FACTSHEET
(pursuant to NAC 445A.236)

Permittee Name: EMD ACQUISITION LLC DBA: BORMAN SPECIALTY MATERIALS

560 W. LAKE MEAD PARKWAY
HENDERSON, NV 89015

Permit Number: NS2001516

Permit Type: GROUNDWATER DISCHARGE

Designation: GROUNDWATER

New/Existing: EXISTING

Location: EMD ACQUISITION LLC DBA: BORMAN SPECIALTY MATERIALS, CLARK
560 W. LAKE MEAD PKWY., HENDERSON, NV 89015
LATITUDE: 36.041944, LONGITUDE: -115.003890
TOWNSHIP: 22S, RANGE: 62E, SECTION: 13

Outfall / Well Num	Outfall / Well Name	Location Type	Well Log Num	Latitude	Longitude	Receiving Water
001	WC-EAST	Internal Outfall		36.050628	-115.001783	GROUNDWATER
002	WC-WEST	Internal Outfall		36.0507	-115.003392	GROUNDWATER
003	MN-1	Internal Outfall		36.046364	-114.999631	GROUNDWATER
004	MN-2	Internal Outfall		36.04548450	-114.999759	GROUNDWATER
005	DUST CONTROL	External Outfall		36.041944	-115.003890	GROUNDWATER

Permit History/Description of Proposed Action
The Permittee, EMD Acquisitions, LLC dba Borman Specialty Materials (Borman), has applied for the renewal of groundwater discharge permit NS2001516 for the facility located at 560 W. Lake Mead Parkway, Henderson, in Clark County, Nevada.

This permit was first issued on February 25, 2002, with a major modification issued on November 2, 2012, and a minor modification issued on May 28, 2021. The permit has been administratively continued since.

Facility Overview
Borman operates an inorganic chemical processing facility located in Henderson, Nevada. Borman uses evaporation, or holding ponds, to manage their process water. Under this permit, no direct discharge of water is allowed from any pond to groundwater or surface waters of the State. Treated distillate water discharges to the groundwater, via dust control applications, will be allowed for onsite use.

Under previous permitting arrangements, the permitted facility was owned and operated by Tronox LLC (Tronox). Tronox LLC operated an electrochemical manufacturing facility located in the Henderson, Nevada Industrial Area (i.e., Basic Management, Incorporated (BMI) Industrial Complex). Tronox manufactured electrolytic manganese dioxide (EMD), lithium EMD and lithium EMD doped with nickel. Historically, Tronox (as KerrMcGee) additionally manufactured elemental boron and several chlorate and perchlorate-based compounds including ammonium perchlorate. Ammonium perchlorate has several uses including its use as an oxidizer in solid rocket propellant for aerospace and military applications. Perchlorate production ceased

at this facility in July 1998, and the perchlorate production equipment was decommissioned and dismantled by March 2002. The chemical manufacturing portion of the former Kerr McGee Chemical LLC was sold and renamed as Tronox in late 2005. Neighboring facilities within BMI include Pioneer Americas LLC, Titanium Metals Corp. (TIMET), Chem Star, and Saguaro Power Co. Over the course of many decades of operation, the soil and/or groundwater under portions of the BMI complex had become contaminated with a variety of raw materials, chemical byproducts and chemical products due to the manufacturing activities of the various BMI complex operators. The Nevada Division of Environmental Protection (NDEP), Bureau of Corrective Actions (BCA) required Tronox to remediate perchlorate and chromium from beneath the Tronox plant site. Pursuant to an environmental agreement between Tronox and NDEP, Tronox transferred all of its rights, title and interests with respect to remedial operations to the Nevada Environmental Response Trust (Trust). Transfer of the activities, and the two discharge permits associated with those activities (NS2001515 and NV0023060), to the Trust occurred on February 14, 2011.

Originally, Tronox had five double-lined, leak detecting, holding ponds on site. Tronox had separate permits for Ponds GW11 and AP5 (NS2001515) and for their holding ponds, WC-West Holding Pond (West Pond), WC-East Holding Pond (East Pond), MN1 Holding Pond, and MN2 Holding Pond (NS2001516), respectively. The separate discharge permit was requested to facilitate any future transfer of ponds WC-West, WC-East, MN1, and MN2 to another tenant in the BMI Complex, with the facility now being leased to EMD Acquisitions LLC dba (doing business as) Borman Specialty Materials. With the reorganization, Ponds GW11 and AP5 are now managed by the Trust under Discharge Permit NS2001515. All other ponds remain with EMD Acquisitions dba Borman Specialty Materials, under Discharge Permit NS2001516.

