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**WASTE DISCHARGE REQUIREMENTS ORDER R5-2021-0057
AMENDING WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0055**



ORDER INFORMATION

Order Type(s): Waste Discharge Requirements (WDRs)
Status: Adopted
Program: Title 27 Discharge to Land
Regional 5 Office: Sacramento (Rancho Cordova)
Discharger(s): Meridian Beartrack Co. and Meridian Gold
Facility: Royal Mountain King
Address: 4461 Rock Creek Road, Copperopolis, CA, 95228, USA
County: Calaveras County
Parcel Nos.: 053-411-016, 053-411-015, 053-411-014, 053-411-013, 053-411-002, 053-310-004, 053-012-008, 053-012-004, 053-012-001, 053-011-025, 053-011-018, 053-010-008, 053-101-007, 053-010-005, 053-010-004, 053-010-003, 053-010-002, 053-010-001, 053-009-008, 053-009-007, 053-009-006, 053-009-004, 053-009-003, 053-009-001, 050-431-004, 050-031-029, 050-031-018, 050-031-010, 053-322-003, 053-011-032, 053-322-002, 053-011-016, 053-011-033, 053-022-004, 053-011-034, 54-014-01, 53-011-23, 53-011-24 050-031-011, 053-010-006, 053-011-035, 053-011-037, 053-011-038, 053-011-040053-022-005, 53-011-03
WDID: 5B052014002
Prior Order(s): 88-176; 97-165, 5 01-040, R5-2008-0021, R5-2016-0055

CERTIFICATION

I, PATRICK PULUPA, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 15 October 2021.

PATRICK PULUPA
Executive Officer

REGIONAL BOARD INFORMATION

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GLOSSARY

LCRS	Leachate Collection and Removal System
Leachate	Liquid formed by the drainage of liquids from waste or by the percolation or flow of liquid through waste. Leachate includes any constituents extracted from the waste and dissolved or suspended in the fluid. (Title 27, § 20164.)
MIW	Mining-influenced water
NPDES	National Pollutant Discharge Elimination System
MRP	Monitoring and Reporting Program
TTWQ/C	Threat to Water Quality and Complexity
Title 23	California Code of Regulations, Title 23
Title 27	California Code of Regulations, Title 27
WDR	Waste Discharge Requirements
WMU/MU	Waste Management Unit/Mining Unit

FINDINGS

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) hereby finds as follows:

Introduction

1. Meridian Beartrack Co. and Meridian Gold Co. (hereafter Dischargers) own and operate the Royal Mountain King Mine (Facility), which is located approximately 6 miles northwest of Copperopolis in Calaveras County, Sections 18, 19, 20, 24, 29, 30, and 32, Township T2N South, Range R12E East, Mount Diablo Base and Meridian (MDB&M).
2. The Facility is regulated by Waste Discharge Requirements Order (WDR Order) R5-2016-0055 adopted on 24 June 2016. The associated Monitoring and Reporting Program (MRP) R5-2016-0055 was revised to R5-2016-0055-01 on 23 February 2021.
3. On 13 April 2021, the Dischargers submitted a request for change in Threat to Water Quality and Complexity (TTWQ/C) classification for the facility. Specifically, requested a decrease in Complexity from **A** to **B**.
4. TTWQ/C classifications are used by the State Water Board to determine the annual fee amounts for facilities with Waste Discharge Requirements (WDR) as defined in California Code of Regulations Title 23 Division 3 Chapter 9 Article 1. The article defines Complexity Categories as follows:

Category A "Any discharge of toxic waters; any small volume discharge containing toxic waste or having numerous discharge points or ground water monitoring, or any Class 1 waste management unit."

Category B "Any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal), or any Class 2 or Class 3 waste management units."

Category C ". Any discharger for which waste discharge requirements have been prescribed ... not included in Category "A" or Category "B" as described above ..."
5. The current TTWQ/C classification for Royal Mountain King Mine is **2 A**. The Dischargers suggest that a classification of **2 B** would be appropriate because the complexity of the site decreased since the adoption of Waste Discharge Requirements Order R5-2016-0055.

