



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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October 20, 2021

Kristin Bail
Okanogan-Wenatchee National Forest Supervisor
United States Department of Agriculture
215 Melody Lane
Wenatchee, WA 98801

RE: No Further Action at the following Site:

- **Site Name:** Minnie Mine
- **Site Address:** Leecher Canyon, Carlton
- **Facility/Site No.:** 426
- **Cleanup Site No.:** 4356

To Kristin Bail:

The Washington State Department of Ecology (Ecology) has reviewed recent records for the Silver Mountain Mine site (Site). This letter provides our updated opinion for the status of the Site. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Is further remedial action necessary to clean up contamination at the Site?

NO. Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.

This opinion is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.



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This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively “substantive requirements of MTCA”). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Arsenic and cadmium into soil.

Enclosure A is a diagram of the Site, as currently known to Ecology.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. Washington State Department of Ecology, Enforcement Order No. DE 94TC-C433, October 1994.
2. Olympus Environmental, Inc., Minnie Mine Millsite Cleanup Action Plan and Construction Report, October 1995.
3. Washington State Department of Ecology, Periodic Review, May 2015.

A number of these documents are accessible in electronic form from the Site webpage¹. The complete records are stored at the Central Regional Office of Ecology (CRO) for review by appointment only.

¹ <https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=4356>

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Visit our Public Records Request page², to submit a public records request or get more information about the process. If you require assistance with this process, you may contact the Public Records Officer at PublicRecordsOfficer@ecy.wa.gov or 360-407-6040.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that no further remedial action is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

The United States Forest Service (USFS) Site was identified as an ore pile of previously mined material. The pile consisted of 5,700 cubic yards of ore with concentrations of arsenic and cadmium above MTCA Method A cleanup levels.

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A**.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance established for the Site meet the substantive requirements of MTCA.

Cleanup Levels

The Site is vacant and part of the Okanogan-Wenatchee National Forest.

² <https://ecology.wa.gov/Footer/Public-records-requests>

It is surrounded by National Forest and agricultural land. Zoning does not explicitly prohibit residential use, though permanent private use is rarely allowed on National Forest property. National forest is frequently used for recreational purposes. As a result, it has been determined that unrestricted land use cleanup levels are appropriate for the Site.

The following Method Cleanup Levels for unrestricted land uses are appropriate for the Site:

Constituent	Soil Cleanup Level (mg/kg)
Arsenic (Method A)	20
Cadmium (Method B)	40

Point of Compliance (POC): The standard point of compliance is applicable to this Site, which is defined as the horizontal extent of the Site from the surface to 15 feet below ground surface.

Terrestrial Ecological Evaluation (TEE): The Site is generally vacant with mixed agricultural use. The remedy included installation of a protective barrier over the ore piles. This is an effective barrier to contaminants, and Ecology has eliminated the TEE pathway for further consideration at this Site.

3. Selection of cleanup action.

Ecology has determined the cleanup action selected for the Site meets the substantive requirements of MTCA. The cleanup included capping of contaminated soil and implementing institutional controls to protect the remedy.

4. Cleanup.

Ecology has determined the cleanup meets the cleanup standards established for the Site. This determination is dependent on the continued performance and effectiveness of the post-cleanup controls and monitoring specified below.

Site cleanup consisted of grading and consolidating the ore piles and capping with a soil cover. The cap was constructed to minimize erosion and maximize evapotranspiration by vegetation. Long term monitoring is necessary to observe the integrity of the cap and repair as necessary. This will take place through the five-year review process. Institutional controls were also implemented to prevent use of the capped area for any purpose.

Post-Cleanup Controls and Monitoring

Post-cleanup controls and monitoring are remedial actions performed after the cleanup to maintain compliance with cleanup standards. This opinion is dependent on the continued performance and effectiveness of the following:

1. Compliance with institutional controls.

Institutional controls prohibit or limit activities that may interfere with the integrity of engineered controls or result in exposure to hazardous substances. The following institutional control is necessary at the Site:

- A land use restriction preventing use and disturbance of the capped area.

To implement that control, the Site was listed on an internal USFS database of Land Status Records. The Site is listed as an Administrative Protection Area that states the USFS or its permittees shall not compromise or otherwise impair the soil cap or associated facilities.

Ecology approved this institutional control. A screenshot of this control is included in **Enclosure B**.

Periodic Review of Post-Cleanup Conditions

Ecology will continue to conduct periodic reviews of post-cleanup conditions at the Site to ensure that they remain protective of human health and the environment. If determines, based on a periodic review, that further remedial action is necessary at the Site, then Ecology will withdraw this opinion.

Listing of the Site

Based on this opinion, Ecology will initiate the process of removing the Site from both our Hazardous Sites List and our Confirmed and Suspected Contaminated Sites List. That process includes public notice and opportunity to comment. Based on the comments received, Ecology will either remove the Site from the applicable lists or withdraw this opinion.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

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2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action.

This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. See RCW 70.105D.080 and WAC 173-340-545.

3. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. See RCW 70.105D.180.

Termination of Agreement

If you have any questions about this opinion, please contact me by phone at 509-388-5223 or e-mail at Jeff.Newschwander@ecy.wa.gov.

