

# MOAB TAILINGS PROJECT STEERING COMMITTEE

Quarterly Meeting

Anchor Location: 125 E Center St, Moab, Utah 84532 (Commission Chambers)

See below for instructions to provide public comment on Zoom

Meeting ID: 844 6272 7382 Passcode (as needed): 244655

Link: <https://us06web.zoom.us/j/84462727382?pwd=aFNZY0VNK1ViQ3ZnaUFIMjNKZ1RpZz09>

## AGENDA

Tuesday, July 25, 2023 at 3:00PM (MST)

- A. **CALL TO ORDER** (3:00PM)
- B. **INTRODUCTIONS** (Chair, Mary McGann)
- C. **APPROVAL OF MINUTES** (Chair, Mary McGann)
  - a. April 25, 2023 Quarterly Meeting
- D. **CITIZENS TO BE HEARD**

We are receiving public comments by phone and online through Zoom.  
Meeting ID: 844 6272 7382 Passcode (as needed): 244655  
Link: <https://us06web.zoom.us/j/84462727382?pwd=aFNZY0VNK1ViQ3ZnaUFIMjNKZ1RpZz09>

Please note that when joining the meeting, you will be placed in a waiting room and will be added to the meeting by the moderator. Your comments will be recorded and are limited to a duration of three (3) minutes in length.
- E. **MOAB UMTRA PROJECT UPDATE** (DOE Environmental Manager, Liz Moran)
- F. **PRESENTATION OF THE DOE ANNUAL STATEMENT OF CONTINUED COMPLIANCE WITH GRAND COUNTY'S CONDITIONAL USE PERMIT FOR THE MOAB UMTRA PROJECT** (DOE Environmental Manager, Liz Moran)
- G. **CONSIDERATION OF APPROVAL OF THE ANNUAL STATEMENT OF CONTINUED COMPLIANCE** (Chair, Mary McGann)
- H. **AIR MONITORING AND LIAISON ACTIVITIES STATUS UPDATE** (UMTRA Liaison, Jessica Thacker)
- I. **STAKEHOLDERS UPDATES**
- J. **FUTURE CONSIDERATIONS** (Chair, Mary McGann)
  - a. 2023 MTPSC Meeting Dates (October 24)
- K. **ADJOURNMENT**

**NOTE:** Individuals with special needs requests wishing to attend MTPSC meetings are encouraged to contact the Grand County UMTRA Liaison at least twenty-four (24) hours in advance of these events. Specific accommodations necessary to allow participation of disabled persons will be provided to the maximum extent possible. T.D.D. (Telecommunication Device for the Deaf) calls can be answered at: 435-259-1346. Individuals with speech and /or hearing impairments may also call Relay Utah by dialing 711 or Spanish Relay Utah at 888-346-3162. Please contact the UMTRA Liaison for general requests, or any questions or comments at [jthacker@grandcountyutah.net](mailto:jthacker@grandcountyutah.net).

Dated this 24th day of July 2023

*Jessica Thacker*

s/S Jessica Thacker, UMTRA Liaison

# MOAB TAILINGS PROJECT STEERING COMMITTEE

Quarterly Meeting

Anchor Location: Grand Center 182 N 500 W, Moab, UT 84532

Held virtually on Zoom and Livestreamed on YouTube

---

## MTPSC MINUTES

Tuesday, April 25, 2023 at 3:00PM (MST)

### A. CALL TO ORDER

The April 25, 2023 quarterly meeting of the Moab Tailings Project Steering Committee was called to order at 3:07pm. The following committee members were in attendance:

Mary McGann (Grand County Commission), Cora Phillips (Grand County Office of Emergency Management), Noelle Gignoux (Grand County Planning Department), Rani Derasary (City of Moab), Ben Alter (Grand County Community and Economic Development), Phil Goble (Utah Department of Environmental Quality), Joette Langianese (Grand County Resident Representative), Amy Tendick (National Park Service), Tony Mancuso (Department of Natural Resources).

The following non-committee members were in attendance:

Matt Udovitsch (Acting Federal Cleanup Director – DOE), Stephanie Lein (Pro2Serve, Technical Assistance Contract), Katrina Lund (North Wind Portage, Remedial Action Contract), Roger Grant (DOE), Liz Moran (Pro2Serve, Technical Assistance Contract), Jim Ritchey (North Wind Portage, Remedial Action Contract), Barbara Michel (DOE), Russ von Koch (Site Futures Committee), Ken Pill (DOE), Sasha Robertson (DOE), Emily Artsne (KZMU), and Jessica Thacker (Grand County UMTRA Liaison/Technical Inspector).

Per Resolution 3198 at least seven committee members were present to constitute a quorum.

### B. INTRODUCTIONS

### C. APPROVAL OF MINUTES

**MOTION: Rani Derasary motioned to approve the minutes for the April 24, 2023. Due to technical difficulties with incompatible equipment and the new untested location, the second motion is unavailable. All in favor – motion passes.**

### D. CITIZENS TO BE HEARD

No comments were received.

### E. MOAB UMTRA PROJECT UPDATE

Due to technical difficulties with incompatible equipment and the new untested location, the full project update is unavailable. The minutes below reflect information that was discernible. They stated that the hydroxy apatite study had concluded and was awaiting laboratory results with an update to potentially be provided at the quarterly July meeting. They stated that the groundwater extraction had restarted in April since the winter and the extracted water was being used for dust suppression control. They stated that the Project had a flood and drought mitigation plan ready for potentially high flows on the Colorado River.

