

New Mexico Cleanup Standards for Hydrocarbon Contaminated Groundwater

Product	Parameter/ Constituent	Lab Test Protocol & Number	Detection Limit*	Groundwater	Std. Or RBSL	Surface Water	Std. Or RBSL
Gasoline	Benzene	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.010mg/L	Std.	0.010 mg/L	Std.
	Toluene	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.750 mg/L	Std.	0.75 mg/L	Std.
	Ethylbenzene	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.750 mg/L	Std.	0.750 mg/L	Std.
	Xylenes (Total)	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.620 mg/L	Std.	0.620 mg/L	Std.
	EDB ⁶	EPA 8021, 8260, 504.1	0.01µg/L	0.0001 mg/L	Std.	0.0001 mg/L	Std.
	EDC ⁶	EPA 8021, 8260	1.0µg/L	0.010 mg/L	Std.	0.010 mg/L	Std.
	MTBE	EPA 8021, 8260 ¹	5.0µg/L	0.100 mg/L	Std.	0.100 mg/L	Std.
	Lead	EPA 239.2, 6020, 7421	15µg/L	0.050 mg/L	Std.	0.050	Std.
Diesel/Light Fuel Oils, Jet Fuel, Kerosene	Benzene	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.010 mg/L	Std.	0.010	Std.
	Toluene	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.750 mg/L	Std.	0.750	Std.
	Ethylbenzene	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.750 mg/L	Std.	0.750 mg/L	Std.
	Xylenes (Total)	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.620 mg/L	Std.	0.620 mg/L	Std.
	Benzo(a)pyrene	EPA 8310 ² , 8270 ⁵ , 8100 ³ , 610 ⁴	0.7µg/L***	0.0007 mg/L	Std.	0.0007 mg/L	Std.
	Naphthalenes (total)	EPA 8310 ² , 8270 ⁵ , 8100 ³ , 610 ⁴	1.0µg/L***	0.03mg/L	Std.	0.030 mg/L	Std.
Waste/Used Oil	Benzene	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.010 mg/L	Std.	0.010 mg/L	Std.
	Toluene	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.750 mg/L	Std.	0.750 mg/L	Std.
	Ethylbenzene	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.750 mg/L	Std.	0.750 mg/L	Std.
	Xylenes (Total)	EPA 8021, 8260 ¹ , 602, 624	1.0µg/L	0.620 mg/L	Std.	0.620 mg/L	Std.

	Benzo(a)pyrene	EPA 8310 ² , 8270 ⁵ , 8100 ³ , 610 ⁴	0.7µg/L ^{***}	0.0007 mg/L	Std.	0.0007 mg/L	Std.
	Naphthalenes (total)	EPA 8310 ² , 8270 ⁵ , 8100 ³ , 610 ⁴	1.0µg/L ^{***}	0.030 mg/L	Std.	0.030 mg/L	Std.
	Lead	EPA 239.2, 6020, 7421	15µg/L	0.050 mg/L	Std.	0.050 mg/L	Std.
Heavy Fuel Oils	Benzo(a)pyrene	EPA 8310 ² , 8270 ⁵ , 8100 ³ , 610 ⁴	0.7µg/L ^{***}	0.0007 mg/L	Std.	0.0007 mg/L	Std.
	Naphthalenes (total)	EPA 8310 ² , 8270 ⁵ , 8100 ³ , 610 ⁴	1.0µg/L ^{***}	0.030 mg/L	Std.	0.030 mg/L	Std.

* Values listed are above the pure compound solubility in water

** Detection limits are based on 'clean' samples. Laboratories should indicate on the report when detection limits have been adjusted for dilution factors >1.

*** If ingestion of water is a pathway of concern, the laboratory shall achieve a detection limit of 0.1µg/L with EPA Method 8270-SIMS. Two liters must be collected for each sample to achieve the 0.1µg/L detection limit with this method.

¹ For EPA 8260 for <200ppb of analyte, use extraction Method 5035 for soil.

² For EPA 8310, must use HPLC version.

³ For EPA 8100, must use capillary, not packed, column.

⁴ For EPA 610, must use HPLC version.

⁵ For 8270 where a detection limit lower than the Estimated Quantitation Limit is required, measures to increase the sensitivity of the method should be taken.

⁶ Contaminant of Concern for Leaded Gasoline and Aviation Gas releases.

