DOE Uranium Leasing Program
Annual Status and Activities Report for Calendar Year 2022

February 2023
Cover photo: Ore bin and reclaimed waste rock pile at the Radium Hill 10 mine site, Lease Tract C-WM-17, San Miguel County, Colorado
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<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>BLM</td>
<td>U.S. Bureau of Land Management</td>
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<tr>
<td>CUR</td>
<td>Consolidated Uranium Inc.</td>
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<tr>
<td>DOE</td>
<td>U.S. Department of Energy</td>
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<tr>
<td>DRMS</td>
<td>Division of Reclamation, Mining, and Safety</td>
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<tr>
<td>DRRP</td>
<td>Dolores River Restoration Partnership</td>
</tr>
<tr>
<td>DRUM</td>
<td>Defense-Related Uranium Mines</td>
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<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>GEMI</td>
<td>Gold Eagle Mining Inc.</td>
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<tr>
<td>GEU</td>
<td>Golden Eagle Uranium LLC</td>
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<tr>
<td>IAEA</td>
<td>International Atomic Energy Agency</td>
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<tr>
<td>LM</td>
<td>Office of Legacy Management</td>
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<tr>
<td>LMS</td>
<td>Legacy Management Support</td>
</tr>
<tr>
<td>MAP</td>
<td>Mitigation Action Plan</td>
</tr>
<tr>
<td>NdPr</td>
<td>neodymium-praseodymium</td>
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<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
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<tr>
<td>PA</td>
<td>Programmatic Agreement</td>
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<tr>
<td>REE</td>
<td>rare earth element</td>
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<tr>
<td>RILOR</td>
<td>reclamation in lieu of royalties</td>
</tr>
<tr>
<td>ULP</td>
<td>Uranium Leasing Program</td>
</tr>
<tr>
<td>U₃O₈</td>
<td>triuranium octoxide</td>
</tr>
<tr>
<td>V&amp;V</td>
<td>verification and validation</td>
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Executive Summary

This report provides a detailed summary of the U.S. Department of Energy Office of Legacy Management’s Uranium Leasing Program (ULP) activities from January 1 through December 31, 2022.

ULP administers 31 lease tracts, 29 of which are actively held under lease:

- Highbury Resources Inc. (Highbury), a subsidiary of Anfield Energy Inc., controls nine lease tracts: C-CM-25, C-JD-6, C-JD-7, C-JD-8, C-JD-9, C-LP-21, C-SM-18, C-SR-11, and C-SR-13A. Highbury continues to perform routine maintenance activities on these lease tracts, as necessary.

- Gold Eagle Mining Inc. (GEMI) controls three lease tracts: C-JD-5, C-SR-13, and C-SR-15. During 2022, GEMI maintained its mining operations on Lease Tracts C-JD-5 and C-SR-13 in standby status while performing routine maintenance activities, general housekeeping, and safeguarding assets, as necessary.

- Golden Eagle Uranium LLC (GEU) controls nine lease tracts: C-JD-5A, C-LP-22, C-LP-22A, C-LP-23, C-SR-10, C-SR-11A, C-SR-15A, C-SR-16, and C-WM-17. During 2022, GEU conducted noxious weed treatments on its lease tracts as there are no active mining operations thereon.

- Consolidated Uranium Inc. (CUR) controls eight lease tracts: C-AM-19, C-AM-19A, C-AM-20, C-CM-24, C-G-26, C-G-27, C-SR-12, and C-SR-16A. During 2022, Energy Fuels Resources Colorado Plateau LLC, under a contract to conduct maintenance for CUR, conducted noxious weed treatments on its lease tracts as there are no active mining operations thereon.

Lease Tracts C-JD-8A and C-SR-14 are inactive and will remain so indefinitely.

On October 11 and 12, 2022, ULP personnel performed formal inspections of the existing, permitted mining operations, which included Highbury’s mines on Lease Tracts C-JD-6, C-JD-7, C-JD-8, C-JD-9, C-SM-18, and C-SR-11 and GEMI’s mines on Lease Tracts C-JD-5 and C-SR-13. No major issues were noted at any of the mine sites. At one or more of the locations, personnel noted some minor issues, including the presence of noxious weeds, and minor erosion.

