

What Would the AJ Mine Look Like?

The size and scope of the AJ Mine has been compared with the Kensington Mine. The “small mine” plan developed by Echo Bay is 3500 to 7000 tons per day, compared to Kensington’s 2000 ton per day rate described in its 2005 Plan of Operation.¹ The AJ will be 43% to 71% larger. In other words, the AJ at its smallest would be almost twice the size of Kensington.

Below is a rough idea of what the AJ Mine might look like, based on comparisons with the Kensington and Greens Creek mines:

Amount of Explosives: Greens Creek uses 90,000 pounds of explosives per month to mine 2,200 tons per day.² For AJ to mine 3500 to 7000 tons per day would require **143,000 to 256,000 pounds per month**. The explosives would probably in the form of the ammonia nitrate and/or fuel oil (ANFO). Ammonia from explosive residue was found in Gold Creek after the infamous fish kill in the 1990s. These explosives will have to be transported into the mine through the new access tunnel across from the rock dump.

Tailings: Tailings are not just ground rock. Tailings may also contain the waste from the froth flotation mill, and can be highly toxic. The process chemicals used at Kensington³ scaled up for the increased volume of the AJ would be; Potassium Amyl Xanthate, 263 tons/year; Methyl Isobutyl Carbinol, 106 tons/year; Flocculants 51 tons/year and 19 tons of scale inhibitors. Backfill would also contain the brine and contaminants from the waste water treatment plant. The Greens Creek Mine incorporates solid wastes such as plastic, used ventilation tubing and settling pond sediments into the backfill.⁴ Currently there is no proposal to prohibit backfill that may contain chemical waste and trash from above the drainage tunnel that runs into the Gold Creek watershed.

Waste Rock: The size of the AJ as envisioned by the committee would produce 1500 to 3000 tons of waste rock per day. The plan is to sell this rock as construction material, something neither Greens Creek nor Kensington does. Is there really a market for 1500+ tons of rock per day in Southeast Alaska? Year round? In three months there could be 135,000 to 270,000 tons of rock sitting at the rock dump. Associated impacts with waste rock are:

¹ Kensington Plan of Operations, 2005; Page 47

² Greens Creek General Plan of Operations, Sec. 2.1.3

³ Kensington Plan of Operations, Page 56, table 10)

⁴ Kensington Plan of Operations v

- **Traffic:** 300 round trips of ten ton trucks per day crossing Thane Road from the rock dump, or 50 sixty ton trucks (if the road bed is rated for them).
- **Noise:** Dump Trucks, loaders and loading of barges just south of downtown, near the cruise ship docks and across the channel from Douglas continuously moving rock.
- **Dust:** Our prevailing winds from the southeast toward downtown Juneau will quickly pick up dust and fines.

Power: Kensington utilizes 6 large diesel generators (one used as a backup) to generate 6.5 Megawatts of power.⁵ Based on that figure the, AJ would require 9.2 to 11.1 MWs or about one-third of the power generated by the Lake Dorothy hydro project. This translates into 37,500 to 45,700 gallons of diesel fuel being burned per day in downtown Juneau.

Water: The Kensington mill uses 150 gallons of water per minute⁶ pulled from Johnson Creek. Based on that usage the mill at the AJ would require 215 to 256 gallons per minute, or 310,000 gallons/day minimum. This does not account for water used in sanitary facilities, dust control, drill lubrication and various other needs.

Traffic: Besides moving trucks full of waste rock, explosives and diesel fuel, the AJ could produce at least 1000 tons of concentrate per week which would fill about 6 shipping containers per day to be shipped out for smelting.

The roughly 2-mile long new access tunnel from just south of downtown will have to be mined from the outside in. For this period of development, **there would** be an active mine on Thane Road or slightly uphill. Juneau will know there is an active mine operation.

Please Contact the Assembly with you concerns. Contact can be made at: [Borough Assembly@ci.juneau.ak.us](mailto:Borough_Assembly@ci.juneau.ak.us), or individually.

⁵ Kensington Plan of Operations, 2005 at Sec.3.4

⁶ Kensington Plan of Operations, 2005, page 77