

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM R5-2017-XXXX
FOR
SOPER COMPANY
SPANISH MINE
NEVADA COUNTY

This monitoring and reporting program (MRP) incorporates requirements for monitoring influent (INF) and effluent (EFF) at the Spanish Mine A-001 and A-003 passive treatment systems (PTS) and surface waters (SW) in nearby Poorman Creek. In place of groundwater monitoring requirements for discharges of wastewater to land, effluent concentrations from the PTS and surface water monitoring in Poorman Creek will be used to ensure that there are no impacts to groundwater or surface water.

This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revision is issued by the Executive Officer.

All effluent samples shall be representative of the volume and nature of the discharge. The time, date, and location of each sample shall be recorded on the sample chain of custody form. Field test instruments (such as electrical conductivity, flow, and pH) may be used provided that:

1. The operator is trained in the proper use and maintenance of the instrument;
2. The instruments are field calibrated prior to each use;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

MONITORING LOCATIONS

The Discharger shall maintain the following monitoring locations to demonstrate compliance with the discharge specifications and other requirements in this Order:

Table 1. Monitoring Station Locations

<u>Monitoring Location Name</u>	<u>Monitoring Location Description</u>
A-001 INF	Discharge from A-001 Adit to PTS
A-001 EFF	Discharge from A-001 PTS to Infiltration Field
A-003 INF	Discharge from A-003 Adit to PTS
A-003 EFF	Discharge from A-003 PTS to Spray Field
<u>Monitoring Location Name</u>	<u>Monitoring Location Description</u>
SW-1U	Poorman Creek 0.5 miles upstream of A-001 Adit
SW-1D	Poorman Creek 100 feet downstream of A-001 Adit
SW-3D	Poorman Creek bridge 1 mile downstream from confluence with Devils Canyon

PASSIVE TREATMENT SYSTEM MONITORING REQUIREMENTS

1. The PTS (containment structures) shall be inspected quarterly for signs of leakage, damage, failure, or overtopping of the containment systems. Any change in site conditions which could impair the integrity of waste containment facilities, precipitation and drainage control structures, or the effectiveness of the PTS shall be reported as required pursuant to Section VIII. A.2. of the Standard Provision (Attachment D).
2. The A-001 infiltration field and the A-003 spray field shall be inspected quarterly for signs of over saturation, seeps, springs, ponding, or runoff. Any changes shall be reported as required pursuant to Section VIII. A.2. of the Standard Provisions.
3. The Discharger shall monitor influent and effluent from the Spanish Mine A-001 and A-003 passive treatment systems (PTS) as follows:

Table 3. PTS Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gpm	Grab	Quarterly	Meter
pH	pH Units	Grab	Quarterly	Meter
Electrical	umhos/cm	Grab	Quarterly	Meter
Arsenic ¹	ug/l	Grab	Quarterly	EPA 6010B
Cadmium ¹	ug/l	Grab	Quarterly	EPA
Copper ¹	ug/l	Grab	Quarterly	EPA
Iron ¹	ug/l	Grab	Quarterly	EPA
Lead ¹	ug/l	Grab	Quarterly	EPA
Manganese ¹	ug/l	Grab	Quarterly	EPA
Nickel ¹	ug/l	Grab	Quarterly	EPA
Zinc ¹	ug/l	Grab	Quarterly	EPA

¹Metals shall be analyzed for dissolved concentrations.

- The Discharger estimates an operable period of 15 to 20 years before accumulated precipitated metals in the PTS needs to be removed and the organic and limestone material replaced. When the removal efficiency of the PTS drops below 70%, for three successive quarters, the performance of the PTS shall be evaluated and the PTS substrate materials may need to be removed and replaced as part of normal operations and maintenance.

SURFACE WATER MONITORING REQUIREMENTS

- The Discharger shall monitor the surface waters upstream and downstream of each discharge point at SW-1U, SW-1D, SW-3D as follows:

Table 3. Surface Water Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	gpm	Grab	Annual ¹	Meter
pH	pH Units	Grab	Annual ¹	Meter
Electrical Conductivity	umhos/cm	Grab	Annual ¹	Meter
Arsenic ²	ug/l	Grab	Annual ¹	EPA 6010B
Cadmium ²	ug/l	Grab	Annual ¹	EPA 1620/200.8
Copper ²	ug/l	Grab	Annual ¹	EPA 1620/200.8
Lead ²	ug/l	Grab	Annual ¹	EPA 1669/1631
Nickel ²	ug/l	Grab	Annual ¹	EPA 1620/200.8
Zinc ²	ug/l	Grab	Annual ¹	EPA 1620/200.8
Iron ²	ug/l	Grab	Annual ¹	EPA 1620/200.8
Manganese ²	ug/l	Grab	Annual ¹	EPA 1620/200.8

¹ Sampling shall be at low-flow conditions and prior to on-set of rainy season.

² Metals shall be analyzed for dissolved concentrations.

Surface Water Discharge Specifications

Surface water discharge specifications are based on water quality objectives contained in the Basin Plan and are a required part of this Order.

