



**FINAL**  
**Former Naval Station Treasure Island**  
**Restoration Advisory Board (RAB) Meeting Minutes**

Meeting 165

16 April 2013

**Community Restoration Advisory Board (RAB) Members in attendance:**

Nathan Brennan, John Gee, Alice Pilram, Dale Smith

**Department of the Navy and Regulatory Agency RAB Members in attendance:**

Keith Forman, Navy RAB Co-Chair

Remedios (Medi) Sunga, Department of Toxic Substances Control (DTSC)

Myriam Zech, San Francisco Bay Regional Water Quality Control Board  
(Water Board)

**Other Navy and Regulatory Staff and Consultant Representatives in attendance:**

Erik Abkemeier, Tetra Tech

Bill Dougherty, Tetra Tech

Radhika Majhail, DTSC

Jessica O'Sullivan, Tetra Tech

Phil Skorge, Engineering/Remediation Resources Group, Inc. [ERRG]

Tommie Jean Valmassy, Tetra Tech

**Public Guests:**

Mike Daly, Interested Party

Kathryn Lundgren, Resident, Treasure Island Health Network (TIHN)

Frank Romero, Resident

Sophie [no last name given], Resident

**Welcome Remarks and Introductions**

Keith Forman (Base Realignment and Closure [BRAC] Environmental Coordinator [BEC]) opened the April RAB meeting for Former Naval Station Treasure Island (NAVSTA TI) held at the Casa de la Vista (Building 271) on Treasure Island (TI). Mr. Forman said he encourages feedback on the agenda and meeting format, and seeks to make the meetings as engaging and conversational as possible.

Mr. Forman asked if there were any comments on the agenda ([Attachment A](#)); there were none.

**Public Comments and Announcements**

Tommie Jean Valmassy (Tetra Tech) announced that the Navy is updating the Community Involvement Plan (CIP) for NAVSTA TI. Ms. Valmassy said the CIP

TRIE-2205-0003-0107

was last updated in 2008. The CIP provides information about the history and current status of environmental cleanup at NAVSTA TI. The document also describes the current community living on the islands. Another important component of the CIP is to conduct interviews with various stakeholders to better understand the community's areas of interest and preferred methods of communication. Ms. Valmassy said if anyone present would like to take part in an interview for the CIP, they should speak to her after the meeting.

Dale Smith (RAB member) said she recently received a document for Site 27, and it did not include a due date for comments. Medi Sunga (DTSC) said the document is the Remedial Action Work Plan (RAWP) for Site 27. Mr. Forman said the Document Tracking Sheet (DTS), ([Attachment D](#)) lists the due date for comments, and will be reviewed later in the meeting. Mr. Forman explained the Navy is requesting an expedited review of the Site 27 RAWP because there is a small window of time for conducting field work in Clipper Cove due to the dragon boat races and other events taking place. Ms. Smith noted the Navy will need the approval of the U.S. Fish and Wildlife Service (FWS) for their plan to move sediment from NAVSTA TI to Former Naval Air Station Alameda Point (Alameda Point). Mr. Forman said the reviews and responses to those agencies are being coordinated appropriately.

#### **Update on Recent Navy Radiological Investigations**

Mr. Forman presented the update on the recent Navy radiological investigations ([Attachment B](#)). The TI Development Authority (TIDA) requested that the California Department of Public Health (CDPH) conduct radiological scans of all areas within Site 12 that had not yet been scanned. CDPH conducted comprehensive surface scans in March, and if they detected something, they immediately notified the Navy. There were five locations where CDPH detected elevated levels of activity. The Navy had its contractor, Tetra Tech, conduct scans of these five areas. Mr. Forman noted the five locations are listed in the handout. He noted the levels of radium detected are listed in microrem per hour (microR/hr), which may be a different unit of measure from other documents. He cautioned that when comparing levels between different documents, it is important to make sure the units of measure are consistent. Sophie (resident) asked for a definition of microR/hr. Mr. Forman said it is a unit of measure that indicates the amount of radioactivity being emitted. Erik Abkemeier (Tetra Tech) said the State of California's guideline is that a person should not receive more than an additional 100,000 microR/hr in one year.

Mr. Forman explained that the Tetra Tech team verified with CDPH where they found an elevated detection, then with the regulators observing, Tetra Tech did a radiological scan and dug out the soil until the elevated levels had been removed. He added they did not dig to a depth greater than 1 ½ feet because of

possible interference with utility lines. The holes that were dug were about 1 ½ feet wide by 1 ½ feet deep. Once the contaminated soil was removed, the holes were backfilled with sand and covered with sod. Then another radiological reading was collected at the ground surface to verify there were no further detections at that location. Mr. Forman showed photographs of the excavation procedure, noting it was very controlled to prevent further contamination. He noted workers in the photos were not wearing protective gear other than standard hard hats because the levels were not high enough to warrant additional protection.

The Navy and CDPH took split samples, which means they collected them from the same area, and had them analyzed in different, California-certified laboratories. The laboratories positively confirmed that the radioisotope present at these locations was radium-226. Sophie asked how far the radium emits. Mr. Forman explained that there is measurable radioactivity naturally in the environment. At NAVSTA TI, the background level of radium-226 is typically between 4 to 6 microR/hr. He added that even concrete emits a very low level of radiation and the monitoring equipment is sensitive enough to detect even small differences in levels. Sophie also asked how long the items have been in the ground. Mr. Forman referred to the slide with the recovered item in a baggie, noting it is about the size of a dime. It is a six-sided metal object that was painted with luminescent paint to allow it to glow in the dark. It is likely that the item was used during training events when NAVSTA TI was active, possibly in the 1950s or 1960s. It is not possible to know exactly how long any item has been there at that specific location.

Sophie asked what this item, which has been emitting radiation all this time, could do to a person. She also noted there is a nearby bus stop where people stand and wait with their children. Mr. Abkemeier explained that the radiation dose decreases exponentially the further away someone is from the item, and estimated the bus stop is about 25 feet from where the item was discovered. Mr. Forman explained the dose rate would not be above background levels at that distance. Mr. Forman added that the risk of exposure for radiation and for other contaminants is calculated based on direct contact with the contamination. Risks are calculated conservatively and a person would have to be standing right on an object, or touching the contaminants, for an ongoing period of time to reach elevated risk levels.