Analysis

6. The following discussion pertains only to Royal Mountain King WDR Order R5-2016-0055 (Order) and does not consider any other Central Valley Water Board order.
7. The Royal Mountain King Mine is a complex facility with multiple mining units summarized in Attachment A Finding 22. Following Basin Plan Amendment R5-2014-0047, most of the mining waste and units were classified by the WDR Order R5-2016-0055 as Group B and C mining waste/units pursuant to the California Code of Regulations Title 27 (T27) Section 22480 which describes these classifications as follows:
 - Group B – mining waste of Group B is either:*
 - a) *mining wastes that consist of or contain hazardous wastes, that qualify for a variance under Chapter 11 of Division 4.5, of Title 22 of this code, provided that the RWQCB finds that such mining wastes pose a low risk to water quality; or*
 - b) *mining wastes that consist of or contain nonhazardous soluble pollutants of concentrations which exceed water quality objectives for, or could cause, degradation of waters of the state; or*
 - Group C – mining wastes from Group C are wastes from which any discharge would be in compliance with the applicable water quality control plan, including water quality objectives other than turbidity.*
8. Historically, the two liquid waste streams classified as Group B mining waste by the WDR Order were leachates generated by the Leachate Concentrate Residues Facility (LCRF) and Process Water Retention Pond (PWP). However, the generation of leachate by these two units ceased which eliminated the need for an evaporation pond on top of partially closed PWP. Subsequently, final closure of PWP was completed in 2018 as specified in Attachment A Section E.1. Closure Certification Report received concurrence in the 6 June 2019 staff letter.
9. The main activities at the Facility are the collection of Group C leachates from Flotation Tailings Reservoir (FTR) and three Overburden Disposal Sites (ODS), transfer of these Group C leachates to the Skyrocket Pit, and the management of MIW level in the Skyrocket Pit.
10. To prevent overtopping, the management of MIW in the Skyrocket Pit requires wet season discharges to the Littlejohns Creek as specified in Order R5-2018-0003/NPDES Permit No. CA0085243, or, as an emergency measure, transfer of MIW to the North Pit, as allowed by the Order. Each fall, Meridian treats Skyrocket

Pit MIW with ferrous sulfate to decrease arsenic concentrations prior to the permitted discharges to the Littlejohns Creek.

11. Since the WDR Order R5-2016-0055 was adopted, the Discharger completed the following closure activities:
 - a. Closure of FTR foundation, spring, and spine drains.
 - b. Final closure of PWP and PWP evaporation pond.
 - c. Destruction of 14 groundwater monitoring wells and 9 piezometers which were removed from the monitoring program.
12. The analysis of Facility conditions suggests that the requested **Complexity B** is appropriate for Royal Mountain King because:
 - a. The facility does not discharge or store toxic waste.
 - b. Liquid Group B mining waste streams are no longer present at the Facility. The remaining Group B solid mining waste in LCRF no longer generates leachate.
 - c. Mining units other than LCRF contain Group C mining waste.
 - d. The management of MIW in Skyrocket Pit includes chemical treatment.
 - e. Stable groundwater quality conditions at the facility allowed 2021 MRP revision which reduced the number of compliance groundwater wells and monitoring points.
13. The analysis of conditions at the Facility supports the Dischargers' request that the TTWQ/C **2 B** is appropriate. Therefore, this Order amends Order R5-2016-0055 and changes the Royal Mountain King Mine TTWQ/C classification to **2 B**.

Procedural Matters

14. Issuance of this Order for an existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA), Public Resource Code section 21000, et seq., and the CEQA guidelines, in accordance with Title 14, section 15301, since this Order only serves to modify an existing WDR Order.
15. The Central Valley Water Board has notified the Discharger and interested agencies and persons of its intent to amend the WDR Order R5-2016-0055 and has provided them with an opportunity to submit their written views and recommendations.

16. The Central Valley Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

REQUIREMENTS

IT IS HEREBY ORDERED, pursuant to Water Code sections 13263 and 13267, that the WDR Order R5-2016-0055 is amended:

1. Finding 22 is changed as follows:

WMU (Size)	Liner/LCRS Components (from top to bottom)	Waste Classification – Description	Status
Flotation Tailings Reservoir (FTR) (150 acres)	Final Cover: 6-inch thick vegetative soil cover. Tailings ($k \leq 1 \times 10^{-5}$ cm/sec) LCRS: Geotextile, crushed rock, and perforated 4-inch drain pipes Base Liner System: South area: 2-foot thick compacted clay ($k \leq 8 \times 10^{-7}$ cm/sec), North area: 1-foot thick compacted clay ($k \leq 8 \times 10^{-8}$ cm/sec)	Group C Solids and Group C Liquid – 6.5 million tons of flotation tailings. The solids were classified as Group C mining waste based on the lack of acid generation. The liquid contains salts and metals and was reclassified as Group C.	Closed
Leached Concentrate Residues Facility (LCRF) (18 acres)	Final Cover: 6-inch thick vegetative soil cover, one-foot thick FTR tailings layer, a geocomposite drainage layer, 60 mil HDPE geomembrane, foundation layer. LCRS: geotextile, 1-foot thick gravel, perforated drain pipes, geotextile Base Liner System: 40-mil, very low density polyethylene (VLDPE) geomembrane, 2-foot thick compacted clay ($k \leq 8 \times 10^{-6}$ cm/sec), spine drains	Group B Solid – 186,400 tons of leached concentrate residue containing cyanide, salts and metals. The solids are classified as Group B based on the acid generation potential.	Closed

WMU (Size)	Liner/LCRS Components (from top to bottom)	Waste Classification – Description	Status
Process Water Retention Pond (PWP) (8 acres)	Final Cover: 1.5-foot thick vegetative soil cover, geocomposite, 60-mil HDPE, 2 feet thick foundation layer Base Liner System: 80-mil, high density polyethylene (HDPE) geomembrane, geotextile, 1-foot thick gravel LCRS, geotextile, 80 mil HDPE geomembrane, 2-feet of compacted clay, gravel trenches with 6-inch diameter pipes Side-Slope Liner System: 80-mil HDPE geomembrane, geotextile, HDPE drain net, 80-mil HDPE geomembrane, geotextile	Group C Solids – 39,000 cubic yards of flotation tailings from the LCRF	Closed

2. Findings 82 and 87 are changed as follows:

- 82. Liquids generated from the LCRF used to be collected by a LCRS system constructed with a one-foot thick layer of gravel between two geotextiles and a network of perforated pipes, however, the unit no longer generates leachate.
- 87. Liquids generated from the PWP used to be collected by a LCRS system constructed with a one-foot thick layer of gravel between two geotextiles and a network of perforated pipes, however, the unit no longer generates leachate.

