2023 Consumer Confidence Report

Water System Information

Water System Name: MP Mine Operations LLC

Report Date: 5/3/2024

Type of Water Source(s) in Use: Groundwater wells.

Name and General Location of Source(s): A source assessment was conducted on SVW-2, SVW-3, and SVW-4 are all located in the Shadow Valley region.

Drinking Water Source Assessment Information: A source assessment was conducted on both well fields in April 2001. The water source for the Shadow Valley well field is considered most vulnerable to the petroleum pipeline near the well field and cattle grazing nearby as well as vehicle traffic on Interstate 15. The water source for the Ivanpah Valley well field has no existing vulnerabilities. These vulnerabilities are not associated with any detected contaminants. A copy of the complete assessment may be viewed at: San Bernardino County Government Center 385 North Arrowhead Ave. San Bernardino, CA 92415-0160. You may request a summary of the assessment be sent to you by contacting San Bernardino County Department of Public Health. Time and Place of Regularly Scheduled Board Meetings for Public Participation: Regular meetings are not held. You can contact Aaron Case at (714) 450-5036 to find out information on any meetings or to get information when meetings are announced or list opportunities for public participation in decisions that may affect the quality of the water.

For More Information, Contact: Aaron Case (714) 450-5036 /(760) 856-6161 John Espinoza

About This Report

We test the drinking water quality for many constituents as required by state and federal regulations. This report shows the results of our monitoring for the period of January 1 to December 31, 2022 and may include earlier monitoring data.

Importance of This Report Statement in Five Non-English Languages (Spanish, Mandarin, Tagalog, Vietnamese, and Hmong)

Language in Spanish: Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse MP Mine Operations LLC a 67750 Bailey Road, HC1 Box 224 Mountain Pass, CA 92366/ 714-450-5036 para asistirlo en español.

Language in Mandarin: 这份报告含有关于您的饮用水的重要讯息。MP Mine Operations LLC 以获得中文的帮助:67750 Bailey Road, HC1 Box 224 Mountain Pass, CA 92366/ 714-450-5036

Language in Tagalog: Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa MP Mine Operations LLC o tumawag sa 67750 Bailey Road, HC1 Box 224 Mountain Pass, CA 92366/ 714-450-5036 para matulungan sa wikang Tagalog.

Language in Vietnamese: Báo cáo này chứa thông tin quan trọng về nước uống của bạn. Xin vui lòng liên hệ MP Mine Operations LLC tại 67750 Bailey Road, HC1 Box 224 Mountain Pass, CA 92366/ 714-450-5036 để được hỗ trợ giúp bằng tiếng Việt.

Language in Hmong: Tsab ntawv no muaj cov ntsiab lus tseem ceeb txog koj cov dej haus. Thov hu rau MP Mine Operations LLC ntawm 67750 Bailey Road, HC1 Box 224 Mountain Pass, CA 92366/ 714-450-5036 rau kev pab hauv lus Askiv.

Terms Used in This Report

Term	Definition
Level 1 Assessment	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum Contaminant Level (MCL)	The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
Maximum Contaminant Level Goal (MCLG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (U.S. EPA).
Maximum Residual Disinfectant Level (MRDL)	The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
Maximum Residual Disinfectant Level Goal (MRDLG)	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Primary Drinking Water Standards (PDWS)	MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
Public Health Goal (PHG)	The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
Regulatory Action Level (AL)	The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.
Secondary Drinking Water Standards (SDWS)	MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.
Treatment Technique (TT)	A required process intended to reduce the level of a contaminant in drinking water.
Variances and Exemptions	Permissions from the State Water Resources Control Board (State Board) to exceed an MCL or not comply with a treatment technique under certain conditions.

Term	Definition
ND	Not detectable at testing limit.
ppm	parts per million or milligrams per liter (mg/L)
ppb	parts per billion or micrograms per liter (µg/L)
ppt	parts per trillion or nanograms per liter (ng/L)
ppq	parts per quadrillion or picogram per liter (pg/L)
pCi/L	picocuries per liter (a measure of radiation)

Sources of Drinking Water and Contaminants that May Be Present in Source Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

Regulation of Drinking Water and Bottled Water Quality

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

About Your Drinking Water Quality

Drinking Water Contaminants Detected

Tables 1, 2, 3, 4, 5, 6, and 8 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State Board allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old. Any violation of an AL, MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report.

Table 1. Sampling Results Showing the Detection of Coliform Bacteria

Complete if bacteria are detected.

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violation	MCL	MCLG	Typical Source of Bacteria
E. coli	0	0	(a)	0	Human and animal fecal waste

(a) Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli*.

Table 2. Sampling Results Showing the Detection of Lead and Copper

Complete if lead or copper is detected in the last sample set.