Kathryn Lundgren (resident, TIHN) referred to the backfilling process for the excavated areas that were backfilled with sand. She asked if the sand could become contaminated, and then become airborne and pose a risk. Mr. Forman said there is a layer of protective matting or plastic put in the bottom of the excavated hole, then sand is put on top to fill the hole, and then grass or sod is put on top of that. This process prevents the sand from becoming contaminated

or getting blown around. John Gee (RAB member) asked what was the purpose of lining the hole with plastic. Bill Dougherty (Tetra Tech) said it ensures the sand used for backfill does not get contaminated, and makes it easier to find the exact excavation spot again. Ms. Smith asked if a global positioning system (GPS) device is used to track excavation locations. Mr. Abkemeier said GPS was used to mark the locations, but the plastic is a secondary way to verify the location.

Mr. Forman reviewed the upcoming plan for Site 12, noting it is still being discussed with the regulatory agencies. The Navy plans to conduct a characterization study in early summer 2013, and already has a contract and funding in place for this effort. Mr. Forman noted that CDPH recently conducted a survey, but the Navy will be using different instrumentation that is more definitive and can detect to a greater depth. This system is called a towed array system. The Navy will present more about that system and the characterization plan at the June RAB meeting. This towed array scan will include roadways and backyards. There will also be additional soil sampling. The non-time critical removal action will continue within the areas known as solid waste disposal areas (SWDA) within Site 12.

Sophie asked how long civilians have been allowed to live on TI, and why these surveys are just now being conducted. Mr. Forman said the base closed in 1997, and people began moving in after that time, though he would have to confirm the exact date. He explained that all environmental cleanup projects nationwide follow certain protocols, beginning with reviewing site history and use, and then conducting various investigations. The Navy discovered the SWDAs at NAVSTA TI and that has been where the Navy is focusing on cleanup within the housing area. He noted that of the 577 radiological devices found to-date within Site 12, all but two of them have been found within those SWDAs. Therefore, the Navy has a good idea of where contamination is, but is still expanding their investigations following standard protocol.

Ms. Lundgren asked Mr. Forman what the plan is for addressing the recently discovered cesium. Myriam Zech (Water Board) noted a recent news article discussed cesium contamination at NAVSTA TI. Ms. Lundgren asked if this cesium poses a greater health risk to people who have cancer or an already suppressed immune system. Mr. Forman explained that that he has been discussing radium-226 in his presentation. He added that CDPH has stated there is no significant health risk from any of the low-level isotopes found on NAVSTA TI. Mr. Forman added that the Navy would like to find a way to continue meeting with residents to address concerns and answer questions directly. He told Ms. Lundgren he would like to continue to work with her to hold meetings with the community. Mike Daly (community member) said people he talks to seem to have a misunderstanding that NAVSTA TI needs remediation

throughout both islands. His understanding from attending RAB meetings is that there are very specific sites being cleaned up, and that it will still take many years. He added that the Navy should try to clarify for people the scope and schedule of cleanup.

A resident who does not speak English asked a question, and Ms. Zech translated. The resident said she and her family have lived on NAVSTA TI for six years and she was recently diagnosed with bone cancer. She came to the RAB meeting to find out more about contamination on TI, and to find out if it might be causing harm to her children. Mr. Forman, through translation, thanked the resident for attending the meeting and extended his sympathies about her illness. He explained that he cannot provide advice as a physician. However, the San Francisco Department of Public Health will be holding a health clinic on TI later this summer, and he encouraged the resident to use that as a resource. Mr. Forman explained that people have not been in direct contact with the radium contaminated items that the Navy has found, and the CDPH has also said there is not a risk to residents. He added that the Navy and regulatory agencies look at all of the data to make sure they are being protective of current residents. The resident said she finds it difficult to get or understand information that is made available. Mr. Forman encouraged the resident to talk with other residents and said the Navy is willing to try various ways to communicate. For groups that do not speak English, Mr. Forman offered to include interpreters at a future meeting if he knows people who need them will attend. Ms. Lundgren said the TIHN has held small group meetings with the Latino population on TI and that may be an opportunity for the Navy to attend a smaller meeting and share information.

Ms. Smith said in a recent article she read a statement about nuclear decontamination having taken place at NAVSTA TI. She said her understanding of that term is that “decontamination” refers to equipment that was exposed to nuclear fallout, and she believed such decontamination did not take place at NAVSTA TI. Mr. Forman confirmed that radiological decontamination is not known to have taken place at NAVSTA TI, and it is only low-level residual radiation that has been detected at this installation. Ms. Smith also said the 2012 Site Management Plan (SMP) map lists Site 2 in the table of sites, but it is no longer on the map because it is now within Site 12. She requested this area be noted on the map again even though it is closed. Mr. Forman said Site 2 is closed for CERCLA contaminants, but it is not closed for radiological contaminants and the area remains part of Site 12 for investigation purposes.

Frank Romero (resident) indicated the location of his house on Bayside Drive on the map. He said there is a large hole on his street and asked what it is. Ms. Lundgren said it is near her house as well and it is a sinkhole that has been getting larger over the last nine years. Mr. Romero said there is another hole

beginning to develop in the same area. Ms. Lundgren said she sends TIDA an annual letter and photograph about the hole and receives no response. Mr. Forman said he will follow up with TIDA and ask them to get back to Ms. Lundgren and Mr. Romero about the status and safety issues related to the sink hole.

Ms. Smith asked why the Navy is not proposing in the radiological work plan to run an internal inspection of industrial and storm or sewer lines to find where there may be cracks in the lines. She also asked if the Navy plans to steam clean the lines. Mr. Forman said the lines have been power washed before. He added that the Navy will propose conducting investigations to locate cracks and other issues in radiologically-impacted lines depending on the condition of the lines.

Mr. Forman said the Navy has previously presented information to the RAB about the Historical Radiological Assessment Supplemental Technical Memorandum (HRASTM). He noted the schedule for the HRASTM has been adjusted because the Navy does not want to finalize the document until the towed array scans at Site 12 have been completed. Mr. Forman said it is important to collect as much data as possible before finalizing the HRASTM.

Ms. Smith asked if the background number mentioned for radium-226 is a background number determined by the Navy or is based on DTSC background numbers. Mr. Forman said DTSC does not have a promulgated cleanup number. Regardless of background level, a site cannot receive free release if the levels of radium result in a dose rate that is too high, typically above 9 millirem per year.

