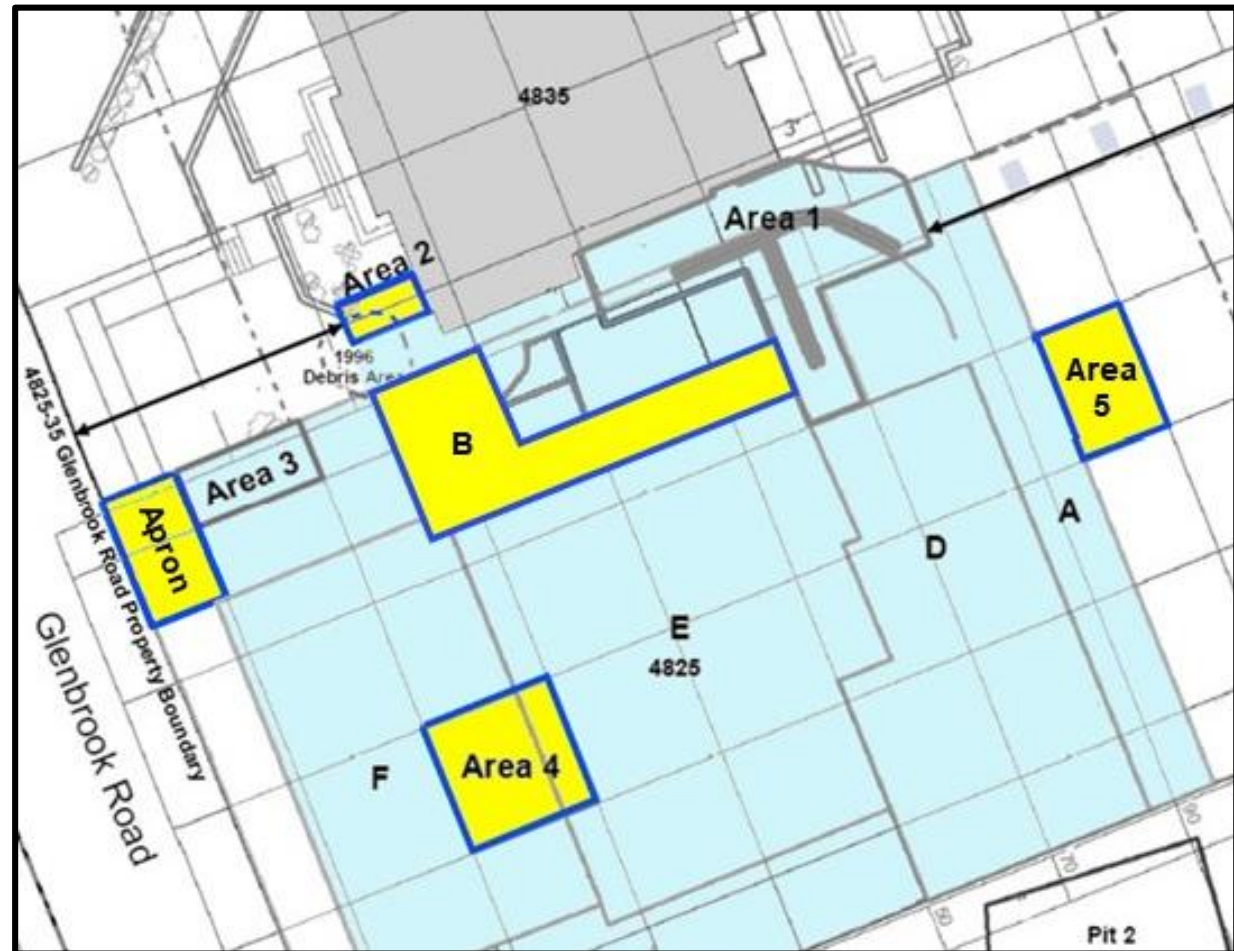
GLENBROOK ROAD

USACE UPDATES



4825 GLENBROOK ROAD – EXCAVATION AREAS

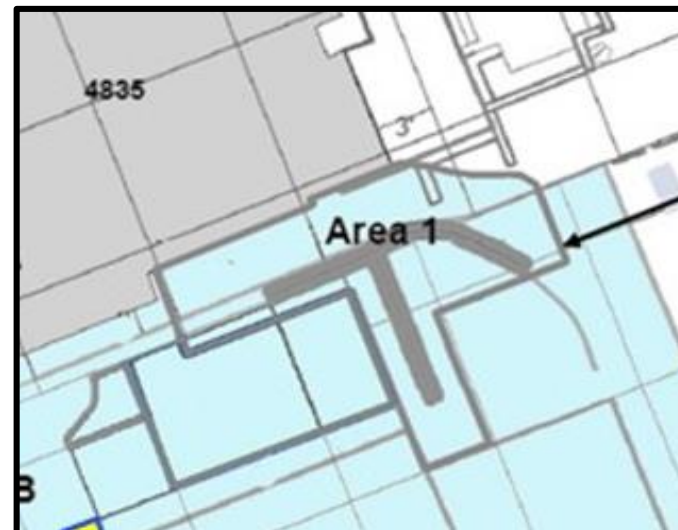
- As a reminder, Areas A and B are the original low probability excavation areas.
- Area C was the area that represented the former Burial Pit 3 efforts; no excavation work was required in this area.
- Areas D, E, and F were the original high probability excavation areas.
- Areas 1-5 and the driveway apron were created to illustrate the extent of remaining work that remained after the August 2017 safety shutdown.



