




**COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY**  
**MINERALS PROGRAM INSPECTION REPORT**  
**PHONE: (303) 866-3567**

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.

<b>MINE NAME:</b> Sunnyside Gold Mine	<b>MINE/PROSPECTING ID#:</b> M-1977-378	<b>MINERAL:</b> Au, Ag, Pb, Zn, Cu	<b>COUNTY:</b> San Juan
<b>INSPECTION TYPE:</b> Multi Person Inspection	<b>INSPECTOR(S):</b> T.Waldron, R.Means, W.Erickson, L.West	<b>INSP. DATE:</b> August 28, 2015	<b>INSP. TIME:</b> 09:00
<b>OPERATOR:</b> Sunnyside Gold Corp	<b>OPERATOR REPRESENTATIVE:</b> Larry Perino	<b>TYPE OF OPERATION:</b> 112 - Hard Rock Regular Operation	
<b>REASON FOR INSPECTION:</b> Normal I&E Program	<b>BOND CALCULATION TYPE:</b> Partial Bond	<b>BOND AMOUNT:</b> \$60,534.00	
<b>DATE OF COMPLAINT:</b> NA	<b>POST INSP. CONTACTS:</b> None	<b>JOINT INSP. AGENCY:</b> None	
<b>WEATHER:</b> Cloudy	<b>INSPECTOR'S SIGNATURE:</b> 	<b>SIGNATURE DATE:</b> March 1, 2016	

**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>NA</u>	(FN) FINANCIAL WARRANTY----- <u>Y</u>	(RD) ROADS----- <u>Y</u>
(HB) HYDROLOGIC BALANCE----- <u>Y</u>	(BG) BACKFILL & GRADING----- <u>Y</u>	(EX) EXPLOSIVES----- <u>Y</u>
(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----- <u>Y</u>
(SM) SIGNS AND MARKERS----- <u>N</u>	(SW) STORM WATER MGT PLAN----- <u>N</u>	(CI) COMPLETE INSP----- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>Y</u>	(SC) EROSION/SEDIMENTATION----- <u>Y</u>	(RS) RECL PLAN/COMP----- <u>Y</u>
(AT) ACID OR TOXIC MATERIALS----- <u>Y</u>	(OD) OFF-SITE DAMAGE----- <u>Y</u>	(ST) STIPULATIONS----- <u>N</u>

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 Mayflower Tailing Pond 4, Terry Tunnel, Sunnyside Basin, and Gladstone 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 10 photographs.

**Mayflower Tailing Pond 4:** The permit area at the Mayflower Tailing Pond 4 totals approximately 64 acres with 61 acres affected lands. The permit area is located at 9,600 feet elevation. The Mayflower Mill facility and its associated tailing ponds 1, 2 and 3 were previously released from the permit for successful completion of reclamation.

As shown in Photos 1 and 2, affected lands at Pond 4 appeared stable; evidence of settling, slumping or excessive erosion was not observed. Vegetative cover for the borrow areas and slopes of the tailing pond was well established, diverse, capable of self-regeneration, and was at least equal in extent of cover to the surrounding natural vegetation. Vegetative cover for the top of the tailing pond was inconsistent and ranged from well-established to sparse. Previous occurrences of regulated noxious weeds have been eradicated. During the inspection, 12 piezometers were being installed. According to the Operator, the piezometers were completed through the tailings and underlying alluvial materials, to the bedrock contact. The thickness of the underlying alluvial materials is variable, ranging from nine to 50 feet. Preliminary drilling reports indicate groundwater was encountered in the underlying alluvium, but not flowing through the tailings. The piezometers were installed by Cascade Drilling, with QA/QC provided by Formation Environmental, and survey work performed by Monadnock Mineral Services.

The top of Pond 4 had been graded to direct surface drainage to the north, where it is captured by a lined diversion ditch and routed around the northwest end of the tailing pond. The diversion ditch also captures surface and subsurface drainage from upland areas and routes the upland drainage, as well as drainage from the reclaimed surface of Pond 4, to the west. Subsurface drainage from upland areas are intercepted by a ground water intercept wall, which drains to the ditch.

**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.

Reclaimed lands appeared stable and well maintained. As shown in Photo 3, vegetative cover is establishing. Previous occurrence of regulated noxious weeds have been eradicated. The trend towards the establishment of an appropriate vegetative cover appears positive.

