

**TABLE 1. CLEAN-UP AND REUSE CRITERIA
AERA ENERGY LLC YORBA LINDA OIL FIELD**

Residential Areas - Maximum Allowable Concentrations For Impacted Soil and Remediated Soil

Depth from Final Grade	EPA Method Used to Verify Concentration*	Chemical Constituent	Allowable Concentration (mg/kg)
Surface to 15 feet	418.1	TRPH	100 (screening tool only)
	8015M w/carbon chain identification from C ¹³ -C ²³ , inclusive	TPH	100***
	8021b**	BTEX	B=ND, T=0.1, E=0.68, X=1.75
	8015	VFH	ND
Greater than 15 feet	418.1	TRPH	5,000
	8015M w/carbon chain identification from C ¹³ -C ²³ , inclusive	TPH	5,000
	8021b**	BTEX	B=0.10, T=10, E=68, X=175
	8015	VFH	100

Non-Residential Areas (Streets, Parking Lots, Greenbelts) - Maximum Allowable Concentrations For Impacted Soil and Remediated Soil

Depth from Final Grade	EPA Method Used to Verify Concentration*	Chemical Constituent	Allowable Concentration (mg/kg)
Surface to 15 feet	418.1	TRPH	1,000 (screening tool only)
	8015M w/carbon chain identification from C ¹³ -C ²³ , inclusive	TPH	1000
	8021b**	BTEX	B=ND, T=0.1, E=0.68, X=1.75
	8015	VFH	100
Greater than 15 feet	418.1	TRPH	15,000
	8015M w/carbon chain identification from C ¹³ -C ²³ , inclusive	TPH	5,000
	8021b**	BTEX	EPA Residential PRG's B=0.65, T=520, E=230, X=210
	8015	VFH	500

Notes

- * Based on the type of hydrocarbon impact encountered one or more of these analysis may be required
- ** Positive results confirmed with EPA Method 8260
- *** 1,000 mg/kg allowed if the soil has no apparent hydrocarbon odor or stain; if odor or staining is apparent, 100 mg/kg will be used
- TRPH - Total Recoverable Petroleum Hydrocarbons
- TPH - Total Petroleum Hydrocarbons (C¹³-C²³)
- BTEX - Benzene, Toluene, Ethylbenzene and Total Xylenes
- VFH - Volatile Fuel Hydrocarbons
- mg/kg - milligrams per kilogram
- ND - Non-detect
- PNA's - Polynuclear Aromatics
- Asphaltic Fill Materials and Remediated Soil will be placed at least 15 feet below Final Grade
- Greater than 25 feet below Final Grade - concentrations shall meet EPA Residential PRG's. TRPH, TPH up to onsite concentrations. VFH not to exceed 500 mg/kg

Table 1. Maximum Allowable Concentrations for Soil in Non-Residential Areas, Paved Roads and Open Spaces (excluding the Proposed School Lot)

Depth From Final Grade	Analysis EPA Method/Constituent	Concentration (mg/kg)
less than or equal to 3.5 feet	418.1/TRPH	1,000*
"	8015/TPH-cc/id (C ₁₃ -C ₂₃ inclusive)	1,000*
"	8020/BTEX	B=nd, T=nd, E=nd, X=nd
"	8015/VFH (C ₄ -C ₁₂ inclusive)	ND
greater than 3.5 feet and/or depth of buried utilities but less than or equal to 10 feet †	418.1/TRPH	15,000
"	8015/TPH-cc/id (C ₁₃ -C ₂₃ inclusive)	15,000
"	8020/BTEX	B=0.1, T=10.0, E=68.0, X=175.0
"	8015/VFH (C ₄ -C ₁₂ inclusive)	400
greater than 10 feet and/or greater than depth of buried utilities †	418.1/TRPH	15,000
"	8015/TPH-cc/id (C ₁₃ -C ₂₃ inclusive)	15,000
"	8020/BTEX	B=0.4, T=10.0, E=68.0, X=175.0
"	8015/VFH (C ₄ -C ₁₂ inclusive)	600

Notes:

- * - if odors are apparent the concentration will be 100 mg/kg - visual staining of highly weathered particles is acceptable
- † - final depth of remediated soil will be such that potential exposure through future excavation activities will be minimized
- mg/kg - milligrams per kilogram
- cc/id - carbon chain identification
- nd - not detected
- EPA - Environmental Protection Agency
- TRPH - total recoverable petroleum hydrocarbons
- VFH - volatile fuel hydrocarbons, C₄-C₁₂ inclusive
- TPH - total petroleum hydrocarbons, C₁₃-C₂₃ inclusive
- BTEX - benzene, toluene, ethylbenzene, and total xylenes

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July 9, 1998

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Table 2. Maximum Allowable Concentrations For Soil
Within Residential Lots and The Planned School Lot Area

Depth From Final Grade	Analysis EPA Method/Constituent	Concentration (mg/kg)
less than or equal to 3.5 feet	418.1/TRPH	100
"	8015/TPH-cc/id (C ₁₃ -C ₂₃ inclusive)	100
"	8020/BTEX	B=nd, T=nd, E=nd, X=nd
"	8015/VFH (C ₄ -C ₁₂ inclusive)	nd
greater than 3.5 feet but less than or equal to 10 feet	418.1/TRPH	500*
"	8015/TPH-cc/id (C ₁₃ -C ₂₃ inclusive)	500*
"	8020/BTEX	B=nd, T=nd, E=nd, X=nd
"	8015/VFH (C ₄ -C ₁₂ inclusive)	nd
greater than 10 feet but less than or equal to 15 feet	418.1/TRPH	15,000
"	8015/TPH-cc/id (C ₁₃ -C ₂₃ inclusive)	15,000
"	8020/BTEX	B=nd, T=0.1, E=0.68, X=1.75
"	8015/VFH (C ₄ -C ₁₂ inclusive)	100
greater than 15 feet and greater than depth of buried utilities	418.1/TRPH	15,000
"	8015/TPH-cc/id (C ₁₃ -C ₂₃ inclusive)	15,000
"	8020/BTEX	B=0.4, T=10.0, E=68.0, X=175.0
"	8015/VFH (C ₄ -C ₁₂ inclusive)	600

Notes:

- * - if odors or visual staining are apparent the concentration will be 100 mg/kg
- mg/kg - milligrams per kilogram
- cc/id - carbon chain identification
- nd - not detected
- EPA - Environmental Protection Agency
- TRPH - total recoverable petroleum hydrocarbons
- VFH - volatile fuel hydrocarbons, C₄-C₁₂ inclusive
- TPH - total petroleum hydrocarbons, carbon chain identification, C₁₃-C₂₃ inclusive
- BTEX - benzene, toluene, ethylbenzene, and total xylenes