

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(pursuant to NAC 445A.874)

Permittee Name: **Redman Petroleum Corporation**
Type of Project: **Remediation**
Project Name: **Former Redman Petroleum**
Address: **2039 North Las Vegas Boulevard, Las Vegas, Nevada**
Permit Action: **Underground Injection Control Permit Renewal**
Permit Number: **UNEV97206**
Injection Wells (#): **Six, and one horizontal sparge line**

A. Description of Discharge

Update as of April, 2008. *The current permit authorizes injection of low percentage hydrogen peroxide solution into six injection wells (MW-1, MW-3, MW-6, MW-7, MW-10, VE-1) and one horizontal sparge line. The renewed permit will continue to authorize injection at the same volumes into the same wells.*

Location: The 6 injection wells and 1 sparge injection trench are located at 2039 North Las Vegas Boulevard, North Las Vegas, Nevada, in the NW¹/₄ of Section 23, T20S, R61E, MDB&M, in Clark County.

Characteristics: This site is contaminated with non-chlorinated petroleum hydrocarbons, including BTEX and TPH associated with a leaking gasoline underground storage tank. There is no free product at this site. The injectate will consist of low percentage hydrogen solution.

B. Synopsis

Update as of April, 2008. *The permit has been amended several times since the original was issued in 1997. In May, 1999, the authorized injection volume was increased to up to 4,500 gallons per month of a 3% hydrogen peroxide solution into three wells and the sparge system infrastructure. In February 2001, it was amended to include two additional wells, and in July 2002, it was amended to add one well. These modifications to the permit bring it to the current status of injecting into six wells and one horizontal sparge line. The last injection at the site was performed in January of 2005, as the site has been in post closure monitoring. However, the permittee has requested to keep the permit open in the event that further injection is needed for remediation.*

Original Permit issuance: The former Redman Petroleum site is currently an empty lot. Redman Petroleum was previously a gasoline service station with ten underground storage tanks (UST). Five tanks were 10,000 gallon capacity tanks,

three were 8,000 gallon tanks, and two were 2,000 gallon tanks. Each of the underground storage tanks contained either leaded, unleaded, or diesel fuel. All ten tanks were excavated on March 23, 1995. Groundwater sampling indicates the presence of dissolved non-chlorinated petroleum hydrocarbons in excess of the State and Federal action levels. (See section C of Fact Sheet for Receiving Water Characteristics.) Groundwater is present at approximately 11.5 feet below ground surface. The average local gradient is estimated at 0.05 ft/ft in the easterly direction.

C. Receiving Water Characteristics:

Update as of April, 2008: *Remediation efforts appear to have lowered the levels of BTEX and MTBE in the groundwater below this site. Maximum levels found in the 4th quarter 2007 monitoring were: benzene at 180µg/L in MW-10, and MTBE at 250µg/L in MW-10. Dissolved toluene, ethylbenzene, and total xylenes were not detected above state action levels in groundwater samples collected in fourth quarter 2007.*

The receiving waters have demonstrated the following maximum levels:

<u>Constituent</u>	<u>µg/L (ppb)</u>
Benzene	16,720
Toluene	13,720
Ethylbenzene	2,196
Xylenes (total)	3,880
MTBE	28,810
	<u>mg/L (ppm)</u>
TPH	73
Nitrate as NO ₃	< 2
TDS	1,475

As is found in many areas in Las Vegas valley, the shallow aquifer under this site is of relatively poor quality with high TDS.

D. Procedures for Public Comment

The Notice of the Division's intent to issue a permit authorizing the facility to discharge to the ground water of the State of Nevada was sent to the Las Vegas Review-Journal for publication.

The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of the public notice. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final

determination.

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.

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 will 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.

E. Proposed Determination

The Division has made the tentative determination to issue the proposed permit.

F. Proposed Injectate Limitations and Special Conditions

Update as of April, 2008 *The permit authorizes injection of maximum of 4,500 gallons per month of 3% hydrogen peroxide solution into six (6) injection wells and one horizontal sparge pipeline.*

Hydrogen Peroxide - 1 % Solution with a maximum of 1,500 gallons/ month

No Surfactant shall be used at this site unless written approval is given by Nevada Division of Environmental Protection.

Methyl tertiary butyl ether (MTBE) will be monitored with no set effluent limitation due to the pending Drinking Water Standard for this constituent.

G. Rationale for Permit Requirements

The permit conditions will help to ensure that the injectate does not adversely affect the existing water quality or hydrologic regime.

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Date: October, 1997

Update prepared by: Russ Land

Date: April 3, 2008