### F. AIR MONITORING AND LIAISON ACTIVITIES STATUS UPDATES

Jessica Thacker provided a detailed presentation regarding activities observed at the Project along with a

summary of air monitoring data for both sites (Moab and Crescent Junction). She stated that a new observation point had been added to the site visits due to expanded operations at the pile. The full status update can be found on the Grand County Moab UMTRA website or by email at [jthacker@grandcountyutah.net](mailto:jthacker@grandcountyutah.net)

#### **G. SITE FUTURES COMMITTEE STATUS UPDATE**

Due to technical difficulties with incompatible equipment and the new untested location, the full Site Futures Committee status update is unavailable. Russ von Koch and Noelle Gignoux provided a detailed PowerPoint presentation regarding the community's input to potential futures uses for the Project following site closure. The Site Futures Committee Status update can be found on the Grand County Connects website: <https://grandcountyconnects.com/site-futures>

#### **H. FLOOD MITIGATION DISCUSSION**

Flood mitigation discussion was briefly held during the Moab UMTRA Project update.

#### **I. STAKEHOLDERS UPDATE**

No stakeholders updates were provided.

#### **J. FUTURE CONSIDERATIONS**

No future considerations were provided.

#### **K. ADJOURNMENT**

Mary McGann adjourned the meeting at 4:27PM.

**Grand County**  
**Annual Statement of Continued Compliance**  
**July 19, 2022 – July 18, 2023**

**I. Per requirements of the Grand County Conditional Use Permit (CUP), Resolution #2006-2741, DOE submits this Annual Statement of Continued Compliance. The following is specific information requested in item #17 of the resolution:**

**a. Summary of work completed by the Moab Uranium Mill Tailings Remedial Action Project (Project) pursuant to the approved CUP in the past 12 months:**

**Project Accomplishments**

During the reporting period, the Project shipped over 977,000 tons of uranium mill tailings. To date, the Project has shipped more than 13.7 million tons, or about 86 percent of the total estimated 16 million tons in the tailings pile to be moved.

During the reporting period, more than 15,500 tons of debris was placed in the disposal cell, which was shipped by train.

In October 2023, the Project reached 13 million tons of mill tailings shipped from Moab to Crescent Junction.

In December 2022, the U.S. Congress approved the Fiscal Year (FY) 2023 budget. It provided \$67 million to the Project.

In April 2023 the Project began work activities to uncover, dismantle, and remove 14 autoclaves from an asbestos landfill at the Moab site. The work was completed in June 2023 and all resulting debris has been transported to the Crescent Junction site.

Although the Federal COVID-19 Public Health Emergency (PHE) Declaration ended on May 11, 2023, the *DOE COVID-19 Workplace Safety Framework* provides guidance for continued safety protocols at all DOE sites and facilities. The Project utilizes the Centers for Disease Control and Prevention (CDC) online tool, the *COVID-19 Hospital Admission Levels*, to check what the hospital admission rates are for COVID-19 by county. In addition to checking these levels weekly, the Project has continued to practice health-based safety measures throughout the reporting period.

**Moab**

Tailings excavation, conditioning, loading, and unloading were performed throughout the year. The Project continued the four trains a week shipping schedule for the duration of the reporting period.

The legacy Atlas Building was safely demolished in February 2023, with the resulting debris removed and the area cleared.

In April 2023 work began to uncover, dismantle, and remove 14 autoclaves from an on-site asbestos landfill. The work was successfully completed in June 2023, with all 14 autoclaves located and removed. Resulting debris will be shipped to the Crescent Junction site.

Approximately 950,000 gallons of groundwater were extracted during the past 12 months, removing 1,800 pounds of ammonia and 20 pounds of uranium, through the interim action groundwater system. The extraction system was shut down from mid-November 2022 through mid-April 2023 as there is minimal evaporation during the winter months and the existing storage capacity for contaminated water is limited. It was necessary to shut down the system again in late-April 2023 because of well field flooding that occurred because of the higher-than-average Colorado River spring runoff flows. More than 7.2 million gallons of freshwater were injected to create a hydraulic barrier.

The project did experience flooding at the Moab site during the reporting period. Flood waters from the Colorado River entered the north off-pile area on May 17, and proceeded to flow into the well field by June 6. By July 1 the flood waters started to recede. No structural damage was done.

### **Crescent Junction**

Tailings placement and compaction in the disposal cell continued throughout the reporting period.

Phase 4 of the disposal cell expansion was completed in this reporting period, with approximately 790,000 cubic yards excavated. This activity created additional space in the cell for future tailings placement.

The Project has proposed a disposal cell cover change. Instead of installing the rock armor cover design originally developed for the Crescent Junction disposal cell cover, project personnel have proposed an evapotranspiration (ET) cover. An ET cover is expected to improve performance and reduce construction costs. ET covers are composed of rock and soil, topped with vegetation. During the reporting period, the remedial action contractor (RAC) and project federal staff continued to work with the Nuclear Regulatory Commission (NRC) about the design change. The NRC is the regulator for the Crescent Junction disposal cell.

#### **b. Number of workers employed on site in the past year and projection for the coming year:**

As of July 2023, the Project employed 141 people. Staffing will continue to reflect the shipping schedule.

**c. The work plan for the coming 12 months including any modifications, additions, and deletions:**

The Project plans to continue excavating and conditioning mill tailings, and shipping four trains per week through the end of this FY on September 30, 2023.

Placement of tailings four days per week will continue at the Crescent Junction site for the foreseeable future. The Project has been placing interim cover on tailings that have reached final design elevation in the disposal cell.

The Department of Energy (DOE) awarded a Remedial Action Contract (RAC) to the incumbent company, Northwind Portage in February 2022 for completion of EM's environmental remediation in Moab. In addition, the technical assistance contract (TAC) was awarded to S&K Mission Support in May 2023.

Operation of the interim groundwater remedial action system will continue, including groundwater extraction, freshwater injection, and surface water diversion (when necessary), along with system monitoring.