Under this permit (NS2001516), the discharge from the various plants goes into separate ponds with each of the four currently operating ponds, WC-West Holding Pond, WC-East Holding Pond, MN1 Holding Pond, and the MN2 Holding Pond, being double lined and equipped with a leak detection sump between the primary and secondary liners.

WC-East and WC-West Holding Ponds

The WC-East Holding Pond (East Pond) receives multiple streams of process water made up of the following:

- Thickener overflows from the product thickeners used to increase the manganese dioxide (MnO_2) solids content of an MnO_2 slurry by separating relatively clean process water from the slurry. The water separated from the slurry is referred to as thickener overflow. This stream is composed of relatively clean water which is used as makeup water in various locations in the process. The unused portion is sent to WC-East Holding Pond.
- Steam plant effluent and floor drain which consists of water softener blowdown and boiler blowdown.
- Neutralized sodium sulfate generated from the reaction of sodium hydrosulfide with sulfuric acid to generate hydrogen sulfide gas. This gas is used in the leach plant's sulfiding process.
- Recycle flow from the wastewater from WC-East is normally pumped to the Wastewater Treatment Units for treatment on a continuous basis with a portion recycled back to WC-East. This continuous flow with recycling is set up to prevent blockage from forming in lines due to little or no flow. Since Cooling Tower CT03 routes its blowdown to the Wastewater Treatment Plant, the Wastewater Treatment Plant recycles to WC-East, which may contain a very small amount of this nonhazardous cooling water blowdown stream.

The WC-West Holding Pond (West Pond) is an overflow for WC-East.

MN-1 and MN-2 Holding Ponds

MN-1 and MN-2 Ponds receive process water from the Boron processing area, wastewater treatment plant, and from containments that require pumping. Pond MN-2 is the primary receiving pond for the Boron processing area, wastewater treatment plant and containment areas that require pumping. As the primary pond, this pond receives discharge that contains a high volume of solids and does require those solids to be removed regularly. Pond MN1 is the backup pond for MN-2. MN-2 receives the following streams:

- Cathode wash solution made up of ethylenediaminetetraacetic acid (Na_4EDTA) and sodium hydroxide ($NaOH$).
- Manganese process solutions made up of nonhazardous fluids and wash water from process vessels/tanks being services or cleaned.

- Wastewater streams generated from the Boron/BCl3 process building go to MN-2. One is a small purge stream from the BCl3 caustic scrubber system, and the other is a magnesium sulfate containing purge solution generated by the Boron production process. Both streams are sent to a neutralization tank where they are neutralized. After being neutralized, these streams are pumped to the MN-2 Pond for final evaporation/concentration.
- Concentrated brine-ish bottom stream high in solids generated from the facility's wastewater treatment plant and from the vapor compression evaporation units. Through vapor evaporation, the wastewater is separated into (2) liquid streams:
  - 1.) a clean solids-free distillate stream and
  - 2.) concentrated "brine" bottom stream very high in solids.

The distillate stream is very clean water and is used for water makeup in various locations around the facility. The concentrate stream is sent to MN-2 Pond for further evaporation/ concentration.

The Plant's Operation and Maintenance Manual (O&M) was last reviewed and approved by the Division in November 2011. (Tronox provided a revised O & M on March 8, 2013.) The Technical, Compliance, and Enforcement (TCE) Branch of the Bureau of Water Pollution Control requires O & Ms to be updated every two (2) permit cycles which equates to every ten (10) years; therefore, an updated O & M will need to be submitted to the Division for review and approval by April 28, 2025. The O & Ms shall follow guidance document, WTS2 -Minimum Information Required for an Operation and Maintenance Manual for a Wastewater Treatment Plant.

Outfall Summary

Outfall 001 – This internal outfall is for the discharge of process water into WC-East Pond.

Outfall 002 – This internal outfall is for the discharge of process water into the WC-West Pond.

Outfall 003 – This internal outfall is for the discharge of process water into the MN-1 Pond, which serves as overflow for MN-2.

Outfall 004 – This internal outfall is for the discharge of process water into the MN-2 Pond.

Outfall 005 – This external outfall is for dust control water sourced from either WC-West or WC-East.

Effluent Characterization

Nevada State Network Discharge Monitoring Report (NetDMR) data, as reported from the years October 2019 to September 2024, was reviewed as part of this permit renewal process.