#### **Underground Storage Tank 240 Fieldwork**

Mr. Forman introduced Phil Skorge (ERRG) to present an update on the Underground Storage Tank (UST) 240 fieldwork ([Attachment C](#)). Mr. Skorge explained this is a petroleum excavation and cleanup project. There were two USTs at this site, designated as UST 240A and UST 240B. Mr. Skorge reviewed the history of investigation and cleanup at the site. He explained this cleanup project is being conducted under the Water Board's Leaking UST program to address petroleum contamination. There are other CERCLA constituents present that will have to be addressed under a Proposed Plan process, which is a different project. Mr. Skorge explained that, as a precautionary measure, the field team incorporated radiological controls as part of the field work. The petroleum-contaminated soil was all cleared and removed from the site as non-radiological impacted material.

Mr. Skorge said the petroleum cleanup successfully removed the residual source of contamination at the site. The team excavated and disposed of 800 cubic yards of petroleum-contaminated soil. The excavations have been backfilled and the project is complete. However, groundwater monitoring will continue. Mr. Daly

asked if this cleanup is typical of a petroleum cleanup. Ms. Pilram asked if this was similar to a cleanup at a typical gas station. Mr. Skorge said the cleanup is very typical of a standard petroleum product cleanup, and confirmed it is similar to the types of cleanups that occur at gas stations.

#### **Upcoming Documents and Field Schedule**

Mr. Forman introduced Jessica O'Sullivan (Tetra Tech) to present the Document Tracking Sheet ([Attachment D](#)) and the Field Schedule ([Attachment E](#)). Ms. O'Sullivan reviewed all of the documents that will be issued as draft or final within the next 60 days.

#### **Co-Chair Announcements**

Ms. Pilram said there was an article about cleanup at NAVSTA TI, as mentioned earlier in the meeting, and the article discussed cesium contamination. Ms. Pilram said she is concerned that the reporters were collecting their own samples from TI and even published a photograph of one of them carrying buckets of soil. This does not appear to have been done with proper environmental controls and unauthorized people are not allowed to dig and transport soil. Mr. Forman said he shares Ms. Pilram's concerns. He added that the data presented in the article is presented out of context, and because of that, it is difficult to give the results any meaning. Mr. Forman noted that the article indicates results from two different laboratories. The results vary so much that if the Navy had such varied results they would have to disqualify the data from further use. He also added that the levels of cesium reported in the article is broadly classified as being within the range of atmospheric fallout. Mr. Forman said he did not find the results in the article alarming, and he does not know enough about the quality control measures that were used.

Mr. Forman announced that the RAB Standard Operating Procedures (SOP) have been updated and RAB changes have been incorporated. RAB members voted to approve the updated SOPs.

#### **RAB Meeting Minutes**

Mr. Forman asked for comments on the draft February 2013 RAB meeting minutes. Mr. Brennan said the minutes indicate that dredged sediment from Site 27 will be tested at NAVSTA TI before being transported to former Alameda Point. However, the work plan states testing may take place at Alameda Point. Mr. Forman said the minutes accurately reflect what he said at the meeting. However, he said the location of the sampling has not been determined. He will look into it and let the RAB know where the sediment will be tested prior to use at Alameda Point. Ms. Smith provided some minor edits to the minutes. The RAB voted to approve the draft February 2013 minutes pending corrections provided at this meeting.

### **BRAC Cleanup Team Update**

Mr. Forman said the next BCT meeting is scheduled for tomorrow, April 17, 2013. He noted the BCT meeting schedule has been adjusted to be the day after the RAB meeting so the Navy can make one trip to the Bay area instead of two per month. Because of the change in schedule, the regulators have not yet discussed the Site 12 strategy for radiological scans that was presented this evening, so that topic will be discussed during the BCT. Mr. Forman said the BCT will also discuss the next steps for Building 233, which is a radiological site outside of Site 12. Mr. Forman said the other big projects coming up this year are the Proposed Plans for Sites 6 and 24.

### **Public Comments/Announcements**

Mr. Forman asked RAB members to consider whether they would like a site tour prior to the June or August RAB meetings. It was agreed the group will discuss that on the next RAB planning conference call, scheduled for Tuesday, May 28.

Nathan Brennan (RAB member) said the Citizens Advisory Board (CAB) will have its first meeting of the year on the first Tuesday of May. For an updated schedule, check the website: [www.sfgov.org/treasureisland](http://www.sfgov.org/treasureisland). Mr. Brennan noted that the redevelopment agency has been seeking redevelopment funding and recently an overseas deal fell through, as reported in the media. Mr. Forman explained that does not affect the Navy's cleanup schedule or budget.

Ms. Sunga asked if there was an update about the City transporting soil to TI. Mr. Forman said no one from the City is present to give an update tonight but he is hoping to get more information at the BCT meeting tomorrow.

Ms. Lundgren said the TIHN is doing an island cleanup on Earth Day, April 20, and invited people to participate. She also noted there will be a Health Fair on TI in May.

### **Future Meeting Agenda Items**

There were no specific requests for future meeting agenda items. Mr. Forman said the Navy will provide an update on the radiological investigations. The rest of the agenda will be discussed during the planning conference call in May. The call-in information is on the back of the agenda ([Attachment A](#)).

The next RAB meeting is scheduled for Tuesday, 18 June 2013. The meeting was adjourned at 9:13 p.m.

**16 April 2013 RAB Meeting Handouts**

- [Attachment A](#): NAVSTA TI RAB Meeting No. 165 Agenda
- [Attachment B](#): Update on Recent Navy Radiological Investigations
- [Attachment C](#): UST 240 Fieldwork
- [Attachment D](#): Document Tracking Sheet
- [Attachment E](#): Field Schedule

NAVAL STATION TREASURE ISLAND  
ENVIRONMENTAL RESTORATION ADVISORY BOARD MEETING  
Tuesday, 16 April 2013  
7:00 PM.  
**Casa de la Vista Building 271**  
Treasure Island  
**MEETING NO. 165**