**d. Air and water quality monitoring reports and support materials sufficient to inform the public regarding any health risks associated with the Project:**

The Project prepares an Annual Site Environmental Report (ASER) to inform the public of the environmental site conditions, document compliance with environmental standards and requirements, and highlight significant programs and efforts. The ASER, along with groundwater and surface water monitoring reports and quarterly air monitoring data reports are all available on the Project website at [ASER CY2021 \(energy.gov\)](#). In addition, hardcopies are maintained in the public reading room at the Grand County Public Library, and key stakeholders are notified of their availability on the Project website.

**Air**

The Project monitors public exposure to contaminants, including direct gamma radiation, radon, and airborne radioparticulates, which are directly attributable to the uranium mill tailings and other contaminated materials from the Moab and Crescent Junction sites. Monitoring locations are shown on maps included in the quarterly air monitoring reports. Public exposure to direct gamma radiation and radioparticulates from the Project sites did not exceed DOE public dose limits during the most recent four-quarter period (October-December 2023).

**Employee Radiological Monitoring**

The Project conducts a separate employee radiological monitoring program. Employees who routinely enter the Contamination Area represent the highest potentially exposed individuals. They are monitored for their radiation exposure, known as total effective dose, from gamma radiation, radon, and radioparticulates. DOE has a total effective dose

limit of 5,000 millirems per year (mrem/yr) and an administrative control level of 2,000 mrem/yr. The Project sets its own goal and ensures engineering and administrative controls are in place to maintain employee radiological dose as low as reasonably achievable (ALARA). Radiation exposure results to date indicate that the Project has adequately protected its workers from radiological hazards by keeping the total effective dose well below the DOE administrative control level.

### **Water**

Active groundwater remediation is conducted to protect potential suitable habitat areas adjacent to the site, and to remove ammonia and uranium mass from the groundwater system. In addition to extraction of contaminated groundwater through eight wells located close to the tailings pile, freshwater (diverted river water) was injected through wells near the river as an additional way of minimizing the discharge of ammonia to the river. Surface water diversion was not necessary from July 2022 through July 2023 because areas adjacent to the well field did not develop into a suitable habitat for endangered fish species. This was confirmed by a Utah Dept of Natural Resources fish habitat SME.



**Department of Energy**  
200 Grand Avenue, Suite 500  
Grand Junction, Colorado 81501

July 21, 2023

MOAB-00503-23

Mr. Jacques Hadler, Chair  
Grand County Commission  
125 E. Center Street  
Moab, UT 84532

SUBJECT: GRAND COUNTY CONDITIONAL USE PERMIT (CUP) RESOLUTION, 2023 ANNUAL STATEMENT OF CONTINUED COMPLIANCE (ASCC) REGARDING THE U.S. DEPARTMENT OF ENERGY (DOE) MOAB URANIUM MILL TAILINGS REMEDIAL ACTION (UMTRA) PROJECT

Dear Mr. Hadler,

DOE has prepared the enclosed *2023 Annual Statement of Continued Compliance* per CUP resolution #2006-2741. The enclosed report provides details of the operational activities over the past year and results of ongoing environmental monitoring programs outlined in Section 17 of the CUP resolution.

DOE looks forward to a continued cooperative relationship with Grand County. If you have any questions regarding this annual statement, please contact me at (970) 257-2161.

Sincerely,

7/21/2023

**X** Matthew Udovitsch

Matthew Udovitsch  
Acting Federal Cleanup Director  
Signed by: MATTHEW UDOVITSCH

Enclosure

cc w/enclosure:  
Elizabeth Moran, DOE  
Christopher Pulskamp, DOE  
Jessica Thacker, Grand County  
Tom Bachtell, TAC  
Greg Church, RAC  
Project File MOA 5.4 (S. Hooper)

# MOAB UMTRA PROJECT

## URANIUM MILL TAILINGS REMEDIAL ACTION

### MOAB, UTAH



*Panoramic view of Moab UMTRA Site (6/27/2023)*



Prepared by:  
**Jessica Thacker**  
UMTRA Liaison/Technical Inspector

**MTPSC Status Update**

**July 25, 2023**

# INTRODUCTION & PURPOSE

The UMTRA Liaison/Technical Inspector position, as established by Grand County Resolution 3198 and located within the Grand County Planning and Community Development Department (P&CD), serves as an independent and neutral figure regarding activities utilizing a conditional use permit (CUP) through Grand County.

The UMTRA Liaison/Technical Inspector provides observations, reports, and other applicable duties to the following sites:

- The Moab UMTRA Site and associated Crescent Junction Disposal Site
- Oilfield Water Logistics at Danish Flats
- Westwater Farms/Armada Water Solutions at Harley Dome
- IACX Helium Processing Plant at Harley Dome

The UMTRA Liaison/Technical Inspector works with a variety of entities and committees to ensure full transparency and accurate reporting. This position is currently funded through Grant DE-EM0005196 and has a period of performance through February 4, 2025.