There was no discharge from Outfall 005, for dust control, so the averaged discharge characteristics were not applicable:

pH, Minimum (Mg/L): Not Applicable, no discharge

pH, Maximum (Mg/L): Not Applicable, no discharge

Total Dissolved Solids (TDS) (Mg/L): Not Applicable, no discharge

Each of the ponds is designed to accept a specific flow based on pond size, evaporation potential, and maintaining a 3' freeboard requirement. The facility has no set discharge flow rate, but is required to monitor and report certain parameters that will ensure the ponds do not overflow.

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. Common pollutants of concern for process wastewater are pH and Total Dissolved Solids (TDS). With the issuance of the renewed permit, additional pollutants will be added for monitoring and reporting as listed under Profile 1 for Outfalls 001, 004, and 005 (see permit).

Receiving Water
None, as the various plants discharge into four evaporation ponds, which are constructed with double liners, and have leak detection sumps between the primary and secondary liners to detect any potential leakage in the primary HDPE liners, to eliminate possibility of process wastewater entering groundwater. In the event of leakage, or other spillage to ground, the effluent will be received by the groundwaters of the State. Depth to groundwater is approximately 30 to 35 feet below ground surface. Groundwater flows from south to north towards the Las Vegas Wash (LVW). The LVW is located approximately 3.0 miles to the north from the closest boundary to the Borman facility. The NDEP, BCA regulates all remediation activities within the BMI complex resulting from contamination events.

Compliance History
The facility was in compliance during the October 2019 to September 2024 reporting period. It was noted that the pond liners had been replaced on MN-1 Pond, with confirmation by the Technical Compliance group. There was also a reported leak within the liner at the WC-East Pond, that was apparently remedied based on the low/no leakage reported at the monitoring sumps, prior to the 2024 reporting period.

Proposed Effluent Limitations
The discharge shall be limited and monitored by the Permittee as specified below.

Zero Discharge Limitations Table for Sample Location 001 (Wc-East Pond) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate[1]	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Internal Monitoring Point	001	Monthly When Discharging	ESTIMA

Notes (Zero Discharge Limitations Table):

1. Internal monitoring is for influent flow rate to ponds, monitored monthly when water is discharged to ponds, reported quarterly, one DMR per month, per pond.

Zero Discharge Limitations Table for Sample Location 001 (Wc-East Pond) To Be Reported Quarterly

	Discharge Limitations			Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Freeboard	Daily Minimum	>= 3 Feet (ft)		Internal Monitoring Point	001	Twice Per Month	VISUAL
Liner Leakage Rate[1]	Daily Maximum	<= 500 Gallons per Acre per Day (gal/acre/d)		Internal Monitoring Point	001	Twice Per Month	METER
Reservoir storage	Average	M&R Million Gallons (Mgal)		Internal Monitoring Point	001	Twice Per Month	CALCTD

Notes (Zero Discharge Limitations Table):

1. The volume of fluid removed from the leak detection system (gal/acre/day). See Section B.PB.5.5 of the permit for further information.

Zero Discharge Limitations Table for Sample Location 002 (Wc-West Pond) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate[1]	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Internal Monitoring Point	002	Monthly When Discharging	ESTIMA

Notes (Zero Discharge Limitations Table):

1. Internal monitoring is for influent flow rate to ponds, monitored monthly when water is discharged to ponds, reported quarterly, one DMR per month, per pond.

Zero Discharge Limitations Table for Sample Location 002 (Wc-West Pond) To Be Reported Quarterly

		Discharge Limitations		Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Reservoir storage	Average	M&R Million Gallons (Mgal)		Internal Monitoring Point	002	Twice Per Month	CALCTD
Freeboard	Daily Minimum	>= 3 Feet (ft)		Internal Monitoring Point	002	Twice Per Month	VISUAL
Liner Leakage Rate[1]	Daily Maximum	<= 500 Gallons per Acre per Day (gal/acre/d)		Internal Monitoring Point	002	Twice Per Month	METER

Notes (Zero Discharge Limitations Table):

1. The volume of fluid removed from the leak detection system (gal/acre/day). See Section B.PB.5.5 of the permit for further information.

Zero Discharge Limitations Table for Sample Location 003 (Mn-1 Pond) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate[1]	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Internal Monitoring Point	003	Monthly When Discharging	ESTIMA

Notes (Zero Discharge Limitations Table):

1. Internal monitoring is for influent flow rate to ponds, monitored monthly when water is discharged to ponds, reported quarterly, one DMR per month, per pond.