Std. - New Mexico Water Quality Control Commission Regulations, 20.6.2.3103(A) NMAC, July 16, 2006

RBSL - Back calculated (for an adult) using a target risk of 1×10^{-5} or a hazard quotient of 1, default values, and default exposure factors. See equations at the end of Section 4.0

NA - Not available

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New Mexico Cleanup Standards for Hydrocarbon Contaminated Soil

Product	Parameter/ Constituent	Lab Test Protocol & Number	Lowest of Tier 1 Soil Target Levels	Detection Limit*
Gasoline	Benzene	EPA 8021, 8260 ¹	0.02mg/kg	0.025mg/kg**
	Toluene	EPA 8021, 8260 ¹	1.88mg/kg	0.025mg/kg
	Ethylbenzene	EPA 8021, 8260 ¹	17.23 mg/kg	0.025mg/kg
	Xylenes (Total)	EPA 8021, 8260 ¹	2.59mg/kg	0.025mg/kg
	EDB ⁶	EPA 8021, 8260	0.0001mg/kg	0.01mg/kg**
	EDC ⁶	EPA 8021, 8260	0.01mg/kg	0.02mg/kg**
	MTBE	EPA 8021, 8260 ¹	0.04mg/kg	0.13mg/kg**
	Lead ⁶	EPA 239.2, 6020, 7421	53.08mg/kg	5mg/kg
Diesel/Light Fuel Oils, Jet Fuel, Kerosene	Benzene	EPA 8021, 8260 ¹	0.02mg/kg	0.025mg/kg**
	Toluene	EPA 8021, 8260 ¹	1.88mg/kg	0.025mg/kg
	Ethylbenzene	EPA 8021, 8260 ¹	17.23mg/kg	0.025mg/kg
	Xylenes (Total)	EPA 8021, 8260 ¹	2.59mg/kg	0.025mg/kg
	Benzo(a)pyrene	EPA 8310 ² , 8270 ⁵ , 8100 ³ , 610 ⁴	0.95mg/kg	50mg/kg***
	Naphthalenes (total)	EPA 8310 ² , 8270 ⁵ , 8100 ³ , 610 ⁴	0.68mg/kg	50mg/kg***
Waste/Used Oil	Benzene	EPA 8021, 8260 ¹	0.02mg/kg	0.025mg/kg**
	Toluene	EPA 8021, 8260 ¹	1.88mg/kg	0.025mg/kg
	Ethylbenzene	EPA 8021, 8260 ¹	17.23mg/kg	0.025mg/kg
	Xylenes (Total)	EPA 8021, 8260 ¹	2.59mg/kg	0.025mg/kg

	Lead	EPA 239.2, 6020, 7421	53.08mg/kg	5mg/kg
	Benzo(a)pyrene	EPA 8310 ² , 8270 ⁵ , 8100 ³	0.95mg/kg	50mg/kg ^{***}
	Naphthalenes (total)	EPA 8310 ² , 8270 ⁵ , 8100 ³	0.68 mg/kg	50mg/kg ^{***}
Heavy Fuel Oils	Benzo(a)pyrene	EPA 8310 ² , 8270 ⁵ , 8100 ³	0.95mg/kg	50mg/kg ^{***}
	Naphthalenes (total)	EPA 8310 ² , 8270 ⁵ , 8100 ³	0.68mg/kg	50mg/kg ^{***}

* Detection limits are based on 'clean' samples. Laboratories should indicate on the report when detection limits have been adjusted for dilution factors >1.

** This detection limit is greater than certain Tier 1 Soil RBSLs and may be greater than SSTLs calculated under Tier 2 or Tier 3. In these cases, the referenced detection limit is considered the RBSL. When a more sensitive analytical method becomes available, the required detection limit will change to the PQL of the new method.

*** If ingestion, inhalation, or dermal contact with surficial soil is a pathway of concern, the laboratory shall use EPA Method 8270-SIMS to achieve a detection limit of 0.95mg/kg for benzo(a)pyrene.

¹ For EPA 8260 for <200ppb of analyte, use extraction Method 5035 for soil.

² For EPA 8310, must use HPLC version.

³ For EPA 8100, must use capillary, not packed, column.

⁴ For EPA 610, must use HPLC version.

⁵ For 8270 where a detection limit lower than the Estimated Quantitation Limit is required, measures to increase the sensitivity of the method should be taken.

⁶ Contaminant of Concern for Leaded Gasoline and Aviation Gas releases.

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