

Uranium Mine Tailings

From Saskatchewan Mines and Mills –till end of 2008

Gunnar Mine (closed)	4,400,000 tonnes
Laredo Mine (closed)	360,000 tonnes
Beaver Lodge (closed)	10,100,000 tonnes
Cluff Lake (decommissioned)	3,280,000 tonnes
Rabbit Lake –above ground—partially capped	6,500,000 tonnes
Rabbit Lake – in-pit management	7,130,466 tonnes
Key Lake – above ground	3,586,000 tonnes
Key Lake – Deilman Pit	6,945,000 tonnes
McLean Lake –JEB pit	<u>1,322,214 tonnes</u>
	43,623,772 <u>tonnes</u>

These tailings include a variety of chemicals:

Arsenic -- does not disintegrate like radioactive substances

--1 tonne of tailings contain approx. 2.93 kilograms of arsenic

--therefore total arsenic of 43,623,772 X 2.93 = 127,877,652 kg
or 127,817 tonnes

Radium -226 has a half-life of 76,000 years

-- approx. 1 tonne included in 3 million tonnes of uranium ore

--total amount of ore extracted is not known

--however, 20,715 tonnes of uranium would yield 7.046 kg of radium

--radium is highly radioactive at 36.6 billion becquerels per gram

--7.046 kg of radium enough to overdose 70.46 billion humans

Polonium-210 –half-life of 76,000 years, from disintegrating radium

References

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