Lead and Copper	Sample Date	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	9/15/21	5	ND	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	9/15/21	5	0.185	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

Table 3. Sampling Results for Sodium and Hardness

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	09/21/22,10/04/22, 10/5/22	1.000	25,81,107	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	09/21/22,10/04/22, 10/5/22	1.000	566,327,202	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

Table 4. Detection of Contaminants with a Primary Drinking Water Standard

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Gross Alpha Particle Activity (pCi/L)	11/18/21	1.390	ND,9.42,6.79 (ND-9.42)	15	(0)	Erosion of natural deposits. Certain minerals are radioactive and may emit a form of radiation known as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
Arsenic (ppb)	11/18/21, 10/4/22	2.00	4.0,3.0, 3.0 (3.0-4.0)	10	(0.004)	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes. Some people who drink water containing arsenic in excess of the MCL over many years may experience skin damage or

						circulatory system problems, and may have an increased risk of getting cancer.
Fluoride (ppb)	09/21/22,10/04/22, 10/5/22	0.100	0.500,1.1,1.3 (0.50-1.3)	2.0	(1)	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories. Some people who drink water containing fluoride in excess of the federal MCL of 4 mg/L over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 mg/L may get mottled teeth.
Nitrate as N (NO3-N) (ppm)	10/30/23	0.400	0.7,1.1,5.8 (0.7-5.8)	10 (as N)	(10) (as N)	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits. Infants below the age of six months who drink water containing nitrate in excess of the MCL may quickly become seriously ill and, if untreated, may die because high nitrate levels can interfere with the capacity of the infant's blood to carry oxygen. Symptoms include shortness of breath and blueness of the skin. High nitrate levels may also affect the oxygen-carrying ability of

						the blood of pregnant women.
Combined Uranium (pCi/L)	11/18/21	1.00	1.12,4.21, 5.37 (1.12-5.37)	20	NA	Erosion of natural deposits. Some people who drink water containing uranium in excess of the MCL over many years may have kidney problems or an increased risk of getting cancer.
Chromium (ppb)	11/18/21	10.00	ND,ND,16.0 0 (ND-16.00)	50	(100)	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits. Some people who use water containing chromium in excess of the MCL over many years may experience allergic dermatitis.

Table 5. Detection of Contaminants with a Secondary Drinking Water Standard

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	SMCL	PHG (MCLG)	Typical Source of Contaminant
Iron (ppb)	09/21/22,1 0/04/22, 10/5/22	100	120, ND, ND (ND-120)	300	-	Leaching from pipe, natural deposits; industrial wastes
Manganese (ppb)	09/21/22,1 0/04/22, 10/5/22	20.0	ND, ND, ND	50	-	Leaching from pipe and natural deposits
Turbidity (NTU)	09/21/22,1 0/04/22, 10/5/22	0.100	0.500, ND, ND (ND-0.500)	5.0	N/A	Soil runoff. Turbidity has no health effects. However, high levels of turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps,

						diarrhea, and associated headaches.
Total Dissolved Solids (TDS) (ppm)	09/21/22,10/04/22, 10/5/22	40.00	850,590, 550 (550-850)	1,000	-	Runoff/leaching from natural deposits
Specific Conductance (uS/cm)	09/21/22,10/04/22, 10/5/22	0.000	1,050,898, 839 (839-1,050)	1,600	-	Substances that form ions when in water; seawater influence
Chloride (ppm)	09/21/22,10/04/22, 10/5/22	1.000	18.0, 25.0, 36.0 (18.0-36.0)	500	-	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	09/21/22,10/04/22, 10/5/22	0.500	412,273,181 (181-412)	500	-	Runoff/leaching from natural deposits; industrial wastes
Color (units)	09/21/22,10/04/22, 10/5/22	5.000	ND, ND, ND	15	-	Naturally-occurring organic materials
Zinc (ppb)	09/21/22,10/04/22, 10/5/22	50.00	ND,ND,50.00 (ND-50.00)	5000		Runoff/leaching from natural deposits; industrial wastes

Table 6. Detection of Unregulated Contaminants

Chemical or Constituent (and reporting units)	Sample Date	Level Detected	Range of Detections	Notification Level	Health Effects
NA	NA	NA	NA	NA	NA

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Lead-Specific Language: If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. MP Mine Operations LLC is responsible for providing high quality drinking water but cannot control the variety of materials used in

plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/lead.

Additional Special Language for Nitrate, Arsenic, Lead, Radon, and Cryptosporidium: Nitrate – Systems with nitrate above 5 mg/L as nitrogen (50 percent of the MCL), but below 10 mg/L as nitrogen (the MCL), must include the following statement:

> Nitrate in drinking water at levels above 10 mg/L is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

If a utility cannot demonstrate to the State Water Board with at least five years of the most current monitoring data that its nitrate levels are stable, it must also add the following language to the preceding statement on nitrate:

> Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity.

Arsenic – Systems with arsenic above 5 µg/L (50 percent of the MCL), but below or equal to 10 µg/L (the MCL) must include the following statement:

> While your drinking water meets the federal and state standard for arsenic, it does contain low levels of arsenic. The arsenic standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. The U.S. Environmental Protection Agency continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

Lead [a] – Consistent with 40 CFR section 141.154(d)(1), every CCR must include the lead-specific language shown below. A water system may provide its own educational statement, but only after consulting with the State Water Board.

