



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

1595 Wynkoop Street  
Denver, CO 80202-1129  
Phone 800-227-8917  
www.epa.gov/region08

**SEP 21 2018**

Ref: 8ENF-W-NP

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Kye Abraham, President  
LKA International, Inc.  
3724 47<sup>th</sup> Street Court Northwest  
Gig Harbor, Washington 98335

Re: Inspection Report for the Golden Wonder Mine, NPDES Permit Nos. CO0048119 and  
COR040226

Dear Mr. Abraham:

On July 20, 2018, a representative of the U.S. Environmental Protection Agency inspected the Golden Wonder Mine near Lake City, Colorado, to evaluate compliance with the site's two National Pollutant Discharge Elimination System permits. The inspection was conducted under the authority of Section 308 of the Clean Water Act (Act). Enclosed is a report of the inspection.

Inspection findings are summarized within the enclosed inspection report in a table titled "Findings, Corrective Actions and Recommendations." Within **thirty (30) days** of receipt of this report, please provide the EPA with a summary of corrective actions taken to address each of the findings identified in the report and any information that may change the findings. This summary should be sent to:

Michael Boeglin (8ENF-W-NP)  
U.S. EPA Region 8  
NPDES Enforcement Unit  
1595 Wynkoop Street  
Denver, CO 80202-1129

Nathan Moore  
Colorado Department of Public Health  
and Environment  
Water Quality Control Division  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

The Small Business Regulatory Enforcement and Fairness Act (SBREFA) may apply to the facility. Enclosed is an information sheet, U.S. EPA Small Business Resources, containing information on compliance assistance resources and tools available to small businesses. SBREFA does not eliminate the facility's responsibility to comply with the Clean Water Act.

Please contact me at 303-312-6250 or boeglin.michael@epa.gov if you have any questions regarding this letter or the enclosed report.

Sincerely,

8105 Michael Boeglin

Michael Boeglin  
NPDES Enforcement Unit  
Office of Enforcement, Compliance  
and Environmental Justice




Enclosures:

- 1) NPDES Inspection Report
- 2) Photo Log
- 3) U.S. EPA Small Business Resources Information Sheet

cc: Andrea Beebout, CDPHE (via email)  
Nathan Moore, CDPHE (via email)  
Greg Naugle, CDPHE (via email)  
Erin Scott, CDPHE (via email)

<b>General Permit Information - COR040226</b>	
Is the permit on site and available? <b>Yes</b>	
Effective Date: <b>May 1, 2007</b>	Expiration Date: <b>September 30, 2011</b> <b>(Administratively Extended)</b>
Latitude: <b>38° 0' 12.13" North</b>	Longitude: <b>107° 16' 59.77" West</b>
Receiving Water(s): <b>Deadman Gulch</b>	
Regulatory Inspector's source of information: <b>Physical evidence (permit), Permit fact sheet</b>	

<b>Areas Evaluated During Inspection</b>		
<u>Permit</u>	<u>Effluent/Receiving Waters</u>	<u>Compliance Schedule</u>
<u>Records/Reports</u>	<u>Flow Measurement</u>	<u>Pollution Prevention</u>
<u>Facility Site Review</u>	<u>Self-Monitoring Program</u>	<u>Laboratory</u>
Other(s):		
Weather conditions during inspection (e.g., temperature, sky, precipitation): <b>Cool and partly sunny with afternoon light rain.</b>		

<b>Report Review and Signature</b>		
Drafter Signature/Name	Address/Phone Number	Date
	<b>U.S. EPA Region 8</b> <b>1595 Wynkoop Street</b> <b>8ENF-W-NP</b> <b>Denver, Colorado 80202</b>	<b>18 SEP 18</b>
<b>David Gwisdalla</b>	<b>303-462-9307</b>	
Reviewer Signature/Name	Address/Phone Number	Date
	<b>U.S. EPA Region 8</b> <b>1595 Wynkoop Street</b> <b>8ENF-W-NP</b> <b>Denver, Colorado 80202</b>	<b>9/18/18</b>
<b>Laurel Dygowski</b>	<b>303-312-6144</b>	
Supervisor Signature/Name	Address/Phone Number	Date
	<b>U.S. EPA Region 8</b> <b>1595 Wynkoop Street</b> <b>8ENF-W-NP</b> <b>Denver, Colorado 80202</b>	<b>9/20/18</b>
<b>Stephanie DeJong</b>	<b>303-312-6362</b>	

## NPDES Stormwater Inspection Report - Industrial

National Database Information	
Inspection Date: July 20, 2018	Inspection Type: Industrial Discharger
Entry/Exit Time: 9:00 a.m. / 4:30 p.m.	NPDES ID Number: CO0048119 COR040226
FRS ID: 110029520025 NAICS Code: 212221	Inspection ID: 201807_CO0048119 201807_COR040226
Lead inspector and affiliation: David Gwisdalla, US EPA NEIC	

Facility Location Information <i>(Name/Location/ Mailing Address)</i>	
Site/Facility Name & Location: <b>Golden Wonder Mine located in Section 10 of Township 43N, Range 004W, the NE Quarter; +38.003333 north latitude and -107.283056 west longitude; located 3 miles southeast of Lake City, Colorado on Park Creek Road, a private road.</b>	Mail Report to: <b>Kye Abraham, President          LKA International, Inc.          3724 47<sup>th</sup> Street Court Northwest          Gig Harbor, Washington 98335</b>

Contact Information		
	Name(s)/Title	Telephone
Facility Contacts: <i>(indicate primary lead and present during inspection)</i>	<b>Kye Abraham / President          LKA International, Inc.  <a href="mailto:kabraham@lkagold.com">kabraham@lkagold.com</a></b>	970-870-2718
	<b>Steve Belz / Consultant          Black Creek Hydrology          (in-person interview at EPA's NEIC office)  <a href="mailto:steve@blackcreekhdro.com">steve@blackcreekhdro.com</a></b>	303-920-2664
	<b>Liese Thompson / Owner &amp; Lab Director          Enviro-Chem Analytical, Inc.          (interviewed over the phone)  <a href="mailto:echema@bresnan.net">echema@bresnan.net</a></b>	970-242-6154
Authorized Official(s) (Per NOI or SWMP?)	<b>Kye Abraham / President          LKA International, Inc.</b>	970-870-2718

Individual Permit Information - CO0048119	
Is the permit on site and available? Yes	
Effective Date: February 1, 2010	Expiration Date: January 31, 2015 (Administratively Extended)
Latitude: 38° 0' 12.13" North	Longitude: 107° 16' 59.77" West
Receiving Water(s): Deadman Gulch	
Regulatory Inspector's source of information: Physical evidence (permit), Permit fact sheet	

## Inspection Narrative and Site Description

The Golden Wonder Mine (Facility) is a permitted gold mining facility located north-northeast of the town of Lake City in Southwest Colorado. The Golden Wonder Mine is owned and operated by LKA International, Inc. The permitted area of the mine is less than 10 acres; within that area, the current underground ore mining areas are from several underground levels accessible from the Level 6 portal. The facility ceased mining operations on/about July 2015. The Facility is covered under two separate NPDES permits. An individual permit (Permit No. CO0048119) for mine water and seeps drainage and a general permit for stormwater discharges associated with industrial operations (Permit No. COR0402261). The individual permit expired on January 31, 2015 and the general permit expired on September 30, 2011; both permits were administratively extended by the Colorado Department of Health and Environment (CDPHE). Although not confirmed, the inspector was told by Kye Abraham that CDPHE was working on a single NPDES permit for the Facility that covered both discharges. During EPA's inspection the Facility was reviewed for its compliance with these permits. The single NPDES permitted outfall was Outfall 001.