- 7:00 – 7:05 **Welcome Remarks and Introductions**  
Lead: Keith Forman, Navy Co-Chair
- 7:05 – 7:15 **Public Comment and Announcements**  
Lead: Keith Forman, Navy Co-Chair
- 7:15 – 7:40 **Update on Recent Navy Radiological Investigations**  
Lead: Keith Forman, Navy Co-Chair
- 7:40 – 7:55 **UST 240 Fieldwork**  
Lead: Phil Skorge, ERRG
- 7:55 – 8:05 **Upcoming Documents and Field Schedule**  
Lead: Jessica O’Sullivan, Tetra Tech
- 8:05 – 8:20 **Co-Chair Announcements**  
Lead: Alice Pilram, Community Co-Chair,  
- RAB Standard Operating Procedures final vote
- 8:20 – 8:25 **RAB Meeting Minutes**  
Lead: Keith Forman, Navy Co-Chair
- 8:25 – 8:30 **BRAC Cleanup Team Update**  
Lead: Navy, DTSC and Water Board
- 8:30 – 8:35 **Other Public Comment and Announcements**  
Lead: Keith Forman, Navy Co-Chair
- 8:35 – 8:40 **Future Meeting Agenda Items**  
Lead: Navy and Community Co-Chairs
- 8:40 – 8:45 **Closing Remarks/End of Meeting**  
Break/Informal Discussion for 30 minutes after the meeting  
*This is an opportunity to informally discuss issues*

Next Regular Meeting: No May 2013 Meeting

7:00 pm Tuesday, 18 June 2013  
Casa de la Vista, Treasure Island

Next Treasure Island Citizen's Advisory Board (CAB) Meeting: See the web site for latest dates and times for future meetings: <http://www.sfgov.org/treasureisland>

Next Interim RAB Community Member Conference Call:

7:00 pm. Tuesday, 28 May 2013 (day after Memorial Day holiday)

Call-In Number: 1- 866-822-0121  
Participant Code: 1122026

Navy BRAC Web Site: <http://www.bracpmo.navy.mil> (click on map for Treasure Island)

Navy San Diego Office Address:

BASE REALIGNMENT AND CLOSURE  
PROGRAM MANAGEMENT OFFICE WEST  
NAVAL FACILITIES ENGINEERING COMMAND  
1455 FRAZEE ROAD, SUITE 900  
SAN DIEGO, CA 92108-4310

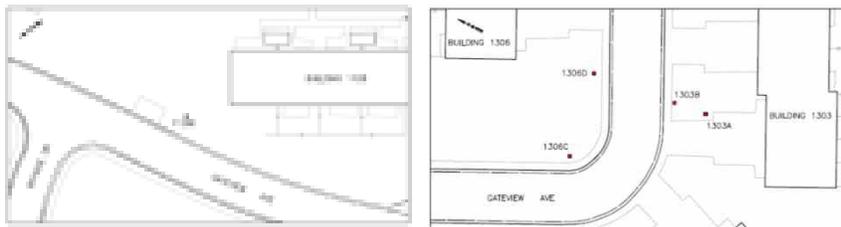


# Radiological Investigation on March 20/21, 2013

Treasure Island  
RAB Meeting  
April 16, 2013



## Elevated Exposure Rates Identified by CDPH-RHB



1 spot adjacent to Building 1128 and 4 spots in the Building 1303/1306 area were identified by CDPH-RHB survey with elevated gamma exposure rate readings

- 1303A – 1,600 microR/hr
- 1303B – 17 microR/hr
- 1306C – 240 microR/hr
- 1306D – 33 microR/hr
- 1128E – 4,200 microR/hr
- Background 4-6 microR/hr



## Investigative Approach



- CDPH-RHB and Navy to split surface soil samples
  - CDPH-RHB analyze by gamma spectroscopy at affiliated lab
  - Navy analyze by gamma spectroscopy at HPNS lab
- Navy collect additional samples, as necessary, from bottom of excavation for informational purposes
- If items found, Navy collects for storage and subsequent disposal
  - CDPH-RHB in situ gamma spectroscopy indicates Radium-226
- Digging not to exceed 18 inches for safety concerns with gas lines
- Backfill and restore site
- Take reading on surface
- Subsequent evaluation of areas may be necessary

3



## Investigations



Location 1128E



Location 1303B

4



## Location 1128E



- Collected surface sample (top 6 inches)
- Radium item discovered at 6 inches
  - 20,000 microR/hr on contact
  - Flat, hexagonal item
- Removed 18"x18"x18" volume of soil and placed into 55-gal drum
- Collected soil sample from removed soil
- Collected soil sample from bottom of hole
- Lined hole with plastic and backfilled with sand
- Measurement after backfill – 4 microR/hr (background level) – no controls necessary



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## Location 1306C



- CDPH-RHB previously collected surface sample for split with contractor
- Surface measurements – 240 microR/hr
- Radium item discovered at 10 inches
  - 200,000 microR/hr
  - Flat, hexagonal item
- Removed 16"x20"x16" volume of soil
- Collected removed soil/hole bottom samples
- Lined hole with plastic and backfilled with sand – 4 microR/hr (background) – no controls necessary



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## Location 1303A



- CDPH-RHB previously collected surface sample for split
- Surface measurements – 1,000 microR/hr
- No device located
- Removed 18"x18"x10" volume of soil
- Collected soil sample from removed soil
- Collected soil sample from hole bottom
- Lined hole with plastic and backfilled with sand
- Measurement after backfill – 4 microR/hr (background) – no controls needed

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## Location 1306D



- Surface measurements 4 microR/hr
- No device located
- Concluded contaminated soil removed during sample collection
- Only 6 inch deep x 4 inch circumference soil sample removed
- Lined hole with plastic and backfilled with sand
- Measurement after backfill – 4 microR/hr (background) – no controls necessary

8



## Location 1303B



- CDPH-RHB previously collected surface sample for split
- Surface measurements 20 microR/hr
- No device located
- Removed 12"x12"x9" volume of soil
- Collected soil sample from bottom of hole
- Lined hole with plastic and backfilled with sand
- Measurement after backfill – 4 microR/hr – no controls needed

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## Summary Table



Measurement	Exposure Rate on Contact Measured by CDPH-RHB <sup>1</sup>	Exposure Rate <sup>2</sup> after backfill	CDPH Split Samples (surface) TI uses 0.7 pCi/g	Soil Samples from Bottom of Excavation TI uses 0.7 pCi/g
<b>Background</b>	4-6 microR/hr	4-6 microR/hr	TI uses 0.7 pCi/g	TI uses 0.7 pCi/g
<b>Location</b>				
1303A	1600	4	Unquantifiable <sup>3</sup>	1.875
1303B	17	4	309	4.286
1306C	240	4	93	45
1306D	33	4	2022	N/A
1128E	4200	4	469	7.8
<b>Notes:</b>				
<sup>1</sup> Measurements obtained from 03/18/13 G. Perez, CDPH-RHB personal communication				
<sup>2</sup> Measurements collected by TtEC				
<sup>3</sup> Qualitative estimate from gamma spec indicates >30,000 pCi/g.				

