

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME:	MINE/PROSPECTING ID#:	MINERAL: COUNTY:	
Sunnyside Gold Mine	M-1977-378	Lead, zinc, copper, ir San Juan	
INSPECTION TYPE:	INSPECTOR(S):	INSP. DATE: INSP. TIME:	
Monitoring	Wallace H. Erickson	September 19, 2013 14:00	
OPERATOR:	<b>OPERATOR REPRESENTATIVE:</b>	TYPE OF OPERATION:	
Sunnyside Gold Corp	Larry Perino	112 - Hard Rock Regular Operation	
<b>REASON FOR INSPECTION:</b>	BOND CALCULATION TYPE:	BOND AMOUNT:	
Normal I&E Program	Partial Bond	\$60,534.00	
DATE OF COMPLAINT:	POST INSP. CONTACTS:	JOINT INSP. AGENCY:	
NA	None	None	
WEATHER:	INSPECTOR'S SIGNATURE:	SIGNATURE DATE:	
Cloudy	Uglane N. Sil	October 15, 2013	

## **GENERAL INSPECTION TOPICS**

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS <u>N</u>	(FN) FINANCIAL WARRANTY Y	(RD) ROADS <u>Y</u>
(HB) HYDROLOGIC BALANCE Y	(BG) BACKFILL & GRADING <u>Y</u>	(EX) EXPLOSIVES Y
(PW) PROCESSING WASTE/TAILING <u>Y</u>	(SF) PROCESSING FACILITIES <u>NA</u>	(TS) TOPSOIL <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE <u>Y</u>	(RV) REVEGETATION Y
(SM) SIGNS AND MARKERS <u>N</u>	(SP) STORM WATER MGT PLAN <u>N</u>	(SB) COMPLETE INSP Y
(ES) OVERBURDEN/DEV. WASTE Y	(SC) EROSION/SEDIMENTATION $\underline{Y}$	(RS) RECL PLAN/COMP <u>Y</u>
(AT) ACID OR TOXIC MATERIALS Y		

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

## **OBSERVATIONS**

This inspection occurred in accordance with the Division's routine monitoring plan for permitted operations. The Sunnyside Mine permit area includes approximately 159 acres, located at the Sunnyside Basin, Terry Tunnel, American Tunnel, and Mayflower Tailings Pond 4 areas. The Operator is conducting final reclamation of all affected lands. Affected lands will be reclaimed to support wildlife habitat and rangeland post-mining land use. The Division holds \$60,534 financial warranty. This report is accompanied by 8 photographs.

Sunnyside Basin: The permit area at Sunnyside Basin totals approximately 66 acres with 49 acres affected and in final reclamation. Sunnyside Basin is an historic mining district with numerous historic and pre-permit mining related disturbances, located at 12,280 feet elevation. Topsoil was not salvaged during the pre-law mining activities and was not available for reclamation purposes. Sunnyside Basin was incorporated into the permit through a 1986 amendment (AM-02), subsequent to the collapse of Lake Emma. Lake Emma had been undermined by workings extending from the American Tunnel and collapsed into the mine workings on June 4, 1978. Backfilling of the subsidence feature commenced 1992. Significant snow and ice had accumulated in the subsidence feature prior to the commencement of backfilling activities. Due to the high altitude environment the buried snow and ice melted slowly, resulting in periodic settling and shifting of the backfill materials. Backfill was augmented and the affected area reseeded annual until evidence of instability ceased. Tension cracks in the backfill area persisted until 2007. Since 2007 reclamation activities at the Lake Emma area included final grading of borrow and backfill areas, establishment of an appropriate vegetative cover, erosion control and site monitoring. Given the extremely short growing season, seasonal grazing by sheep, and unrestricted tourist traffic, revegetation has proven challenging. As shown in photos 1 and 2, vegetative cover was well established. As shown in photo 2, evidence of minor erosion was observed immediately west of the Lake Emma backfill area, down slope from an upland diversion ditch. The ditch appeared to have overflowed due to obstruction by snow/ice, a seasonal occurrence at 12,280 feet elevation. The Operator has addressed the previous erosion by grading and placement of erosion control mats. Evidence of settling, slumping or excessive erosion was not observed. Occurrence of regulated noxious weeds or other undesirable weed species was not observed. Reclaimed lands appeared stable and well maintained.