Throughout the 2022 field season, ULP personnel inspected reclaimed mine-related locations and fenced multiple subsidence features on various lease tracts to mitigate physical safety hazards. Many of these hazards will be addressed with the reclamation in lieu of royalties process in the near future.

The fair market value of lease tract ores per dry ton with average grades of 0.20% uranium and 1.20% vanadium, as calculated for production royalty purposes, began 2022 at $326 per ton. The value climbed early, reaching $470 per ton in April before settling back down to $360 per ton at year’s end.
1.0 Overview

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) Uranium Leasing Program (ULP) administers 31 lease tracts (Table 1 and Figure 1), 29 of which are actively held under lease by four lessees. Of the 29 lease tracts, only eight are permitted with the Colorado Division of Reclamation, Mining, and Safety (DRMS). None of the 29 lease tracts had active mining operations in 2022. Two of the 31 lease tracts are not leased and are considered inactive. This report provides a detailed summary of ULP activities from January 1 through December 31, 2022.

Table 1. DOE Uranium Lease Tracts and Lessees

<table>
<thead>
<tr>
<th>Lease Tract</th>
<th>Lessee</th>
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<tbody>
<tr>
<td>C-JD-5</td>
<td>Gold Eagle Mining Inc.</td>
</tr>
<tr>
<td>C-JD-5A</td>
<td>Golden Eagle Uranium LLC</td>
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<tr>
<td>C-JD-6</td>
<td>Highbury Resources Inc.</td>
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<tr>
<td>C-JD-7</td>
<td>Highbury Resources Inc.</td>
</tr>
<tr>
<td>C-JD-8</td>
<td>Highbury Resources Inc.</td>
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<tr>
<td>C-JD-8A</td>
<td>Inactive, not leased</td>
</tr>
<tr>
<td>C-JD-9</td>
<td>Highbury Resources Inc.</td>
</tr>
<tr>
<td>C-SR-10</td>
<td>Golden Eagle Uranium LLC</td>
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<tr>
<td>C-SR-11</td>
<td>Highbury Resources Inc.</td>
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<tr>
<td>C-SR-11A</td>
<td>Golden Eagle Uranium LLC</td>
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<tr>
<td>C-SR-12</td>
<td>Consolidated Uranium Inc.</td>
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<tr>
<td>C-SR-13</td>
<td>Gold Eagle Mining Inc.</td>
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<tr>
<td>C-SR-13A</td>
<td>Highbury Resources Inc.</td>
</tr>
<tr>
<td>C-SR-14</td>
<td>Inactive, not leased</td>
</tr>
<tr>
<td>C-SR-15</td>
<td>Gold Eagle Mining Inc.</td>
</tr>
<tr>
<td>C-SR-15A</td>
<td>Golden Eagle Uranium LLC</td>
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<tr>
<td>C-SR-16</td>
<td>Golden Eagle Uranium LLC</td>
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<tr>
<td>C-SR-16A</td>
<td>Consolidated Uranium Inc.</td>
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<tr>
<td>C-WM-17</td>
<td>Golden Eagle Uranium LLC</td>
</tr>
<tr>
<td>C-SM-18</td>
<td>Highbury Resources Inc.</td>
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<td>C-AM-19</td>
<td>Consolidated Uranium Inc.</td>
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<tr>
<td>C-AM-19A</td>
<td>Consolidated Uranium Inc.</td>
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<td>C-AM-20</td>
<td>Consolidated Uranium Inc.</td>
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<tr>
<td>C-LP-21</td>
<td>Highbury Resources Inc.</td>
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<td>C-LP-22</td>
<td>Golden Eagle Uranium LLC</td>
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<td>C-LP-22A</td>
<td>Golden Eagle Uranium LLC</td>
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<td>C-LP-23</td>
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<td>C-CM-24</td>
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<td>C-G-26</td>
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<tr>
<td>C-G-27</td>
<td>Consolidated Uranium Inc.</td>
</tr>
</tbody>
</table>
Figure 1. Location of ULP Lease Tracts in Southwestern Colorado
2.0 Administrative Operations

The following subsections summarize ULP’s primary administrative activities during 2022.

