



Emissions - Approximate Conversion Factors

lbs/mmbtu to ppm (ref. 3% O₂, dry)

	Natural Gas	Propane	#2 Oil	#6 Oil
NO _x :	833	711	780	777
CO:	1368	1169	1282	1277
SO _x :	599	511	561	559
UBHC / VOC:	2394	2045	2244	2235

Example: NO_x = 0.15 lbs/mmbtu firing natural gas

$$\text{NO}_x \text{ in ppm} = 0.15 * 833 = 125 \text{ ppm}$$

lbs/mmbtu to mg/nm³ (ref. 3% O₂, dry, 1 atm, 0°C)

Natural Gas	Propane	#2 Oil	#6 Oil
1704	1676	1619	1576

lbs/mmbtu to mg/nm³ (ref. 5% O₂, dry, 1 atm, 0°C)

Natural Gas	Propane	#2 Oil	#6 Oil
1532	1489	1442	1404

lbs/mmbtu to mg/nm³ (ref. 11% O₂, dry, 1 atm, 0°C)

Natural Gas	Propane	#2 Oil	#6 Oil
952	935	887	880

Example: NO_x = 0.15 lbs/mmbtu firing natural gas

$$\text{NO}_x \text{ in mg/nm}^3 = 0.15 * 1704 = 226 \text{ mg/nm}^3 \text{ (ref. 3\% O}_2\text{, dry, 1 atm, 0C)}$$

- Notes:
1. UBHC / VOC conversion based on methane, CH₄.
 2. NG conversions based on analysis: CH₄: 95%, C₂H₆: 5%, N₂: 5%
 3. #2 oil conversions based on analysis: C: 87.7%, H: 12.1%, N: .02%, S: 0.2%
 4. #6 oil conversions based on analysis: C: 88.2%, H: 10.4%, N: 0.4%, S: 1%
 5. Propane conversions based on analysis: C₃H₈: 100%