

Nowell, Keith, Env. Health

From: Matthew Jones [mjones@trihydro.com]
Sent: Tuesday, May 07, 2013 11:06 AM
To: Nowell, Keith, Env. Health
Cc: Glenn Leong; David Kleesattel
Subject: Balco - Mandela Parkway Communications
Attachments: Historical Sample Locations .pdf; Proposed UVOST Sample Locations.pdf; X-Sections.pdf

Hi Keith,

Thanks for recently taking the opportunity to discuss the status of August 2012 Work Plan for Additional Investigation at Mandela Parkway. The Work Plan was prepared to provide an approach to address remaining data gaps at the Site and supplement the Feasibility Study Corrective Action Plan (FS/CAP) previously provided to Alameda County in August 2011.

During our recent discussion, you provided a several comments and questions regarding proposed activities in the Work Plan. Please find a brief summary of questions/concerns discussed with additional follow up:

- **Proposed Field Activities Replicating Previous Field Efforts:**
Historical and proposed sample locations are displayed on attached figures. While there has been considerable efforts to define the degree and extent of subsurface impacts onsite, the previous sample locations were focused in the southeastern portion of the site (and immediately offsite) and within the building. While the proposed UVOST/Grab GW sampling locations incorporate some areas previously investigated (to evaluate current conditions) the majority of the locations are in areas not previously investigated to fill data gaps.
- **Absence of Proposed Data Collection Inside Building:**
The building is currently occupied by tenants for warehouse/light industrial purposes and LNAPL has historically been present underneath the building. Although previous indoor air investigations indicated there isn't a vapor intrusion risk to occupants, any borings or other intrusive work in the building represents a risk to building occupants and/or workers. Past intrusive efforts inside the building have resulted in evacuation of tenants due to the petroleum odors and a corresponding fire department response. Due to health and safety concerns for the tenants, no proposed investigations (besides potentially gauging/sampling wells, depending upon current access restrictions to the wells) have been proposed in the building. It is expected that if a potential remediation system and corresponding extraction points are to be considered in the near future, the bulk of the extraction points and system will almost certainly be proposed for the building perimeter and not within the building.
- **Utilizing Soil Gas Sampling Points Inside Building to determine free-phase extent:**
A soil vapor survey was conducted in 2008 that consisted of below slab samples in the building. Since all concentrations of VOCs were either reported as not detected or below soil vapor ESLs, re-sampling these points (if they are even feasible/accessible) would not likely provide valuable information to further evaluate the extent of LNAPL.
- **Lack of Historical X-Sections:**
Please see attached cross section figures from the August 2011 FS/CAP (one for LNAPL thickness and the other for lithology). It should be noted that while some of the peat zones are identified on the lithology cross section; it does appear to be discontinuous throughout the site.
- **Previous LNAPL recovery efforts;**
As summarized in the August 2012 Work Plan, passive recovery and active bailing of LNAPL was performed from wells installed inside the building. Between 2004 and 2006, an active pneumatic LNAPL skimming system was installed at the Site which included trenches and recovery from wells inside and immediately outside the building. The recovery trench has subsequently filled with perched groundwater that inhibited LNAPL recovery. In March 2006, approximately 3,600-gallons of water were pumped from the recovery trenches but were

inundated with groundwater almost immediately. While 17 gallons of LNAPL were removed from wells inside the building in June/July 2006, recovery efforts reached asymptotic conditions quickly. Manual removal of LNAPL was conducted at the site from October 2007 through June 2008 and the skimmer pumps were removed. Active LNAPL recovery efforts from the recovery system outside the building was ultimately found ineffective. The August 2012 Work Plan proposed to address potential data gaps and support the FS/CAP and may ultimately propose a new, more effective, remedial system.

- **Potential Organic Interference using UVOST:**

Trihydro has worked extensively with UVOST surveys to evaluate LNAPL impacts in areas with very high Bay Mud and other high organic carbon content subsurface soils. The UVOST system utilizes an approach that incorporates waveform evaluations, allowing for specific hydrocarbon product evaluation and reducing interferences from naturally-occurring organic carbon, such as peat.

I hope this helps address some of your concerns/questions. Please let me know if you have any additional comments. We look forward to completing the data gap study and moving forward with an addendum to the 2011 FS/CAP.

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