According to the individual permit's fact sheet (2010), "This facility is an active underground hardrock mine. Mining is seasonal, typically May through August, with a maximum production rate of 1,000 tons of ore each season. Leaching and milling of ore does not take place on site... Seep discharges are periodically evident at three locations at the toe of a waste rock pile placed in Deadman Gulch. These seeps are likely a result of surface water and/or precipitation penetrating the waste rock pile, or potentially direct seepage of water from inside the mine. The three seep locations have been combined into one discharge location... no chemicals are approved under this permit."

EPA ICIS records indicate that Permit No. CO0048119 was last inspected on August 20, 2013 by CDPHE's staff. No records were found to indicate an inspection of Permit No. COR040226.

At approximately 10:00. a.m., on July 13, 2018, the EPA inspectors (David Gwisdalla and Mike Boeglin) met with Mr. Steve Belz, owner of Black Creek Hydrology, LLC from Northglenn, Colorado to discuss data he collects as part of the NPDES monitoring for the site. The group met at the office of the National Enforcement Investigations Center (NEIC) in Lakewood, Colorado. The inspectors each presented their credentials. Mr. Belz stated that he is a contractor supporting the facility. His primary function, currently, is supporting the facility with its flow rate data at the site. Mr. Belz collects field samples, including pH, while on-site when appropriate. Mr. Belz stated that no records from his understanding were kept or created as part of the sample collection.

On July 17, 2018, the EPA inspector (David Gwisdalla) met via telephone with Liese Thompson, the laboratory director for Enviro-Chem Analytical, Inc in Grand Junction, Colorado. The purpose of the discussion was to determine how the laboratory supports the facility with the development of the DMRs. The laboratory drafts the DMRs from the analytical results and provides them to Kye Abraham for review, approval and submission. The inspector requested pertinent DMR related records on July 17, 2018 for the period of July, August and September of 2017 for Outfall 001. The records requested included DMRs, chain of custody forms, lab reports, and the spreadsheet(s) used to calculate DMR data. These records were provided, electronically, on August 16, 2018. Ms. Thompson stated that the samples were often submitted with the date/time collected on the bottles, along with a flow rate and field pH. She also stated that no chain of custody forms were submitted with the samples, and that the laboratory staff would create one, from the sample bottles submitted by the field staff to keep as part of

the record.

On July 20, 2018, at approximately 9:00 a.m., EPA NPDES inspector, David Gwisdalla met with Kye Abraham, the President of LKA International, Inc., to evaluate the Facility's compliance with its NPDES permits. The inspector met Kye Abraham at Vicker's Ranch Northeast of Lake City, Colorado. The inspector presented his inspector credentials prior to driving up to the mine facility with Kye Abraham in his vehicle. During transit to the mine, the inspector held an opening conference to explain the purpose of the inspection, and discuss questions pertaining to the operation of the Facility. The inspector also explained that an inspection report would be generated and provided to Kye Abraham with any findings identified as part of the inspection. A checklist for the inspection was kept and completed as part of the inspection.

The inspection began by interviewing Mr. Abraham on the Facility's current and past operations. Mr. Abraham indicated that the active mining operations ceased in 2015. There have been no mining operations since 2015. While the mine was active, gold ore was removed from the underground mine, placed on a concrete pad, while awaiting processing. The ore would be processed through a crushing machine, then bagged into super-sacks, and stored on-site and/or off-site before they were sold and shipped. Kye Abraham, stated that the ore would be removed from the ore producing veins with almost surgical precision. This resulted in some of the richest gold ore produced of most mines at up to 10 ounces of gold per ton of gold ore. An estimated maximum of 375 tons of waste and 125 tons of ore is permitted to be produced each month, for a total of 6,000 tons per year. This also served to reduce the waste rock and overburden production. Waste rock pile tiering operations at the site was done at Pad 3. The last waste rock tiering was circa 2014. Rhyolite overburden was stockpiled outside of the portal adjacent to Deadman Gulch. Water collected in the mine was reused in the mine during mining operations. After the mining ceased in July 2015, mine water began to exit the mine portal. The mine drainage increased the observed pollutant loading of metals through Outfall 001 in excess of the permit limits. CDPHE issued a Notice of Violation/Cease and Desist Order (Number: 10-170317-1) to Golden Wonder on March 20, 2017 and among other things, required them to develop treatment for the discharge to meet permit limits. The Facility installed a passive treatment system using crushed/sized iron slag along with a settling basin in late 2017. The Facility, according to Mr. Abraham, is still working through operations and maintenance criteria for the treatment unit to meet the specified permit limits. Kye Abraham and Steve Belz both mentioned the potential to use soda ash as a treatment chemical to facilitate treatment in the passive treatment unit's settling basin. The inspector confirmed with Kye Abraham that the soda ash hadn't been used, and that if a treatment chemical were to be used, the Facility would first need to gain CDPHE's approval to use it.

Once arriving at the site, as part of the Facility review, the inspector had Kye Abraham illustrate the existing state of the site, the site best management practices (BMPs), the passive treatment unit, and the outfall. During the facility review from a stormwater perspective, the materials exposed to stormwater included gold ore in supersacks, iron slag, oil and grease from the crusher and an electric generator. No fuel was stored on-site and no oil stains were observed on the surfaces. Soil and sediment from surface erosion was another potential pollutant source. Photographs taken during the inspection are included in the attached photograph log.

After walking around Pad 6, the inspector requested to review current pertinent NPDES records for the Facility. Records prior to mine operations ceasing in 2015 were available on-site, none were available on-site (e.g., sampling records, calibration logs, chains of custody, inspection records, etc.) after that

time. The inspector requested any available records from Mr. Abraham.

The inspector completed the site inspection of the Facility around 2:00 p.m. Follow-up inspection related discussions were continued off-site until 4:30 p.m. Before departing, the inspector completed a closing conference. During the closing conference, the inspector clarified several inspection items and reviewed potential findings observed during the site inspection which are listed below.

On July 26, 2018, Kye Abraham provided the SWMP Annual Reports for 2015, 2016, and 2017. On August 8, 2018, Kye Abraham provided copies of the flow meter flume and the passive treatment system's design. On August 13, 2018, Kye Abraham provided an updated SWMP based upon the discussion at the inspection out-brief. On August 20, 2018, after the relevant DMR records were submitted by the laboratory, the EPA inspector reviewed the records provided. The inspector reviewed discharge monitoring reports (DMR), lab reports, and chains of custody for Outfall 001 from July through September 2017. The inspector also reviewed CDPHE's records of discharge exceedances, and late DMRs, based on DMR submissions by the facility from January 1, 2017 to May 30, 2018.



## Findings, Corrective Actions and Recommendations

### Findings related to the NPDES Individual Permit (CO0048119)

#### **Finding #1A: Failure to document monitoring.**

The Facility's field monitoring data collection was not documented, or documents were not available to support the results of the analytical values reported in discharge monitoring reports (DMR). The chain-of-custody (COC) forms submitted by the laboratory were filled out by the laboratory and not the field staff collecting the samples. The COC forms submitted were missing who collected the sample, when and where the sample was collected, the container type, preservation (e.g., ice) and field analysis data (often flow, and oil and grease observations). Neither the Facility records, nor the laboratory analysis documents listed the analytical techniques used for analysis.

#### **Permit requirement:**

Part I.E.4 of the permit states, "The permittee shall establish and maintain records. Those records shall include the following:

- a. The date, type, exact location, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) the analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used;
- f. The results of such analyses; and
- g. Any other observations which may result in an impact on the quality or quantity of the discharge as indicated in 40 CFR 122.44 (i)(I)(iii).