3. Finding 110 is changed as follows:

- 110. RMKM consists of numerous WMUs, potential discharge points, and associated monitoring locations. Although a majority of the site is closed, mine impacted water is actively collected and managed through storage at Skyrocket Pit and discharge via a separate NPDES permit. Based on the threat and complexity of the discharge, the facility is determined to be classified 2 B as defined below:
 - a) Category 2 threat to water quality, defined as, “Those discharges of waste that could impair the designated beneficial uses of the

receiving water, cause short-term violations of water quality objectives, cause secondary drinking water standards to be violated, or cause a nuisance.”

- b) Category B complexity, defined as, “Any discharger not included in Category A that has physical, chemical, or biological treatment systems (except for septic systems with subsurface disposal), or any Class 2 or Class 3 waste management units.”
4. Change the Order number throughout to R5-2016-0055-01.
 5. Change the MRP number throughout to R5-2016-0055-01.
 6. Modify the paragraph above the signatory line on the Signature Page as shown in format below:

I, Patrick Pulupa, Executive Officer, do hereby certify that this Order is a full, true, and correct copy of the Order R5-2016-0055-01 adopted by the California Regional Water Quality Control Board, Central Valley Region, on 24 June 2016 and amended by this Order R5-2021-0057 on 15 October 2021.

Meridian Beartrack Co. and Meridian Gold Co, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted there under, shall comply with amended Order R5-2016-0055-01 as shown in **Attachment A**.

LIST OF ATTACHMENTS

Attachment A—WASTE **DISCHARGE REQUIREMENTS ORDER R5-2016-0055-01**
(**separate document**)

Information Sheet

ENFORCEMENT

If, in the opinion of the Executive Officer, the Dischargers fail to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement, may issue a complaint for administrative civil liability, or may take other enforcement actions. Failure to comply with this Order may result in the assessment of Administrative Civil Liability of up to \$10,000 per violation, per day, depending on the violation, pursuant to the Water Code, including sections 13268, 13350 and 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

ADMINISTRATIVE REVIEW

Any person aggrieved by this Central Valley Water Board action may petition the State Water Board for review in accordance with Water Code section 13320 and California Code of Regulations, title 23, section 2050 et seq. To be timely, the petition must be received by the State Water Board by 5:00 pm on the 30th day after the date of this Order; if the 30th day falls on a Saturday, Sunday or state holiday, the petition must be received by the State Water Board by 5:00 pm on the next business day. The law and regulations applicable to filing petitions are available on the [State Water Board website](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) (http://www.waterboards.ca.gov/public_notices/petitions/water_quality). Copies will also be provided upon request.

INFORMATION SHEET

Meridian Beartrack Co. and Meridian Gold Company (hereafter jointly Discharger) operated the Royal Mountain King Mine (RMKM or Facility) in Calaveras County for the extraction of gold. Active mining began in March 1989 and ceased in June 1994. Ore was mined from a series of open pits (North, Skyrocket, and Gold Knoll) and milled at approximately 3,400 tons per day. Mining facilities consisted of three open pits, a mill, a Flotation Tailings Reservoir (FTR), a Leached Concentrate Residues Disposal Area (LCRF), a Process Water Retention Pond (PWP), and three ODSs (FTR, West, and Gold Knoll). All mining units except for Skyrocket Pit and North Pit are closed.

The Facility is regulated by Waste Discharge Requirements Order (WDR Order) R5-2016-0055 adopted on 24 June 2016 which classified mining units as Group C mining waste units and most of mining waste as Group C waste. The associated Monitoring and Reporting Program (MRP) R5-2016-0055 was revised to R5-2016-0055-01 on 23 February 2021.

On 13 April 2021, the Dischargers requested a change in Threat to Water Quality and Complexity (TTWQ/C) classification for the facility which is used for annual fee assessment. Specifically, they requested a decrease in Complexity from **A** to **B**.

Analysis of conditions at the Facility supports the Dischargers' claim that Complexity B may be appropriate because:

- a. The facility does not discharge or store toxic waste.
- b. Liquid Group B mining waste streams are no longer present at the Facility. The remaining Group B solid mining waste in LCRF no longer generates leachate.
- c. Mining units other than LCRF contain Group C mining waste.
- d. The management of MIW in Skyrocket Pit includes chemical treatment.
- e. Stable groundwater quality conditions at the facility allowed 2021 MRP revision which reduced the number of compliance groundwater wells and monitoring points.

This Order amends Order R5-2016-0055 to classify Threat to Water Quality and Complexity as **2 B**.