

KENSINGTON GOLD MINE INSPECTION REPORT

Inspection Date: February 1, 2012
Weather: Cloudy 36° F. No wind. 6-12 feet of snow on the ground.
Time of Inspection: 5:00 am to 2:30 pm
Operator Contact: Kevin Eppers – Coeur Mining
Agency Personnel: David Wilfong – ADNRR, Joe Manning, David Schmerge - USFS
Inspection Objectives: General Inspection

Agency personnel arrived at the ferry shuttle parking area north of Juneau near the intersection of Engineer's Cutoff Road and the Glacier Highway at 4:45 am. Parking was directed by a Goldbelt employee, and the parking area had been recently maintained by a snowplow and sander. The parking area was clean and well maintained. The shuttle bus left the parking area promptly at 5:00 am and drove to the ferry landing at Echo Cove. Before descending the ferry terminal access road, the bus driver installed tire chains on the drive wheels of the bus because it had gotten stuck on the ice earlier in the week. The bus was clean, and looked and felt safe.

The ferry left the terminal at 5:55 am with 31 passengers plus crew aboard. The ferry was clean, and looked and felt safe. The ferry arrived at the Kensington dock at 6:35 where it was met by another bus that shuttled the passengers to the Kitchen and Dining Room facilities (KDR). The weather at the mine was cloudy, 32°F, and no precipitation with 6-12 feet of accumulated snow on the ground.

Agency personnel were greeted by Kevin Eppers, the environmental superintendent at Coeur Inc. Two short videos were viewed concerning safety precautions for above and below ground visitors. At the Jualin Portal shop building, snow had begun to slide off the roof (Figure 1). The falling snow was not directly over any access doors, and does not fall in any areas that are accessible to personnel.

Underground access is currently restricted to Wednesdays while infrastructure construction and maintenance activities continue. The construction on camp facilities has been completed, and the work on the underground paste plant continues (Figure 2). The walls of the cavern that the paste plant is built in are covered with 3-4 inches of Shotcrete. Staining is evident at some of the seeps leaking through the Shotcrete (Figure 3). Underground development work continues, and enough ore is removed to run the mill at approximately 50% of its capacity. DYWIDAG rock bolts were being installed in the main tunnel connecting the Jualin and Comet portals. The bolts are being installed to support a High Density Polyethylene (HDPE) mine dewatering pipe needed to replace a leaking pipe. Full mine dewatering is maintained with treatment occurring at the Comet portal Water Treatment Plant (WTP).

Waste rock is being disposed of at the permitted site near the Comet portal. Waste rock is dumped by underground haul trucks (Figure 4), and then pushed over the side by bulldozer (Figure 5). Much of the pile was covered under a blanket of snow, however the exposed portions did not show any signs of instability or excessive erosion.

The buried portion of the mine dewatering pipe between the Comet portal and the WTP was in the process of being replaced (Figure 6). The current configuration consists of an 8" HDPE pipe which is near capacity with an 8" iron backup pipe. The new configuration will consist of one 12" HDPE pipe, and will use the old 8" pipes as a back up. Kensington is utilizing concurrent reclamation where practicable during the pipe laying project by separating topsoil from the inorganic soil, and then while backfilling, replacing the top layer (>12") with growth media (topsoil) only. This process will allow natural revegetation of the disturbed area.

The mine dewater WTP near the Comet portal was running at approximately half of its capacity (~600GPM), so only 1 of the 2 treatment systems were operating. Sediment from the mine dewatering system continues to be dredged from pond 1(Figure 7) and transferred to sediment bags in a nearby lined basin (Figure 8). The sediment bags are made of a porous material with a ~2 micron size that is designed to let the water escape and leave the sediment inside the bag. Once the bag is full, it is allowed to dewater, and the disposable bags are then broken apart and the sediment is transferred to the waste rock facility. Water from the bags is pumped back to pond 1 for treatment. Water continues to flow through a tear in the liner of pond 1. The water is captured and pumped back to the pond. The piping for pond 2 was near completion. Once completed, mine dewater will be pumped to pond 2 so that the liner in pond 1 can be repaired.

The Tailings Treatment Facility (TTF) was mostly inaccessible due to the deep snow cover. About 24 inches of ice covers the TTF, except at the tailings slurry outfall, where an aerator keeps the surface mostly ice free (Figure 9). The access road to the TTF Water Treatment Plant is plowed to within walking/snowshoeing distance of the plant. The WTP was functioning as designed during our visit. The TTF surface was at an elevation of 667.6 feet, and the Lower Slate Lake bypass had a flow of 1448 gallons per minute (gpm). All water monitoring stations were being monitored on schedule, and were being accessed by snow machine or snowshoes.



Figure 1 Snow Hanging from Roof



Figure 2 Underground Paste Plant



Figure 3 Staining in the Underground Paste Plant room



Figure 4 Haul Truck Dumping Waste Rock



Figure 5 Waste Rock Pile as seen from the Water Treatment Plant



Figure 6 Trench for the New Dewatering Pipe



Figure 7 Pond 1



Figure 8 Sediment Bags



Figure 9 Aerator on Lower Slate Lake