The permittee shall retain for a minimum of three (3) years records of all monitoring information, including all original strip chart recordings for continuous monitoring instrumentation, all calibration and maintenance records, copies of all reports required by this permit and records of all data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the Division or EPA."

#### **Corrective Action:**

**Ensure the sample records listed above are created and maintained. Provide the EPA and CDPHE with a sample collection record for a discharge during the fall of 2018, for a field collected sample, demonstrating that a process to collect and document the required permit record information was developed and implemented.**

#### **Finding #2A: Monitoring was not completed in accordance with the Permit.**

Monitoring of the discharge was completed by collecting a grab sample versus a composite sample (i.e., four grab samples collected at equally spaced two-hour intervals and proportioned to flow) as required by the permit. The Facility did not have field documentation to illustrate the collection of composite samples (i.e., flow rate and amount of sample proportionally added to make the composite sample). Statements by Steve Belz, and Kye Abraham also confirm that grab samples were collected by staff. During a site review, no equipment was observed to be available to allow staff to proportion the grab samples according to flow (i.e., graduate cylinder). The DMR records were reviewed for monitoring at Outfall 001 for the third quarter of 2017 (i.e., July through September 2017). The DMRs stated that the samples for metals and total suspended solids (TSS) were "composite samples".



The permit requires monitoring to be completed daily for pH and oil and grease. The permit also requires TSS to be collected 5 days in a week. Frequency of monitoring at Outfall 001 for the third quarter of 2017 (i.e., July through September 2017) demonstrated that monitoring for each of the parameters required by the permit were conducted, typically, twice a week. According to the records, samples were collected on:

- July 11, 13, 18, 22, 27, and 29.
- August 1, 3, 7, 11, 16, 18, 20, 25, 28, and 30.
- September 9, 13, 18, 24, 26, and 28.

The monitoring documented above illustrate that pH, oil and grease and TSS were not sampled at the frequency required by the permit. The DMR records for Outfall 001, for third quarter of 2017 (i.e., July through September 2017), documented that pH, oil and grease were monitored daily and TSS was monitored 5 days in a week. No records of daily pH and oil and grease visual monitoring were provided by the Facility. Furthermore, Kye Abraham stated that staff would attempt to be on-site twice a week when the water was flowing to collect samples. The laboratory records also do not demonstrate monitoring for TSS for 5 days a week.

Flow records demonstrate that the flow is intermittent at the site and according to Steve Belz is related to the runoff from storm events through Deadman Gulch. According to Kye Abraham, with the mine shut down that the Facility is unoccupied.

**Permit requirements:**

Part I.A.2 of the Permit, regarding the monitoring frequency and sample type for Outfall 001A, states, "In order to obtain an indication of the probable compliance or noncompliance with the effluent limitations specified in Part I.A, the permittee shall monitor all effluent parameters at the following frequencies..."

For Outfall 001A, the table provides the following frequency and sample types.

The frequency for pH states, "Daily"

The frequency for TSS, states "5 Days / week"; and the sample type as "composite"

The frequency for oil and grease, states "Daily"

For metals and sulfide, the sample type states, "composite"

Part I.C.19. of the permit states, "'Visual" observation is observing the discharge to check for the presence of a visible sheen or floating oil."

**Corrective Action:**

**Ensure that the monitoring from Outfall 001A's discharge is in accordance with the Permit and accurately documented in the DMRs.**

**Finding #3A: DMRs were Not Submitted on Time.**

Discharge monitoring reports (DMRs) were not submitted on time as required by the Permit. DMRs were noted as being submitted late as illustrated by the EPA's ICIS database for the reporting periods of March 31, 2018; December 31, 2017; September 30, 2017; April 30, 2017; and February 28, 2017.

**Permit requirements:**

Part I.D.1 of the Permit states, "Reporting of the data gathered in compliance with Part I.B.1 shall be on a quarterly basis. Reporting of all data gathered shall comply with the requirements of Part I.E. (General Requirements). Monitoring results shall be summarized for each month and reported on Division approved discharge monitoring report (DMR) forms (EPA form 3320-1). The forms shall be mailed to the address listed below so they are received no later than the 28th day of the following month. If no discharge occurs during the reporting period, "No Discharge" shall be reported."

**Corrective Action:**

**Ensure that the Permit effluent DMR submissions are completed on-time in accordance with the Permit.**

**Finding #4A: The Facility was not documenting its oil and grease visual inspections.**

Mr. Abraham, the Facility's owner, indicated that the oil and grease visual inspections were being performed when samples were collected but these observations were not documented.

**Permit requirement:**

Part I.C.19. of the permit states, "'Visual" observation is observing the discharge to check for the presence of a visible sheen or floating oil."

Part I.A.2 of the Permit states, for outfall 001A that at a frequency of "daily" a "visual" sample is to be completed for oil and grease.

Part I.A.2. of the Permit states, "For every outfall with oil and grease monitoring, in the event an oil sheen or floating oil is observed, a grab sample shall be collected, analyzed, and reported on the appropriate DMR. In addition, corrective action shall be taken immediately to mitigate the discharge of oil and grease. A description of the corrective action taken should be included with the DMR."

Part I.D.4 of the permit states, "The permittee shall establish and maintain records. Those records shall include the following:

- a. The date, type, exact location, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) the analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used;
- f. The results of such analyses; and
- g. Any other observations which may result in an impact on the quality or quantity of the discharge as indicated in 40 CFR 122.44 (i)(I)(iii)."

**Corrective action:**

Document all oil and grease visual inspections as required by the Permit. Provide the EPA and CDPHE with the documentation of the oil and grease visual inspections performed at the Outfall 001A for this Permit for the monitoring conducted in Fall 2018.

**Finding #5A: Exceedances of the Permit effluent limitations.**

The inspector reviewed the DMR data for reported exceedances for the period between January 2017 and May 2018 related to Outfall 001A. The DMR data was provided by CDPHE and is also contained in the EPA's ICIS database. From this data, there were 62 effluent limitation exceedances documented in the submitted DMR data during this timeframe. The effluent violations are outlined below by parameter. CDPHE issued a Notice of Violation/Cease and Desist Order (Number: 10-170317-1) to Golden Wonder on March 20, 2017 for a number of discharge effluent exceedances. The NOV, among other things, required them to develop treatment for the discharge to meet permit limits. The facility installed the treatment in late 2017, and has not been able to test it further in 2018 due to a lack of a discharge from Outfall 001A.

**Copper, potentially dissolved**

Outfall	Monitoring Period End Date	Parameter	Limit Value	Units	Description of Permit Limits	DMR Value	Percent Over the Limit
001-A	09/30/2017	Copper, potentially dissolved	6.6	µg/l	30DA AVG	16.02	143%
001-A	09/30/2017	Copper, potentially dissolved	9.6	µg/l	DAILY MX	26.	171%
001-A	09/30/2017	Copper, potentially dissolved	1.	µg/l	ROLL AVG	37.365	3,637%
001-A	08/31/2017	Copper, potentially dissolved	6.6	µg/l	30DA AVG	12.2	85%
001-A	08/31/2017	Copper, potentially dissolved	9.6	µg/l	DAILY MX	17.	77%
001-A	08/31/2017	Copper, potentially dissolved	1.	µg/l	ROLL AVG	36.03	3,503%
001-A	07/31/2017	Copper, potentially dissolved	6.6	µg/l	30DA AVG	21.61	227%
001-A	07/31/2017	Copper, potentially dissolved	9.6	µg/l	DAILY MX	31.	223%
001-A	07/31/2017	Copper, potentially dissolved	1.	µg/l	ROLL AVG	35.01	3,401%
001-A	06/30/2017	Copper, potentially dissolved	6.6	µg/l	30DA AVG	20.1	205%
001-A	06/30/2017	Copper, potentially dissolved	9.6	µg/l	DAILY MX	23.	140%
001-A	06/30/2017	Copper, potentially dissolved	1.	µg/l	ROLL AVG	36.04	3,504%
001-A	05/31/2017	Copper, potentially dissolved	6.6	µg/l	30DA AVG	22.375	239%
001-A	05/31/2017	Copper, potentially dissolved	9.6	µg/l	DAILY MX	28.	192%
001-A	05/31/2017	Copper, potentially dissolved	1.	µg/l	ROLL AVG	44.29	4,329%
001-A	04/30/2017	Copper, potentially dissolved	6.6	µg/l	30DA AVG	23.	248%
001-A	04/30/2017	Copper, potentially dissolved	9.6	µg/l	DAILY MX	24.	150%
001-A	04/30/2017	Copper, potentially dissolved	1.	µg/l	ROLL AVG	45.25	4,425%

