

## Nowell, Keith, Env. Health

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**From:** Brandt, Katherine [Katherine.Brandt@arcadis-us.com]  
**Sent:** Sunday, December 29, 2013 5:33 PM  
**To:** Nowell, Keith, Env. Health  
**Cc:** Roe, Dilan, Env. Health; TimBishop@chevron.com; Wynne, Katie  
**Subject:** Case #RO450 - Request for Groundwater Monitoring Reduction

Keith,

On behalf of Chevron Environmental Management Company's affiliate, Union Oil Company of California, ARCADIS U.S. Inc. (ARCADIS) is respectfully requesting to reduce the sampling and analysis plan for the former Unocal Station No. 0843 (Case #RO450), located at 1629 Webster Street in Alameda, California. Based on current and historical favorable groundwater data results from the site monitoring well network, ARCADIS recommends reducing quarterly groundwater monitoring to semi-annual groundwater monitoring beginning in the first-half of the 2014 calendar year. Additionally, ARCADIS recommends making the following modifications to the current sampling and analysis program:

- Analysis of BTEX and TPH-G, and fuel oxygenates (MTBE, TBA, TAME, ETBE, DIPE, EDB, EDC, and Ethanol) will be limited to deep zone groundwater wells (20 - 40 feet bgs), where the Laboratory Reporting Limit (LRL) has been exceeded during one or more of the last four consecutive sampling events. Groundwater samples will be analyzed for BTEX, TPH-G, and fuel oxygenates semi-annually at the following wells: MW-1AR, MW-1BR, and MW-7, MW-8, MW-9, MW-10, and MW-11.
- Shallow zone groundwater (0 to 20 feet bgs) monitoring wells MW-5 and MW-6 will be sampled semi-annually for BTEX, TPH-G, and fuel oxygenates to maintain downgradient delineation of the MTBE groundwater plume extending off site.
- Remaining shallow zone groundwater monitoring wells (MW-1, MW-3, and MW-4) will be removed from the sampling and analysis program. Concentrations of BTEX, TPH-G, and fuel oxygenates at monitoring wells MW-3 and MW-4 have remained below LRLs since September 2003. Concentrations at monitoring well MW-1 have remained below the LRL for a minimum of four consecutive groundwater monitoring events, with the exception of MTBE. However, MTBE concentrations at MW-1 have exhibited declining concentration trends since May 2012. Additionally, deep zone groundwater monitoring wells MW-1AR and MW-1B are located in the immediate vicinity MW-1; these two wells will continue to be sampled semi-annually and will serve to delineate the upgradient MTBE plume boundary on site.
- Samples will no longer be analyzed for Monitored Natural Attenuation (MNA) parameters, including nitrate, sulfate, and ferrous iron. Current and historic MNA data for this site are sufficient to determine that natural attenuation processes in groundwater are ongoing. Additionally, ARCADIS does not anticipate that the groundwater geochemistry will change unless site conditions are varied, as would be the case with implementation of an active remediation system or in the event of a subsequent release.

If you have any questions concerning this request, please do not hesitate to contact me directly. My contact information is included in the email signature below.

Sincerely,  
Katherine Brandt

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