



FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: EP MINERALS FERNLEY FACILITY

9785 GATEWAY DRIVE
RENO, NV 89521

Permit Number: NS2018504

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: EP MINERALS FERNLEY FACILITY, CHURCHILL
I-80 EAST, EXIT 65 FRONTAGE ROAD, FERNLEY, NV 89408
LATITUDE: 39.899054, LONGITUDE: -118.845730
TOWNSHIP: 23, RANGE: 27, SECTION: 29

| Outfall / Well Num | Outfall / Well Name | Location Type | Well Log Num | Latitude | Longitude | Receiving Water |
|--------------------|---------------------|-----------------------|--------------|-----------|-------------|-----------------|
| 001 | DUST CONTROL | Surface Disposal Site | 118669 | 39.828220 | -118.970862 | GROUNDWATER |

Permit History/Description of Proposed Action

The Permittee, EP Minerals, has applied for the renewal of groundwater discharge permit NS2018504 for their facility located off of I-80, Exit 65 on Frontage Road in Fernley, Nevada. The Permittee proposes to continue to use non-contact process water from the Olam Spices and Vegetables, Inc. (SVI) facility for dust control on dirt roads.

This permit was first issued in August of 2018, and expired on August 1, 2023; the permit has been administratively continued since.

Facility Overview

EP Minerals is part of the nonmetallic mineral mining and quarrying industry. Located approximately 19 miles northeast of Fernley, the facility operates in the diatomaceous earth mining business. The Permittee proposes to haul non-contact process water from the Olam SVI facility (permit #NS0080024), located approximately 4 miles southwest of EP Minerals’ facility, via water trucks where the water will be sprayed on dirt roads to aid in dust control.

The water obtained from the Olam SVI facility is geothermal water sourced from the Brady Power Plant, located approximately 0.45 miles northwest of the Olam SVI facility. Upon delivery to the Olam SVI facility, the geothermal water is first used to operate two dehydration units. The water enters the units at a temperature near 300 °F and exits the units at a temperature around 160 °F. After the non-contact process water exits the dehydrators, the flow stream is split. A portion of the water (approximately 20%) is cooled to no more than 110 °F and then stored for use as onion and equipment wash water. After use, the wash water is filtered through a 0.03-inch Hydro-sieve screen to remove vegetable matter, then collected in a detention sump. From the sump, the water is intermittently discharged to any of the 18 onsite infiltration basins. The remaining non-contact process water (approximately 80 %) is diverted into a pond to cool prior to release

into an unnamed ditch that discharges to an alkali flat. The portion of the water sent to the onsite pond is the same water to be trucked to EP Minerals.

Outfall Summary

Outfall 001 – This outfall is for the discharge of non-contact process water on dirt roads located at the Permittee's facility.

Effluent Characterization

The non-contact process water is supplied by the Olam SVI facility. Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from the year 2019 to 2023, was reviewed as part of this permit draft process. The long-term average flow rate was 0.0096 million gallons per day (MGD). The flow rate is limited to 0.15 MGD; there were no exceedances of this limit during the 2019 to 2023 reporting period.

The minimum reported pH level for the non-contact process water was 4.25 standard units (S.U.) and the maximum was 8.36 S.U.; total dissolved solids (TDS) averaged 2,636 mg/L.

Pollutants of Concern

Pollutants of concern are any pollutants or parameters that are believed to be present in the discharge and could affect or alter the physical, chemical, or biological condition of the receiving water. Data obtained through the NetDMR system indicates pH and TDS are pollutants of concern.

Receiving Water

The receiving water is groundwater of the State. EP Minerals is located within the Brady Hot Springs hydrogeographic area. The groundwater is shallow and of poor quality. According to the *Water Resources - Reconnaissance Series Report 55* written by the State of Nevada Department of Conservation and Natural Resources Division of Water Resources in 1970, "All water samples from Brady's Hot Springs Area exceeded limits recommended as drinking water standards by the U.S. Public Health Services (1962) and had high or very high salinity and sodium hazards in regard to irrigation use."

Compliance History

The Permittee was considered to be in substantial compliance with their permit during the 2019 to 2023 reporting period.

Proposed Effluent Limitations

The discharge shall be limited and monitored by the Permittee as specified below:

NS OTHER - Discharge Limitations Table for Sample Location 001 (Surface Disposal Site) To Be Reported Monthly

| Discharge Limitations | | | | Monitoring Requirements | | | |
|--|----------------|--|---------------------------------|-------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Flow rate | Daily Maximum | <= 0.15 Million Gallons per Day (Mgal/d) | | Prior to Reuse | 001 | Continuous | CALCTD |
| Flow rate | 30 Day Average | M&R Million Gallons per Day (Mgal/d) | | Prior to Reuse | 001 | Continuous | CALCTD |
| pH, minimum ^[1] | Daily Minimum | | M&R Standard Units (SU) | Prior to Reuse | 001 | Monthly | DISCRT |
| pH, maximum ^[1] | Daily Maximum | | M&R Standard Units (SU) | Prior to Reuse | 001 | Monthly | DISCRT |
| Solids, total dissolved ^[1] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Monthly | DISCRT |