**Copper, total [as Cu]**

Outfall	Monitoring Period End Date	Parameter	Limit Value	Units	Description of Permit Limits	DMR Value	Percent Over the Limit
001-A	07/31/2017	Copper, total [as Cu]	150.	µg/l	30DA AVG	197.97	32%
001-A	06/30/2017	Copper, total [as Cu]	150.	µg/l	30DA AVG	215.7	44%

001-A	05/31/2017	Copper, total [as Cu]	150.	µg/l	30DA AVG	233.75	56%
001-A	04/30/2017	Copper, total [as Cu]	150.	µg/l	30DA AVG	254.	69%

#### Iron, total recoverable

Outfall	Monitoring Period End Date	Parameter	Limit Value	Units	Description of Permit Limits	DMR Value	Percent Over the Limit
001-A	09/30/2017	Iron, total recoverable	100.	µg/l	ROLL AVG	1267.	1,167%
001-A	08/31/2017	Iron, total recoverable	100.	µg/l	ROLL AVG	1213.	1,113%
001-A	07/31/2017	Iron, total recoverable	100.	µg/l	ROLL AVG	1163.46	1,063%
001-A	06/30/2017	Iron, total recoverable	100.	µg/l	ROLL AVG	1143.67	1,044%
001-A	05/31/2017	Iron, total recoverable	100.	µg/l	ROLL AVG	1347.28	1,247%
001-A	04/30/2017	Iron, total recoverable	100.	µg/l	ROLL AVG	1318.23	1,218%

#### Lead, potentially dissolved

Outfall	Monitoring Period End Date	Parameter	Limit Value	Units	Description of Permit Limits	DMR Value	Percent Over the Limit
001-A	09/30/2017	Lead, potentially dissolved	.3	µg/l	ROLL AVG	.307	2%
001-A	08/31/2017	Lead, potentially dissolved	.3	µg/l	ROLL AVG	.308	3%
001-A	07/31/2017	Lead, potentially dissolved	.3	µg/l	ROLL AVG	.308	3%
001-A	06/30/2017	Lead, potentially dissolved	.3	µg/l	ROLL AVG	.307	2%
001-A	05/31/2017	Lead, potentially dissolved	.3	µg/l	ROLL AVG	.369	23%
001-A	04/30/2017	Lead, potentially dissolved	.3	µg/l	ROLL AVG	.369	23%

#### Selenium, potentially dissolved

Outfall	Monitoring Period End Date	Parameter	Limit Value	Units	Description of Permit Limits	DMR Value	Percent Over the Limit
001-A	09/30/2017	Selenium, potentially dissolved	.7	µg/l	ROLL AVG	1.95	179%
001-A	08/31/2017	Selenium, potentially dissolved	.7	µg/l	ROLL AVG	1.85	164%
001-A	07/31/2017	Selenium, potentially dissolved	.7	µg/l	ROLL AVG	1.76	151%
001-A	06/30/2017	Selenium, potentially dissolved	.7	µg/l	ROLL AVG	1.94	177%
001-A	05/31/2017	Selenium, potentially dissolved	.7	µg/l	ROLL AVG	2.51	259%
001-A	04/30/2017	Selenium, potentially dissolved	.7	µg/l	ROLL AVG	2.66	280%

#### Zinc, potentially dissolved

Outfall	Monitoring Period End Date	Parameter	Limit Value	Units	Description of Permit Limits	DMR Value	Percent Over the Limit
001-A	09/30/2017	Zinc, potentially dissolved	7.1	µg/l	ROLL AVG	64.6	810%
001-A	08/31/2017	Zinc, potentially dissolved	7.1	µg/l	ROLL AVG	63.04	788%
001-A	07/31/2017	Zinc, potentially dissolved	7.1	µg/l	ROLL AVG	61.95	773%
001-A	06/30/2017	Zinc, potentially dissolved	7.1	µg/l	ROLL AVG	63.19	790%
001-A	05/31/2017	Zinc, potentially dissolved	7.1	µg/l	ROLL AVG	77.49	991%

001-A	04/30/2017	Zinc, potentially dissolved	7.1	µg/l	ROLL AVG	79.09	1,014%
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### Solids, total suspended

Outfall	Monitoring Period End Date	Parameter	Limit Value	Units	Description of Permit Limits	DMR Value	Percent Over the Limit
001-A	09/30/2017	Solids, total suspended	20.	mg/L	30DA AVG	22.52	13%
001-A	09/30/2017	Solids, total suspended	30.	mg/L	MX 7D AV	35.	17%
001-A	07/31/2017	Solids, total suspended	20.	mg/L	30DA AVG	36.36	82%
001-A	07/31/2017	Solids, total suspended	30.	mg/L	MX 7D AV	47.5	58%
001-A	06/30/2017	Solids, total suspended	20.	mg/L	30DA AVG	39.6	98%
001-A	06/30/2017	Solids, total suspended	30.	mg/L	MX 7D AV	50.	67%
001-A	05/31/2017	Solids, total suspended	20.	mg/L	30DA AVG	106.5	433%
001-A	05/31/2017	Solids, total suspended	30.	mg/L	MX 7D AV	154.	413%
001-A	04/30/2017	Solids, total suspended	20.	mg/L	30DA AVG	66.	230%
001-A	04/30/2017	Solids, total suspended	30.	mg/L	MX 7D AV	62.	107%

### Flow, in conduit

Outfall	Monitoring Period End Date	Parameter	Limit Value	Units	Description of Permit Limits	DMR Value	Percent Over the Limit
001-A	08/31/2017	Flow, in conduit or thru treatment plant	.16	MGD	30DA AVG	.214	34%

### Permit requirement:

Part I.A.2 of the Permit outlines effluent limitations, for Outfall 001A.

The effluent monitoring which have experienced permit exceedances include the following parameters:

Effluent Parameter	Effluent Limitations Maximum Concentrations				Monitoring Requirements	
	30-Day Average	7-Day Average	Daily Maximum	2-Year Average	Frequency	Sample Type
Cu, PD (µg/l)	6.6		9.6	1	2 Days / Week	Composite
Cu, total (µg/l)	150		300		2 Days / Week	Composite
Effluent flow (MGD)	0.16		Report		Continuous	Recorder
Fe, TR (µg/l)	1,000		Report	100	2 Days / Week	Composite
Pb, PD (µg/l)	1.7		44	0.3	2 Days / Week	Composite
Se, PD (µg/l)	4.6		18	0.7	2 Days / Week	Composite

Suspend Solids, total (mg/l)	20		30		5 Days / Week	Composite
Zn, PD (µg/l)	47		106	7.1	2 Days / Week	Composite

TR – total recoverable

PD – potentially dissolved

Part I.D.1 of the Permit states, "The Discharge Monitoring Report forms shall be filled out accurately and completely in accordance with requirements of this permit and the instructions on the forms."