Zero Discharge Limitations Table for Sample Location 003 (Mn-1 Pond) To Be Reported Quarterly

		Discharge Limitations		Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Freeboard	Daily Minimum	>= 3 Feet (ft)		Internal Monitoring Point	003	Twice Per Month	VISUAL
Liner Leakage Rate[1]	Daily Maximum	<= 500 Gallons per Acre per Day (gal/acre/d)		Internal Monitoring Point	003	Twice Per Month	METER
Reservoir storage	Average	M&R Million Gallons (Mgal)		Internal Monitoring Point	003	Twice Per Month	CALCTD

Notes (Zero Discharge Limitations Table):

1. The volume of fluid removed form the leak detection system (gal/acre/day). See Section B.PB.5.5 of the permit for further information.

Zero Discharge Limitations Table for Sample Location 004 (Mn-2 Pond) To Be Reported Monthly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate[1]	30 Day Average	M&R Million Gallons per Day (Mgal/d)		Internal Monitoring Point	004	Monthly When Discharging	ESTIMA

Notes (Zero Discharge Limitations Table):

1. Internal monitoring is for influent flow rate to ponds, monitored monthly when water is discharged to ponds, reported quarterly, one DMR per month, per pond.

Zero Discharge Limitations Table for Sample Location 004 (Mn-2 Pond) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Freeboard	Daily Minimum	>= 3 Feet (ft)		Internal Monitoring Point	004	Twice Per Month	VISUAL
Liner Leakage Rate[1]	Daily Maximum	<= 500 Gallons per Acre per Day (gal/acre/d)		Internal Monitoring Point	004	Twice Per Month	METER
Reservoir storage	Average	M&R Million Gallons (Mgal)		Internal Monitoring Point	004	Twice Per Month	CALCTD

Notes (Zero Discharge Limitations Table):

1. The volume of fluid removed form the leak detection system (gal/acre/day). See Section B.PB.5.5 of the permit for further information.

Re-use Discharge Limitations Table for Sample Location 005 (Dust Control) To Be Reported Quarterly

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Flow rate	Daily Maximum	M&R Million Gallons per Day (Mgal/d)		Prior to Reuse	005	Daily When Discharging	METER

Ponds / Rapid Infiltration Basins for Sample Location 001 (Wc-East Pond) To Be Reported Annually[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Alkalinity, bicarbonate (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Alkalinity, total (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Aluminum, total (as Al)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Antimony, total (as Sb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Arsenic, total (as As)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Barium, total (as Ba)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Beryllium, total (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Cadmium, total (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Calcium, total (as Ca)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Chromium, total (as Cr)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
			M&R				

Ponds / Rapid Infiltration Basins for Sample Location 001 (Wc-East Pond) To Be Reported Annually[1]

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

Ponds / Rapid Infiltration Basins for Sample Location 001 (Wc-East Pond) To Be Reported Annually[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Selenium, total (as Se)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Silver, total (as Ag)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Sodium, total (as Na)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Thallium, total (as Tl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Uranium, natural, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Cyanide, weak acid, dissociable	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT
Zinc, total (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	001	Annual	DISCRT

Notes (Ponds / Rapid Infiltration Basins):

1. The Profile 1 analysis is for the dissolved fraction.

Ponds / Rapid Infiltration Basins for Sample Location 004 (Mn-2 Pond) To Be Reported Annually[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Alkalinity, bicarbonate (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Alkalinity, total (as CaCO3)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Aluminum, total (as Al)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Antimony, total (as Sb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Arsenic, total (as As)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Barium, total (as Ba)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Beryllium, total (as Be)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Cadmium, total (as Cd)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Calcium, total (as Ca)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Chloride (as Cl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Chromium, total (as Cr)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
			M&R				

Ponds / Rapid Infiltration Basins for Sample Location 004 (Mn-2 Pond) To Be Reported Annually[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Copper, total (as Cu)	Daily Maximum		Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Fluoride, total (as F)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Iron, total (as Fe)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Lead, total (as Pb)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Magnesium, total (as Mg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Manganese, total (as Mn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Mercury, total (as Hg)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Nitrite plus nitrate total 1 det. (as N)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Nitrogen, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
pH, maximum	Daily Maximum		M&R Standard Units (SU)	Effluent Gross	004	Annual	DISCRT
pH, minimum	Daily Minimum		M&R Standard Units (SU)	Effluent Gross	004	Annual	DISCRT
Potassium, total (as K)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT

Ponds / Rapid Infiltration Basins for Sample Location 004 (Mn-2 Pond) To Be Reported Annually[1]

