



Guardian

A PUBLICATION OF THE ENVIRONMENTAL RESTORATION PROGRAM

TRAVIS AIR FORCE BASE, CALIFORNIA

APRIL 2023

April Restoration Advisory Board Meeting to Be Held In-Person

The Travis Air Force Base (AFB) Environmental Restoration Program (ERP) is pleased to announce that for the first time since April 2019, the next Travis AFB Restoration Advisory Board (RAB) meeting will be held in person! The meeting will be held on April 20, 2023, at 7:00 p.m.

It's hard to believe it's been 4 years since our last in-person RAB meeting. During the height of the pandemic, we hosted several successful virtual RAB meetings, and we sincerely thank everyone who worked through technical difficulties and were able to join us on our virtual platform. We are excited to get back to our usual routine!

The RAB meeting will start with general introductions and a review of the meeting agenda. If a quorum of RAB members is present, there will be a vote on potential new members, as well as approval of the meeting minutes from the April 2022 and October 2022 RAB meetings that were held online. This will be followed by updates on the ongoing environmental investigations and restoration activities across the Base. Representatives from the U.S. Environmental Protection Agency (EPA), California Department of Toxic Substances Control (DTSC), and the San Francisco Bay Regional Water Quality Control Board (Water Board) will provide regulatory agency updates. The RAB meeting will conclude with a public question-and-answer session on any aspect of our ERP.

Travis AFB In-Person RAB Meeting

Thursday, April 20, 2023; 7:00 p.m.

3690 Hilborn Road, Fairfield, CA 94534

NO RSVP REQUIRED

As always, everyone from the community is welcome to attend, and we encourage you to bring a friend who is interested in environmental cleanup activities at Travis AFB, or may be interested in joining the RAB. Please feel free to arrive a little early and catch up with other RAB members and our project staff. Refreshments will be provided.

For more information or to request special accommodations, please contact Travis AFB ERP project staff at (707) 424-2812 or enviropa@us.af.mil.

We have sincerely missed connecting with you in-person and are looking forward to seeing you in April!

Evaluating Environmental Effectiveness: Fifth Five-Year Review Underway at Travis Air Force Base

The Fifth Five-Year Review (FYR) in support of environmental restoration activities at Travis AFB is underway. It includes review and evaluation of soil and groundwater remedies at the 20 cleanup sites shown on Figure 1.

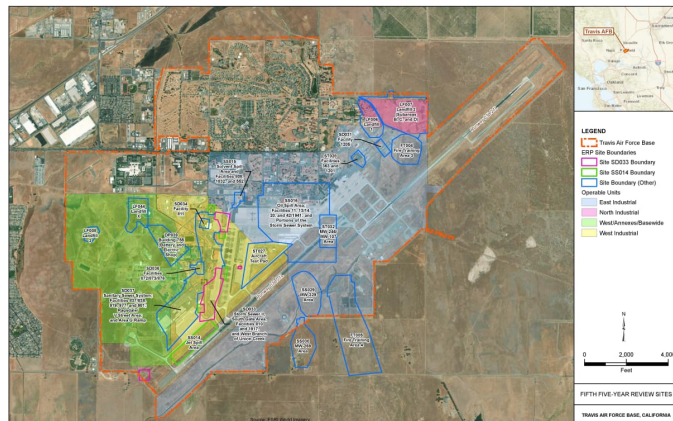


Figure 1 The 20 sites at Travis AFB included in the fifth Five-Year Review (click on image to enlarge).

The purpose of the FYR is to evaluate the performance of all remedies at Travis AFB. It also allows for the Air Force Civil Engineer Center (AFCEC) to review progress toward site cleanup objectives. In addition, the Fifth FYR will verify if remedies remain protective of human health and the environment.

A public notice announcing the start of the FYR was published in the *Tailwind*, the *Vacaville Reporter*, and the *Fairfield Daily Republic* in February 2023. Ongoing and upcoming FYR activities include interviews, document and data review, site inspections, and report preparation.

AFCEC will complete the Fifth FYR by the end of September 2023. The report will provide protectiveness statements for each cleanup site. In addition, it will recommend necessary actions before the next FYR. The final FYR Report will become a part of the AFCEC Administrative Record. When it is complete, members of the public can read the report on the AFCEC website (<https://ar.afcec-cloud.af.mil/>).

For more information on AFCEC's environmental cleanup at Travis AFB and the upcoming FYR, please send an email to enviropa@travis.af.mil.

