Pollutant	Range of emission level to be measured	sample from			Distribuion over phases			typical bag concentration 9 m³/min CVS Flow assumed					LoQ required (30 % of net conc.) LoD = 1/3 LoQ		ISO 16183		
		bag	diluted	raw	Cold start	stabi-lized	hot start	Cold start [ppm]	stabi-lized [ppm]	hot start [ppm]	back-ground [ppm]	relevant net conc. [ppm]	LoQ required [ppm]	LoD required [ppm]	rise time required [s]	transforma tion time [s]	max interference
NO2	40 mg/km	(x)	x		33%	33%	33%	0,7	0,7	0,7	0,02	0,68	0,2	0,06	2,5	na	2% @ x% CO2, x % H2O
N2O	10 mg/mi	x			?	?	?	0,6	0,6	0,6	0,3	0,3	0,1	0,03	na	na	50 % at point (expected concentration at limit) Here: 0,3 ppm
NH3 (SCR sysems)	10 ppm			x	20%	30%	40%	10	10	10	0	na	3	1	5	na	50% ? here: 5 ppm
Ethanol (E85)	20 mg/km	x			100%	0%	0%	2	0,05	0,05	0,05	1,95	0,6	0,2	na	na	50% ?
Aldehydes (E85)	8 mg/mi		x		100%	0%	0%	1	0,05	0,05	0,05	0,95	0,3	0,1	2,5	na	50% ?

LoD calculation for Aldehydes (based on CARB spec. for cartridges)

0,0075	µg/ml	LoD in solution
5	5 ml	eluent
0,0375	µg	mass on sample
1	1 l/min	sample flow
12	min	sample time
0,003125	mg/m³	in diluted exhaust
1900	g/m³	density
1,64473684	ppm	concentration @ LoD

9	m³/min	CVS flow
108	m³	CVS Volume
0,3375	mg	mass emission in phase
10	km	distance
0,03375	mg/km	