# UMTRA SITE MAP



Google Maps – Image not to scale

# OBSERVATION POINT #1

APR 2023



JUN 2023



# OBSERVATION POINT #2

APR 2023



JUN 2023



# OBSERVATION POINT #3

APR 2023



JUN 2023



# OBSERVATION POINT #4

APR 2023



JUN 2023



# OBSERVATION POINT #6

APR 2023

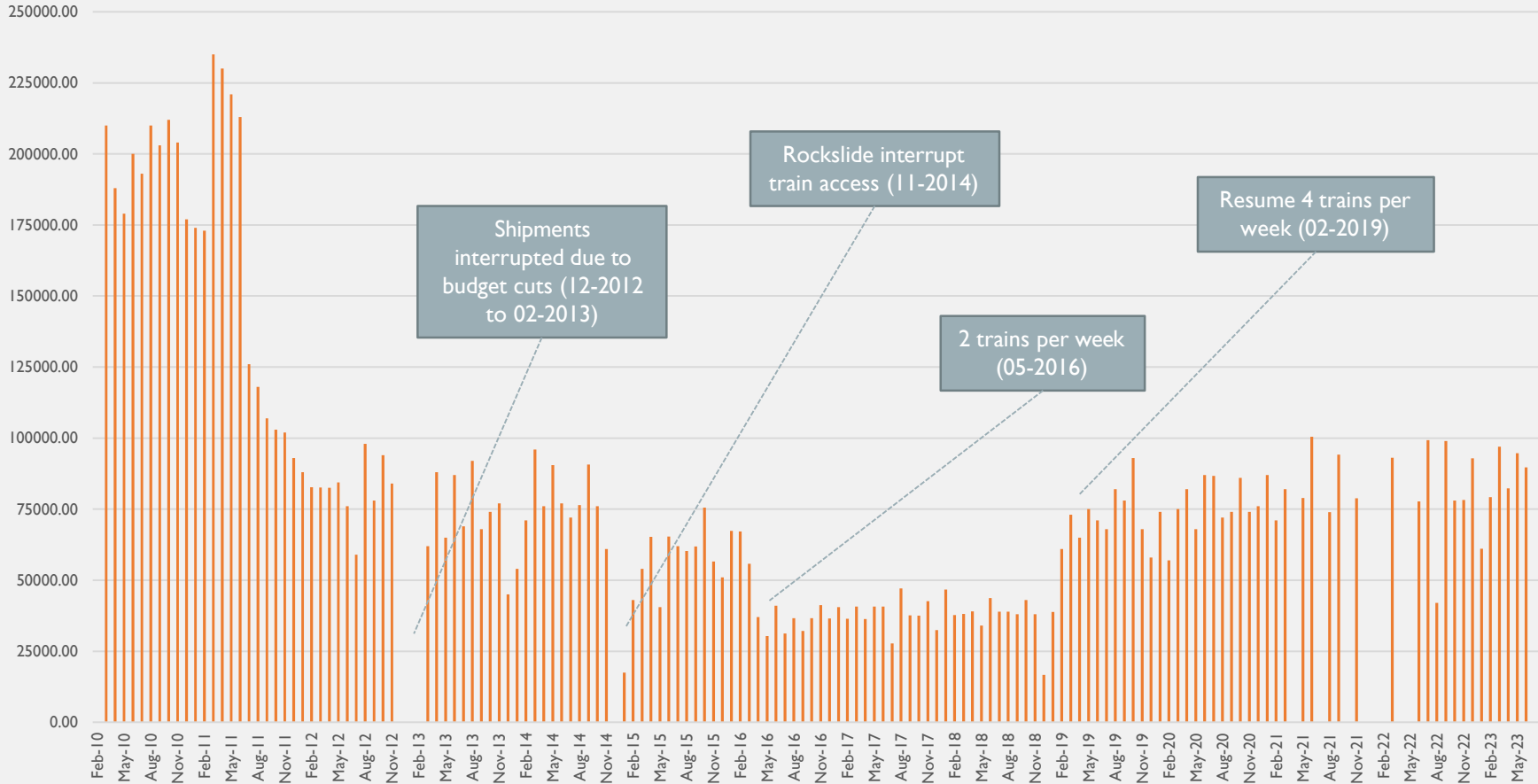


JUN 2023



# TAILINGS SUMMARY

Tailings moved (in tons) over time

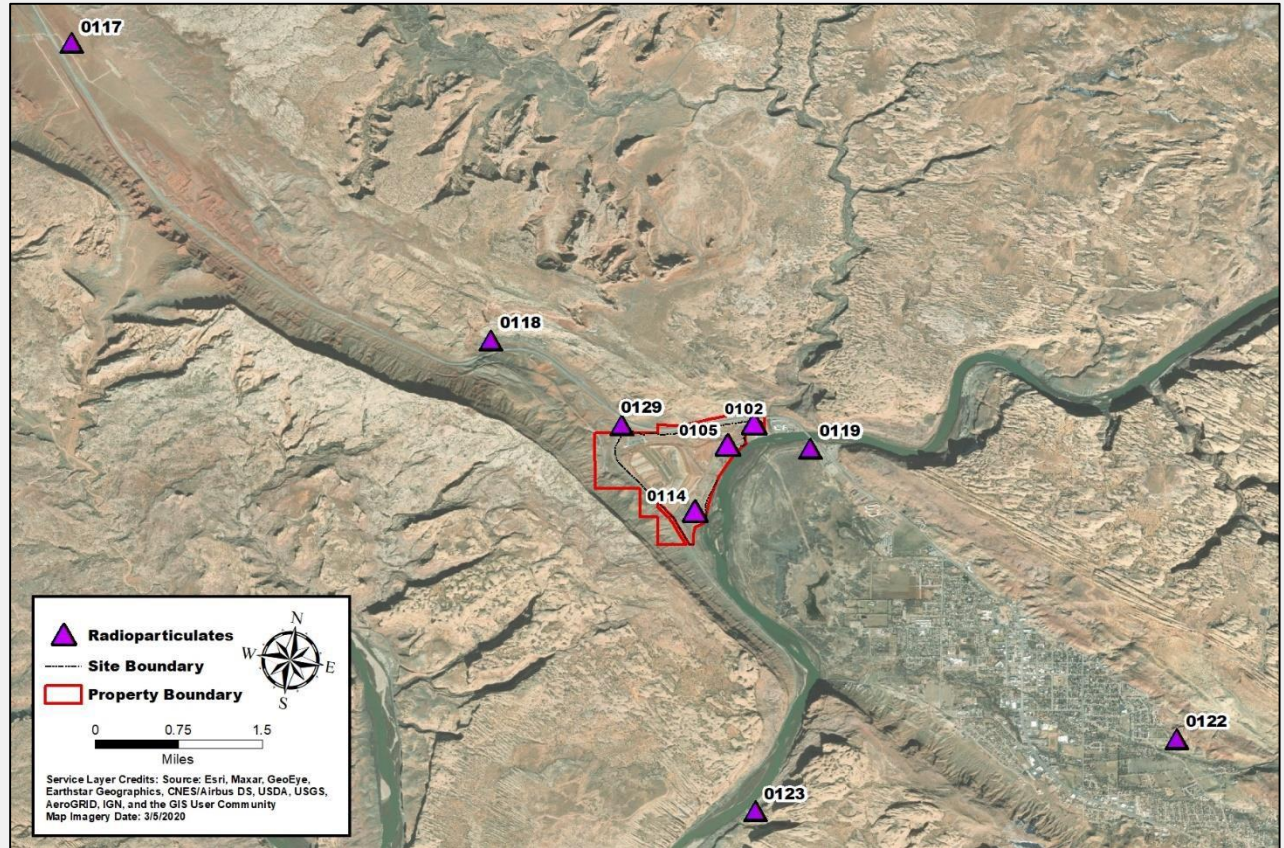


- At the end of June 2023, approximately 13.6 million tons of tailings and mill debris has been shipped to the Crescent Junction site for disposal. Approximately 89,656 tons of tailings and mill debris were moved in June 2023 (end of 2Q23).
