

# Royal Oak Mines Inc. - Giant Mine

## Air Emissions, 1959 to 1997

YEAR	Estimated Arsenic Emission Rate (Kg/day)	Estimated Sulphur Dioxide Emission Rate (tonne/day)
1949	7300	
1950	7300	
1951	7300	
1954	5500	
1955	2900	
1956	2700	
1957	3000	
1958	1500	
1959	52	
1960	75	
1961	150	
1962	150	
1963	150	
1964	310	
1966	240	
1967	130	
1968	230	
1969	300	
1970	220	
1971	880	
1972	400	
1973	400	
1974	220	
1975	215	
1976	165	
1977	135	
1978	26.1	
1979	14.6	
1981	13.2	
1982	13.2	
1983	27.0	32.2
1985	27.1	
1986	24.3	
1988	208.9	
1989	26.4	
1990	37.1	35.0
1991	33.4	66.2
1993	29.2	
1995	3.2	30.9
1997	4.1	29.1

*- new roaster + baghouse*

*- ? mill expansion.*

*- pressure drop method to initial shaking  
as opposed to tuning.*

*} why so  
low*

- NOTES: (1) Arsenic emission rates from 1959 to 1978 estimated by mass balance  
 (2) Arsenic and SO<sub>2</sub> emission rates from 1978 estimated from stack testing, conducted by Royal Oak, Environment Canada & contractors  
 (3) Emission rates for some years are average of multiple stack test results