**Corrective action:**

**Ensure that the Permit effluent limitations are met. When exceedances do occur, ensure they are reported in accordance with the Permit and annotated appropriately on the DMR.**

**Finding #6A: Mine water treatment unit by-pass.**

During the inspection of the mine water passive slag filter treatment unit prior to Outfall 001A, it was noted that the slag filter was overflowing at the elbow prior to, and also at, the inlet to the slag filter treatment unit (photographs 1699 and 1700). There appeared to be some sort of obstruction that prevented the mine water from flowing out of the treatment unit's discharge piping causing the mine water to back up and flow from the two connections. This is believed to be the case because when another valve on the treatment unit was opened, water discharged through the discharge pipe freely. The inspector also observed that the inlet pipe flowing into the settling basin was not secured (photographs 1702 and 1703). Kye Abraham stated that the settling basin's connection was disconnected prior to the winter season (Fall 2017). This was affirmed by the fact that the inspector heard a "gurgling" sound and saw air bubbles discharging from the connection prior to the discharge pipe in the settling basin. After Kye Abraham opened the valve from the slag filter after it was closed to assist in flushing the slag filter's outlet. While the mine water was by-passing the slag filter and the settling filter, no discharge was observed at the time of the inspection at Outfall 001A.

**Permit requirement:**

Part I.B.1. of the permit states, "The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee as necessary to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when necessary to achieve compliance with the conditions of the permit."

**Corrective action:**

**Provide documentation illustrating that the mine water treatment unit is being maintained to ensure it working effectively. Provide the EPA and CDPHE with affirmation that the system's treatment unit has been maintained and is now working as intended.**

**Recommended Action:**

**Review the site's procedures to ensure the mine water treatment unit system is maintained and able to operate properly in-between expected site visits.**

**Compliance Assistance Reminder:**

If the site is discharging and the treatment unit had an unanticipated bypass, such as was the case observed by the EPA inspector during the inspection, the facility has requirements in the Permit to notify the State.

Part II.A.4.b of the Permit, states, "The permittee shall report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and shall mail to the Division a written report containing the information requested in Part II.A.4 (a) within five (5) days after becoming aware of the following circumstances:

- i) Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;
- ii) Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit..."

**Finding #7A: pH probe/meter calibration records were not available.**

The pH probe/meter, a Ecotestr pH2, used for pH measurement in the field was lacking records related to its calibration prior to use. Oakton EU Tech Instruments, the pH probe/meter manufacturer, recommends "regular calibration" to maintain accuracy.

**Permit requirement:**

Part I.B.1. of the permit states, "The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee as necessary to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when necessary to achieve compliance with the conditions of the permit.

**Corrective action:**

**Provide a procedure for pH probe/meter calibration and field log documentation demonstrating that the pH probe/meter is calibrated in accordance with the manufacturer's recommendation prior to field use to the EPA and CDPHE.**



**Finding #8A: Inaccurate pH data reported on the DMRs.**

pH measurements are required to be conducted in the field within 15 minutes of collection (per 40 CFR 136). pH measurements are also conducted at the laboratory of the samples when they arrive. The pH data from the laboratory is collected on the laboratory reports used to develop the DMRs. The laboratory data is believed to be the reported values on the DMRs instead of the field data. For example:

- The field pH data on the chain-of-custody (COC) for July 2017, illustrated a high pH value of 7.3 s.u. for the field measured value and 7.28 s.u. for the laboratory reported value. A value of 7.28 for July 2017 was reported on the DMR.
- The field pH data for August 2017, the COC illustrated a low pH value of 7.1 s.u. for the field measured value and 7.15 s.u. for the laboratory reported value and a high pH value of 7.9 s.u. for the field measured value shown on the COC and 7.95 s.u. for the laboratory reported value. Values of 7.15 s.u. and 7.95 s.u. for August 2017 were reported on the DMR.

**Permit requirement:**

Part I.D.3 of the Permit states, “The permittee shall install, calibrate, use and maintain monitoring methods and equipment, including biological and indicated pollutant monitoring methods. All sampling shall be performed by the permittee according to specified methods in 40 C.F.R. Part 136; methods approved by EPA pursuant to 40 C.F.R. Part 136; or methods approved by the Division, in the absence of a method specified in or approved pursuant to 40 C.F.R. Part 136.”

Part I.D.1 of the Permit states, “The Discharge Monitoring Report forms shall be filled out accurately and completely in accordance with the requirements of this permit and the instructions on the forms.”

**Corrective action:**

**Accurately report the field collected pH values on the DMRs.**

**Finding #9A: Monitoring of mine water drainage and waste rock pile seeps conducted after mixing with flow from Deadman Gulch.**

During the site review, it was noted that Outfall 001A discharges include not only the mine water drainage and the seeps at the toe of the waste rock pile from Pad 6 but also stormwater runoff from Pad 6. The discharges also include flow from Deadman Gulch up-gradient of Pad 6 that traverses the site via a man-made lined ditch (photograph 1692) which flows into a pipe that empties out immediately above Outfall 001A (photograph 1708). Thus, all discharges are co-mingled with flow from Deadman Gulch prior to discharge through Outfall 001A back into Deadman Gulch. From a site review, the flow from Deadman Gulch could be easily isolated to bypass the runoff from the site’s stormwater and industrial discharges. Kye Abraham, stated that both CDPHE and Colorado mining division were aware of and approved the configuration of the co-mingled sources as part of the site’s drainage plan. Andrea Beebout from CDPHE stated on August 23, 2018, in a phone call, that CDPHE was aware of how the site is configured.

**Permit requirement:**

Part I.A.1 of the Permit states, “Beginning no later than the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge from outfall: 001A, after treatment and prior to discharge into Deadman Gulch.”

Part I.A.2 of the Permit states, “Self-monitoring sampling by the permittee for compliance with the monitoring requirements specified above shall be performed at the following location: 001A, after

treatment and prior to discharge into Deadman Gulch, at 38° 0' 12.13" North Latitude, 107° 16' 59.77" West Longitude."

Permit II.D.2, of the Permit states, "Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points shall not be changed without notification to and approval by the Division."

**Corrective action:**

**None. CDPHE is aware of the monitoring of the discharge that is mixed with flow from Deadmand Gulch.**

**Findings related to the NPDES General Permit (COR040226)**

**Finding #1B: The Facility's SWMP is not current.**

The SWMP, dated 2007, was developed for active mine operations. The site ceased mining operations in 2015. The 2007 SWMP, therefore does not meet all the SWMP components for an inactive site. Deficiencies were noted for requirements related to the site map, stormwater management controls, and comprehensive inspections. For example, the SWMP requires the site map to include: locations for overburden, soils, tailings and wastes, approximate drainage area for each outfall, and existing structural controls. The 2007 SWMP also does not illustrate existing site controls for crushed mined ore storage (e.g., covering), nor runoff controls (i.e., rock check dams) used at the haul road culverts. Furthermore, the SWMP listed Karmen King from the Gault Group, Inc. as the SWMP administrator. Kye Abraham stated during the EPA's inspection on July 20, 2018 that he was the SWMP administrator and that he had been conducting the site inspections. Kye Abraham stated that he conducted, as the SWMP administrator, the annual comprehensive site inspection required by the SWMP for 2015, 2016, and 2017.

An updated SWMP was provided by Kye Abraham on August 13, 2018. This SWMP was reviewed for compliance with the permit requirements for inactive sites. The discrepancies between the requirements in the permit and the SWMP was the fact that the updated SWMP site map was missing the following: equipment storage areas, material handling areas (e.g., ore awaiting crushing, crushing operations, and crushed ore in supersacks), overburden pile locations, drainage from the various areas, structural controls (i.e., berms, rock-check dams, culverts, piping used to control stormwater runoff), and waste rock drainage seeps from the site. The SWMP administrator was updated to reflect Kye Abraham as the SWMP administrator.