- Indicates that 85% of the estimated 16 million total tonnage contained at the Moab UMTRA site has been removed since the beginning of the project.
- The Moab UMTRA Project continues to operate on a regular schedule of four (4) trains per week.

# RADIOPARTICULATES – 4 Q22

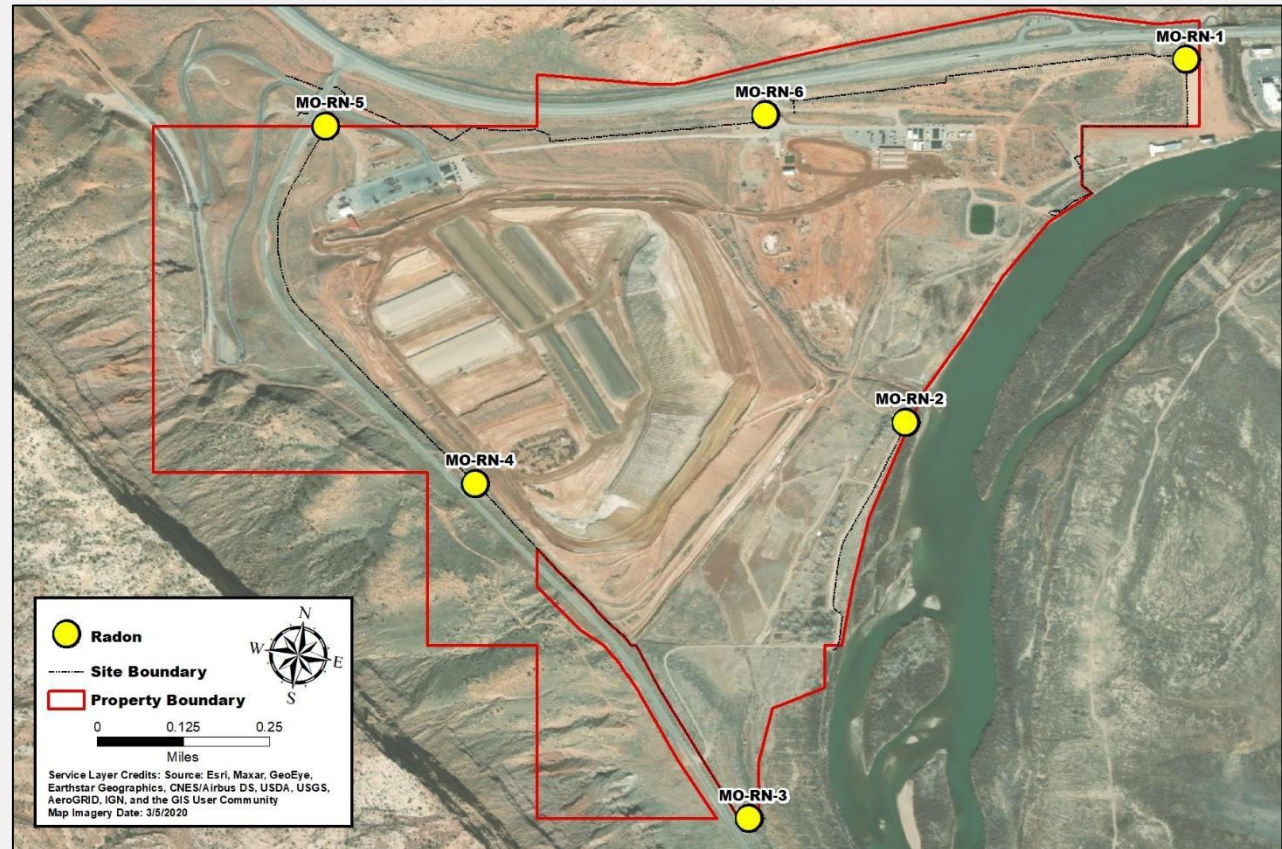
## MONITORING STATIONS

Station ID	Result (mrem)
MSP-0102-RP	1.69
MSP-0105-RP	1.89
MSP-0114-RP	3.10
MSP-0117-RP	1.38
MSP-0118-RP	1.92
MSP-0119-RP	1.33
MSP-0122-RP	1.27
MSP-0123-RP	1.34
MSP-0129-RP	3.31