2.1 Closeout of the Burro Mines Reclamation Project

The Burro Mines Complex is a historical mining complex in Burro Canyon, near the former town of Slick Rock, Colorado, and within ULP Lease Tract C-SR-13. Reclamation activities were completed in October 2021, and the site was inspected for stormwater control monthly during 2022. Upon the establishment of sufficient vegetation, the stormwater permit held with the Colorado Department of Public Health and Environment was closed out, and ULP personnel removed the physical stormwater control waddles from the site. After the stormwater permit was closed out, LM closed out the San Miguel County special use permit.

2.2 Programmatic Agreement (PA) Review

In 2014, LM and other parties entered into a Programmatic Agreement Among the U.S. Department of Energy-Office of Legacy Management, the U.S. Department of the Interior-Bureau of Land Management-Colorado State Office, the Colorado State Historic Preservation Office, and the Pueblo of Zuni Regarding the Uranium Leasing Program Within Mesa, Montrose, and San Miguel Counties, Colorado (DOE 2014a) complying with Section 106 of the National Historic Preservation Act (Title 54 United States Code Section 300101 et seq.) and filed with the Advisory Council on Historic Preservation. This PA outlines actions LM and consulting parties will take to evaluate the potential impacts of activities on historic or cultural properties. The PA requires LM to:

- Conduct briefings annually (at a minimum) with consulting parties to discuss proposed ULP activities.
- Receive input from parties.
- Summarize prior activities.

The PA was due for a biennial review by the signatory parties in 2021. LM determined that no changes were necessary and requested that all signatories review the document and confirm that no revisions to the original PA were warranted. These letters to signatory and consulting parties were issued in November and December 2021.

2.3 Mitigation Action Plan (MAP)

In accordance with the MAP (DOE 2014b), LM is required to submit an annual summary report of mitigation activities completed by ULP lessees. On February 11, 2022, the MAP activity summary report for 2021 was transmitted to the DOE Headquarters Office of National Environmental Policy Act (NEPA) Policy and Compliance. The document recorded that no activity had occurred during 2021. The 2022 letter will include Highbury Resources Inc.’s (Highbury’s) reclamation activities. None of the actions performed during reclamation included any new ground disturbances; therefore, none of these activities required that mitigation measures be applied. LM will issue a letter report stating this in early 2023.
2.4 Other Administrative Activities

2.4.1 International Atomic Energy Agency (IAEA)

LM took an active role in the IAEA Coordination Group for Uranium Legacy Sites working group in 2022, which included facilitating meetings between member states and international organizations planning remedial activities in their countries. A group of 11 individuals from Ukraine, Kyrgyzstan, Tajikistan, and Uzbekistan were hosted and provided with a 2-day workshop that included a historical review of the ULP and culminated with a tour of the Burro Mines Reclamation Project.

2.4.2 Dolores River Conservation Bill

A Federal bill to designate a portion of the Dolores River riparian corridor that flows through the uranium-rich canyons of southwestern Colorado a National Conservation Area was drafted in 2022. Several local ranchers, miners, and environmentally-focused groups have actively provided input to the working group for this proposed National Conservation Area. LM continues to monitor this bill as it progresses.

2.4.3 Strategic Uranium Reserve

The U.S. Congress allowed for $75 million to be set aside in 2020 for the creation of a uranium reserve. Early in 2022, the DOE National Nuclear Security Administration issued a solicitation to uranium producers to purchase up to 1 million pounds of domestically produced triuranium octoxide (U₃O₈). Two contracts were awarded in December 2022 to Energy Fuels Inc. and Peninsula Energy Limited, a subsidiary of Strata Energy Inc. (Strata Energy). Strata Energy was contracted for 300,000 pounds of U₃O₈, while Energy Fuels did not publish the size of their contract.

2.4.4 Program Outreach

Major highlights of ULP outreach activities (by month) are outlined below:

**February:** Time-lapse video was created of the Burro Mines Reclamation Project. The video was posted on social media.

**April:** Debbie Bar presented to the LM Office of the Director on the completion of the Burro Mines Reclamation Project, and the time-lapse video of the project was included.