Sincerely,



Jeff Newschwander
Toxics Cleanup Program
Central Regional Office

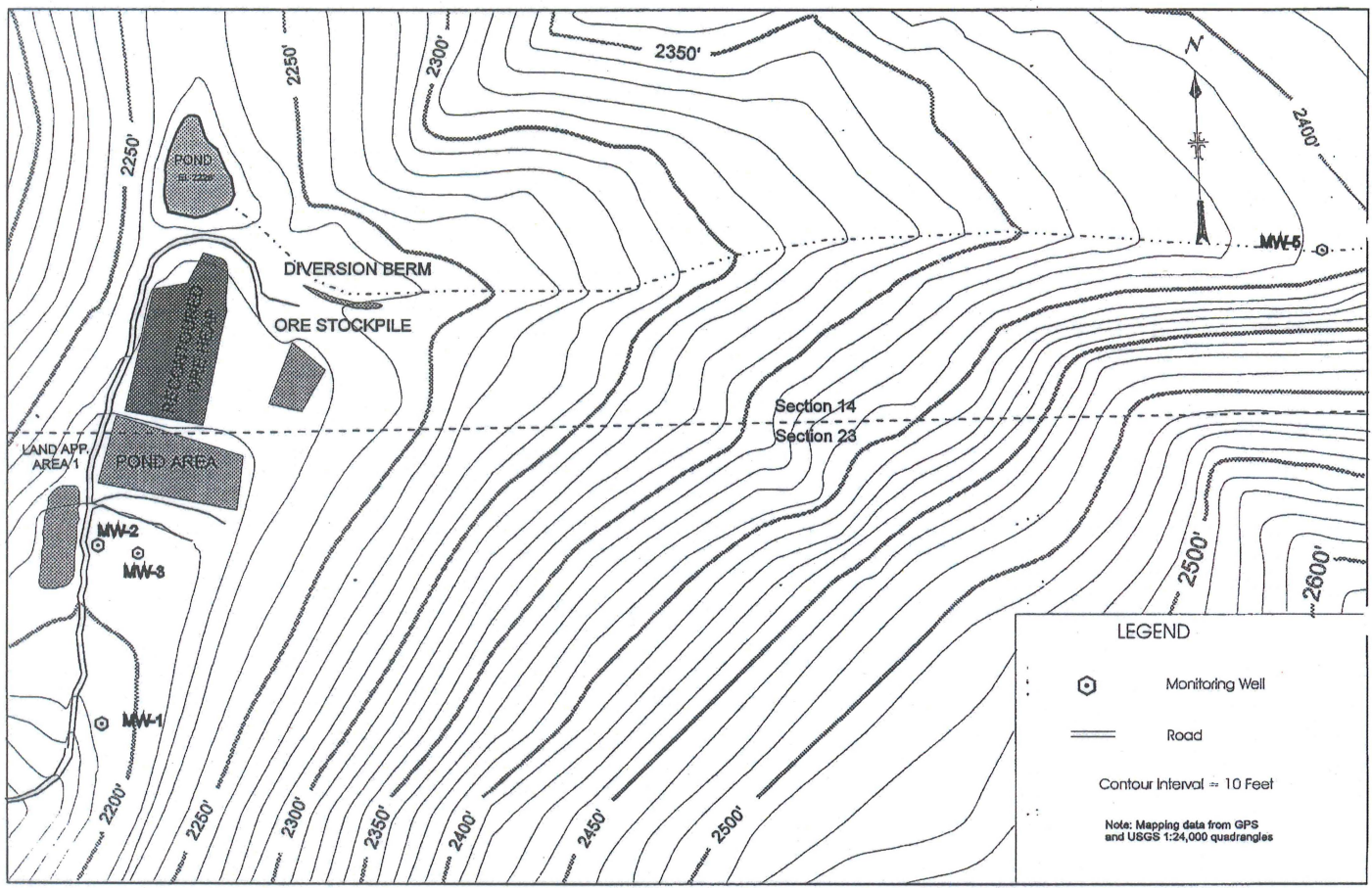
Enclosures (2): A – Site Diagram
 B – Institutional Controls

Enclosure A

Site Diagram

MINNIE MINE PRE-REMEDATION SITE PLAN

FIGURE 2



U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
R-6
PACIFIC NORTHWEST REGION



Drawn G. Knott
Checked
Reviewed

OKANOGAN
MINNIE MINE RECLAMATION

Sheet Title **Figure 2**
Scale 1/2" = 75'
Sheet 1 of 1

Enclosure B

Institutional Control

Automated Lands Project Version: 1

File Edit Field Record Find Help

Manage Status Cases Alp Documents

spec_int_mgt

Use Restrictions

UR Name	UR Type	Type Name
MINNIE MINE CAP AREA	213	PROTECTION AREA (ADMINISTRATI

844 Authority: Public Law 96-510

Method:

Expire Date:

Official Acres: 4.13

FG Tracts:

Comments:

"The Forest Service or its permittees shall not compromise or otherwise impair the soil cap or assoc. facilities. Refer to hard copy 5590 Minnie Mine Cap Area Site Restrictions for rest of restrictions."

Rights-of-Ways

Route/Road No.: Juris.: Details:

Enter the name of this Use Restriction

Record: 1/1 Inert <OSC><DBG>