Site SD031 Data Gap Investigation Update

The Air Force recently conducted a data gap investigation (DGI) at Site SD031. Historically, Site SD031 was used to support maintenance and refueling of interceptor jets and transport planes. Jet fuel is the primary source of petroleum hydrocarbons present at the site, while solvents used for maintenance activities are the source of chlorinated volatile organic compounds (CVOCs) at the site. The site, which is in the northeastern portion of Travis AFB near the flightline, is shown on Figure 2.

Several investigations have been conducted at this site since the 1990s. Because the Site SD031 boundary was expanded by approximately 20.5 acres in 2021 and now encompasses

approximately 29 acres, the nature and extent of contamination are not fully understood. The site boundary was expanded because numerous soil samples collected during an investigation of nearby Site OW010 (which has since been closed) identified petroleum hydrocarbon constituents not associated with historical practices at that site. As a result of the expansion, additional data are needed to assess site risks and select a final remedy. A DGI was performed at Site SD031 in the summer of 2022 to facilitate the remedial investigation (RI) that is planned for 2024.



Figure 2. Location of Site SD031, showing original and expanded site areas (click on image to enlarge).

During the DGI, screening tools were used to investigate the new areas of the site where little or no historical data were available. The DGI goal was to identify whether petroleum hydrocarbons or CVOCs were present in the new areas so that a more targeted and efficient approach could be used for collecting analytical data during the RI.

Direct-push technology (DPT) was used to advance sensors into the ground to evaluate the presence or absence of petroleum hydrocarbons and CVOCs in real-time. For this investigation, two types of sensors were used: membrane interface probe (MIP) (detects both CVOCs and petroleum hydrocarbons) and Ultra-violet Optical Screening Tool (UVOST) (detects the presence of pure-phase petroleum hydrocarbons). Figure 3 shows the DPT rig that was used to advance the screening tools, and the support vehicle that provided the real-time data to the investigation team in the field. Figure 4 shows the technician performing a chemical response test on the MIP prior to downhole deployment.

Figures 5 and 6 are examples of the graphs generated using the data obtained from the MIP and UVOST. The graphs were used to identify whether petroleum and/or CVOCs were present at a location; and if so, what depth had the strongest response (indicative of concentration). The MIP detectors also provided information about the geology at the sampling locations. The UVOST response was also used to evaluate the type of fuel that was detected. Knowing this information can help determine the source of the contamination.

The DGI results indicate that either petroleum hydrocarbons or CVOCs were present at every location tested, revealing potential new petroleum hydrocarbon and CVOC source areas, and refining the potential extent of the CVOC plume. The results

obtained during this DGI will be used to design a targeted sampling approach for the upcoming RI.



Figure 3. DPT drilling with UVOST/MIP support vehicle. Photo Credit: Jacobs



Figure 4. Technician performing a chemical response test on the MIP sensor. Photo Credit: Jacobs

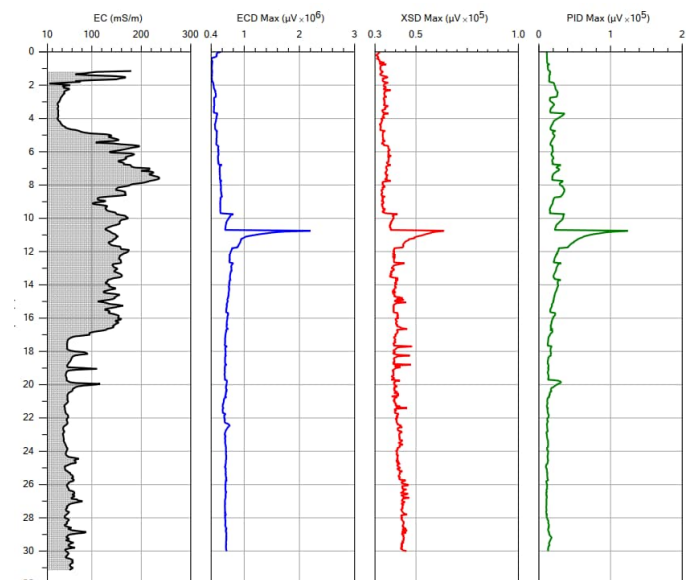


Figure 5. Example of output from the MIP sensor.