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## Site 12 Strategy



- Navy to follow up with a characterization study late spring/early summer 2013
- Include radiological scan of Site 12
- Will include roadways and backyards
- More soil sampling
- Results will help determine scope of future subsurface characterization investigations
- Non-Time Critical Removal Action will continue within current solid waste disposal areas

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## Questions?

12



# **AST/UST 240 Petroleum Cleanup Update**

**Naval Station Treasure Island  
Restoration Advisory Board Meeting  
16 April 2013**

Anthony Konzen, P.G., Project Manager  
Contracted Support for Navy BRAC

1



## **Presentation Overview**

- **Project Overview and Objectives**
- **Cleanup Activities Completed to Date**
- **Field Construction Photos**
- **Remaining Cleanup Activities**
- **Summary of Petroleum Cleanup**

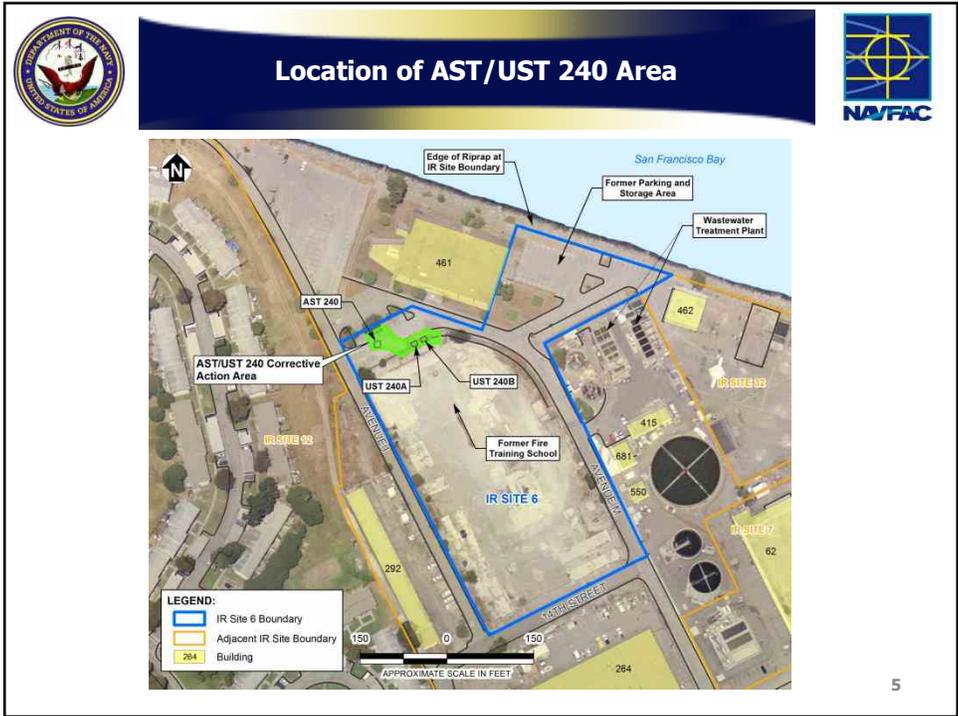
2



Description of AST/UST 240 Area

- **Site Location and Description**
  - AST/UST 240 Area located at northwest corner of IR Site 6 (Former Fire Training School)
  - Fuels were stored in tanks and used in firefighting exercises
- **USTs 240A/240B**
  - Two former 1,500-gallon USTs (240A/240B) contained diesel and gasoline
- **AST 240**
  - Suspected aboveground fuel storage tank (AST 240) located west of USTs

4



5

### Prior Actions at AST/UST 240 Area

- Early investigations (starting in 1986) identified petroleum compounds in soil and groundwater at USTs 240A/240B
- USTs 240A and 240B were removed from site in 1992
- Cleanup of petroleum compounds was performed in 2002-03 (soil excavation and free product recovery)
- Follow-on investigations (since 2003) reported elevated petroleum compounds in soil and groundwater at the AST/UST 240 Area
- All data were evaluated in the RI/FS Report for IR Site 6
- RI/FS Report concluded that remaining petroleum at AST/UST 240 Area is a potential source of groundwater contamination

6



## Objective of Petroleum Cleanup



- **Perform early cleanup of the AST/UST 240 Area to promptly address potential source of groundwater contamination**
  - Remove petroleum-impacted soil and residual free product to the extent practical, in accordance with Water Board guidance
  - Focus on area immediately adjacent to former tanks because adjacent areas also contain other chemicals (most notably dioxins) that will be addressed through CERCLA process (to be documented in upcoming Proposed Plan for Site 6).

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## Cleanup Approach



- Excavation and off-site disposal of petroleum-impacted soil in source area
- Adhere to stringent radiological controls (enforced by Tetra Tech EC) during all field activities



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## Cleanup Activities Performed to Date



- Mobilization and site preparation began in mid-November 2012
- RASO concurrence on Rad Work Plan and MOUs in November 2012
- Performed baseline radiological survey
- Set up TtEC's RCA boundary and constructed radiological screening pads
- Performed incoming/outgoing rad surveys of equipment and personnel
- Decommissioned well 06-MW01 and removed asphalt pavement
- Excavated petroleum-impacted soil to 8 feet bgs and collected confirmation samples for petroleum analyses (completed Feb 1)
- A total of 35 confirmation samples collected from excavation

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## Cleanup Activities Performed to Date (cont.)



- Placed excavated soil on 5 individual radiological screening pads
- TtEC performed radiological scanning/sampling from excavations and screening pads
- RASO reviewed and approved all radiological scanning and sampling data packages for soil placed on lay down pads
- Approximately 800 cubic yards of soil was excavated
- Found no radiation readings above background
- Removed residual free product via dewatering and absorbents
- Excavations were backfilled and compacted to the near-surface (completed Feb 4)
- Applied oxygen-releasing material (ORC-A™) to excavation as part of backfilling process

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## Cleanup Activities Performed to Date (cont.)

