



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

October 28, 2021

Mr. Brad R. Bingham, Closure Manager  
Homestake Mining Company of California  
Grants Reclamation Project  
P.O. Box 98/Highway 605  
Grants, NM 87020

SUBJECT: U.S. NUCLEAR REGULATORY COMMISSION COMMENTS ON  
U.S. DEPARTMENT OF ENERGY SAMPLING PROCEDURES FOR  
HOMESTAKE MINING COMPANY OF CALIFORNIA OWNED WELL 951  
ADJACENT TO THE BLUEWATER DISPOSAL SITE

Dear Mr. Bingham:

Recently, Ms. Bernadette Tsosie, U.S. Department of Energy (DOE) Site Manager, for the Bluewater disposal site, verbally notified the U.S. Nuclear Regulatory Commission (NRC) that the Homestake Mining Company of California (HMC) has prevented DOE from sampling HMC-owned monitoring well 951. Well 951, located just outside of the DOE Bluewater Long-Term Care Boundary (LTCB) near County Road 63 and the Bluewater site entrance road, provides DOE with water level measurements and uranium concentrations from groundwater in the San Andres-Glorieta (SAG) Aquifer. DOE has sampled this well for several years, as discussed in the DOE 2020 report Evaluating the Influence of High-Production Pumping Wells on Impacted Groundwater at the Bluewater, New Mexico, Disposal Site.<sup>1</sup>

HMC is concerned about DOE's sampling process, which involves purging water from the well and dispersing the purge water on ground within the Bluewater LTCB before sampling the well. The NRC staff reviewed the procedures used for sampling well 951: (1) Contractor to DOE Office of Legacy Management (LM), Program Directive, BLU-2020-01; and (2) LMS Contractor Sampling and Analysis Plan for DOE Office of Legacy Management Sites Doc. No. S04351-15.6. These procedures call for purging of 1,520 gallons of water from well 951 and dispersing of the purged water on the ground. DOE has indicated that water from well 951 is piped via hose within the Bluewater LTCB for dispersal.

In its review of DOE's procedures used for sampling well 951 and discharging the purged water within the Bluewater LTCB, the NRC staff found DOE's procedures to be acceptable. Uranium contamination in well 951 between 2013 and 2020, as shown in the DOE Geospatial Environmental Mapping System database, has ranged from 0.02 to 0.04 milligrams per Liter (mg/L) (see <https://gems.lm.doe.gov/#site=BLU>). These concentration levels are below

---


<sup>1</sup> Agencywide Documents Access and Management System (ADAMS) Accession Package No. ML20259A312.

the NRC-approved uranium alternate concentration limit of 0.44 mg/L for the Bluewater site point of exposure well I (SG) for the SAG aquifer.<sup>2</sup> The risk of dispersing purge water from well 951 onto the Bluewater disposal site property is negligible due to the historically low concentrations of uranium found in well 951.

In accordance with Title 10 of the *Code of Federal Regulations* Part 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS. ADAMS is accessible from the NRC Web site at <https://www.nrc.gov/reading-rm/adams.html>.

If you have any questions regarding this review, please contact me at (301) 415-7777 or by e-mail to [Ron.Linton@nrc.gov](mailto:Ron.Linton@nrc.gov).

Sincerely,

 Signed by Linton, Ron  
on 10/28/21

Ron C. Linton, Project Manager  
Uranium Recovery and Materials  
Decommissioning Branch  
Division of Decommissioning, Uranium Recovery  
and Waste Programs  
Office of Nuclear Materials Safety  
and Safeguards

Docket Nos. 040-08902; 040-08903

cc: B. Tsosie (DOE) by ListServ  
K. Vollbrecht (NMED) by ListServ  
M. Purcell (EPA) by ListServ

Homestake ListServ  
Bluewater ListServ

---

<sup>2</sup> ADAMS Accession Package No. ML20100H919.

Bluewater, NM - U.S. Nuclear Regulatory Commission Comments on U.S. Department of Energy Sampling Procedures for Homestake Mining Company of California Owned Well 951 Adjacent to the Bluewater Disposal Site DATE October 28, 2021

DISTRIBUTION:

PHolahan, NMSS/DUWP

JMarshall, NMSS/DUWP

ARoberts, NMSS/DUWP

RVonTill, NMSS/DUWP/URMDB

GAlexander, NMSS/DUWP/RTAB

HGepford, R-IV/DNMS/MLDB

REvans, R-IV/DNMS/MLDB

LGersey, R-IV/DNMS/MIB

ADAMS Accession No.: Ltr ML21278B110

\* via email

OFFICE	NMSS/DUWP /URMDB	NMSS/DUWP /URMDB	OGC/GCRPS/RMR /NLO*	NMSS/DUWP /URMDB
NAME	RLinton <i>RL</i>	TLancaster <i>TL</i>	IIrvin <i>II</i>	RVon <i>RV</i>
DATE	Oct 7, 2021	Oct 7, 2021	Oct 27, 2021	Oct 28, 2021
OFFICE	NMSS/DUWP /URMDB			
NAME	RLinton <i>RL</i>			
DATE	Oct 28, 2021			

**OFFICIAL RECORD COPY**