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4825 GLENBROOK ROAD – AREA 1

Area 1 excavation was completed on April 10th. After a USACE geologist confirmed the team had reached saprolite, confirmation samples were taken. Confirmation samples taken from Area 1 indicated no residual chemicals contamination remains.



4825 GLENBROOK RD – AREA 2

Due to encountering glassware in Area 2 earlier this year, the team plans to over-excavate this area next month.



**Markers showing where
the broken glassware
was recovered.**



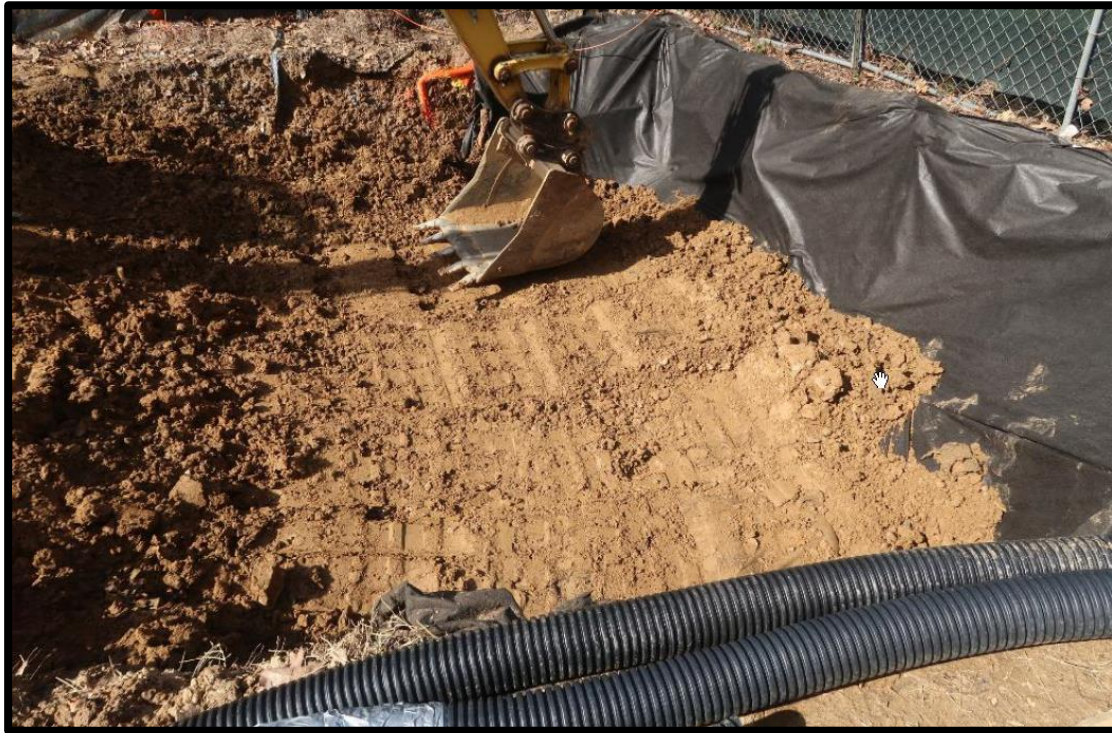
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4825 GLENBROOK RD – AREA 2