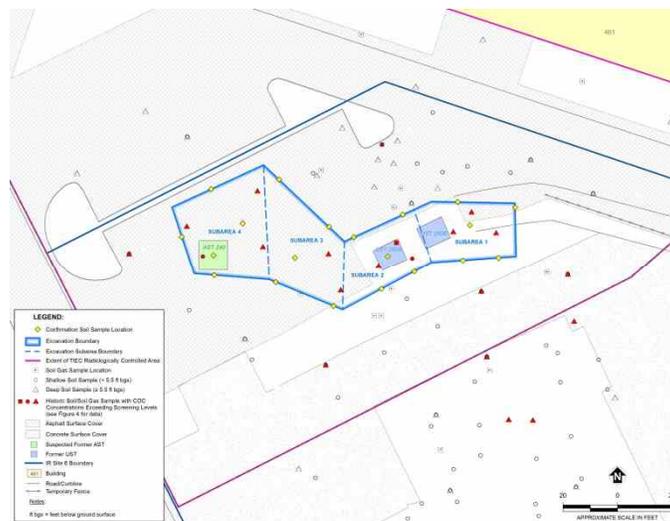


- Radiological clearance of all five laydown pads obtained from RASO
- Two monitoring wells were installed on Feb 14 and sampled on March 13
- Loaded and transported petroleum-impacted soil to disposal facility the week of March 11
- Performed exit radiological survey and down-posted RCA boundary (completed March 20)
- Re-surfaced parking lot area with asphalt (completed March 28)
- Performed land survey (completed March 29)
- Navy and EMS agreed to adjust northern fenceline of EMS-licensed RCA approximately 40 feet to the south.

11



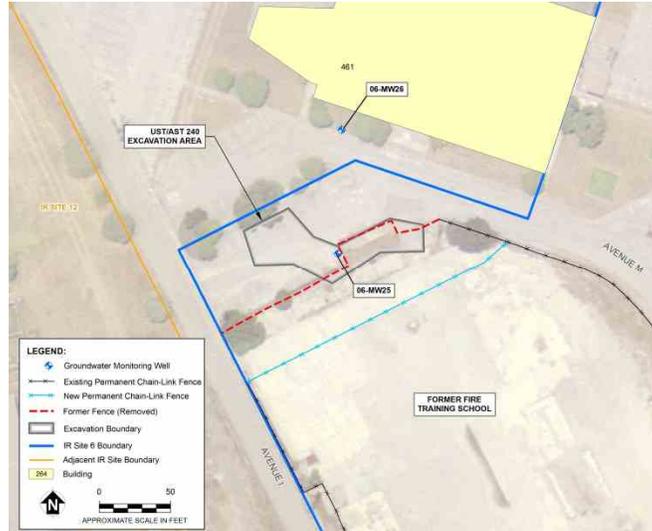
## Soil Excavation and Sample Locations



12



## New Monitoring Wells and Fenceline



13



## Field Construction Photos Baseline Radiological Survey



14



### Field Construction Photos Setting up RCA Boundary



15



### Field Construction Photos Abandonment of Monitoring Well 06-MW01



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### Field Construction Photos Excavation of Petroleum-Impacted Soil



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### Field Construction Photos Excavation of Petroleum-Impacted Soil



18



### Field Construction Photos Excavation of Petroleum-Impacted Soil



19



### Field Construction Photos Placement of Soil on Radiological Screening Pad



20



### Field Construction Photos Spreading Soil on Radiological Screening Pad



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### Field Construction Photos Gamma Walkover Survey



22



### Field Construction Photos Excavation Subarea Backfilled with Drain Rock



23



### Field Construction Photos View of Entire Excavation (All Subareas)



24



### Field Construction Photos Backfilling and Compaction of Excavation



25



### Field Construction Photos Compaction Testing



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**Field Construction Photos**  
**Loading Petroleum-Impacted Soil for Offsite Disposal**



27



**Field Construction Photos**  
**Outgoing Radiological Survey of Trucks**



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# Field Construction Photos Well Installation



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# Field Construction Photos Parking Lot Resurfaced with Asphalt



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## Remaining Cleanup Activities



- Restore fencing and demobilize equipment (week of April 8).
- Submit Post Construction Summary Report (due to agencies in late May).

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## Preliminary Data Summary



- Concentrations in post-excavation soil samples much lower compared to pre-excavation soil samples

Chemical	Pre-Excavation Max Conc. In Soil (mg/kg)	Post-Excavation Max Conc. In Soil (mg/kg)
TPH-gasoline	46,000	6,700
Benzene	36	0.46
Ethylbenzene	368	35
Naphthalene	120	7.1

- Preliminary groundwater data from well 06-MW25 indicate total TPH concentrations are less than cleanup goal of 1.4 mg/L
- No TPH reported in groundwater sample from well 06-MW26

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## Summary of Petroleum Cleanup



- Cleanup was successful at removing majority of petroleum-impacted soil in AST/UST 240 Area
- Excavated and disposed of 800 cubic yards of petroleum-impacted soil
- Excavation has been backfilled and site restoration is nearly complete
- Future groundwater monitoring will be used to verify that the source removal was adequate

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## Questions?



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**Naval Station Treasure Island  
Environmental Cleanup Program  
Document Tracking Sheet  
April 2013 - September 2013**