**Sunnyside Basin:** The permit area at Sunnyside Basin totals approximately 66 acres with 49 acres affected lands. Sunnyside Basin is an historic mining district with numerous historic and pre-law 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), to address reclamation of the Lake Emma subsidence feature. Lake Emma had been previously undermined by workings extending from the American Tunnel and collapsed into the mine workings on or about June 4, 1978. Backfilling of the subsidence feature commenced 1992, approximately 14 years after the collapse.

During the 14 years prior to backfill, snow and ice had accumulated in the subsidence feature. Due to the high altitude environment the buried snow and ice melted slowly, resulting in periodic settling of the backfill. Backfill was augmented and the affected lands reseeded annually until evidence of instability ceased, about 2007. Since 2007, reclamation activities at Lake Emma have included final grading of the borrow areas, erosion control and the establishment of an appropriate vegetative cover. Given the extremely short growing season, seasonal grazing by sheep, and unrestricted tourist traffic, revegetation has proven challenging.

Backfilled and graded areas appeared stable; evidence of settling, slumping or excessive erosion was not observed. As shown in Photos 4 and 5, vegetative cover was well established for the majority of the affected lands, diverse, capable of self-regeneration, and at least equal in extent of cover to the natural vegetation of the surrounding area. The occurrence of regulated noxious weeds or other undesirable weed species was not observed. Evidence of minor erosion was observed immediately west of the Lake Emma backfill area.

**Gladstone:** The permit area at the historic town site of Gladstone totals approximately 21 acres with 17 acres of affected lands. The permit area is located at 10,800 feet elevation, and includes the American Tunnel area and Herbert Placer. Waste dump materials from the American Tunnel were removed from site. Final backfill, grading and seeding occurred 2007.

As illustrated in Slide 6 (Google Earth image dated October 12, 2015) and Photos 7 through 10, reclaimed lands at Gladstone have been recently re-disturbed and utilized to support recent EPA cleanup efforts. The previous water treatment ponds, located on portions of the Herbert Placer, were reclaimed 2005-2006. As shown in Photo 10, reclaimed lands appeared stable; evidence of settling, slumping or excessive erosion was not observed. Vegetative cover for the Herbert Placer was well established, diverse, capable of self-regeneration, and at least equal in extent of cover to the surrounding natural vegetation. Clean-up of the partially collapsed Quonset hut, shown in Photos 9 and 10, 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 was conducting the cleanup activity for the collapsed Quonset hut.

**Inspection Contact Address**

Larry Perino  
Sunnyside Gold Corp  
P.O. Box 177  
Silverton, CO 81433  
Enclosure: 12 photos