Discharge Limitations				Monitoring Requirements			
Parameter	**Base**	**Quantity**	**Concentration**	**Monitoring Loc**	**Sample Loc**	**Measurement Frequency**	**Sample Type**
Selenium, total (as Se)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Silver, total (as Ag)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Sodium, total (as Na)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Sulfate, total (as SO4)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Thallium, total (as Tl)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Solids, total dissolved	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Uranium, natural, total	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Cyanide, weak acid, dissociable	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT
Zinc, total (as Zn)	Daily Maximum		M&R Milligrams per Liter (mg/L)	Effluent Gross	004	Annual	DISCRT

Notes (Ponds / Rapid Infiltration Basins):

1. The Profile 1 analysis is for the dissolved fraction.

Summary of Changes From Previous Permit

Coordinates were changed to actual location of Outfall 004, the MN-2 Pond, being Lat 36.454845°, Long 114.99997598°.

The requirement to report Profile 1 pollutants, were added to the outfalls that received direct process water

streams, with a yearly measurement and associated reporting requirement, to be done at Outfalls 001 (WC East Pond) and 004 (MN-2 Pond), and Outfall 005 (Dust Control) when discharge occurs.

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.

Rationale for Permit Requirements
NDEP's rationale for the proposed monitoring conditions is as follows:

Leak Detection Systems: based on information received from the Permittee, the leak detection system operates continuously by removing any leaked volume and recirculating it back into the receiving pond. The Permittee will sample the pond contents to comply with the annual sampling requirement.

Freeboard: The Division requires that a visual confirmation of the amount of freeboard (in feet) be done to deter any overtopping issues.

Water Balance: A monthly water balance serves as a check on any unaccounted losses (e.g., leakage) from the ponds.

In order to further assess the quality of the noncontact reuse water, and to ensure there is no potential for the degradation of groundwater, Profile 1 constituents have associated monitor and report (M & R) limitations and are to be sampled annually.

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 (process wastewater) limitations outside water quality standards per 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: (1) the effect of the discharge on the receiving waters and its beneficial use, (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."

Anti-backsliding
None of the proposed permit limits were changed to a less restrictive limit compared to those in the previous permit.

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 Nevada Revised Statute (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 evaporation ponds, and not groundwater or 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 process water discharged within the compliance limits of the proposed permit.

Special Conditions
See the Special Approvals/Conditions Table below.

SA – Special Approvals / Conditions Table

Item #	Description
1	Each of the holding ponds are also required to monitor and report the water balance quarterly. The water balance is defined as the change in evaporation pond storage, and is a measure of each pond's capability of maintaining 3-feet of freeboard and not allowing the pond to go dry. The water balance is expressed by the following equation: Difference in Storage # = direct precipitation falling on pond + process water inputs (influent flow rate) + leachate input - evaporation output. Water balance was not used in the discharge limitations tables due the fact that water balance does not have an assigned Storet code (a unique identification code used within the EPA's "Storage and Retrieval" database) for input. This information should be submitted as an attachment to the required reporting.

Discharges From Future Outfalls/ Planned Facility Changes
There are no proposed discharges from future outfalls or planned facility changes.

Corrective Action Sites
There are two Bureau of Industrial Site Cleanup (BISC) remediation sites located within a one-mile radius of the facility, being Alt Site IDs H-000536 and H-000539, both are confirmed releases. The BISC has indicated that it does not anticipate permitted discharge activities to affect remediation activities at these sites.

There is also one active Bureau of Corrective Actions (BCA) site that fall within the one-mile radius to the facility. The site, Alt Site ID H-000926, had a confirmed release of solvents. BCA does not expect any groundwater impacts.

Wellhead Protection Program
The outfall is not located within a Wellhead Protection Area, which represents an approximate 10-year capture zone of a well, or within a Drinking Water Protection Area, which is defined by a 3,000-foot radius around a PWS well.

Schedule of Compliance:

SOC – Schedule of Compliance Table

Item #	Description	Due Date
1	The Permittee shall submit two copies (one hard copy and one electronic copy) of an updated Operations and Maintenance (O&M) Manual for review and approval by the Division. The O & M Manual shall follow guidance document, WTS2 Minimum Information Required for an Operation and Maintenance Manual. The updated O&M manual shall include sections on leak detection systems, pond liner inspections, calculating storage volumes and monthly water balances, sludge management, and narrative descriptions and flow diagrams of all input/output streams for each of the ponds.	4/28/2025

Deliverable Schedule:

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

Item #	Description	Interval	First Scheduled Due Date
1	Quarterly DMRs	Quarterly	7/28/2025
2	Yearly 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. **3/1/2025,** 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: **Melissa Marr**
Date: **1/22/2025**
Title: **Staff II Engineer**