Notes (NS OTHER - Discharge Limitations Table):

1. Results may be obtained from Olam SVI (Permit NS0080024).

NS OTHER - Discharge Limitations Table for Sample Location 001 (Surface Disposal Site) To Be Reported Quarterly

| Discharge Limitations | | | | Monitoring Requirements | | | |
|--|---------------|----------|------------------------------------|-------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Hydrocarbons, total petroleum ^[1] | Daily Maximum | | <= 1.0 Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Quarterly | DISCRT |

Notes (NS OTHER - Discharge Limitations Table):

1. Results may be obtained from Olam SVI (Permit NS0080024).

NS OTHER - Discharge Limitations Table for Sample Location 001 (Surface Disposal Site) To Be Reported Annually^[1]

| Discharge Limitations | | | | Monitoring Requirements | | | |
|---|---------------|----------|---------------------------------|-------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Alkalinity, bicarbonate (as CaCO ₃) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Alkalinity, total (as CaCO ₃) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Aluminum, total (as Al) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Antimony, total (as Sb) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Arsenic, total (as As) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Barium, total (as Ba) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Beryllium, dissolved (as Be) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Cadmium, dissolved (as Cd) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Calcium, total (as Ca) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Chloride (as Cl) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Chromium, total (as Cr) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| | | | M&R | | | | |

NS OTHER - Discharge Limitations Table for Sample Location 001 (Surface Disposal Site) To Be Reported Annually^[1]

| Discharge Limitations | | | | Monitoring Requirements | | | |
|--|---------------|----------|---------------------------------|-------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Copper, dissolved (as Cu) | Daily Maximum | | Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Fluoride, total (as F) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Iron, total (as Fe) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Lead, dissolved (as Pb) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Magnesium, total (as Mg) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Manganese, total (as Mn) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Mercury, dissolved (as Hg) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Nitrite plus nitrate total 1 det. (as N) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Nitrogen, total | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| pH, maximum | Daily Maximum | | M&R Standard Units (SU) | Prior to Reuse | 001 | Annual | DISCRT |
| pH, minimum | Daily Minimum | | M&R Standard Units (SU) | Prior to Reuse | 001 | Annual | DISCRT |
| Potassium, total (as K) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |

NS OTHER - Discharge Limitations Table for Sample Location 001 (Surface Disposal Site) To Be Reported Annually^[1]

| Discharge Limitations | | | | Monitoring Requirements | | | |
|--|---------------|----------|---------------------------------|-------------------------|------------|-----------------------|-------------|
| Parameter | Base | Quantity | Concentration | Monitoring Loc | Sample Loc | Measurement Frequency | Sample Type |
| Selenium, dissolved [as Se] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Silver, total (as Ag) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Sodium, total (as Na) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Sulfate, total (as SO ₄) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Thallium, total (as Tl) ^[2] | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Solids, total dissolved | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Uranium, natural, total | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Cyanide, weak acid, dissociable | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |
| Zinc, dissolved (as Zn) | Daily Maximum | | M&R Milligrams per Liter (mg/L) | Prior to Reuse | 001 | Annual | DISCRT |

Notes (NS OTHER - Discharge Limitations Table):

1. Results may be obtained from Olam SVI (Permit NS0080024).
2. Analysis shall be for the dissolved fraction.

Summary of Changes From Previous Permit

The proposed permit removes the event total flow rate and replaces it with a daily maximum flow rate.

The proposed permit establishes the requirement to report the 30-day average flow rate.

The proposed permit removes the TDS limit of 10,000 mg/L and replaces it with the requirement to monitor and report.

The proposed permit establishes the requirement to report Profile 1.

The proposed permit establishes the requirement to report total petroleum hydrocarbons (TPH).

Technology Based Effluent Limitations

Technology based effluent limitations are not applicable to this permit.

Water Quality Based Effluent Limitations

Water quality based effluent limitations are not applicable to this permit.

Proposed Water Quality Based Effluent Limits (monthly/weekly/daily)

Water quality based effluent limitations are not applicable to this permit.

Basis for Effluent Limitations

There are currently no specific water quality standards that have been formally adopted by the State for groundwater. However, the Division has the discretion to implement effluent limitations outside water quality standards per Nevada Administrative Code (NAC) 445A.243, which states, "In establishing an effluent limitation to carry out the policy of this State set forth in NRS 445A.305, consideration must be given to, but is not limited by, the following: ... (2) the need for standards that specify by chemical, physical, biological, or other characteristics the extent to which pollution by various substances will not be tolerated." The constituents listed in Profile I have been vetted by the Division and have been included in groundwater discharge permits for many years as a means of regulating groundwater quality. Per Nevada Revised Statute (NRS) 445A.490, "No permit may be issued which authorizes any discharge or injection of fluids through a well into any waters of the State: ... (3) which would result in the degradation of existing or potential underground sources of drinking water." Therefore, the requirement to sample for the constituents listed in Profile I, once each year to obtain additional water quality data, has been established.