> If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. MP Mine Operations LLC is responsible for providing high quality drinking water, but cannot control the variety of materials used in

plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. [Optional: If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.] If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/lead.

Consistent with the Cal. Code Regs., Title 22, § 64482(c), systems with lead above 15 ppb (the regulatory AL) in more than 5%, and up to and including 10%, of sites sampled (or if your system samples fewer than 20 sites and has even one sample above the AL) must also include the following statement:

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and/or flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the U.S. EPA Safe Drinking Water Hotline (1-800-426-4791).

a All water systems are required to comply with the state LCR. Water systems are also required to comply with the federal LCR, and its revisions and corrections. The 2007 Short-term Revisions of the LCR included mandatory language requirements that have not yet been adopted by the State Water Board.

State Revised Total Coliform Rule (RTCR): Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

Summary Information for Violation of a MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement

Table 7. Violation of a MCL, MRDL, AL, TT or Monitoring Reporting Requirement

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA

For Water Systems Providing Groundwater as a Source of Drinking Water

Table 8. Sampling Results Showing Fecal Indicator-Positive Groundwater Source Samples

Microbiological Contaminants (complete if fecal-indicator detected)	Total No. of Detections	Sample Dates	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
E. coli	NA	NA	0	(0)	Human and animal fecal waste
Enterococci	NA	NA	TT	N/A	Human and animal fecal waste
Coliphage	NA	NA	TT	N/A	Human and animal fecal waste

Summary Information for Fecal Indicator-Positive Groundwater Source Samples, Uncorrected Significant Deficiencies, or Violation of a Groundwater TT

Special Notice of Fecal Indicator-Positive Groundwater Source Sample: NA

Special Notice for Uncorrected Significant Deficiencies: NA

Table 9. Violation of Groundwater TT

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA

For Systems Providing Surface Water as a Source of Drinking Water

Table 10. Sampling Results Showing Treatment of Surface Water Sources

Treatment Technique [a] (Type of approved filtration technology used)	NA, only use NSF/ANSI 60 Leslie's Granular 70 for potable water so that we can disinfect water if coliform bacteria or other bacteria are present.
Turbidity Performance Standards [b] (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 5 NTU in 95% of measurements in a month. 2 – Not exceed 5 NTU for more than eight consecutive hours. 3 – Not exceed 5 NTU at any time.

Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	NA
Highest single turbidity measurement during the year	NA
Number of violations of any surface water treatment requirements	NA

(a) A required process intended to reduce the level of a contaminant in drinking water.

(b) Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

Summary Information for Violation of a Surface Water TT

Table 11. Violation of Surface Water TT

Violation	Explanation	Duration	Actions Taken to Correct Violation	Health Effects Language
NA	NA	NA	NA	NA
NA	NA	NA	NA	NA

Summary Information for Operating Under a Variance or Exemption

To the best of my knowledge, we do not operate under variance or exemption.

Summary Information for Revised Total Coliform Rule Level 1 and Level 2 Assessment Requirements

If a water system is required to comply with a Level 1 or Level 2 assessment requirement that is not due to an *E. coli* MCL violation, include the following information below [22 CCR section 64481(n)(1)].

Level 1 or Level 2 Assessment Requirement not Due to an *E. coli* MCL Violation

We did not find any coliform bacteria in our system this year. Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. If we did find coliform bacteria, this would have indicated the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.

The water system shall include the following statements, as appropriate:

During the past year we were required to conduct ZERO Level 1 assessment(s). ZERO Level 1 assessment(s) were completed. In addition, we were required to take ZERO corrective actions and we completed ZERO of these actions.

During the past year ZERO Level 2 assessments were required to be completed for our water system. ZERO Level 2 assessments were completed. In addition, we were required to ZERO corrective actions and we completed ZERO of these actions.

If the water system failed to complete all the required assessments or correct all identified sanitary defects, the water system is in violation of the treatment technique requirement and shall include the following statements, as appropriate:

NA

NO Violations of the Total Coliform Bacteria TT Requirement occurred.

If a water system is required to comply with a Level 2 assessment requirement that is due to an *E. coli* MCL violation, include the information below [22 CCR section 64481(n)(2)].

Level 2 Assessment Requirement Due to an *E. coli* MCL Violation

NO E.coli was found in the system during 2023. *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Human pathogens in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a greater health risk for infants, young children, the elderly, and people with severely compromised immune systems. We found *E. coli* bacteria, indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) identify problems and to correct any problems that were found during these assessments.

We were required to complete a Level 2 assessment because we found *E. coli* in our water system. In addition, we were required to take ZERO corrective actions and we completed ZERO of these actions.

If a water system failed to complete the required assessment or correct all identified sanitary defects, the water system is in violation of the treatment technique requirement and shall include the following statements, as appropriate:

NA

If a water system detects *E. coli* and has violated the *E. coli* MCL, include one or more the following statements to describe any noncompliance, as applicable:

NA

[If a water system detects *E. coli* and has not violated the *E. coli* MCL, the water system may include a statement that explains that although they have detected *E. coli*, they are not in violation of the *E. coli* MCL.]