**Terry Tunnel**: The permit area at Terry Tunnel includes approximately 7 acres of affected lands in final reclamation. The permit area is located adjacent to Eureka Creek at 11,600 feet elevation. The portal and mine bench pre-date the permit and connect with the workings from the American Tunnel. Topsoil was not salvaged during the pre-law mining activities and was not available for reclamation purposes. The portal was closed with two bulkheads and backfilled (circa 1996) in accordance with the approved reclamation plan and the conditions of the Consent Decree (Case No. 94 CV 5459). The mine bench was graded to provide positive drainage, stabilize slopes, and blend with the surrounding topography. The Operator imported and distributed earthen materials to support revegetation efforts. Affected lands have been reseeded several times (last seeding in 2007), but due to the extremely short growing season and possible grazing by sheep, revegetation has proven challenging. A minor and isolated occurrence of **Canada thistle** was observed on the slope east of the backfilled portal. The Operator is encouraged to continue aggressive weed control efforts to eradicate the Canada thistle from the permit boundary and ensure the regulated noxious weed does not spread to nearby areas. A seep was present immediately west of the backfilled portal. The seep is possibly associated with the natural spring observed flowing from a rock outcrop located upslope of the backfilled portal (see photo 3). Reclaimed lands appeared stable and well maintained.

**<u>American Tunnel</u>:** The permit area at American Tunnel totals approximately 21 acres with 17 acres affected and in final reclamation. The permit area is located at 10,800 feet elevation, and includes the portal area and Herbert Placer. Closure of the American Tunnel included the construction of three bulkheads, in accordance with the approved reclamation plan (TR-14 and TR-25) and the conditions of the Consent Decree (Case No. 94 CV 5459). The first bulkhead was constructed 1996 and the last in 2002. Waste dump materials from the American Tunnel were removed from site. Final backfill, grading and seeding occurred 2007. As shown in photo 4, reclaimed lands appeared stable, evidence of settling, slumping or excessive erosion was not observed. Vegetative cover was inconsistent and ranged from well established to sparse. Occurrence of regulated noxious weeds or other undesirable weed species was not observed. As shown in photo 5, residual drainage from the American Tunnel is conveyed through the backfill materials by a 24 inch ABS corrugated culvert with steel grate closure. The drainage is conveyed by open ditch to the North Fork Cement Creek.

The water treatment ponds, located on portions of the Herbert Placer, were reclaimed 2005-2006. As shown in photo 6, reclaimed lands appeared stable; evidence of settling, slumping or excessive erosion was not observed. Vegetative cover for the Herbert Placer was well established, diverse, and at least equal in extent of cover to the surrounding natural vegetation. Clean-up of the partially collapsed Quonset hut has not yet been completed. Prior to the partial collapse of the Quonset hut, ownership of the Herbert Placer and the Quonset hut was transferred to Todd Hennis, d.b.a. San Juan Corporation. The landowner is responsible for maintenance of the structure and is conducting the clean-up activity.

<u>Mayflower Tailings Pond 4</u>: The permit area at the Mayflower Tailings Pond 4 totals approximately 64 acres with 61 acres affected and in final reclamation. The permit area is located at 9,600 feet elevation. The Mayflower Mill facility and its associated Tailings Ponds 1, 2 and 3 were previously released from the permit for successful completion of reclamation. Pond 4 remained active to receive sludge from the American Tunnel water treatment plant. Final reclamation of Pond 4 commenced 2007. As shown in photos 7 and 8, affected lands appeared stable, evidence of settling, slumping or excessive erosion was not observed. Vegetative cover was well established, diverse, and at least equal in extent of cover to the surrounding natural vegetation.

Observations made during the inspection and recorded in this report indicate the Operator has completed reclamation for the Mayflower Tailings Pond 4 and Herbert Placer areas. The Operator is encouraged to submit an acreage reduction request, in accordance with the requirements of Rule 4.17, removing the Mayflower Tailings Pond 4 and Herbert Placer areas from the permit area for successful completion of reclamation of those lands.

## Inspection Contact Address

Larry Perino Sunnyside Gold Corp P.O. Box 177 Silverton, CO 81433

Enclosure: 8 photos

Ec w/enclosure: Larry Perino, <u>larry.perino@kinross.com</u> Russ Means, DRMS GJFO







View west, showing portions of the Lake Emma reclaimed lands located within Sunnyside Basin at 12,280 feet elevation.





View east, showing residual drainage from the American Tunnel. Drainage is conveyed by open ditch to the North Fork Cement Creek. Sunnyside Mine M-1977-378 September 19, 2013 American Tunnel Photo 5

activities of the partially collapsed Quonset hut being conducted by the landowner. Reclaimed lands associated with the water treatment ponds appeared stable with a well established and appropriate vegetative cover. View west, showing portions of the Herbert Placer, located at 10,800 feet elevation. The on-going clean-up







Vegetative cover was well established and at least equal in extent of cover to the surrounding natural vegetation.