

## RECOMMENDED SOIL AND GROUNDWATER SAMPLING FOR UNDERGROUND TANK INVESTIGATIONS

- 1. The Stanislaus County CUPA field inspector shall direct the location and manner of sampling and analysis.
- 2. Soil samples shall be taken immediately beneath the removed portions of the tank or sump, a minimum of 2 feet into native soil.
- 3. No bucket samples will be allowed. Samples shall be obtained via hand-driven sleeve. Samples are to be collected using a clean, stainless steel or brass cylinder. After sample collection is complete, each end of the cylinder shall be covered with Teflon and then capped with a polyethylene lid, taped, and properly labeled.
- 4. Soil samples shall be required under dispensers and every 20 linear feet, (6.1 meters), and as directed by the inspector overseeing the closure. Where pipeline samples cannot be taken, (e.g. under structures), pipeline pressure testing or angle borings shall be required to ensure a leak has not occurred.
- 5. Water samples will be required where water is encountered in the excavation or soil boring. Samples shall be collected via a disposable bailer. The groundwater samples shall be transferred to clean volatile organic analysis (VOA) vials for analysis/transportation. The liquid shall be completely filled to the top of the vial in such a manner that no air bubbles are entrapped. NOTE: a groundwater sample may be required in situations where oxygenates are detected above detection limits.
- 6. All samples shall be immediately transported in a chest with blue ice to a State Certified laboratory for analysis.
- 7. Sampling to first water may be required for any soil sampling results that indicate a release has occurred.
- 8. The Stanislaus County CUPA inspector must be made aware of and approve any samples being composited and analyzed together.

Water in excavation/boring?	Tank Size	Minimum # of soil samples	Location of soil samples	Minimum # of water samples
No	<10,000 gal.	Two per tank	One at each end of the tank	None
No	>10,000 gal	Three or more per tank	Ends and middle or spaced along tank length	None
Yes	<10,000 gal.	Three per tank	From wall next to tank ends at soil/water interface	One
Yes	>10,000 gal	Four or more per tank	From wall next to tank ends at soil/water interface	One

## Sampling for Routine Petroleum or Solvent Tank Removals/Closure in Place

## Sampling for Sump Closures

Water in excavation/boring?	Tank Size	Minimum # of soil samples	Location of soil samples	Minimum # of water samples
No	<500 gal.	One per sump	One at the bottom of the sump	None
No	500-5,000 gal.	Two per sump	Ends or spaced along sump length	None
No	>5,000 gal.	Three or more per sump	Ends or spaced along sump length	None
Yes	<500 gal.	Two per sump	From wall next to sump at soil/water interface	One
Yes	500-5,000 gal.	Three per sump	From wall next to sump at soil/water interface	One
Yes	>5,000 gal.	Three or more per sump	From wall next to sump at soil/water interface	One

## STANISLAUS COUNTY RECOMMENDED MINIMUM VERIFICATION ANALYSIS FOR UNDERGROUND TANK INVESTIGATIONS

Tank Investigation	Soil Analysis (SW-846 Method)			Water Analysis (Water/Waste Water Method)		
Gasoline (Leaded/Unleaded)	TPH-G BTEX 1,2 DCA MTBE TAME ETBE DIPE TBA Organic Lead	8260B or 8015M 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B	TPH-G BTEX 1,2 DCA MTBE TAME ETBE DIPE TBA Organic Lead	8015M or 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) AA		
Unknown Fuel	TPH-G BTEX 1,2 DCA MTBE TAME ETBE DIPE TBA Organic Lead	8260B or 8015M 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B	TPH-G BTEX 1,2 DCA MTBE TAME ETBE DIPE TBA Organic Lead	8015M or 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) AA		
Diesel, Jet Fuel Kerosene and, And Fuel/ Heating Oil	TPH-D BTEX 1,2 DCA MTBE TAME ETBE DIPE TBA	8260B or 8015M 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B	TPH-D BTEX 1,2 DCA MTBE TAME ETBE DIPE TBA	8015M or 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B) 524.2/624 (8260B)		
Chlorinated Solvents	CL HC BTEX	8260B 8260B or 8021	CL HC BTEX	8015B or 524.2/624 (8260B) 524.2/624 (8260B) or 502.2/602 (8021)		
Non-chlorinated Solvents	TPH-D BTEX	8260B or 8015M 8260B or 8021	TPH-D BTEX	8015 or 524.2/624 (8260B) 524.2/624 (8260B) or 502.2/602 (8021)		
Waste, Used, or Unknown	PCB*, PCP*, F	8260B or 8015M 8260B or 8015M 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B 8260B/8015B 9070 8260B 9070 8260B 9070 8260B 9070	8270 for soil and	524/625 (8270 for water		

\* If found, analyze for dibenzofurans (PCBs) or dioxins(PCP)