The previous permit included a TDS limit of 10,000 mg/L. Profile I reference value for TDS is 1,000 mg/L. Due to the poor quality of the groundwater in the area, the limit of 10,000 mg/L for TDS has been removed and the permit establishes the requirement to monitor and report TDS.

The permit retains monthly sampling for TDS and pH as these constituents are considered pollutants of concern and therefore should be monitored more closely.

Anti-backsliding

To prevent backsliding, effluent limitations in reissued permits are required to be as stringent as those in the previous permit with some exceptions.

The previous permit included a limit of 10,000 mg/L for TDS with the rationale that the limit was, "...consistent with other Division permits for the use of process water for dust control." However, according to the *Water Resources - Reconnaissance Series Report 55* written by the State of Nevada Department of Conservation and Natural Resources Division of Water Resources in 1970, "All water samples from Brady's Hot Springs Area exceeded limits recommended as drinking water standards by the U.S. Public Health Services (1962) and had high or very high salinity and sodium hazards in regard to irrigation use." Therefore, the previous TDS limit of 10,000 mg/L is removed and the requirement to monitor and report TDS is established.

Antidegradation

The Division has developed an antidegradation regulation that is applied on a statewide basis, and which meets the statutory requirements of Nevada's water pollution control law found at NRS 445A.520 and NRS 445A.565 and is consistent with the federal antidegradation policy found at Title 40 in the Code of Federal

Regulations (CFR) § 131.12. The objective of the Division’s antidegradation regulation is to prevent degradation of Nevada’s surface waters and maintain the unique attributes and special characteristics and water quality associated with high-quality waters.

As this permit is for discharges to groundwater, and not surface water, the new antidegradation rule is not applicable. There are currently no specific water quality standards that have been formally adopted by the State for groundwater; however, data reviewed during the renewal process does not indicate the potential for degradation of the groundwater from the non-contact process water discharged within the compliance limits of the proposed permit.

Special Conditions

See the Special Approvals / Conditions Table in the Fact Sheet.

The facility's Reclaimed Water Management Plan (RWMP), formerly known as an Effluent Management Plan (EMP), was reviewed and approved in 2018. The Technical, Compliance, and Enforcement Branch of the bureau of Water Pollution Control requires RWMPs be updated every two (2) permit cycles which equates to every ten (10) years. Therefore, the Permittee does not need to submit an updated RWMP at this time.

SA – Special Approvals / Conditions Table

| Item # | Description |
|--------|---|
| 1 | The Permittee shall not allow non-contact process water, used for dust control, to pond or run off of the dust control application areas. |
| 2 | The Permittee shall not use non-contact process water for dust control when the weather and ground conditions do not allow for the effective use of dust control water (e.g., rain, frozen ground, etc.). |
| 3 | DMRs shall be submitted using Nevada's NetDMR program. |

Discharges From Future Outfalls/ Planned Facility Changes

The Permittee does not anticipate discharges from future outfalls or any changes to the facility.

Corrective Action Sites

There is one active Bureau of Corrective Action (BCA) site within a one-mile radius of the facility. The BCA site (E-000133) is for the release of an unnamed contaminant, from an above ground storage tank to the soil. It is not anticipated that discharges from the facility will negatively affect the active BCA site.

Wellhead Protection Program

The nearest Public Water Supply (PWS) well is located at the facility. There is another PWS well located approximately 3.45 miles to the southwest at the Olam SVI facility. The discharge location is located within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well. A Wellhead Protection Area, which represents an approximate 10-year capture zone of a well, has not been developed for this well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

| |
|---|
| There are no Schedule of Compliance items |
|---|

Deliverable Schedule:

DLV– Deliverable Schedule for Reports, Plans, and Other Submittals

| Item # | Description | Interval | First Scheduled Due Date |
|--------|----------------|-----------|--------------------------|
| 1 | Quarterly DMRs | Quarterly | 4/28/2025 |
| 2 | Annual DMRs | Annually | 1/28/2026 |

Procedures for Public Comment:

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to groundwater of the State of Nevada subject to the conditions contained within the permit, is being mailed to interested persons on our mailing list and will be posted on our website at <https://ndep.nv.gov/posts>. Anyone wishing to comment on the proposed permit can do so in writing until 5:00 P.M. **12/16/2024**, a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator of EPA Region IX or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted. Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination:

The Division has made the tentative determination to issue/re-issue the proposed 5-year permit.

Prepared by: **Bonnie Hartley**
 Date: **11/12/2024**
 Title: **Staff II, Associate Engineer**