- The team will utilize ECBC (Edgewood Chemical Biological Center) to complete the remedial actions in Area 2 (consistent with the approach to 4835 Glenbrook Road basement sampling).
- The ECBC team will hand excavate an additional foot laterally in both directions of the excavation area (towards the front porch and towards the street). The team is doing this to assess if there the glassware debris is localized and continues to dissipate as we excavate or if we may have a larger issue that requires more significant efforts.
- ECBC and the Baltimore Army Corps team will complete this as a standalone effort. We are working with ECBC to finalize the plans to move ahead. This area will be done with an exemption from the temperature constraint. The team has evaluated all prior data and daily logs for this area. No issues or concerns were noted in this area with respect to agent or agent breakdown products. The team has seen results for arsenic and other HTW constituents, but nothing that warrants the temperature limitation.
- Work will be done open air, in modified Level D personal protective equipment (PPE) – hard hat, boots, long pants and sleeves, slung mask.
- Work will start the week of 17 June and take approximately 3 weeks to complete.



4825 GLENBROOK RD – AREA 3



Backfill in Area 3

The Army Corps' geologist also confirmed that the excavation team had fully reach saprolite during the first round of sampling in Area 3.

Confirmation samples taken from Area 3 indicated no residual chemicals contamination remains.



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4825 GLENBROOK RD – AREA 4

During the excavation of Area 4 at the end of March, the air monitors detected Lewisite twice. However, these detections were analyzed and confirmed to be a false positive.

Each time, per our conservative safety protocols, excavation work was paused, the excavation area was immediately mitigated.

There was no chemical agent detected at the perimeter of the site. Our workers and the nearby community continued to be safe and protected by our site safety protocols.



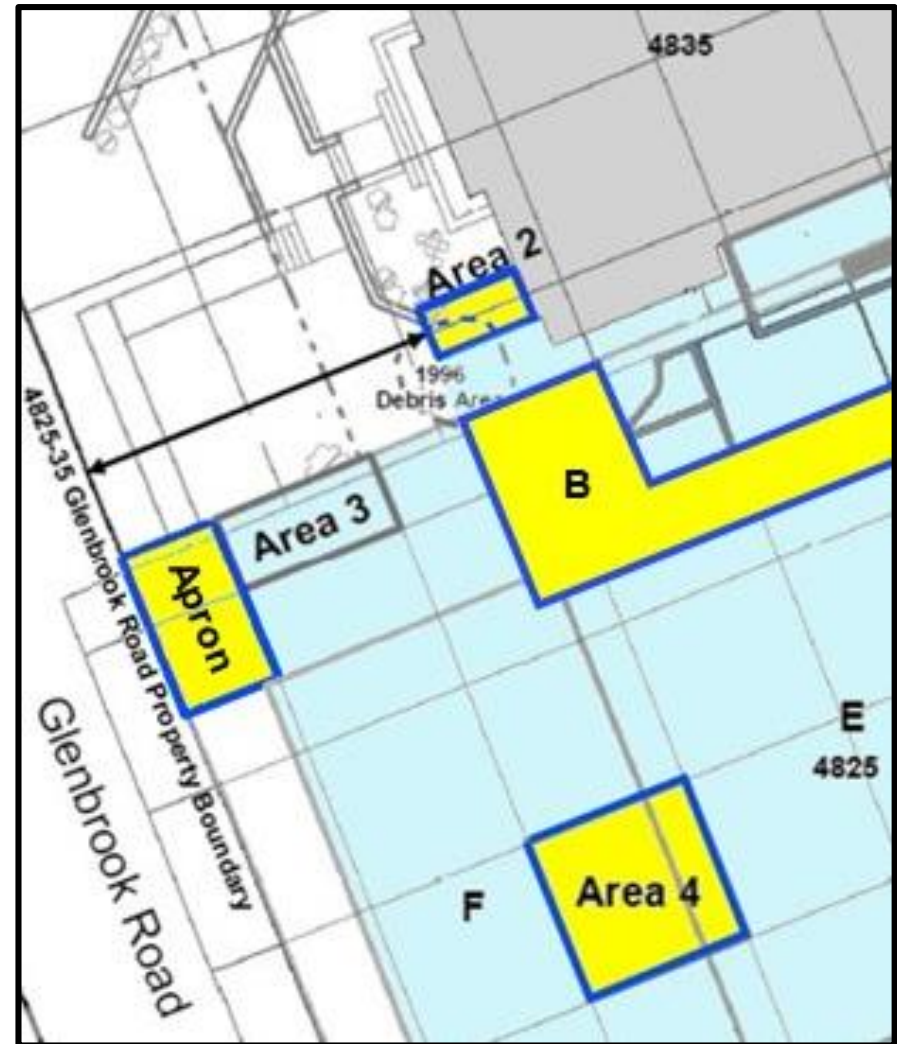
**Area 4 Drum
filling area with
air monitors**

4825 GLENBROOK RD – AREA 4

Out of an abundance of caution, the team postponed additional excavation work in Area 4 until further sampling and analysis of the sampling data could occur.