Item	Document Title & Information	CTO/DO	INTERNAL DRAFT		DRAFT							RTC		INTERNAL FINAL		FINAL	Comments					
			Internal Draft Due to Navy	Navy Comments Due	Draft to Agencies	Date Due	Agency Comments					Preliminary RTCs to Agencies	Resolve and Concur on RTCs	Internal Final to Navy	Navy Comments Due	Final to Agencies						
							DTSC	WATER BOARD	EPA	TIDA/TICD	RAB							OTHER	Priority Review			
<b>Site 6</b>																						
1	<b>UST 240 Post-Construction Summary Report</b>	0002	04/30/13	05/14/13	05/21/13	06/20/13							06/27/13	07/11/13	07/23/13	08/06/13	08/20/13					
	RPM: Tony Konzen																					
	PM: Phil Skorge, ERRG																					
2	<b>Site 6 PP/Draft RAP</b>	0038	07/10/13	08/09/13	08/23/13	09/22/13							10/20/13	11/03/13	11/19/13	11/29/13	12/13/13		Schedule pending BCT discussion			
	RPM: Tony Konzen																					
	PM: Dennis Kelly, TriEco-Tt																					
<b>Site 12</b>																						
3	<b>Bayside/North Point Post-Construction Report</b>	0010	10/18/11 07/03/12	✓	02/27/12 08/03/12	✓	09/07/12	✓	10/29/12	✓	X	✓	03/07/13	✓	05/19/13	05/24/13	05/26/13	05/31/13	Schedule pending			
	RPM: Tony Konzen																					
	PM: Pete Coutts, Shaw																					
4	<b>SWDA A&amp;B Post-Construction Summary Report (Phase I)</b>	0010	10/25/12	✓	12/10/12	✓	01/28/13	✓	02/27/13	X			08/08/13	08/15/13	09/14/13	09/24/13	10/08/13		Schedule pending			
	RPM: Tony Konzen																					
	PM: Pete Coutts, Shaw																					
5	<b>NTCRA WP for Site 12 Hot Spots and Buildings 1121 and 1323 &amp; Demolition Work Procedure for Buildings 1121 and 1323 (Phase II)</b>	0013	09/28/12	✓	12/07/12	✓	12/14/12	✓	01/18/13	✓	✓	✓	03/18/13	✓	03/29/13	✓	NA	NA	04/03/13	✓		
	RPM: Tony Konzen																					
	PM: Bill Dougherty, TtEC																					
5	<b>Site 12 FS</b>	:	06/07/13		07/08/13	08/06/13	09/05/13						09/25/13	10/10/13	10/17/13	10/31/13	11/14/13					
	RPM: Tony Konzen																					
	PM: Doug Gilkey, KCH																					
<b>Site 21</b>																						
6	<b>Site 21 ROD/RAP</b>	0083	11/30/11	✓	12/19/11	✓	02/07/12	✓	03/06/12	✓	✓	✓	04/16/12	✓	04/29/12	✓	05/06/12	✓	05/17/12	✓	02/19/13	✓
	RPM: Danielle Janda																					
	PM: Jean Michaels, ChaduxTt																					
6	<b>Site 21 Land Use Control RD/RAWP</b>	:	04/08/13	✓	05/06/13	05/20/13	06/17/13						07/01/13	07/08/13	07/19/13	07/26/13	08/02/13					
	RPM: Danielle Janda																					
	PM: Internal Navy																					
<b>Site 24</b>																						
7	<b>Phase III Treatability Study Report</b>	:	04/05/13	✓	04/22/13	05/06/13	06/05/13						07/03/13	07/04/13	08/03/13	08/13/13	08/27/13					
	RPM: Danielle Janda																					
	PM: Neil Hey, Shaw																					
8	<b>Site 24 PP/Draft RAP</b>	0038	06/10/13	07/10/13	07/24/13	08/23/13							09/20/13	10/04/13	10/20/13	10/30/13	11/13/13		Schedule pending BCT discussion			
	RPM: Danielle Janda																					
	PM: Jean Michaels, TriEco-Tt																					

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April 2013 - September 2013**

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			Internal Draft Due to Navy	Navy Comments Due	Draft to Agencies	Agency Comments					Preliminary RTCs to Agencies	Resolve and Concur on RTCs	Internal Final to Navy	Navy Comments Due	Final to Agencies								
						Date Due	DTSC	WATER BOARD	EPA	TIDA/TICD						RAB		OTHER	Priority Review				
<b>Site 27</b>																							
9	<b>Site 27 Remedial Design</b>	0009	05/31/12*	✓	06/20/12*	✓	07/16/12*	✓	08/16/12*	✓	✓	✓	✓	✓	✓	✓	11/02/12* 04/11/13**	11/09/12* 04/18/13**	05/03/13	05/20/13	05/29/13	*30% design,**90% design DTSC (3/1), WB (3/8), TIDA (3/4), DFG (3/4), BCDC (3/8)	
	RPM: Lora Battaglia PM: Katie Henry, TriEco-Tt		01/02/13**	✓	01/18/13**	✓	02/05/13**	✓	03/08/13**	✓	✓	✓	✓	✓	✓	✓							✓
10	<b>Site 27 Remedial Action Work Plan</b>	:	02/15/13	✓	03/16/13	✓	04/09/13	✓	05/07/13								05/26/13	06/02/13	06/08/13	06/22/13	07/05/13		
	RPM: Lora Battaglia PM: Hedy Abedi, TtEC																						
<b>Site 30</b>																							
11	<b>Land Use Covenant Inspection Report</b>	9002	02/06/13	✓	02/27/13	✓	03/20/13	✓	04/18/13								04/25/13	TBD	04/28/13	04/30/13	05/02/13		
	RPM: Danielle Janda PM: Greg Alyanakian, Trevet																						
<b>Sites 31/33</b>																							
12	<b>Site 31 Remedial Action Completion Report</b>	:	01/30/13	✓	08/19/13		09/02/13		10/02/13								10/16/13	10/30/13	11/15/13	11/25/13	12/09/13	Awaiting contract award	
	RPM: Lora Battaglia PM:																						
13	<b>Site 31 Final Status Survey Report</b>	:	07/20/13		08/19/13		09/02/13		10/02/13								10/16/13	10/30/13	11/15/13	11/25/13	12/09/13	Awaiting contract award	
	RPM: Lora Battaglia PM:																						
14	<b>Site 33 Remedial Action Completion Report</b>	:	07/31/12	✓	08/15/12	✓	09/10/12	✓	11/02/12	✓		X	✓				02/06/13	✓	03/06/13	08/09/13	08/23/13	09/06/13	Awaiting contract award
	RPM: Lora Battaglia PM:																						
<b>Building 233</b>																							
15	<b>Building 233 Characterization and FSS Plan</b>	:	05/24/13		06/21/13		07/05/13		08/02/13								08/16/13	08/23/13	09/03/13	09/10/13	09/17/13		
	RPM: Tony Konzen PM: Pete Coutts, Shaw																						
16	<b>Building 233 Final Status Survey Report</b>	:	10/31/13		11/28/13		12/12/13		01/09/14								01/23/14	01/30/14	02/10/14	02/17/14	02/24/14		
	RPM: Tony Konzen PM: Pete Coutts, Shaw																						
<b>Groundwater Monitoring</b>																							
17	<b>2012 Sites 6 and 12 Groundwater Report</b>	:	03/31/13	✓	04/15/13	✓	04/29/13		05/29/13								06/12/13	TBD	06/26/13	07/10/13	07/24/13		
	RPM: Danielle Janda PM: Greg Alyanakian, Trevet																						
18	<b>2012 Sites 21 and 24 Groundwater Report</b>	:	06/25/13		07/09/13		07/23/13		08/22/13								09/05/13	09/12/13	09/26/13	10/10/13	10/17/13		
	RPM: Danielle Janda PM: Greg Alyanakian, Trevet																						
19	<b>2013 Sites 6, 12, 21, 24 Groundwater WP and SAP</b>	:	05/31/13		06/28/13		07/12/13		08/09/13								08/23/13	08/30/13	09/10/13	09/17/13	09/24/13		
	RPM: Danielle Janda PM: Greg Alyanakian, Trevet																						