**Permit requirement:**

Part I.C. of the general permit states, "A Stormwater Management Plan (SWMP) shall be developed for each inactive mine covered by the permit... The SWMP shall include the following items, at a minimum:..."

Part I.C.1-4 of the permit outlines the specific SWMP requirements for inactive sites.

**Corrective action:**

**Update the SWMP site map to meet the requirements of the permit. Provide a copy the updated SWMP to the EPA and CDPHE.**

**Finding #2B: SWMP best management practices (BMPs) needed maintenance.**

During the EPA's field inspection, several SWMP BMPs needed maintenance to prevent pollutant exposure and discharge as outlined in the SWMP. The following areas were observed needing maintenance as observed in the attached photograph log:

- A rock check dam along the haul and access roads serving Pad 6 need to be refreshed (photograph 1680);
- Rock armoring at two culvert outlets serving the haul and access roads serving Pad 6 need repair (photographs 1676 and 1679);
- Berming adjacent to the rock crusher and tram on Pad 6 needs to be regraded (photographs 1689 and 1690); and
- Covers for the ore storage need to be replaced on Pads 3 and 6 (photographs 1682 and 1711);

**Permit requirement:**

Part I.B of the Permit states, "A Stormwater Management Plan (SWMP) shall be developed for the portion of each facility covered by this permit. ... In addition, the plan shall describe and ensure the implementation of best management practices (BMPs) which will be used to reduce the pollutants in stormwater discharges associated with mining activity and to assure compliance with the terms and conditions of this permit. ... Permittees must implement the provisions of their SWMP as a condition of this permit."

In section 4 of Golden Wonder's 2007 SWMP it states that, "The flow routed through the culverts will be released, and carried through riprap baffles comprised of large cobble to boulder-size materials. ... The entire pad foot print is encompassed by a perimeter berm and contoured to slope towards to the toe of the excavated slope."

**Corrective Action:**

**Provide the EPA and CDPHE with photographs showing the above BMP deficiencies were corrected.**

**Finding #3B: 2015 SWMP annual report not submitted on time.**

On July 26, 2018, Kye Abraham provided the SWMP 2015 annual report and the compliance reports for 2016 and 2017. The annual report for 2015, and the compliance reports for 2016 and 2017 were signed on July 20, 2018. Mr. Abraham stated that he was not sure if he submitted them to CPDHE or not. No records were found on the CDPHE website illustrating the 2015 annual report was received by CDPHE. A record of the 2014 SWMP annual report, submitted by Kye Abraham, was found on CDPHE's website.

**Permit requirement:**

Part I.E.1.a. of the Permit states, "Annual Report for Active Mining Operations. The permittee will be required to submit an Annual Report, covering January 1 through December 31 of each year, on their compliance with the SWMP. The Annual Report will contain, at a minimum:

- 1) Name of permittee, address, phone number, and permit certification number.
- 2) A report on the facility's overall compliance with the SWMP.

- 3) A summary of each comprehensive stormwater facility inspection made, including date, findings, and action taken. If the inspection frequency that is less than twice per year, in accordance with the allowable reduced inspection frequencies in Part I.D.5.a of this permit, the Annual Report must indicate the reason.
- 4) Results and interpretation of any stormwater monitoring performed.
- 5) Certification language and signature by the permittee. (See Part I.E.5 of the permit.)

The Annual Report will be due to the Division on or before February 15 of the following year. The exact due date for the permittee's first Annual Report will be listed in their permit certification. The Division reserves the right to require additional information in the report, on a case-by-case basis, as needed."

Part I.E.1.b. of the Permit states, "Compliance Report for Inactive Mining Operations: The permittee will be required to submit a report on the compliance with the SWMP. The report shall contain, at a minimum:

- 1) Name of permittee, address, phone number, and permit certification number.
- 2) A report on the facility's overall compliance with the SWMP.
- 3) A summary of the annual inspection reports, including date, findings, and action taken, or the triennial certification by a Professional Engineer (based on one or more inspections) that the facility is in compliance with the permit. If the inspection frequency that is less than once per year, in accordance with the allowable reduced inspection frequencies in Part I.D.5.b of this permit, the Annual Report must indicate the reason.
- 4) Certification language and signature by the permittee. (See Part I.E.5 of the permit.)"

The report will be due to the Division on or before February 15, 2011 and cover the period of time between the coverage by this version of the general permit and December 31, 2010. The Division reserves the right to require additional information in the report, and more frequent reports, on a case-by-case basis, as needed."

**Corrective Action:**

**Provide the EPA and CDPHE with the annual report for 2015.**



# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1669 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southeast.

Description:

Golden Wonder Mine Pad 6 entrance gate, note that it was secured.



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Photo number 1670 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Culvert outlet directing stormwater runoff underneath the mine haul road for Pad 6. Located at (lat/long): 38° 0'26.35"N / 107°17'10.65"W.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1671 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Culvert shown in photograph 1670, looking down gradient from the outlet.



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Photo number 1672 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northwest.

Description:

Looking up-gradient along the mine haul road.  
Photograph taken at the location of the inlet of the culvert shown in photograph 1670.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1673 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Culvert outlet directing stormwater runoff underneath the mine haul road for Pad 6. Located at (lat/long):  
38° 0'22.49"N / 107°17'9.04"W.



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Photo number 1674 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Culvert shown in photograph 1673, looking down gradient from the outlet.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

Photo number 1675 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northwest.

## Description:

Looking up-gradient along the mine haul road.

Photograph taken at the location of the inlet of the culvert shown in photograph 1673.



Photo number 1676 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

## Description:

Culvert outlet directing stormwater runoff underneath the mine haul road for Pad 6, looking down gradient. Located at (lat/long): 38° 0'19.62"N / 107°17'4.39"W. Note that the culvert's outlet had rills at and below the fall pad and was in need of maintenance and improved armoring.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1677 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northwest.

Description:

Looking up-gradient along the mine haul road.  
Photograph taken at the location of the inlet of the  
culvert shown in photograph 1676



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Photo number 1678 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southeast.

Description:

Looking down-gradient along the mine haul road for  
Pad 6, note the berm.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1679 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Culvert outlet directing stormwater runoff underneath the mine haul road for Pad 6, looking down gradient. Located at (lat/long): 38° 0'19.62"N / 107°17'4.39"W. Note that the culvert's outlet had significant erosion at and below the fall pad and was in need of maintenance and improved armoring.



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Photo number 1680 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northwest.

Description:

Looking up-gradient along the mine haul road. Photograph taken at the location of the inlet of the culvert shown in photograph 1679. Note rock check dam needs sediment removal and erosion.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1681 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is South.

Description:

Overview of Pad 6.



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Photo number 1682 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Ore storage. Note the cover has a tear in it.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

Photo number 1683 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Ore crusher.



Photo number 1684 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

Description:

Ore crusher, grease bucket for secondary containment.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1685 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

Description:

Ore crusher, contents of the grease bucket for secondary containment.



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Photo number 1686 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Constructed ore pad. Note the iron slag used for mine drainage treatment.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

Photo number 1687 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Secondary containment for fuel storage tank (not in use).