**June:** Legacy Management Support (LMS) contractor personnel participated in the Colorado Mining Association conference hosted at Colorado Mesa University.

**August:** An article titled “Mine Reclamation Work Resumes on Uranium Lease Tracts in Southwest Colorado” was published as part of the third quarter program update.

**September:** LM produced a news article and social media post on Debbie Barr’s retirement after nearly 4 decades of service.

**October:** LM and LMS personnel participated in the 43rd Annual Conference of the National Association of Abandoned Mine Land Programs in Grand Junction, Colorado. LMS staff presented on the Burro Mines Reclamation Project.
2.4.5 Program Coordination with the U.S. Bureau of Land Management (BLM)

LM hosted three virtual meetings with BLM in February, May, and August to discuss several topics, including LM’s new NEPA review process, LM’s bonding process, revocation, and reclamation requirements. LM initiated these meetings because similar meetings had been held in the past to coordinate collaboration between the two organizations. These meetings had mostly stopped during the court injunction halting work on the ULP from 2011–2019. LM will engage with BLM again on several topics over the next few years.

In August, BLM invited LM to be a cooperating agency for the development of the Gunnison Sage-Grouse Resource Management Plan Amendment/Environmental Impact Statement (EIS). BLM is currently formulating a range of alternatives for the EIS, which will be released to cooperating agencies for review in 2023.

BLM representatives from the Tres Rios Field Office, the Grand Junction Field Office, and the Uncompahgre Field Office participated in annual ULP lease tract inspections in October 2022.

2.4.6 Program Coordination with DRMS

In November and December 2021, ULP personnel joined DRMS and Highbury representatives during the annual field inspection of Highbury’s permitted mining operations. These inspections were also conducted as a procedural follow-up to a formal request to relinquish mining permits for the mines on Lease Tracts C-SR-13A, C-CM-25, and C-LP-21. These sites have been in final reclamation for several years, and this visit was a procedural inspection as part of the process for a formal relinquishment of the permit. No issues were identified, and after there was no opposition from the public during the comment period, the permits were formally closed out on January 21, 2022. Following DRMS’s release of the associated bonds, ULP issued a letter to Highbury on July 7 releasing Highbury from the reclamation bonds held by DOE for the three lease tracts.

In October, ULP personnel joined DRMS, BLM, and Gold Eagle Mining Inc. (GEMI) representatives during the annual field inspections of GEMI’s permitted mining operations in both Montrose and San Miguel Counties. Members of the inspection team focused on clarifying required reclamation activities and possible exploration activities. It is anticipated that GEMI will submit technical revisions to DRMS before finalizing the revision of Table 1 of the sites’ reclamation plans to reflect current conditions.

In October, ULP personnel joined DRMS, BLM, and Highbury representatives during the annual field inspections of Highbury’s permitted mining operations in both Montrose and San Miguel Counties. Members of the inspection team focused on Highbury’s ongoing reclamation activities.

In October and November, GEMI actively worked to improve the housekeeping and safety of the Lease Tract C-JD-5 mine site. The two ventilation shafts were closed with grating welded to the collars, and the main shaft collar grating was reinforced with steel, replacing wood that had been previously utilized. Once this maintenance work was completed, LM revised the reclamation bond amount, which was subsequently posted by GEMI on November 23, 2022.
In November, LM engaged with DRMS about the latter’s concern about the water levels within
the Burro Mines Complex, partially on Lease Tract C-SR-13. As of the end of calendar
year 2022, LM is waiting on an official response from DRMS.

2.4.7 Coordination with the Defense-Related Uranium Mines (DRUM) Program

On October 29, 2022, the subsided Wooster shaft on Lease Tract C-AM-19 was closed with
backfill by a DRMS contractor. These actions were funded by LM’s DRUM Program.

DRUM Program field teams started verification and validation (V&V) activities for calendar
year 2022 on March 14. V&V activities consist of inventorying mine features, environmental
sampling, and radiological mapping. In the 2022 field season, the DRUM field teams completed
V&V activities at 31 DRUM sites on ULP lease tracts. This completes DRUM’s efforts on land
administered by ULP until the third DRUM Program campaign for private lands. DRUM field
teams worked closely with ULP personnel, who provided inventory data and institutional
knowledge about the lease tracts visited by DRUM personnel.

