

**NEVADA DIVISION OF ENVIRONMENTAL PROTECTION**  
**FACT SHEET**  
(Pursuant to NAC 445A.236)

**Permittee Name:** Mike's Gas-A-Mart  
217 Kingsbury Grade  
Stateline, NV 89449

**Permit Number:** NEV95019

**Location:** Mike's Gas-A-Mart  
217 Kingsbury Grade  
Stateline, NV 89449 (Douglas County)

Remediation System:  
Latitude: 38° 58' 3" N, Longitude: 119° 55' 57" W  
Township 13N, Range 18E, NW¼NW¼ Section 26

Outfall to DCSID #1 Sanitary Sewer (# NEV80033):  
Latitude: 38° 58' 5" N, Longitude: 119° 56' 4" W  
Township 13N, Range 18E, NW¼NW¼ Section 26

**General:** The Permittee has submitted an application to the NDEP Bureau of Water Pollution Control (BWPC) for a five-year permit renewal. This permit application requests an increase in the allowable flow limit from 7,000 / 14,000 (30-Day Average / Daily Maximum) to 30,000 / 30,000 GPD, which is presently authorized to Mike's Gas-A-Mart under temporary discharge permit # TNEV2010385.

**DCSID #1:** Douglas County Sewer and Improvement District #1 (DCSID #1) operates a Publicly Owned Treatment Works or POTW at Round Hill in Zephyr Cove, Nevada. The POTW uses an activated sludge treatment process to discharge secondary-treated, filtered, disinfected effluent under discharge permit # NEV80033. DCSID #1 effluent is exported out of the Tahoe Basin by a force main to multiple permitted agricultural reuse sites located within Carson Valley in Douglas County. BWPC continues to regulate the discharge from Mike's Gas-A-Mart until the time that DCSID #1 oversees its own industrial pre-treatment program. As of this time, DCSID #1 pre-treatment oversight is limited to the domestic (sanitary) wastewater discharged from residential and commercial (e.g., restaurant and casino) customers.

**Bureau of Corrective Actions Sites:** Mike's Gas-A-Mart first reported a hydrocarbon release to the NDEP Bureau of Corrective Actions (BCA) in 1994 and subsequently commenced discharge from their groundwater remediation system in 1996. Also located within a one-mile radius of Mike's Gas-A-Mart is two other BCA-regulated hydrocarbon release sites: Mont Bleu Resort (formerly Caesar's Tahoe) and Edgewood Tahoe Golf Course.

**Wellhead Protection Area:** The Mike's Gas-A-Mart petroleum remediation site is located outside of the 6,000 feet, Drinking Water Protection Area No. 4 from all community supply wells located in this area of the Tahoe Basin.

**Remediation System:** The site has been managed since January 2008 by McGinley and Associates (MGA) personnel who perform weekly visits. An upgrade of the carbon system occurred at that time to process up to 30,000 GPD. Groundwater with hydrocarbon contaminants including elevated levels of BTEX: benzene (120 µg/l), toluene (510 µg/l), ethylbenzene (250 µg/l), total xylenes (1,370 µg/l), and Methyl Tertiary Butyl Ether or MTBE (240 µg/l) is recovered from three groundwater extraction wells located on-site at the Mike's Gas-A-Mart property and its immediate neighbor to the west, which is owned by Verizon (telephone utility). The groundwater treatment equipment is maintained in a secure (posted and locked), climate-controlled building enclosure and includes dual-air strippers (bubblers, 250-gal ea), Flow Equalization (EQ) Vessel (250 gal), sediment filtration (plenum cartridge filters) and series-flow Granular Activated Carbon (GAC) adsorption vessels (3,000, 2,000 and 500-lb capacities, respectively, operated in series-flow arrangement). The treated effluent is then totalized by a register turbine meter and discharged into the DCSID #1 sanitary collection system with a manhole-inlet connection point located at the NW property corner of Mike's Gas-A-Mart alongside the south shoulder of Kingsbury Grade.

**Flow:** The pump and treat system capacity is rated at 30,000 GPD. Under MGA operation, the two-year discharge averaged 11,000 GPD or 37% of rated capacity.

**Receiving Water Characteristics:** There are three groundwater extraction, five soil-vapor extraction (SVE) and eight monitoring wells distributed amongst the Mike's Gas-A-Mart, Verizon, Park Cattle Co. and Nevada Department of Transportation (Kingsbury Grade) properties. The depth to groundwater in these wells ranges from 20 to 75 feet below ground surface. The groundwater flow gradient is generally S to SW in the direction towards the lake, which is located one mile due west from the convenience store.

#### **Rationale for Proposed Limits:**

**BTEX:** BTEX denotes the petroleum-derived compounds of benzene, ethylbenzene, toluene and xylenes common to gasoline and petroleum-derived fuels. For BTEX, the Division adopts the Federal drinking water limits expressed in units of µg/l (micrograms per liter) with 1.0 µg/l equivalent to one part per billion. The specific BTEX limits in this discharge permit are: benzene (5 µg/l), ethylbenzene (100 µg/l), toluene (100 µg/l) and xylenes (200 µg/l).