1. The Discharge of wastewater to land shall not cause the concentrations or parameters to exceed the following in Poorman Creek at Monitoring Locations SW-1D and SW-3D:

Table 6. Surface Water Discharge Specifications for Poorman Creek

Parameter	Units	Receiving Water Limitations			
		Average Monthly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Arsenic	ug/l		10 ^{1,2}		
Cadmium	ug/l	0.9 ^{3,4}	1.0 ^{3,4}		
Cobalt	ug/l	50 ⁵			
Copper	ug/l	3.0 ^{3,4}	4.1 ^{3,4}		
Iron	ug/l	300 ⁶			
Lead	ug/l	0.6 ^{3,4}	15 ^{3,4}		
Manganese	ug/l	50 ⁶			
Nickel	ug/l	17 ^{3,4}	100 ²		
Zinc	ug/l	46 ^{3,4}	46 ^{3,4}		
pH	ug/l			6.5	8.5

¹ Criteria from Basin Plan

² Primary MCL for drinking water supply

³ Criteria from California Toxics Rule

⁴ Listed criteria are based on a "worst case" hardness of 27 mg/l. Actual criteria shall be calculated after each sampling event using the California Toxics Rule formulas for Total Recoverable Metals for Criteria Continuous Concentration and Criteria Maximum Concentration.

⁵ Agricultural Water Quality Objective

⁶ Secondary MCL for Drinking water supply

OTHER MONITORING REQUIREMENTS

The Discharger shall submit an annual report to the Regional Board by 1 February of each year. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. The Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report. In addition, the Discharger shall discuss the compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements.

REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions related to monitoring, reporting, and recordkeeping.
2. The Discharger shall report to the Central Valley Water Board any toxic chemical release data it reports to the State Emergency Response Commission within 15 days of reporting the data to the Commission pursuant to section 313 of the "Emergency Planning and Community Right to Know Act" of 1986.

B. Annual Monitoring Reports

An Annual Monitoring Report shall be prepared and submitted to the Central Valley Water Board by **1 February** each year. The Annual Monitoring Report shall include the following:

1. Analytical results for all required monitoring using US EPA-approved test methods or other test methods specified in this Order, including copies of laboratory analytical report(s).
2. Tabular and graphical summaries of the monitoring data obtained during the previous year(s).
3. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements.
4. A calibration log verifying calibration of all hand held monitoring instruments and devices used to comply with the prescribed monitoring program.
5. A scaled map showing relevant structures and features of the facility, the

locations of surface water monitoring and all other sampling stations.

6. A discussion of compliance and corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements.

A letter transmitting the self-monitoring reports shall accompany each report. The letter shall include a discussion of all WDRs violations during the reporting period, and actions taken or planned for correcting each violation. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain a statement by the Discharger, or the Discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate and complete pursuant to Section VIII.A.5. of the Standard Provisions.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: _____

PAMELA C. CREEDON, Executive Officer

(Date)

Quarterly Monitoring Report

Facility: Spanish Mine

Order: R5-2017-XXXX _____

Month: _____

Year: _____

Did a discharge to surface waters occur during the reporting period? (circle one) **Yes** **No**

Constituent/Parameter	Sampling Frequency	Value	Units
PTS Monitoring			
Flow	Quarterly	_____	gal/min
pH	Quarterly	_____	standard units
EC	Quarterly	_____	µmhos/cm
Arsenic, dissolved	Quarterly	_____	µg/L
Cadmium, dissolved	Quarterly	_____	µg/L
Copper, dissolved	Quarterly	_____	µg/L
Iron, dissolved	Quarterly	_____	µg/L
Lead, dissolved	Quarterly	_____	µg/L
Manganese	Quarterly	_____	µg/L
Nickel	Quarterly	_____	µg/L
Zinc	Quarterly	_____	µg/L
Surface Water Monitoring			
Flow	Quarterly	_____	gal/min
pH	Quarterly	_____	standard units
EC	Quarterly	_____	µmhos/cm
Arsenic, dissolved	Quarterly	_____	µg/L
Cadmium, dissolved	Quarterly	_____	µg/L
Copper, dissolved	Quarterly	_____	µg/L
Iron, dissolved	Quarterly	_____	µg/L
Lead, dissolved	Quarterly	_____	µg/L
Manganese	Quarterly	_____	µg/L
Nickel	Quarterly	_____	µg/L
Zinc	Quarterly	_____	µg/L

Monitoring Report Submittal Transmittal Form

Attn: Jeff Huggins (916) 464-4639
Central Valley Regional Water Quality Control
Board 11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

Discharger: Soper Company
Name of Facility: Spanish Mine
WDRs Order Number: R5-2017-XXXX
WDID: 5A29NP00001
County: Nevada

I am hereby submitting to the Central Valley Water Board the following information:

Check all that apply:

Annual Monitoring Report for the year _____

Violation Notification

During the monitoring period, there were / were not (circle one) any violations of the WDRs.

1. The violations were:

2. Have the violations been corrected? Yes / No. If no, what will be done to correct the violations:

Certification Statement

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Signature: _____ Phone: _____

Printed Name: _____ Date: _____