The project team is working to assess what triggered the two false positive detections on our air monitors last month.

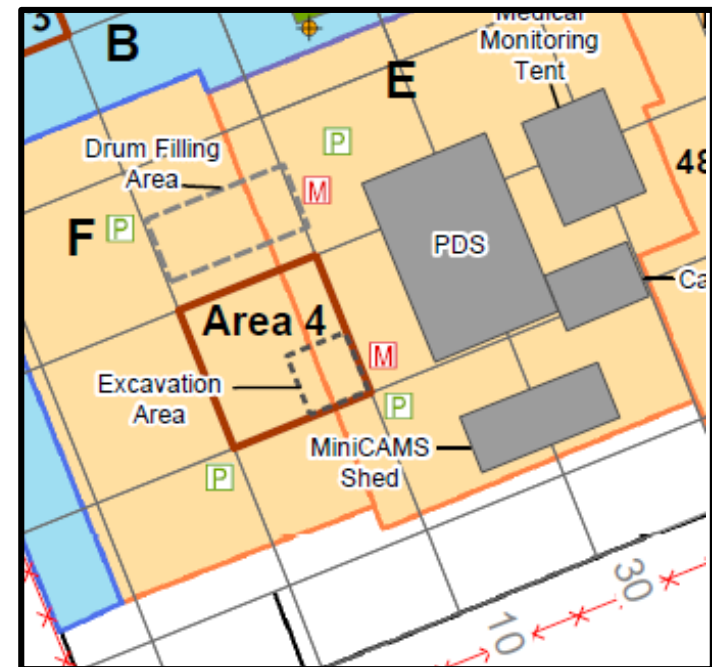
The team began discussing with our interagency Partners about next steps for our work in Area 4.



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AREA 4 – MARCH 26TH MINICAMS DETECTION

- The MINICAMS at the drum loading station alarmed during the morning operations at the site.
- There were no other detections or alarms on any of the other downrange instruments or MINICAMS positions
- The soil being drummed was not discolored or unusual. There were no fuel spills.
- Temperature outside was approximately 43°F.
- Lewisite (L) was not detected in any the DAAMS or soil analysis.
- This grid is adjacent to where we previously found an interferent that was being detected as L where Dichloronaphthalene was determined to be a likely interferent.



PDT met on March 26th

- Based on the DAAMs results decided to continue digging in Area 4 and would reconvene if other MINICAMS detections occurred.
- Also decided to collect a grab sample from the drum being filled at the time of the alarm.



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AREA 4 – MARCH 28TH MINICAMS DETECTION



The MINICAMS alarmed again during operations. The alarms were at the excavation and drum loading area. The team immediately stopped work and mitigated the area.

Area being excavated within Area 4 when MINICAMS alarms were triggered (looking southwest towards Glenbrook Rd.)



AREA 4 – MARCH 28TH MINICAMS DETECTION (CONT.)



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AREA 4 – MARCH 28TH MINICAMS DETECTION (CONT.)

- Multiple DAAMS tubes were taken after these events, including the weekend after the events.
- The analysis of the DAAMS tubes indicated all alarms were false. No agents was detected during the analysis of the DAAMS tubes.



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AREA 4 – SOIL SAMPLE RESULTS ON AND AFTER MARCH 26TH

- **A grab sample collected from the drum associated with the March 26th minicams detection did not clear MINICAMS headspace analysis but did clear DAAMS headspace and low level agent and agent breakdown product (ABP) analysis**
 - Sample sent to APPL labs for Analysis
 - APPL lab's Preliminary Results
 - All SVOCs (semi-volatile organic compounds) are non-detect and there were no TICs (tentatively identified compounds) detected.
 - VOCs had a hit for acetone (common lab contaminant) slightly above the LOQ and methyl acetate below the LOQ, no other analytes detected and no TICs detected.
- **A sample intended to be a waste disposal characterization sample collected on March 27th did not clear MINICAMS headspace analysis but did clear DAAMS headspace**
 - Low level agent and ABP analysis detected 1,4 Dithiane at 17 µg/kg (J)
 - Sample sent to RTI for Grab Sample Parameters (due to low level agent detection)
 - RTI lab Results – Al, V, As, and Co are the only analytes that exceed the comparison values. No VOC TICs were identified. For SVOCs, the lab reported the top 20 TICs and of interest to the project, 1,4-Dichloronaphthalene was detected with a good quality match.