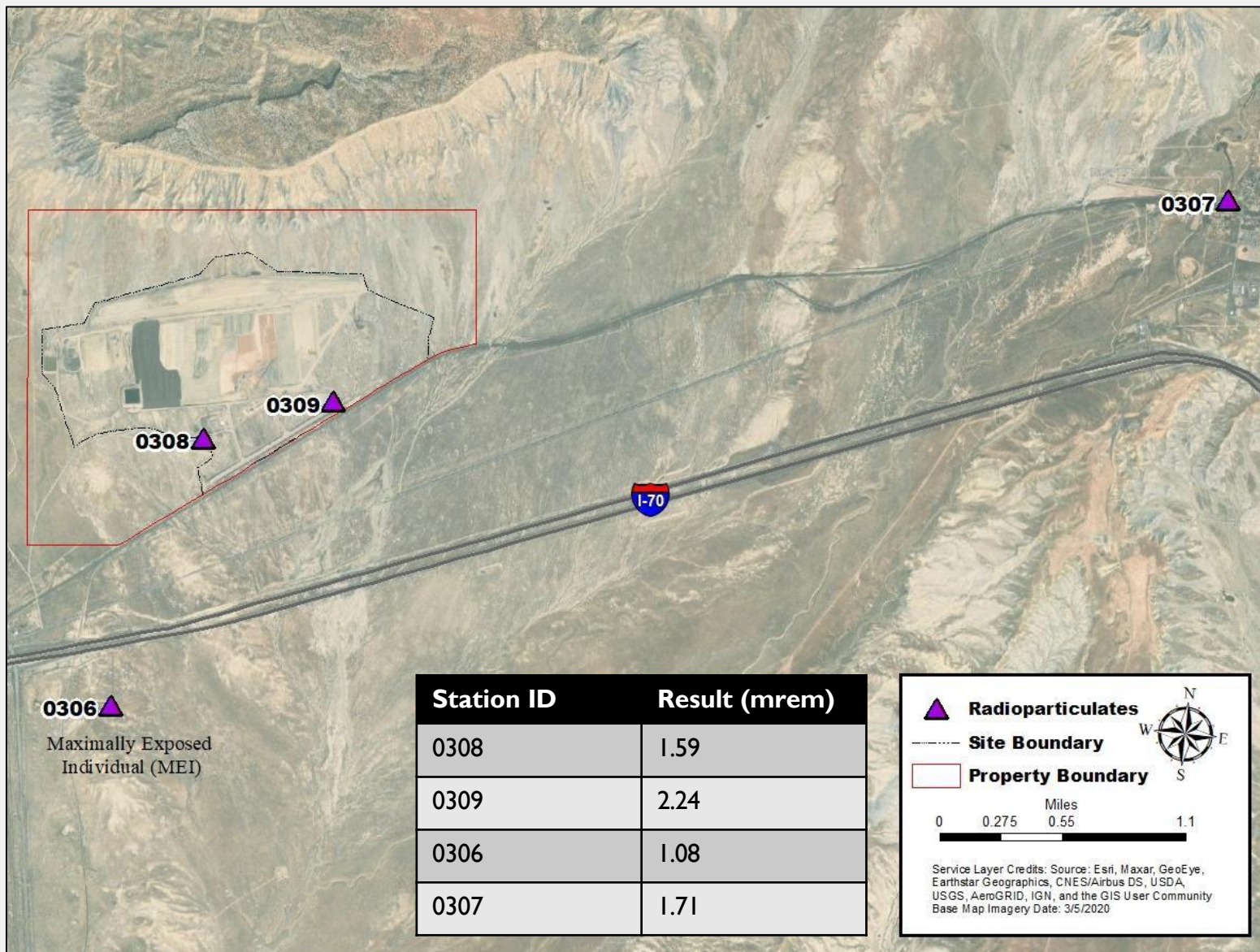
# RADON – 4Q22 MONITORING STATIONS

Station ID	Result (pCi/L)
MO-RN-1	0.89
MO-RN-2	2.50
MO-RN-3	0.84
MO-RN-4	1.20
MO-RN-5	0.82
MO-RN-6	1.65



