

## SAMPLING PROTOCOLS FOR UNDERGROUND STORAGE TANK CLOSURE IN PLACE

The following represents the minimum samples to be collected. Additional samples may be required by the SJCEHD based on site conditions. If an unauthorized release has occurred, additional characterization and remedial action will be necessary prior to closing the tank(s) in place.

Samples must be discrete and cannot be combined into a composite sample for analysis in the field or the lab. Each sample must have a set of corresponding analytical results.

SOIL BORINGS		
# of Tanks	Minimum # of Soil Samples	Location of Soil Samples
SINGLE TANK (separated from other tanks by at least 20 feet)	2 per boring	At least 1 boring, taken as close as possible to the midpoint beneath the tank*. <u>Recommended</u> : 1 at each end of the tank, along the tank's major axis**.
TANK CLUSTER (multiple tanks, less than 20 feet apart)	2 per boring	Soil borings placed along a 20 foot interval around the tank cluster
<ol style="list-style-type: none"> <li>1. Tank soil samples shall be collected at 2 feet below tank invert, into native soil.</li> <li>2. Samples shall be taken using a slant boring, or other appropriate method as approved by SJCEHD<sup>1</sup>.</li> </ol>		

IF A SLAB IS PRESENT BENEATH THE TANK
All samples shall be obtained beneath the slab within native soils. Penetration through the slab will be required in order to collect the samples. Additional soil samples may be required.

IF WATER IS PRESENT IN THE BORING
A minimum of 1 water sample shall be taken from each boring, representative of the water in the boring.

PIPING, DISPENSERS & STOCKPILES	
Connected piping	1 sample every 20 linear feet and below each pipe fitting
Dispensers	1 sample below each removed dispenser
Soil Stockpile	1 sample per 100 cubic yards of soil
<ol style="list-style-type: none"> <li>1. Piping and dispenser samples shall be collected at a minimum of 2 vertical feet into native soil.</li> <li>2. Soil stockpile samples shall be taken between 2-4 feet below the surface of the stockpile.</li> </ol>	

<sup>1</sup>California Code of Regulations, Title 23, Section 2672(d)(2)

*"If the underground storage tank or any portion thereof is not removed, at least one boring shall be taken as close as possible to the midpoint beneath the tank using a slant boring (mechanical or manual), or other appropriate method such as vertical borings drilled on each long dimensional side of the tank as approved by the local agency.*

<sup>\*\*</sup>California LUFT Manual: September 2012 (rev. December 2015)

*"For single tanks (separated from other tanks by at least 20 feet), it is recommended that at least two soil borings be advanced, one at each end of the tank, along the tank's major axis. It is recommended that soil borings for multiple tanks be placed along a 20-foot interval around a tank cluster (tanks less than 20 feet apart). Please note that this may change, based on actual site conditions. Soil samples should be obtained 2 feet below the tank invert."*