



FACT SHEET

(Pursuant to NAC 445A.874)

Permittee: **Barrick Goldstrike Mines Inc.**
 Permit Project: **Barrick Goldstrike Mine**
 Project Type: **Mining Dewatering**
 UIC well Class/Subclass: **Class V**
 Number of Injection wells: **Eleven (11)**
 Permit Action: **Permit Renewal**
 Permit Number: **UNEV93209**
 Other Permits: **NV0022675 & NS0094002**

A. Description of Injection Well(s)

Location: Eleven (11) injection wells located in T.35N, R.48E, Sections 24-26; T.35N, R.49E., Sections 5,7,18; and T.35N., R.49E., Section 33; MDB&M, in Eureka County, Nevada.

Latitude: 116° 29' 31"N

Longitude: 40° 55' 03" W

Injection Well Construction:

WELL NAME / NO.	TYPE OF CONSTRUCT.	TOTAL DEPTH	SCREEN INTERVAL
BVI-1	29" bore hole w/ 20" casing	1210'	660'-1200'
BVI-2	29" bore hole w/ 24" casing	1695'	1170'-1690'
BVI-3	31" bore hole w/ 24" casing	1210'	600'-1200'
BVI-4	31" bore hole w/ 24" casing	1820'	1160'-1760'
BVI-5	31" bore hole w/ 24" casing	1480'	873'-1475'

Monitoring Well Construction:

WELL NAME / NO.	TYPE OF CONSTRUCT.	TOTAL DEPTH	SCREEN INTERVAL
IMW93-1	7-7/8" bore hole w/ 4" casing	1220'	733'-1175'
IMW93-2	7-7/8" bore hole w/ 4" casing	1220'	701'-1180'
IMW93-3	7-7/8" bore hole w/ 4" casing	1510'	1233'-1473'

IMW93-4	7-7/8" bore hole w/ 4" casing	1210'	800'-1200'
IMW95-1	7-7/8" bore hole w/ 4" casing	1495'	1179'-1490'

Injectate Characteristics:

Injectate consists of ground water produced in conjunction with a mining pit dewatering program and a ground water collection/irrigation canal from the Boulder Valley seeps and springs. In addition to the above injectate, Barrick Goldstrike Mines, Inc. will accept up to 25,000 gpm of water produced from underground or surface collection points from Newmont's Leeville, Deep Post, Deep Star, and Genesis Mines, or mineralized areas contiguous to or in the vicinity of those mines. Water received from Newmont will be sampled prior to entering Barrick's water management system and must meet all requirements as required in Permit UNEV93209 issued to Barrick Goldstrike Mine, Inc. The injectate meets federal and State standards for drinking water unless a naturally-occurring receiving-aquifer constituent is established to be higher than the drinking water standard. Analyses of the reservoir water where the injectate will be stored prior to discharge indicate concentrations of TDS - 420 ppm; arsenic - 0.016 ppm; iron - 0.015 ppm; and fluoride - 1.3 ppm. Analysis of water from the springs indicate concentrations of TDS - 630 ppm; arsenic - 0.042 ppm; iron - 0.005 ppm; chloride - 56 ppm; and fluoride - 3.1 ppm.

Receiving Water Characteristics:

The injection zone is between 1000-1200 ft within the Tertiary volcanic rock units and, to a lesser extent, within the Tertiary tuffaceous sedimentary unit.

Original testing showed the water table within the area was approximately 150-300 ft. Ground water analyses of injection zones indicated concentrations of TDS - 216-563 ppm; arsenic - 0.025 ppm; iron - 0.02-1.2 ppm; and fluoride - 0.5-1.7 ppm

Ground water testing around the injection areas completed in August 2007 indicated concentrations of TDS - 360-160 ppm; arsenic - 0.003-0.009 ppm; iron - <0.006-0.129 ppm; and fluoride - 0.83-2.19 ppm.

Wellhead Protection Areas

- Injection well/Facility within a 2-, 5-, or 10-year groundwater protection area
- Injection well/Facility within 7000-foot buffer zone for any public water supply well

B. Synopsis

2015 Renewal: no injection has occurred since previous renewal and no modification to permit have been requested.

Original - 2008: The subject site is a mining dewatering facility. The discharge location is in northern Boulder Valley approximately 6 miles southwest of the Barrick Goldstrike Mine. Barrick has completed five (5) of the eleven (11) allowable injection wells (BVI-1,2,3,4,5) within the Boulder Valley Injection area. Monitoring wells, listed in the above table, are utilized as groundwater monitoring locations for five (5) completed injection wells.

Currently, the Barrick Goldstrike injection wells are used for water management on a needs basis for use in their dewatering process. In addition, Barrick Goldstrike receives water from the Newmont's Leeville Dewatering Project which has the potential to deliver up to 25,000 gpm to the Barrick infiltration program and potentially the injection systems via a pipeline system. The Leeville water undergoes a ferric sulfate treatment process to reduce arsenic levels for compliance with the permit limits found in NEV89068 and UNEV93209. Newmont compliance sampling is conducted immediately downstream of their treatment facility in accordance with the Leeville operating permit and is verified by Barrick at their sampling location GFPD-2A. This water agreement began on August 1, 2003.

The injection wells are kept as a backup system to their surface discharge and infiltration basins. If injection were needed Barrick would most like use the southern injection wells (BVI-2, BVI-4, and BVI-5). Barrick intends to keep the injection wells as a back-up water disposal system in the future.

The permit has been drafted with two monitoring schedules for both when injection is active and idle. The permit does however require sampling of the wells one month prior to the initiation of injection.

Timeline:

Mar 2015	Permit renewal
Mar 2013	Permit renewal application received
Jul 2008	Permit renewal
Mar 2008	Permit renewal application received
Nov 2003	Notification of Newmont water acceptance (up to 25,000 gpm)
May 2001	Barrick requests modification to report frequency
Nov 1999	Permit renewal application received
Nov 1999	Monitoring modifications approved
Aug 1999	Barrick requests monitoring report modifications
Mar 1997	Injection discontinued
May 1996	Well BVI-5 authorized
May 1995	Well BVI-4 authorized
May 1995	Modified Permit Issued
Nov 1994	Permit Modification Application
Aug 1994	Permit Modification Application
May 1994	Well BVI-3 authorized

Mar 1994 Well BVI-2 authorized
Feb 1994 Well BVI-1 authorized
Oct 1993 Original Permit Issued
June 1993 Initial UIC permit application received

D. **Proposed Injectate Limitations and Requirements**

Refer to Part I.A of the permit.

E. **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.

F. **Proposed Determination**

The Division has made the tentative determination to reissue the permit.

G. **Procedures for Public Comment**

Notice of the Division's intent to issue a permit authorizing the facility to inject into the groundwater of the State of Nevada has been sent to the Elko Daily Free Press for publication.

The notice has been 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 publication date of the said 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.

Prepared by: Russ Land
Date: February 26, 2015