**MTBE:** Methyl Tertiary Butyl Ether (MTBE) is a gasoline-additive, which is being phased out throughout the U.S. due to groundwater contamination concern from leaking Underground Storage Tank (UST) and fuel dispensing pipelines. For this discharge site, the Division applies the interim NDEP-BCA MTBE action level of 20 µg/l for a site located in close proximity to receptors (e.g., groundwater users) and/or a sensitive environment (e.g., Lake Tahoe Basin). This limit also takes into account discharge of a non-odorous effluent into a municipal collection system. Neither the State nor the U.S. EPA (Federal) has enacted a Maximum Contaminant Level (MCL) for MTBE.

**TPH:** TPH is not one individual contaminant (compound) but rather a range of Gas (GRO), Diesel (DRO) and Oil-Range (ORO) Petroleum Hydrocarbons (e.g., C<sub>6</sub> – C<sub>40</sub>) found in petroleum. There is no State or Federal drinking water limit for TPH. For groundwater remediation of a hydrocarbon release, the Division's discharge standard is 1.0 mg/l TPH, which is applied in this permit. At a TPH level of 1.0 mg/l, regulatory history indicates neither odor nor aesthetic (e.g., sheen) concern with effluent treated to this level.

**Chlorinated Solvents:** The permit application indicates a presence of the following solvents (degreasing liquids) at trace (dilute) levels in the aquifer: Trichloroethane (TCA), < 1 µg/l; and Trichloroethene (TCE), < µg/l. Such low-level contaminants may be related to the former fuel release but could also indicate activity of a former metal degreasing or dry cleaning operation in the nearby vicinity (e.g., including Tetrachloroethene (PCE) commonly known as “PERC”). To address the trace presence of chlorinated solvent contaminants, the Division adopts the drinking water standards of: TCA – 0.2 mg/l, TCE – 5 µg/l and PCE – 5 µg/l, respectively.

**pH:** This parameter denotes the measure of acidity or alkalinity in water. For treated effluent, the Division applies the discharge standard of 6.0 to 9.0 Standard Units (SU), which is considered an acceptable pH level in the drinking water range. For reference, the pH of distilled water is 7.0 SU.

**DMR Analysis:** Under MGA operation, BTEX and TPH were discharged to the sewer at Non-Detect (ND) levels of < 1 µg/l (BTEX) and < 0.5 mg/l (TPH), respectively. MTBE was generally discharged at ND level (< 2.0 µg/l), except in the months of January 2008 (2.6 µg/l) and March 2009 (2.3 µg/l). Solvent levels were discharged at their respective ND levels. pH monitoring was not previously required with the past permit but is expected to be within the drinking water range.

**Proposed Effluent Limitations and Special Conditions:**

**TABLE 1: EFFLUENT LIMITATIONS**

PARAMETERS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
	30-Day Average	Daily Maximum	Sample Location	Measurement Frequency	Sample Type
Flow Rate, Gallons per Day (GPD)	30,000		EFF	Continuous	Meter/Totalizer
Benzene (µg/L)	5		EFF	Monthly	Discrete
Toluene (µg/L)	100		EFF	Monthly	Discrete
Ethylbenzene (µg/L)	100		EFF	Monthly	Discrete
Total Xylenes (µg/L)	200		EFF	Monthly	Discrete
Methyl tertiary butyl ether (MTBE, µg/L)	20		EFF	Monthly	Discrete
Total Petroleum Hydrocarbons (mg/L) (Full-range Purge & Extract – 8015B)	1		EFF	Monthly	Discrete
Trichloroethane (TCA, mg/L)	0.2		EFF	Quarterly	Discrete
Trichloroethene (TCE, µg/L)	5		EFF	Quarterly	Discrete
Tetrachloroethene (PCE, µg/L)	5		EFF	Quarterly	Discrete
pH, Std. Units (SU)	Within 6.0 to 9.0		EFF	Quarterly	Discrete

Note: All samples are to be taken at the discharge side (effluent or EFF) of the carbon (GAC) vessels.

**Schedule of Compliance (SOC): (all compliance deliverables shall be addressed to the attention of the Compliance Coordinator, Bureau of Water Pollution Control):**

- The Permittee shall achieve compliance with the effluent limitations upon issuance of the permit.

Note: BWPC last approved a version of the revised Operations and Maintenance (O&M) Manual for this site on May 26, 2009. This O&M Manual, which was submitted by MGA, is considered current as of this permit renewal.

**Procedures for Public Comment:** The Notice of the Division's intent to issue this discharge permit, subject to the conditions contained within the permit is being sent to the **Tahoe Daily Tribune** and **Reno Gazette-Journal** newspapers for publication. The notice is also being electronically mailed to all interested persons requesting listing on our public notification mailing list. Anyone wishing to comment on the proposed permit can do so in writing within a period of thirty (30) calendar days of the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand-delivered items) to the Division is **Friday, March 26, 2010, by 5:00 P.M. PST.**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator 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 determines 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 the proposed water pollution control discharge permit for a period of five (5) years.

Prepared by: Mark A. Kaminski, P.E., Staff Engineer III  
Bureau of Water Pollution Control

Date: February 18, 2010