Sunnyside Mine  
M-1977-378  
August 28, 2015  
Photo 1

Mayflower Pond 4

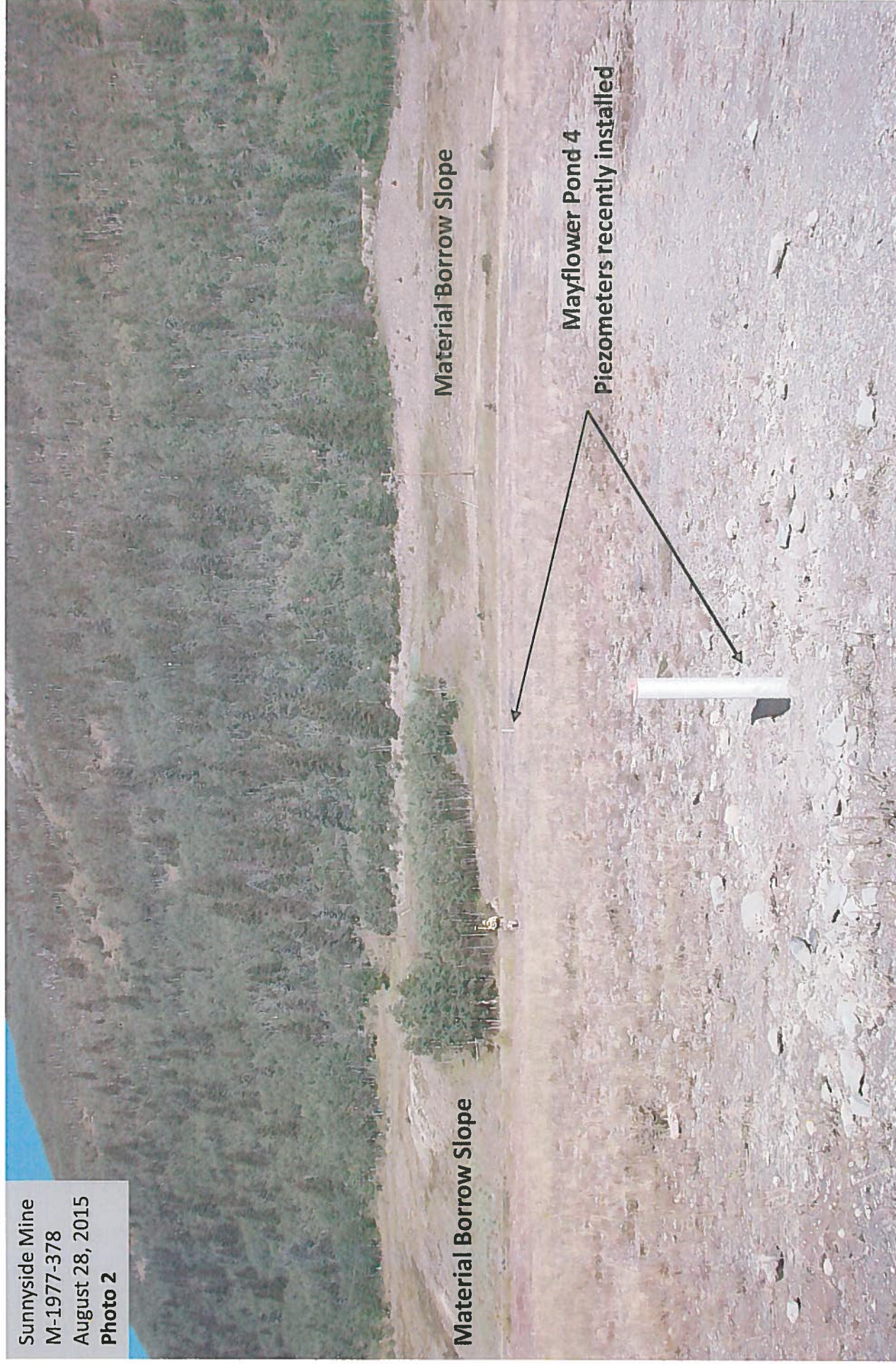
Material Borrow Slope

Upland Diversion Ditch

View southwest, taken from the north side of the Mayflower Tailings Pond #4. Material borrow slopes were well vegetated and appeared stable; evidence of slumping, sliding or excessive erosion was not observed. Iron-stained seeps were observed at several locations on the borrow slopes (native seeps). The upland diversion ditch, designed to intercept surface and shallow sub-surface drainage from upland areas, as well as to convey drainage from the reclaimed surface of the tailing pond, was flowing several gallons per minute.



Sunnyside Mine  
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August 28, 2015  
**Photo 2**



View northwest, taken from the central portion of the Mayflower Tailings Pond #4. During the time of this inspection, 12 piezometers were being installed at Mayflower Tailing Pond #4. The Operator indicated the piezometers were completed through the tailings and underlying alluvium, to the bedrock contact. The wells were installed by Cascade Drilling, QA/QC provided by Formation Environmental, and surveyed by Monadnock Mineral Services. Preliminary results indicate groundwater was encountered in the alluvium underlying the tailings.



Sunnyside Mine  
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Photo 3



View southeast, taken from CR 25, showing portions of the reclaimed mine dump at the Terry Tunnel. The mine dump was pre-law; topsoil was not salvaged prior to pre-law mining activities and is not available for reclamation purposes



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**Photo 4**

### Material Borrow Slope

### Lake Emma

View northwest, taken from a private access road extending from CR 25, showing portions of the reclaimed lands at the Sunnyside Basin area (headwaters for Eureka Creek). The subsidence feature at Lake Emma appears to have stabilized; evidence of subsidence and/or associated piping and settling have not been observed since 2007. Vegetative cover was establishing for all reclaimed lands. As illustrated in the foreground of this photograph, surface soils are rocky and revegetation efforts have been challenging. Reclaimed lands appeared stable, evidence of slumping, settling or excessive erosion was not observed.