2.4.8 Lease Agreement Execution

As the current 10-year lease agreements were executed in 2020, no additional leases were
executed during 2022.

2.4.9 ULP Mineral Leasing Procedures Manual

The Uranium Leasing Program Mineral Leasing Procedures Manual (LMS/PRO/S04344) is
the program’s primary process document and outlines the procedures for ULP’s day-to-day
operations. The manual addresses how LM, the LMS contractor, and partner agencies will work
as an efficient and cohesive team to execute ULP activities. The draft update of the manual was
delivered to LM on December 16, 2021, and the finalized version was issued on March 17, 2022.

2.5 Market Prices

The fair market value of lease tract ore per dry ton began 2022 at $326 per ton with average
grades of 0.20% uranium and 1.20% vanadium ores, as calculated for production royalty
purposes. The value climbed early, reaching $470 per ton in April before settling back down to
$360 per ton at year’s end (see Figure 2 and Figure 3).
Field Operations

Lessee Operations

ULP personnel conducted cursory inspections at least monthly, as weather permitted access to the lease tracts. As is common, several new subsidences occurred during winter on the lease tracts, primarily at legacy mine sites. ULP personnel temporarily mitigated the features by placing brush over the hazards, closing them with backfill by hand with available rock, or installing safety fencing around them to prevent the entrapment of humans, livestock, and wildlife. These newly identified hazards were added to the reclamation in lieu of royalties.
As previously described, formal inspections of permitted mining operations were conducted on October 11 and 12, 2022.

### 3.1.1 Highbury

Highbury controls nine lease tracts: C-CM-25, C-JD-6, C-JD-7, C-JD-8, C-JD-9, C-LP-21, C-SM-18, C-SR-11, and C-SR-13A, after novation from Cotter Corporation, Inc. in 2020. During 2022, Highbury personnel performed routine maintenance activities at various mining operations to protect the company’s financial investments and keep the sites secured in a physically safe and environmentally sound condition. These routine activities included controlling noxious weed infestations and inspecting site features and facilities (e.g., mine portals, ventilation systems, buildings, stormwater control structures) to determine if maintenance actions were required. Personnel checked the lysimeters on Lease Tracts C-JD-6, C-JD-8, C-JD-9, and C-SM-18 quarterly to determine whether water was percolating through the waste rock piles. No measurable water was detected at these lysimeters, and minimal water has been detected to date. Highbury personnel also sampled the groundwater well downgradient of Lease Tract C-JD-9 each quarter and sent the samples to a lab for digestive metals analysis.

On November 30, 2021, Highbury formally requested relinquishment of its DRMS mining permits on Lease Tracts C-SR-13A, C-LP-21, and C-CM-25. These mines have been in final reclamation status for several years and were inspected in the fall as part of the process for formal relinquishment. No issues were identified, and after there was no opposition from the public during the comment period, the permits were formally closed out on January 21, 2022. Following DRMS’s release of the associated bonds, ULP issued a letter to Highbury on July 7 releasing Highbury from the reclamation bonds held by DOE for the three lease tracts.

In fall 2021, Highbury engaged BRS Engineering Inc. to complete a mineral resource estimate for four of their nine properties, specifically, Lease Tracts C-JD-6, C-JD-7, C-JD-8, and C-JD-9. The report was published in line with Nation Instrument 43-101 requirements on March 30, 2022. The report outlines an indicated mineral resource of 1,367,000 tons of mineralized material with an average grade of 0.197% eU₃O₈ and an inferred mineral resource of 1,367,000 tons of mineralized material with an average grade of 0.984% vanadium pentoxide.

In February 2020, Cotter Corporation advised DRMS that it was voluntarily placing its permitted mines into reclamation status. On October 19, 2021, DRMS requested that Highbury submit a schedule for final reclamation. Highbury responded to this request with a schedule on November 3, 2021, outlining reclamation activities that will begin in spring 2022 and be completed by fall 2024. In spring 2022, Highbury submitted *Uranium Leasing Program Lessee Environmental Checklist* forms (LM-Form-4-20-22.0) (environmental checklists) for their proposed 2022 reclamation activities to LM and, once they were approved, completed the following tasks:

**C-SM-18:** The office trailer was removed from the Wright mine site, and the shop building at the old SM-18 mine site was torn down. Bolts in the edge of the foundation that previously secured the building have been bent over to preclude puncture hazards. The electrical ground cable and the septic system piping have been cut off at ground level.