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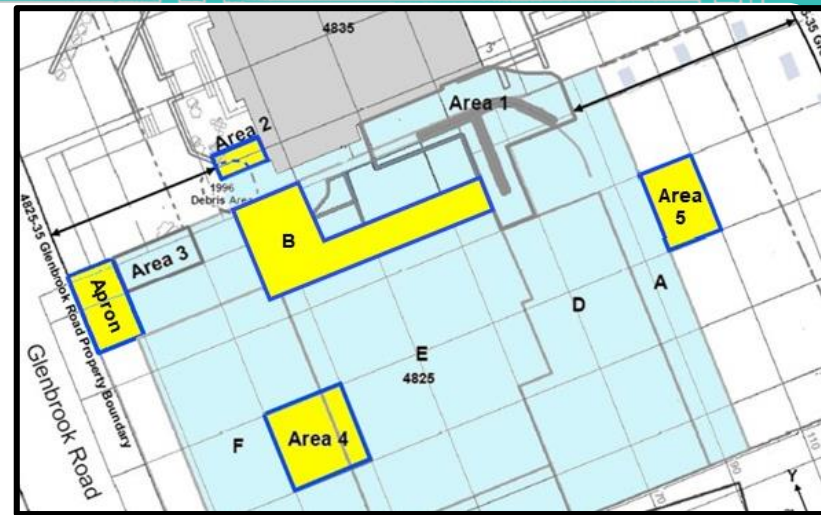
4825 GLENBROOK RD – AREA 4

After coordination with the team and our regulatory Partners, the team decided to take a round of confirmation samples from Area 4.

The team will use the data to develop a risk assessment to determine if the sample results will allow the team to consider the excavation work complete.

As part of the risk assessment, the team would evaluate the sample results against screening levels for the constituents of concern. If the data indicates results below the screening levels, we would present our case to the regulatory Partners to consider the area complete.

We also plan to take into account that the excavation is currently at saprolite (16-20 feet below ground surface). Since we are on saprolite, additional excavation is limited.