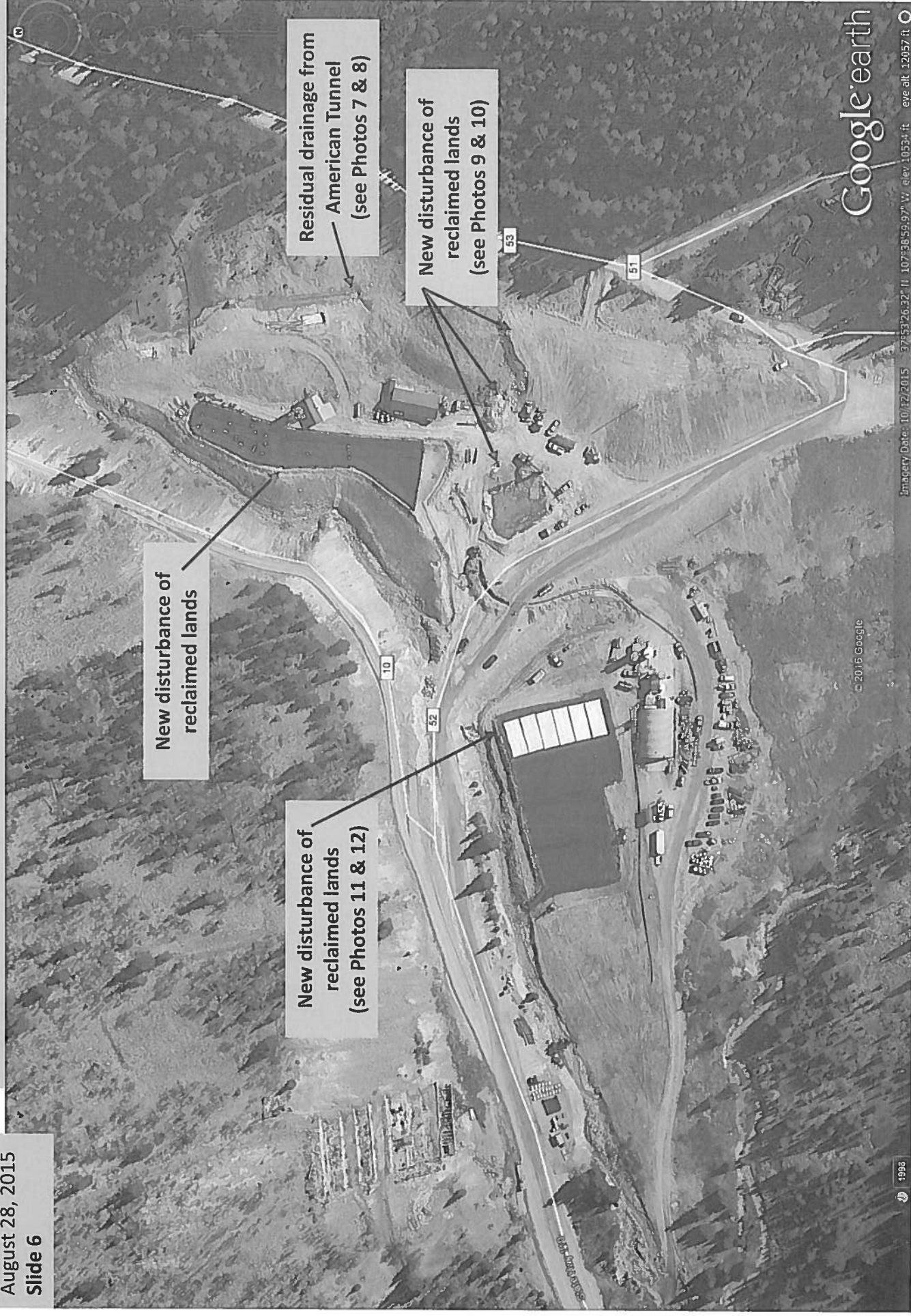
Sunnyside Mine  
M-1977-378  
August 28, 2015  
**Photo 5**



View east, taken from the center portion of the Lake Emma area, showing evidence of minor erosion associated with a seasonal ice obstruction to a drainage ditch. Vegetative cover, as shown in the foreground of this photograph, was well established throughout the floor of the Lake Emma area.



Google Earth image date October 12, 2015, showing recent alterations to the reclaimed lands at Gladstone. Some of the alterations shown on this Google Earth image occurred after the August 28, 2015 inspection.





Sunnyside Mine  
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**Photo 7**



View south, showing new disturbance to reclaimed lands (dumping of flood debris). As shown in this photograph, the reclaimed lands at Gladstone have been re-disturbed and utilized to support recent EPA cleanup efforts.