**C-JD-7:** Maintenance was performed on the primary stormwater basin at the mouth of the pit, and that material was utilized to rebuild the earth embankment of the basin. The nick point along
the northern run-on diversion structure was also repaired. These actions were completed as an action item from the annual inspection. The lessee has removed the majority of the equipment near the shop building.

**C-JD-6:** The scrap steel was removed from the Dugan Adit mine site.

**C-JD-8:** The last of the steel piping and the two storage containers previously west of the portal were removed.

**C-SR-11:** The office trailer was removed from the mine site, but the utility lines remain in place according to the reclamation plans.

Highbury also proposed the reclamation of the evaporation ponds on Lease Tract C-JD-9, but the environmental checklist was not successfully completed; thus, the proposal was rejected.

### 3.1.2 Golden Eagle Mining Inc. (GEMI)

GEMI controls three lease tracts: C-JD-5, C-SR-13, and C-SR-15. During 2022, GEMI personnel performed routine maintenance activities to protect the company’s financial investments and keep the sites secured in a physically safe and environmentally sound manner. Routine activities included the removal of debris and inspections of site features and facilities (e.g., mine portals, ventilation systems, buildings, stormwater control structures) to determine if further actions were required. GEMI personnel also conducted noxious weed control treatments throughout the lease tracts.

On January 5, 2021, GEMI requested an extension of royalty payments, citing loss of investors. On January 15, 2021, DOE granted GEMI an additional 6 months, stating that the full royalty amount plus interest would be due July 6, 2021. On June 20, 2021, GEMI requested another 6-month extension on royalty payments. DOE granted this extension on July 2, 2021, stating that full royalties plus interest must be paid by January 5, 2022. Royalty and interest payments were received in full on March 10, 2022. Additionally, GEMI submitted its 2023 annual royalty payment to LM on December 28, 2022.

On June 1, 2020, LM issued a letter in response to GEMI’s previously submitted reclamation plans. During a joint field inspection with LM, the LMS contractor, and DRMS in July 2020, it was determined that GEMI’s reclamation plans were deficient and would need revision to better reflect current ground conditions. As of December 31, 2022, no additional information has been submitted to LM since this meeting.

As a result of the formal inspections in October, GEMI placed rock into an erosion channel at the Hawkeye mine on Lease Tract C-SR-13 to prevent further erosion.

### 3.1.3 Golden Eagle Uranium LLC (GEU)

GEU controls nine lease tracts: C-JD-5A, C-LP-22, C-LP-22A, C-LP-23, C-SR-10, C-SR-11A, C-SR-15A, C-SR-16, and C-WM-17. There are no active mining permits or operations on any of the above-reference lease tracts. During 2022, GEU conducted noxious weed control treatments on several of the lease tracts.
On January 5, 2021, GEU requested an extension of royalty payments, citing loss of investors. On January 15, 2021, DOE granted GEU an additional 6 months, stating that the full royalty amount plus interest would be due July 6, 2021. On June 20, 2021, GEU requested another 6-month extension on royalty payments. DOE granted this extension on July 2, 2021, stating that full royalties plus interest must be paid by January 5, 2022. Royalty and interest payments were received in full on March 11, 2022.

3.1.4 Consolidated Uranium Inc. (CUR)

CUR controls eight lease tracts: C-AM-19, C-AM-19A, C-AM-20, C-CM-24, C-G-26, C-G-27, C-SR-12, and C-SR-16A. CUR does not maintain mining operations on any of its lease tracts. During 2022, Energy Fuels Resources Colorado Plateau LLC continued to treat noxious weed infestations on its lease tracts as they continue the maintenance activities for CUR for the first 2 years.