# RADIOPARTICULATES – 4 Q22

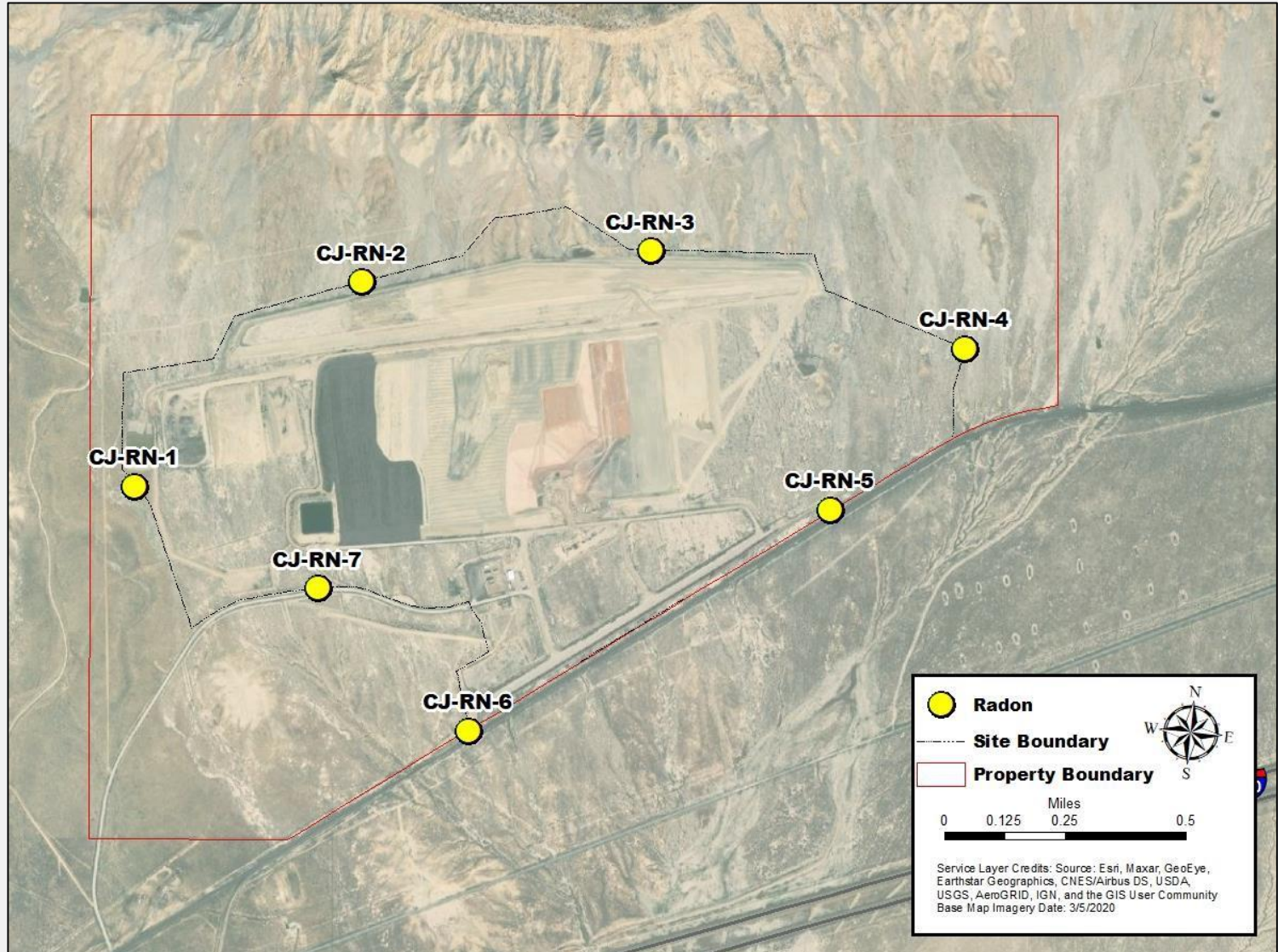
## CRESCENT JUNCTION SITE



# RADON – 4Q22

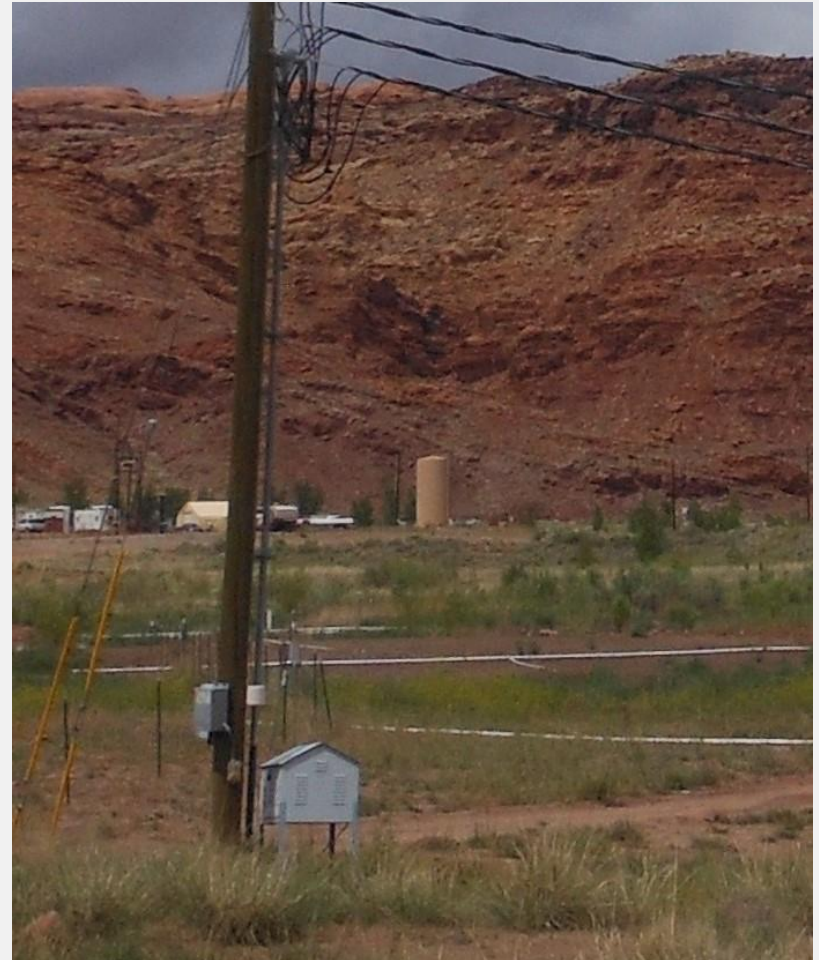
## CRESCENT JUNCTION SITE

Station ID	Result (pCi/L)
CJ-RN-1 2	<Background
CJ-RN-2 2	<Background
CJ-RN-2A 1	0.21
CJ-RN-3 2	0.54
CJ-RN-4	<Background
CJ-RN-5	<Background
CJ-RN-6	0.77
CJ-RN-7	0.66
03011	0.29