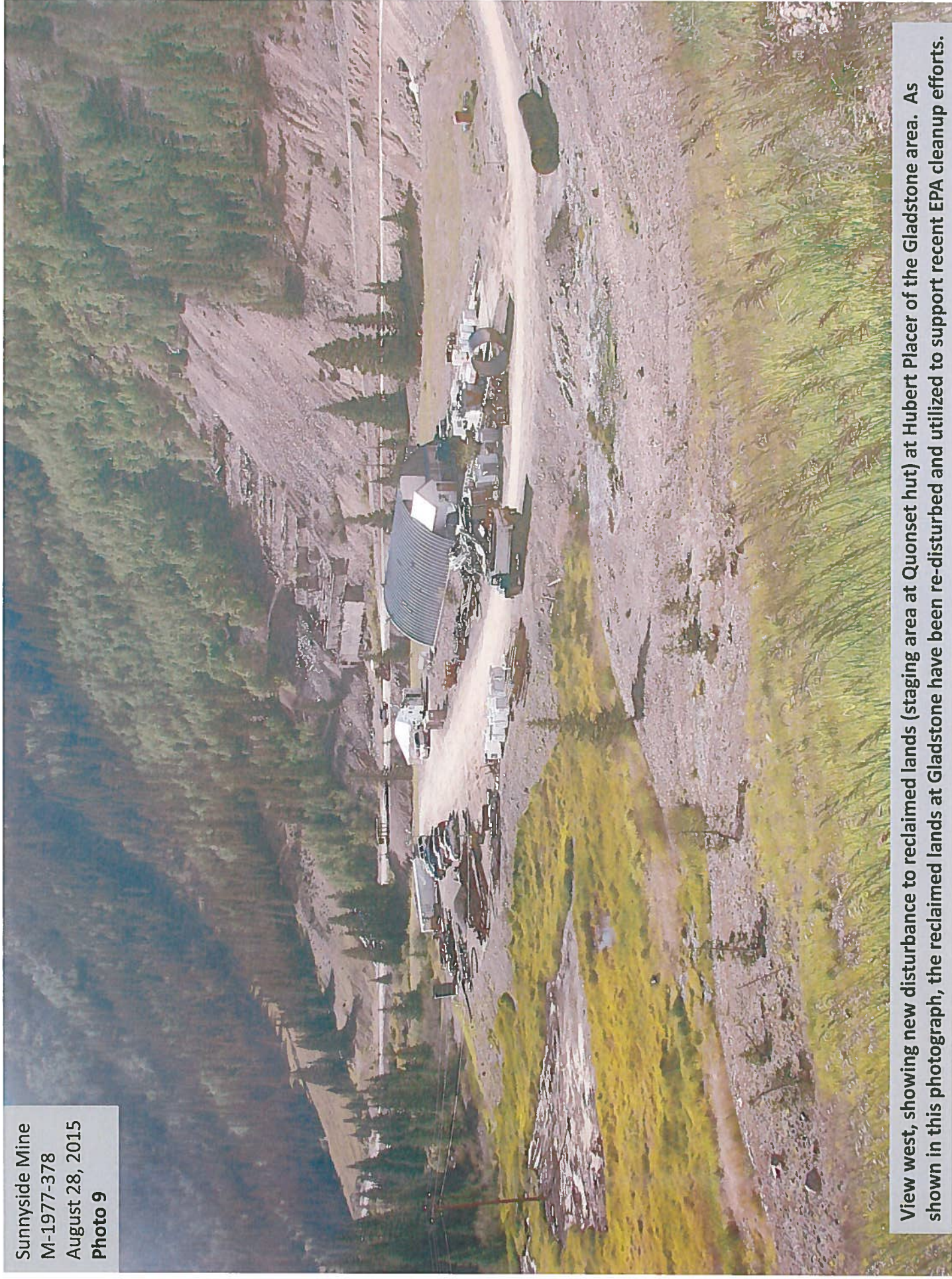
Sunnyside Mine  
M-1977-378  
August 28, 2015  
**Photo 8**



View south, showing new disturbance to reclaimed lands (dumping of flood debris). As shown in this photograph, the reclaimed lands at Gladstone have been re-disturbed and utilized to support recent EPA cleanup efforts.



Sunnyside Mine  
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Photo 9



View west, showing new disturbance to reclaimed lands (staging area at Quonset hut) at Hubert Placer of the Gladstone area. As shown in this photograph, the reclaimed lands at Gladstone have been re-disturbed and utilized to support recent EPA cleanup efforts.



Sunnyside Mine  
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**Photo 10**



View southwest, showing the reclaimed lands, previous location of water treatment ponds, at Hubert Placer of the Gladstone area. As illustrated on Slide 6 (Google Earth image), this area was subsequently disturbed by the construction of new water treatment ponds, in support of the recent EPA cleanup efforts.