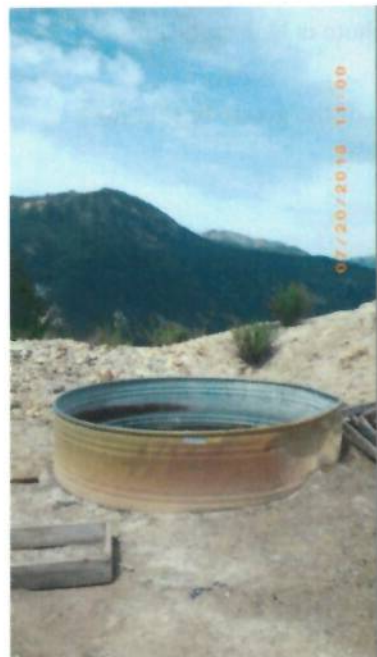


Photo number 1688 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Generator.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1689 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northwest.

Description:

Crusher and the tram used to convey slag and limestone to Outfall 001 for treatment. Note the break in the berm.



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Photo number 1690 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Located at the break in the berm at the tram. Note the erosion rill.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1691 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southeast.

Description:

Waste rock from the mine, rhyolite, is stored adjacent to Deadman Gulch.



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Photo number 1692 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Waste rock from the mine, rhyolite, is stored adjacent to Deadman Gulch. The black liner is the erosion control for Deadman Gulch that traverses the site's eastern boundary.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1693 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Equipment storage adjacent to Deadman Gulch.



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Photo number 1694 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northwest.

Description:

Facility for administrative, equipment and material storage.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1695 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is North.

Description:

Golden Wonder Mine 6 Level mine portal entrance.  
Note the drain and treatment unit on the bottom right  
of the photograph.



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Photo number 1696 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

Description:

Drain in front of the mine portal entrance, with mine  
drainage from the interior of the portal.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1697 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

Description:

Drain shown in photograph 1696 flows to a sediment basin (via a black PVC pipe) before flowing to the water treatment unit shown in photograph 1699.



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Photo number 1698 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

Description:

Interior of sediment basin shown in photograph 1697.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

Photo number 1699 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

## Description:

Mine water passive treatment unit, note the mine drainage water that leaking from the treatment unit prior to treatment as shown in photograph 1700.



Photo number 1700 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

## Description:

Leak at the head of the treatment unit. Note the water flowing from the pipe.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

Photo number 1701 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

## Description:

Interior of the treatment unit shown in photograph 1699 that is kept underneath the metal protective cover. Note the configuration of the valving as found during the inspection.



Photo number 1702 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

## Description:

Post treatment sediment basin down gradient from the passive treatment unit ( the passive treatment unit is seen in the background). Note the level of the water in the basin. No water was flowing in or out of the basin at the time of the inspection.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

Photo number 1703 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

## Description:

Post treatment sediment basin shown in photograph 1702.



Photo number 1704 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

## Description:

Mine Pad 6, surface drain outlet serving the mine pad.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1705 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

Description:

Location of a seep (not actively seeping at the time of the inspection). The seep is located approximately at (lat/long): 38° 0'11.78"N / 107°17'0.90"W.



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Photo number 1706 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Looking from the location of the seep shown in photograph 1705 back up towards the mine's Pad 6. The seep is located at the toe of the embankment of Pad 6.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

Photo number 1707 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

## Description:

Location of a seep (not actively seeping at the time of the inspection) that is adjacent (i.e., to the left of the Deadman Gulch bypass HDPE pipe shown in photograph 1708). The seep is located approximately at (lat/long): 38° 0'11.70"N / 107°17'1.12".



Photo number 1708 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

## Description:

Weir at Outfall 001 looking upgradient. Note the black HDPE pipe in the top-center of the photograph. This pipe is the diversion from Deadman Gulch. Deadman Gulch flows into the discharge location, prior to discharging again back into Deadman Gulch.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1709 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Weir at Outfall 001 looking down-gradient. Note the berm of limestone and iron slag prior to discharge at the weir.



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Photo number 1710 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southeast.

Description:

Overview of Pad 3.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

Photo number 1711 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Ore storage. Note the cover has a tear in it.



Photo number 1712 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Mine portal entrance to the Level 3. Note that it is dry.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

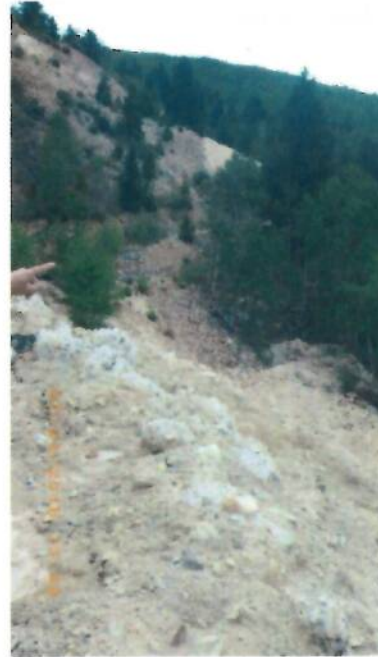
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Photo number 1713 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Waste rock from the mine, rhyolite, is bermed on the Level 3 Pad.



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Photo number 1714 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Looking down-gradient towards the toe of the waste rock berm.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

Photo number 1715 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is East.

Description:

Equipment storage on the Level 3 Pad.



Photo number 1716 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Looking up-gradient from the toe of the waste rock berm shown in photograph 1714.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1717 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Looking up-gradient from the toe of the waste rock berm (at the same location shown in photograph 1716) as shown in photograph 1714.



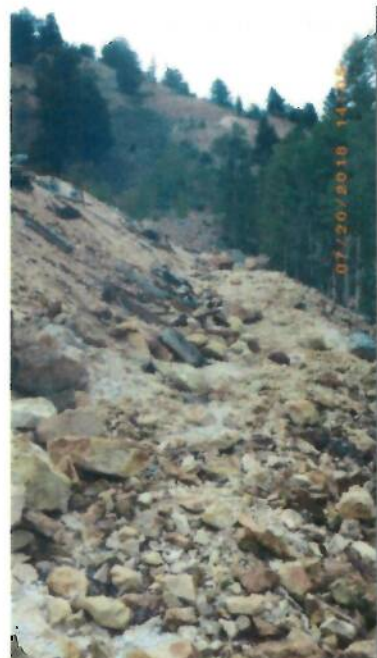
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Photo number 1718 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Northeast.

Description:

Along the waste rock berm on the northeast side of the berm looking up-gradient where the most likely point of runoff would occur, no erosion was noted.





# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

Photo number 1719 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Looking back towards the toe of the berm at the point shown in photographs 1716 and 1717.



Photo number 1720 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Looking back towards the toe of the berm at the point shown in photographs 1716 and 1717. This photograph used the telephoto lens to focus in on the toe of the waste rock pile.







# Photographs for Golden Wonder Mine Inspection No. 201807\_CO0048119 & 201807\_COR040226

Inspection Type: Industrial Discharger

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Photo number 1721 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Not applicable.

Description:

Depression on the Pad 3 mine haul road. This location was reportedly (per Kye Abraham) the point that CDPHE designated as a potential stormwater outfall in the proposed individual permit. It is located approximately at (lat/long): 38° 0'22.36"N / 107°1



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Photo number 1722 taken by D. Gwisdalla on 7/20/2018.

The direction of the photo is Southwest.

Description:

Point where the runoff from the mine haul road, shown in photograph 1721, flows from the haul road down the side of the embankment. Note the minor erosion rill at this location the water flows down the embankment.



## U.S. EPA Small Business Resources Information Sheet

The United States Environmental Protection Agency provides an array of resources to help small businesses understand and comply with federal and state environmental laws. In addition to helping small businesses understand their environmental obligations and improve compliance, these resources will also help such businesses find cost-effective ways to comply through pollution prevention techniques and innovative technologies.