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						Date Due	DTSC	WATER BOARD	EPA	TIDA/TICD						RAB		OTHER	Priority Review							
<b>Other Reports</b>																										
	<b>YF3 Field Activity Report</b>	026	06/08/12	✓	07/01/12	✓	07/30/12	✓	09/27/12	X	✓	X	✓					02/12/13	✓	02/26/13	✓	NA	NA	03/19/13	✓	TIDA (8/29), EPA (9/10), WB (9/27)
	RPM: Danielle Janda PM: Holly Carter, KCH																									
20	<b>Historical Radiological Assessment Tech Memo</b>	0003	05/30/12	✓	06/29/12	✓	08/06/12	✓	10/05/12	✓	✓	✓	✓	✓	✓											Document on-hold pending upcoming Site 12 characterization survey
	RPM: David Clark PM: Marcie Rash, TriEco-Tt																									
21	<b>TI Times #19 Winter 2012 Newsletter</b>	0003	11/05/12	✓	04/30/13		05/13/13		05/31/13																	
	RPM: David Clark PM: Marcie Rash, TriEco-Tt																									
22	<b>TI Radiological Scoping Surveys Work Plan</b>	0006	01/07/13	✓	02/19/13	✓	04/12/13	✓	05/12/13															06/02/13		SAP will be sent for review separately
	RPM: Danielle Janda PM: John Baur, ITSI																									
23	<b>2013 Site Management Plan</b>	0003	03/27/13	✓	04/25/13		05/05/13		06/04/13																	
	RPM: Danielle Janda PM: Marcie Rash, TriEco-Tt																									
24	<b>Community Relations Plan Update</b>	0038	06/30/13		07/26/13		08/21/13		09/20/13																	
	RPM: Keith Forman PM: Marcie Rash, Tetra Tech																									

- ✓ Production or review of document is complete.
- X Received notification of no comments or comments deferred to other agency.

Grey shading indicates the document is finalized.  
Blue shading indicates agency review comments are due within the next 60 days or are outstanding.

Yellow shading indicates documents that will be issued draft or final within the next 60 days.

**Abbreviations:**

- CTO/DO = Contract task order/delivery order
- DTSC = Department of Toxic Substances Control
- EPA = U.S. Environmental Protection Agency
- FS = Feasibility study
- FSS = Final status survey
- HHRA = Human health risk assessment
- LUC = Land use control
- NA = Not applicable
- NTCRA = Non-time critical removal action

- PCB = Polychlorinated biphenyls
- PM = Project manager
- PP = Proposed plan
- RAP = Remedial action plan
- RASO = Radiological Affairs Support Office
- RD = Remedial Design
- RAWP = Remedial Action Work Plan
- RI = Remedial investigation
- ROD = Record of decision

- RPM = Remedial project manager
- SAP = Sampling and analysis plan
- SWDA = Solid waste disposal area
- TBD = To be determined
- TICD = Treasure Island Community Developers
- TIDA = Treasure Island Development Authority
- UST = Underground storage tank
- Water Board (WB) = Regional Water Quality Control Board
- WP = Work Plan

**Naval Station Treasure Island  
Navy Field Schedule  
April 2013 - September 2013**

Item	Activity and Investigation Area	Field Dates	Navy RPM	Complete
<b>Site 6</b>				
	Site 6 / UST 240 Corrective Action	Start: 11/12/12 Finish: 04/15/13	Tony Konzen (619) 532-0924	✓
<b>Site 12</b>				
1	Non-Time Critical Removal Action	Start: 02/26/07 Finish: TBD	Tony Konzen (619) 532-0924	
2	SWDA A&B (Phase II) - Site 12 Hot Spots and Buildings 1121 and 1323 Demolition	Start: 05/15/13 Finish: 07/16/13	Tony Konzen (619) 532-0924	
<b>Site 27</b>				
3	Site 27 Remedial Action	Start: 07/02/13 Finish: 10/16/13	Lora Battaglia (619) 532-0968	
<b>Sites 31/33</b>				
4	Sites 31/33 Remedial Action	Start: 02/02/12 Finish: 08/30/13	Lora Battaglia (619) 532-0968	
<b>Building 233</b>				
5	Building 233 Debris Screening / Final Status Survey	Start: 01/30/12 Finish: TBD	Tony Konzen (619) 532-0924	
<b>Groundwater Monitoring</b>				
	Sites 21, 24 - 4th Quarter Groundwater Sampling <i>Sites 21 and 24</i>	Start: 03/04/13 Finish: 03/12/13	Danielle Janda (619) 532-0796	✓
	Sites 6,12 - Groundwater Sampling <i>Sites 6 and 12</i>	Start: 03/13/13 Finish: 03/13/13	Danielle Janda (619) 532-0796	✓
6	Sites 6,12 - 1st Quarter Groundwater Sampling <i>Sites 6 and 12</i>	Start: 06/24/13 Finish: 06/26/13	Danielle Janda (619) 532-0796	
<b>Other</b>				
7	Scoping Surveys - Various Sites <i>Building 3, Sites 12, 32, and roads between Sites 6 and 12; and Waste Utilities at Bldgs 3, 7, and 233</i>	Start: 06/03/13 Finish: 08/29/13	Danielle Janda (619) 532-0796	

Abbreviations:

-- Not applicable, there is no associated documentation listed on the DTS.  
 CTO/DO Contract task order/delivery order  
 DTS # The number listed corresponds to the associated documentation listed on the Document Tracking Sheet.  
 RPM Remedial project manager  
 SWDA Solid waste disposal area  
 TBD To be determined  
 UST Underground storage tank

✓ Field work is complete.

Yellow shading indicates field activities that will start or finish within the next 60 days.

Grey shading indicates field activities are complete.