# AIR MONITORING DATA SUMMARY

- **Radioparticulates (for both sites):**
  - 10 monitoring stations up from 3Q22
  - 3 monitoring stations down from 3Q22
- **Radon (for both sites):**
  - 7 monitoring stations down from 2Q22 results
  - 3 monitoring stations up from 3Q22 results
  - 2 monitoring stations added from 3Q22 results
  - 3 monitoring stations had no change from 3Q22
- **Environmental Compliance and Plans for the Moab UMTRA Project can be found here:**  
<https://www.energy.gov/em/moab/environmental-compliance-and-plans>



# GROUNDWATER REMEDIATION

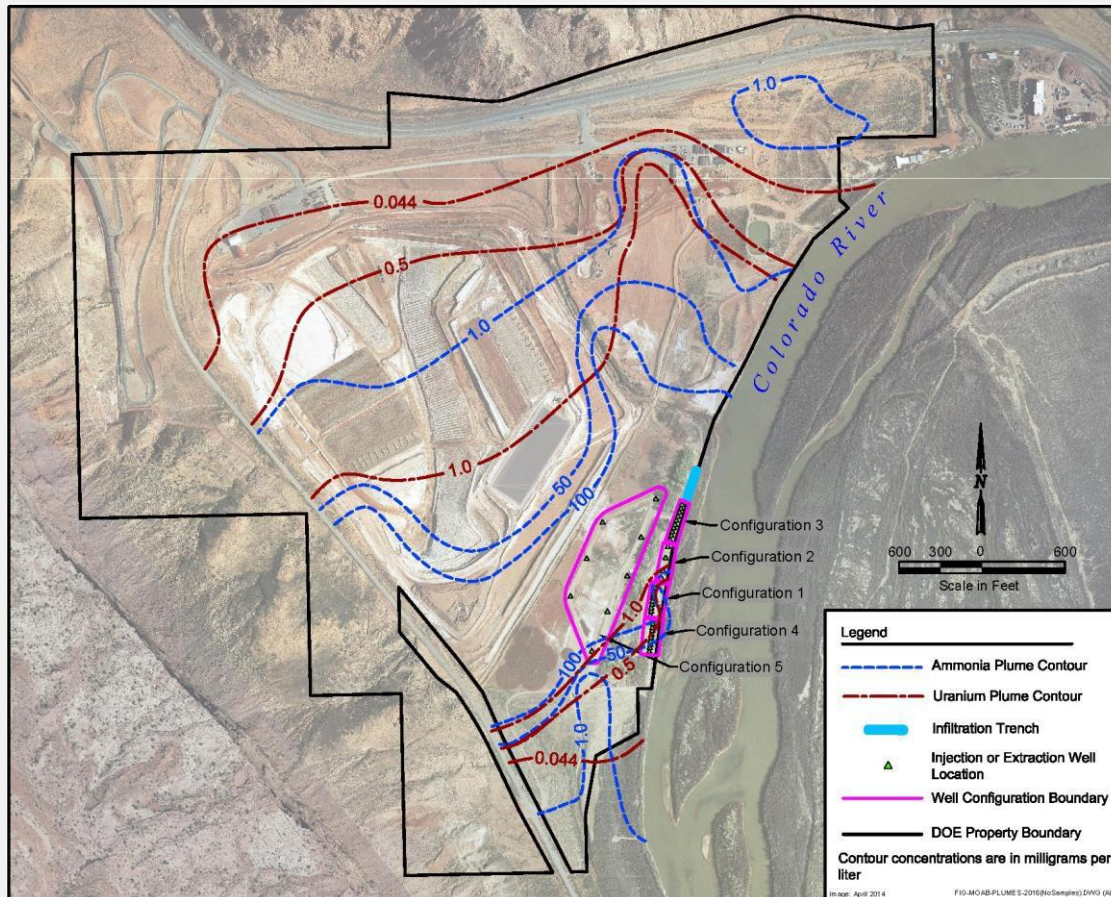


Image: [https://www.gjem.energy.gov/general/interim\\_gw\\_action.htm](https://www.gjem.energy.gov/general/interim_gw_action.htm)

- In 2003, DOE implemented an interim action system at the Moab site to address concerns regarding elevated ammonia and uranium concentrations in groundwater discharging to the Colorado River. A total of five well configurations are used to reduce the amount of ammonia and uranium that discharges to the river.
- Groundwater extraction is through Configuration 5 wells, which are located closer to the tailings pile.
- Over the life of the Project, extraction has prevented 979,483 pounds of ammonia and 5,580 pounds of uranium from reaching the river.
- Freshwater (diverted river water) is injected through wells in Configuration 4 as an additional way of minimizing the discharge of ammonia to the Colorado River. So far in 2023, more than 1,446,859 gallons of water has been injected.

# RESOURCES

## Online

- <https://www.energy.gov/em/moab/moab-umtra-homepage>
- <https://www.grandcountyutah.net/257/Moab-UMTRA-Project>
- <https://www.grandcountyutah.net/206/Moab-Tailings-Project-Site-Futures-Commi>
- Moab UMTRA Project Five-Year Site Plan FY's 2022-2026 (DOE):  
<https://www.gjem.energy.gov/documents/Five-YearSitePlan22.pdf>
- Moab UMTRA Project Surface Water and Groundwater Project Documents  
<https://www.energy.gov/em/moab/surface-water-and-groundwater>
- **Public meetings**
- *Moab Tailings Project Steering Committee, quarterly (July 25 and Oct 24, 2023)*
- *Site Futures Committee, 2013 and 2018*
- **UMTRA Reading Room (Library)**
- **Contact Grand County's UMTRA Liaison at [jthacker@grandcountyutah.net](mailto:jthacker@grandcountyutah.net)**

QUESTIONS?