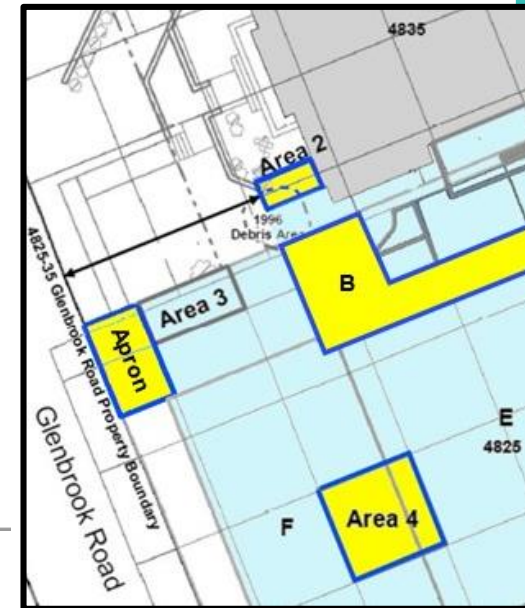
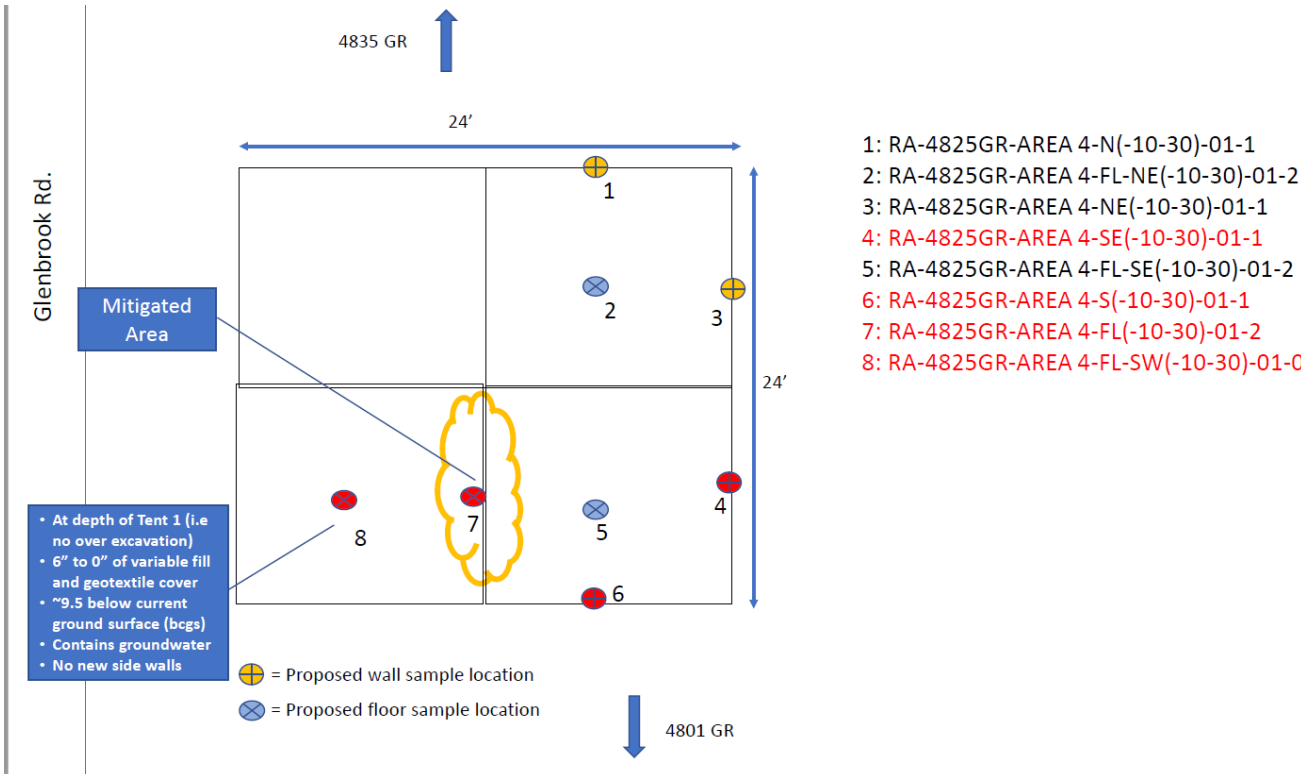
Confirmation soil samples were collected on April 29th



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4825 GLENBROOK RD – AREA 4

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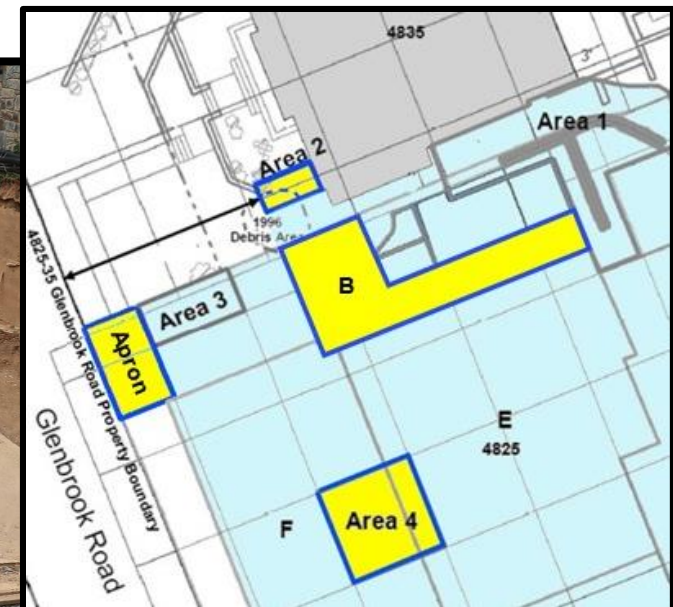


- A total of eight (8) confirmation samples were collected.
- Four (4) samples cleared low level clearance and were sent to our standard commercial lab.
- Four (4) samples failed low level clearance (agent breakdown products detected). The team agreed to send these samples to RTI lab for processing.
- Results are pending.



4825 GLENBROOK – AREA B

The crew set up a portion of Area B for further low probability excavation work along the shared property line. Once this excavation work was complete, the USACE geologist confirmed that saprolite has been reached in Area B along the shared property line, and confirmation samples will be taken, when the weather allows.