### Office of Small and Disadvantaged Business Utilization (OSDBU)

[www.epa.gov/aboutepa/about-office-small-and-disadvantaged-business-utilization-osdbu](http://www.epa.gov/aboutepa/about-office-small-and-disadvantaged-business-utilization-osdbu)

EPA's OSDBU advocates and advances business, regulatory, and environmental compliance concerns of small and socio-economically disadvantaged businesses.

### EPA's Asbestos Small Business Ombudsman (ASBO)

[www.epa.gov/resources-small-businesses/asbestos-small-business-ombudsman](http://www.epa.gov/resources-small-businesses/asbestos-small-business-ombudsman) or 1-800-368-5888

The EPA ASBO serves as a conduit for small businesses to access EPA and facilitates communications between the small business community and the Agency.

### Small Business Environmental Assistance Program

<https://nationalsbeap.org>

This program provides a "one-stop shop" for small businesses and assistance providers seeking information on a wide range of environmental topics and state-specific environmental compliance assistance resources.

### EPA's Compliance Assistance Homepage

[www.epa.gov/compliance](http://www.epa.gov/compliance)

This page is a gateway to industry and statute-specific environmental resources, from extensive web-based information to hotlines and compliance assistance specialists.

### Compliance Assistance Centers

[www.complianceassistance.net](http://www.complianceassistance.net)

EPA sponsored Compliance Assistance Centers provide information targeted to industries with many small businesses. They were developed in partnership with industry, universities and other federal and state agencies.

#### Agriculture

[www.epa.gov/agriculture](http://www.epa.gov/agriculture)

#### Automotive Recycling

[www.ecarcenter.org](http://www.ecarcenter.org)

#### Automotive Service and Repair

[www.ccar-greenlink.org](http://www.ccar-greenlink.org) or 1-888-GRN-LINK

#### Chemical Manufacturing

[www.chemalliance.org](http://www.chemalliance.org)

#### Construction

[www.cicacenter.org](http://www.cicacenter.org)

#### Education

[www.campuserc.org](http://www.campuserc.org)

#### Food Processing

[www.fpeac.org](http://www.fpeac.org)

#### Healthcare

[www.hercenter.org](http://www.hercenter.org)

#### Local Government

[www.lgean.org](http://www.lgean.org)

#### Surface Finishing

<http://www.sterc.org>

#### Paints and Coatings

[www.paintcenter.org](http://www.paintcenter.org)

#### Printing

[www.pneac.org](http://www.pneac.org)

#### Ports

[www.portcompliance.org](http://www.portcompliance.org)

### Transportation

[www.tercenter.org](http://www.tercenter.org)

### U.S. Border Compliance and Import/Export Issues

[www.bordercenter.org](http://www.bordercenter.org)

### EPA Hotlines and Clearinghouses

[www.epa.gov/home/epa-hotlines](http://www.epa.gov/home/epa-hotlines)

EPA sponsors many free hotlines and clearinghouses that provide convenient assistance regarding environmental requirements. Examples include:

### Clean Air Technology Center (CATC) Info-line

[www.epa.gov/catc](http://www.epa.gov/catc) or 1-919-541-0800

### Superfund, TRI, EPCRA, RMP, and Oil Information Center

1-800-424-9346

### EPA Imported Vehicles and Engines Public Helpline

[www.epa.gov/otaq/imports](http://www.epa.gov/otaq/imports) or 1-734-214-4100

### National Pesticide Information Center

[www.npic.orst.edu](http://www.npic.orst.edu) or 1-800-858-7378

**National Response Center Hotline** to report oil and hazardous substance spills - <http://nrc.uscg.mil> or 1-800-424-8802

### Pollution Prevention Information Clearinghouse (PPIC) -

[www.epa.gov/p2/pollution-prevention-resources#ppic](http://www.epa.gov/p2/pollution-prevention-resources#ppic) or 1-202-566-0799

### Safe Drinking Water Hotline -

[www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-hotline](http://www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-hotline) or 1-800-426-4791

### Toxic Substances Control Act (TSCA) Hotline

[tsc hotline@epa.gov](mailto:tsc hotline@epa.gov) or 1-202-554-1404



### Small Entity Compliance Guides

<https://www.epa.gov/reg-flex/small-entity-compliance-guides>

EPA publishes a Small Entity Compliance Guide (SECG) for every rule for which the Agency has prepared a final regulatory flexibility analysis, in accordance with Section 604 of the Regulatory Flexibility Act (RFA).

### Regional Small Business Liaisons

[www.epa.gov/resources-small-businesses/epa-regional-office-small-business-liaisons](http://www.epa.gov/resources-small-businesses/epa-regional-office-small-business-liaisons)

The U.S. Environmental Protection Agency (EPA) Regional Small Business Liaison (RSBL) is the primary regional contact and often the expert on small business assistance, advocacy, and outreach. The RSBL is the regional voice for the EPA Asbestos and Small Business Ombudsman (ASBO).

### State Resource Locators

[www.envcap.org/statetools](http://www.envcap.org/statetools)

The Locators provide state-specific contacts, regulations and resources covering the major environmental laws.

### State Small Business Environmental Assistance Programs (SBEAPs)

<https://nationalsbeap.org/states/list>

State SBEAPs help small businesses and assistance providers understand environmental requirements and sustainable business practices through workshops, trainings and site visits.

### EPA's Tribal Portal

[www.epa.gov/tribalportal](http://www.epa.gov/tribalportal)

The Portal helps users locate tribal-related information within EPA and other federal agencies.

### EPA Compliance Incentives

EPA provides incentives for environmental compliance. By participating in compliance assistance programs or voluntarily disclosing and promptly correcting violations before an enforcement action has been initiated, businesses may be eligible for penalty waivers or reductions. EPA has two such policies that may apply to small businesses:

#### EPA's Small Business Compliance Policy

[www.epa.gov/enforcement/small-businesses-and-enforcement](http://www.epa.gov/enforcement/small-businesses-and-enforcement)

#### EPA's Audit Policy

[www.epa.gov/compliance/epas-audit-policy](http://www.epa.gov/compliance/epas-audit-policy)

### Commenting on Federal Enforcement Actions and Compliance Activities

The Small Business Regulatory Enforcement Fairness Act (SBREFA) established a SBREFA Ombudsman and 10 Regional Fairness Boards to receive comments from small businesses about federal agency enforcement actions. If you believe that you fall within the Small Business Administration's definition of a small business (based on your North American Industry Classification System designation, number of employees or annual receipts, as defined at 13 C.F.R. 121.201; in most cases, this means a business with 500 or fewer employees), and wish to comment on federal enforcement and compliance activities, call the SBREFA Ombudsman's toll-free number at 1-888-REG-FAIR (1-888-734-3247).

Every small business that is the subject of an enforcement or compliance action is entitled to comment on the Agency's actions without fear of retaliation. EPA employees are prohibited from using enforcement or any other means of retaliation against any member of the regulated community in response to comments made under SBREFA.

### Your Duty to Comply

If you receive compliance assistance or submit a comment to the SBREFA Ombudsman or Regional Fairness Boards, you still have the duty to comply with the law, including providing timely responses to EPA information requests, administrative or civil complaints, other enforcement actions or communications. The assistance information and comment processes do not give you any new rights or defenses in any enforcement action. These processes also do not affect EPA's obligation to protect public health or the environment under any of the environmental statutes it enforces, including the right to take emergency remedial or emergency response actions when appropriate. Those decisions will be based on the facts in each situation. The SBREFA Ombudsman and Fairness Boards do not participate in resolving EPA's enforcement actions. Also, remember that to preserve your rights, you need to comply with all rules governing the enforcement process.

***EPA is disseminating this information to you without making a determination that your business or organization is a small business as defined by Section 222 of the Small Business Regulatory Enforcement Fairness Act or related provisions.***