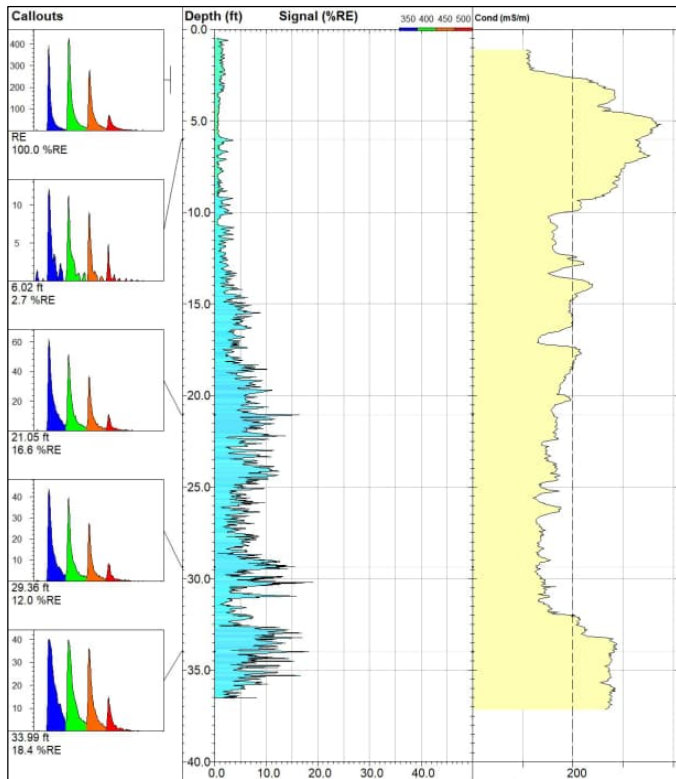


Figure 6. Example of output from the UVOST sensor.

Phase I Remedial Investigation for AFFF Areas Update

The Phase I RI is progressing with the completion of all on-base activities for Field Event #2 and evaluation of the collected data. The objective of the Phase I RI is to delineate concentrations of per- and polyfluoroalkyl (PFAS) constituents associated with aqueous film-forming foam (AFFF) areas in soil, groundwater, surface water, and sediment, and provide a better understanding of their presence in the environment.



A field team member collecting a groundwater sample for PFAS analysis.
Photo Credit: Oneida

All on-base drilling and sampling activities for Field Event #2 were completed in November 2022 with a few activities carrying over into 2023, such as a second surface water sampling event along Union Creek in January and water level measurements. The Air Force is coordinating access to off-base properties for monitoring well installation and groundwater sampling activities.

Results from Field Event #2 are being evaluated with previous data and used to update the conceptual site model (CSM) with additional details about the presence and transport of PFAS constituents in the environment. Results will also help the Air Force develop recommendations for additional sampling in Field Event #3, which will take place in Summer 2023. The ERP Team will continue to work with our regulatory stakeholders (EPA, DTSC, and the Water Board) on next steps in this important project.

Guardian Newsletter to Be Issued Semiannually

We would like to inform our readers that, beginning with this issue, we are moving from a quarterly to a semiannual publication cycle for the *Guardian* newsletter. This is part of the natural progression of our program, as our sites move through the cleanup process. Many sites are now undergoing routine operations and maintenance, or have been closed. Future issues of the *Guardian* will be published in the spring and fall of every year. As always, if there is a topic you'd like to hear about in an upcoming issue of the *Guardian*, or during a RAB meeting, please contact Travis AFB ERP project staff at (707) 424-2812 or enviropa@us.af.mil. Thank you for your many years of readership!

Restoration Advisory Board Tours and Meetings

Community members are cordially invited to attend the public RAB meetings and tours. **The next RAB meeting is planned to be held in-person at 3690 Hilborn Road, Fairfield, CA. The meeting is scheduled for April 20, 2023, at 7:00 p.m.** You are welcome to arrive early to socialize with fellow RAB members, community members, and the project team. Light refreshments will be provided. We look forward to reconnecting with you in person very soon!

If you are interested in finding out more about the Travis AFB RAB, wish to be included on the email mailing list, or want to inquire about becoming a RAB member, let us know:

enviropa@us.af.mil

(707) 424-2812

For more information about Travis AFB's Environmental Restoration Program, please contact us:

Remedial Program Manager

(707) 424-2812

Public Affairs Officer

(707) 424-2011

Or visit:

<https://www.travis.af.mil/Information/Environment/>