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4825 GLENBROOK

With the increasing temperatures and seasonal weather, the team is working to maximize excavation operations. Per our safety protocols, our crew stops daily excavation operations when temperatures reach 75 degrees.

The team is scheduling non-intrusive activities at the site during the warmer portions of the day at the site. We are planning our next round of sampling and intrusive excavation operations with the seasonal temperatures in mind.



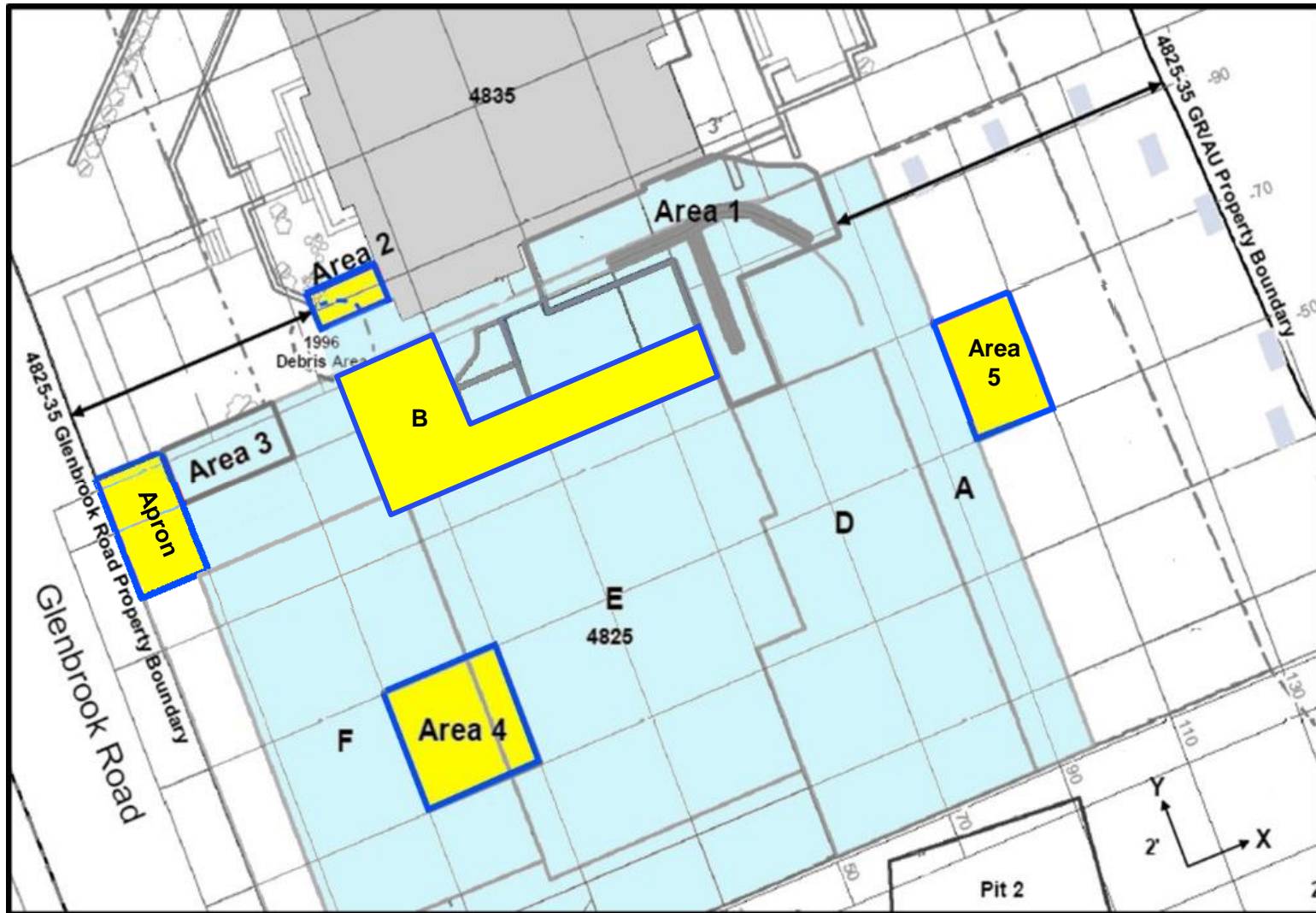
4825 GLENBROOK – DRIVEWAY APRON AND AREA 5

