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Hecla Mining Company

ESCALANTE UNIT

April 25, 1989

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DIVISION OF
OIL, GAS & MINING

Mr. Lowell P. Braxton
Administrator
Mineral Resource Development and Reclamation Program
Department of Natural Resources Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180

Re: Waterfowl Mortalities and Hazing Plan/ Escalante Silver Mine

Dear Mr. Braxton:

I am responding to your letter of April 19, 1989 concerning waterfowl mortalities and presenting Hecla's permanent plan for repelling waterfowl from the tailings pond as discussed with you the other day. I am also describing the successful interim mitigating steps that have been taken.

Historically the Escalante Unit has experienced increased numbers of waterfowl in the spring of the year because of wildlife migration patterns and the increased surface area of tailing pond water during spring run-off. Hecla has experienced excellent success in hazing waterfowl and believe that our past mitigating measures and this permanent plan will decrease the waterfowl mortality rate to an acceptable level. One particular problem that is specific to this waterfowl migrating season is that the mine is shut down and no longer pumping 20,000 gallons of water per minute into the extensive canal system in the valley. This canal system created an attractive habitat for migrating waterfowl and possibly increased their numbers. Now that this habitat is not available we have experienced some difficulty in repelling the misplaced waterfowl.

One important factor must be pointed out with regard to a statement included in the correspondence from your office dated April 19, 1989. Mr. Truman of Hecla Mining Company stated to Scott Johnson of your staff and Douglas Messerly of Wildlife Resources that he walked the shore and disposed of those birds he was capable of reaching. The birds in water or muddy areas were not disposed of. Nine birds on the east side of the center dike and two or three birds on the northwest side of the dike could not be safely reached. Therefore the birds observed, and bird pieces gathered, on Friday April 14th <u>were not</u> mortalities attributable to the three day period preceding the inspection.

This year, knowing the canals would be dry, we anticipated more of a problem. Studies were made to investigate decreasing the volume of water sent to the tailings pond and modifications in plant operations are currently being implemented. We purchased hand held "screamer" guns and increased patrol of the tailings pond. In addition, we increased the number of propane

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cannons around the perimeter of the pond. These measures have proven to be quite successful on most bird species. Avocet, a shore feeding species, seem the most difficult to deter, and make up the majority of those birds observed on April 19th. In the last week No bird kills have been observed and the water level of the pond has dropped eight inches due in most part to increased evaporation.

The Escalante Mine Tailings Impoundment is equipped with an underdrain system to recycle tailings water. By approximately mid June of each year no water will pond behind the dam. Evaporation rates exceed recycle recovery and we experience a negative water balance, that is, we lose water in the system and have to supplement with fresh water. Needless to say, waterfowl mortality is not a problem under these conditions.

The suggested permanent solutions in the correspondence of April 19th are not economically feasible at this operation. We are in a wind-down reclamation mode and anticipate to complete milling of the ore stockpile early in the fourth quarter of 1990. I feel more investigation is required into deterring the specific species of bird, Avocet, that we have the spring of the year problem with. As I have mentioned, no mortalities of any type, including Avocet, has been observed in the last week. I would welcome assistance in the studies of this species and an additional inspection of the site now that migration appears to have ended.

The Permanent Plan is outlined below:

1. Propane cannons around the water perimeter firing at intermittent times.

2. Extra personnel patrolling the pond during migratory seasons hazing with hand held "screamer" guns.

3. Recording of any unexpected mortalities for species identification.

4. Change of mill operating conditions to minimize the surface area of the pond during migratory seasons.

5. Preparation of a report documenting the performance of this plan prior to next years migrating season.

Sincerely,

Brent Willoughby

Brent Willoughby
Unit Manager