



ROYAL OAK MINES INC.

NWT Division - Giant Mines

MEMO TO: P. MacIntyre
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FROM: Vi LALLA
DATE: MARCH 15, 1996
SUBJECT: LEAD SAMPLING in the ASSAY LAB
FEBRUARY, 1996

RESP Pb mg/m^3

LUNCH ROOM = 0.02

FURNACE ROOM = 0.158

PULP ROOM = 0.008

WET LAB = 0.004

Limits: 8 hr. EXP = 0.15

15 min EXP = 0.45

Lead Sampling in the Assay Lab

February, 1996

① Lurch Room

Length of Exposure = 5 hours

Flow Rate = 1.5 L/min

weight of sample = 0.11 g

From Chemex Pb = 68 $\mu\text{g/g}$

$$\text{Total Pb in sample: } \frac{68 \mu\text{g}}{\text{g}} = \frac{x \mu\text{g}}{0.11 \text{ g}} = \frac{68 \mu\text{g} \times 0.11 \text{ g}}{1 \text{ g}} = 7.48 \mu\text{g}$$

$$= .007 \text{ mg}$$

$$\text{Resp Pb} = \frac{.007 \text{ mg}}{\left(\frac{300 \text{ min} \times 1.5 \text{ L/min}}{1000} \right) \text{ m}^3} = 0.02 \text{ mg/m}^3$$

② Furnace Room

Length of Exposure = 5 hours

Flow Rate = 1.5 L/min

weight of sample = 0.20 g

From Chemex Pb = 353 $\mu\text{g/g}$ = 0.071 mg

Resp Pb = 0.158 mg/m^3

③ Rough Balance

Length of Exposure = 4 hours

Flow Rate = 1.5 L/min

sample wt = 0.18 g

From Chemex Pb = 15.9 $\mu\text{g/g}$ = .0029 mg

$$\text{Resp Pb} = \frac{.0029}{.360} = .008 \text{ mg/m}^3$$

④ Wit Lab

Length of Exposure = 4 hours

Flow Rate = 1.5 L/min

sample weight = 0.23 g

From Chemex Pb = 6.5 $\mu\text{g/g}$ = .0015 mg

$$\text{Resp Pb} = \frac{.0015 \text{ mg}}{.360 \text{ m}^3} = .004 \text{ mg/m}^3$$