- **The remaining excavation areas, which include the former driveway apron and Area 5, will be scheduled for completion once the work plans are finalized.**
- **After reviewing the data for these areas, including prior excavation data, soil sampling data and air monitoring data, the team has concluded that some of our safety protocols can be lifted for work in these areas.**
- **Work in the driveway apron and Area 5 will be done as follows:**
 - **Work will be done in modified Level D personal protective equipment**
 - **Long pants, shirt, boots, vest, hard hat, safety glasses, slung mask.**
 - **Work will be done open air with the current air monitoring plan.**
 - **The temperature limitation will be lifted; the team can excavate throughout the day.**
- **The team will continue to conscientious about safety. If there are any alarms or odors, all work will be stopped and mitigation will be implemented.**



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4825 GLENBROOK – REMAINING WORK



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4835 GLENBROOK ROAD – SOIL GAS SAMPLING

- Now that the soil excavation work along the shared property line has been completed, the ECBC team will perform a second round of soil gas sampling in the basement of 4835 Glenbrook Road.
- **The sampling equipment will be set up the week of June 17. The sampler will be left to run for three weeks. ECBC will then collect the samplers for analysis. The analysis take 4-6 weeks.**
- The team anticipates results by mid-August. Once results are available, the team will assess next steps.



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TENTATIVE SCHEDULE: GLENBROOK RD PROJECT AREA

Late-Summer 2019	<p>Completion of low probability operations at 4825/4835 Glenbrook Road.</p> <p><i>Working hours:</i> Monday - Friday from 6:30 am to 5:00 pm. Heavy equipment operations do not begin until after 7:00 am.</p>
Winter 2020	<p>Potential completion of intrusive activities at 4825 Glenbrook Road.</p> <p>Start of site restoration for Glenbrook Road sites – 4825 & 4835.</p>
Summer 2020	<p>Anticipated project completion.</p>



SPRING VALLEY FUDS RESTORATION ADVISORY BOARD

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Community Items



SPRING VALLEY FUDS RESTORATION ADVISORY BOARD

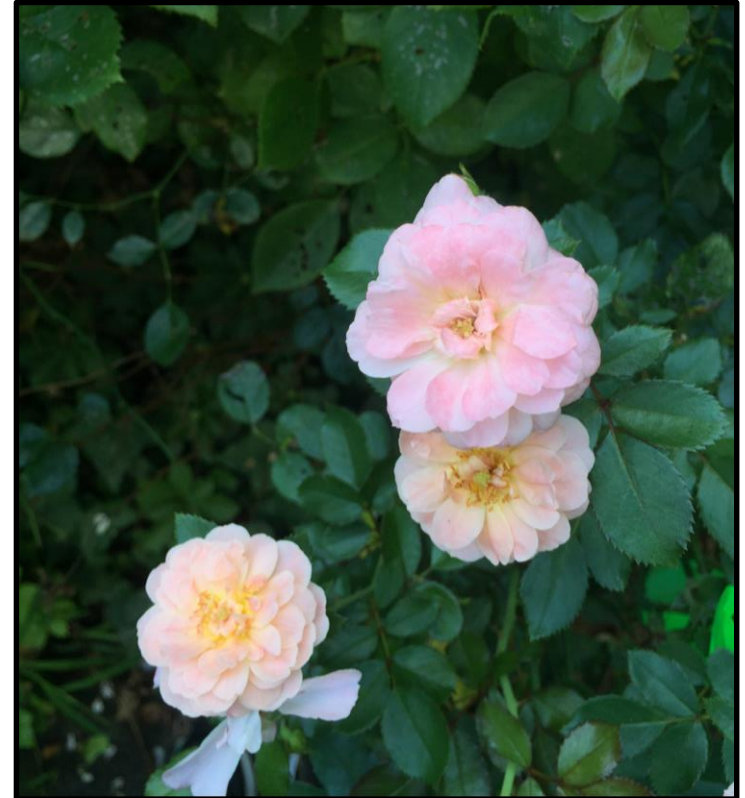
Open Discussion:

Reminders:

- The next RAB meeting will be
Tuesday, July 9th, 2019

Upcoming Agenda Items:

- *Suggestions?*
- Reimbursement and Restoration process options for homeowners participating in the Remedial Action.
- Upcoming Groundwater sampling.



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SPRING VALLEY FUDS RESTORATION ADVISORY BOARD AGENDA (continued...)

- **Public Comments**
- **Wrap-Up**