3.2 Milling Operations

3.2.1 White Mesa

During 2022, the White Mesa Mill (owned and operated by Energy Fuels) operated continuously and produced approximately 150,000 pounds of U₃O₈, mostly from alternate feed material processing. The mill also processed a mineral called “monazite” produced by The Chemours Company in the state of Georgia. Monazite contains both uranium and key rare earth elements (REEs). From this monazite, the mill produced uranium and recovered the REEs in a high-purity, intermediate product called mixed rare earth carbonate. This is the most advanced REE material currently produced at scale in the United States today. The mill also began installing REE separation equipment with the goal of producing separated REE oxides (namely, neodymium-praseodymium [NdPr] oxide) by early 2024. NdPr oxide is a critical material used in high-strength magnets in electric vehicles, wind energy, and defense systems.

Despite the recent focus on REE, the mill will retain the large-scale capability to process conventional uranium and vanadium ore.

3.2.2 Shootaring Canyon

In 2022, Anfield Energy Inc. (Anfield) commissioned a Utah-based engineering firm to complete a reactivation proposal for the Shootaring Canyon Mill north of Ticaboo, Utah. The proposal, expected in the first half of 2023, will include a detailed study of existing facilities and the uranium circuit along with a preliminary study of a new vanadium circuit. The proposal will be provided to the State of Utah as part of Anfield’s work to advance the mill’s radioactive materials license from its current standby status to production-ready status.

3.3 Physical Safety Hazards and Environmental Issues

3.3.1 Hazards

Over the last several years, ULP personnel have identified multiple physical safety hazards on several lease tracts. All have been temporarily safeguarded by hand with backfill or by installing
fencing to preclude human entry and wildlife or livestock entrapment. A list of action items has been compiled, and the respective ULP lessees will likely be asked to mitigate these hazards through RILOR in the near future.

In 2022, ULP personnel identified a subsided ventilation shaft on Lease Tract C-G-26 and a severely undercut mine shaft closed with backfill on Lease Tract C-LP-21. No other major issues were discovered, and hazards identified in previous years were monitored and exhibited some to little change in size or condition. ULP personnel temporarily mitigated the features by placing brush over the hazards or installing safety fencing around them. These newly identified hazards were added to the RILOR list.

In late 2022, ULP personnel prepared an Environmental Review Form (LM-Form-4-20.3-4.0) and letter to the Colorado State Historical Preservation Office in support of a RILOR project in spring or summer 2023 to close several imminent safety hazards on Lease Tract C-LP-21.

3.3.2 Noxious Weeds

ULP lessees are responsible for controlling noxious weeds on their lease tracts in accordance with state law. All lessees conducted treatments in 2022 and completed pesticide application forms to document their herbicide use.

Since 2011, LM has coordinated with the Dolores River Restoration Partnership (DRRP), a group of public and private entities whose main purpose is to treat and remove tamarisk and other noxious weeds along the Dolores River riparian corridor and restore the area with native species. LM has been a signing partner of the DRRP Memorandum of Understanding since 2015 and, on January 16, 2021, renewed its partnership by signing an updated Memorandum of Understanding with 19 other partners (DOE 2021).

Approximately 4 miles of the Dolores River flow through Lease Tracts C-SR-13 and C-SR-14. ULP ecologists have overseen and monitored the success of these weed control and restoration efforts annually for the last 10 years and have noted that noxious weed cover has been significantly reduced and native species are reestablishing in many of the treated areas. On October 13, 2022, the LMS ecology team spent time spraying hardheads along the Dolores River on Lease Tract C-SR-13.
4.0 References


DOE (U.S. Department of Energy), 2021. Dolores River Restoration Partnership, Memorandum of Understanding Between Bureau of Land Management (Tres Rios, Uncompahgre, Grand Junction & Moab Field Offices; Southwest Colorado District, Upper Colorado River District, and Canyon Country Utah Districts); State of Colorado Counties of Dolores, Montrose, San Miguel, & Mesa; State of Utah County of Grand; RiversEdge West; Bird Conservancy of the Rockies; Conservation Legacy’s Southwest Conservation Corps; Four Corners Water Center at Fort Lewis College, Four Corners School of Outdoor Education Canyon Country Youth Corps; Western Colorado Conservation Corps; Department of Energy; Colorado Parks and Wildlife; Gateway Canyons Resort; Dolores River Boating Advocates, April 16.