

**MEMORANDUM OF AGREEMENT  
BETWEEN THE  
UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT, HUMBOLDT RIVER FIELD OFFICE  
AND THE  
NEVADA STATE HISTORIC PRESERVATION OFFICER  
REGARDING THE  
NEWMONT USA LIMITED TWIN CREEKS MINE SAGE TAILINGS STORAGE  
FACILITY EXPANSION PROJECT**

**WHEREAS**, the United States Department of the Interior, Bureau of Land Management, Winnemucca District (BLM) plans to issue a Notice to Proceed to Newmont USA Limited (Newmont), the owners of the Twin Creeks Mine (TCM), for the proposed Plan of Operations modification (hereinafter known as the Project) situated in Humboldt County, Nevada, thereby making the Project an undertaking subject to review under the National Historic Preservation Act, codified at 54 U.S.C. § 306101 et seq., and its implementing regulations at 36 Code of Federal Regulations (CFR) §800 et seq.; and

**WHEREAS**, the BLM is the lead federal agency for the Project; and

**WHEREAS**, the Project will consist of the construction, operation, reclamation, and closure of the Sage Tailings Storage Facility (TSF) and associated infrastructure within the Plan's 20,753-acre administrative boundary (Plan boundary; see Appendix A); and

**WHEREAS**, BLM has defined the Project's area of potential effects (APE) as 1,779 acres on public and private lands west of the Snowstorm Mountains in Humboldt County, Nevada, located in Township 39 North, Range 43E, sections 15, 16, 21, and 22 (Figures in Appendix A); and

**WHEREAS**, the BLM, in consultation with the Nevada State Historic Preservation Officer (SHPO), has determined that implementation of the Project will have a direct adverse effect on site 26HU7027/CrNV-02-12484, a prehistoric lithic scatter (hereinafter known as the historic property) which is eligible for listing in the National Register of Historic Places (NRHP) under the Secretary of Interior's Significance Criterion D; and

**WHEREAS**, in 2019 the BLM signed a Decision Record for the National Environmental Policy Act (NEPA) process authorizing the Project with the stipulation that the site be avoided or mitigated; and

**WHEREAS**, the Advisory Council on Historic Preservation has not been invited to participate in this undertaking because the BLM has determined that it does not meet the regulatory requirements for ACHP participation as stipulated in Component 5 of the 2012 Nationwide Programmatic Agreement and Section II. E. of the 2014 State Protocol Agreement; and

**WHEREAS**, the BLM has consulted with the Fort McDermitt Paiute and Shoshone Tribe, the Battle Mountain Band of the Te-Moak Tribe of Western Shoshone, and the Shoshone-Bannock Tribes of the Fort Hall Reservation—and has invited them to sign this Memorandum of Agreement (MOA) as concurring parties.

**WHEREAS**, the BLM has coordinated public participation for this MOA through the process set forth in the NEPA process, and has determined that there are no interested members of the public who might have concerns regarding the effect of the Project on historic properties; and

**WHEREAS**, the BLM has consulted with Newmont regarding the effects of the Project on historic properties and has invited Newmont to sign this MOA as an invited signatory; and

**WHEREAS**, jointly the BLM, the SHPO, and Newmont will be called the signatories and individually as signatory or by their name; and

**WHEREAS**, the definitions given the 2014 State Protocol Agreement regarding the identification, evaluation, and treatment of historic properties on lands managed by the Nevada BLM are applicable throughout this MOA;

**NOW, THEREFORE**, it is mutually agreed by the signatories that the Project shall be implemented in accordance with the following stipulations in order to take into account the effects of the Project on the historic property.

## **STIPULATIONS**

BLM shall ensure that the following stipulations are implemented:

### **I. Historic Properties Treatment Plan (HPTP) Implementation**

- A. The BLM, in consultation with the SHPO, has developed a HPTP (Appendix B, Stoner 2018) for the historic property that cannot be avoided by the Project and will be adversely affected.
- B. Newmont shall ensure completion of the HPTP and that a qualified (as determined by the BLM through the cultural resource use permitting process, in addition to meeting the Secretary of the Interior's qualifications in archaeology) cultural resource management firm (hereinafter known as the cultural contractor) completes the treatments and data recovery as outlined in the HPTP.
- C. The schedule for completion of HPTP tasks (Appendix B, Chapter 7, Table 3) will be revised by Newmont and the cultural contractor, and approved by the BLM, to accurately reflect the start dates, weeks of fieldwork, archival research, and report completion. Newmont shall submit the revised schedule to the BLM for review and approval. If changes are needed after the start date due to any unforeseen circumstances associated with the Project and the schedule, the dates will be revised accordingly by Newmont and the cultural contractor and submitted to the BLM for review and approval by the BLM. The BLM shall provide the revised schedule to all signatories to this MOA and incorporate it into the HPTP. This revision will not require an amendment to the MOA per Stipulation V.

### **II. Progress Reports and Notices to Proceed**

- A. Newmont shall ensure that the cultural contractor provides progress reports to the BLM and Newmont as each task in the HPTP is completed. The BLM has five (5) business days to review and comment on the progress reports. The cultural contractor will address any comments raised by the BLM within 5 days of receipt.

- B. The BLM may issue Notices to Proceed (NTP) to Newmont after the BLM and the SHPO have had the opportunity to review the following to ensure conformance with the HPTP:
1. Newmont shall not begin any ground disturbing activity within the boundary of the historic property until the BLM issues a NTP.
  2. Newmont shall ensure that the cultural contractor provides the BLM with a summary of the fieldwork (i.e., surface reconnaissance, photo-documentation, detailed mapping, and site recordation when appropriate) for the historic property after it is completed. Newmont shall ensure the fieldwork summary is submitted to the BLM within five (5) business days of completion of fieldwork.
  3. BLM shall complete their review of the fieldwork summary within ten (10) business days of receipt. The BLM will determine if the fieldwork satisfies the requirements of the HPTP. Newmont shall ensure that the cultural contractor addresses any comments raised by the BLM within ten (10) business days of receipt and resubmit the field summary for BLM review.
  4. BLM will forward to the SHPO the fieldwork summary and the BLM's intention to issue an NTP and request concurrence from the SHPO. The SHPO will complete their review within (10) ten business days. If the SHPO does not respond within ten (10) business days from the date of receipt, the BLM may issue the NTP.
  5. If the SHPO identifies any concerns, the BLM will work with them to resolve the issues and submit an updated and approved fieldwork summary to the SHPO.
  6. If the SHPO does not respond within five (5) business days from date of receipt, the BLM may issue the NTP.

### III. Discoveries

- A. Inadvertent discoveries or unanticipated adverse effects during implementation of the HPTP will be addressed in accordance with the process outlined in the HPTP. In the event that inadvertent discoveries are made, or unanticipated adverse effects are determined that cannot be addressed by the HPTP, then the processes outlined in 36 CFR 800.13(b)(2) or the NAGPRA regulations at 43 CFR 10.3 and 43 CFR 10.4, as appropriate, will be implemented.
- B. Human remains and associated grave goods discovered on private land will be handled according to the provisions of Nevada Revised Statutes 383. This MOA is intended to meet the terms found in NRS 383.121 as amended (Chapter 523, Statutes of Nevada 2017, page 3544) for an "existing agreement with a federal agency that was executed pursuant to federal law and that relates to the discovery of prehistoric native Indian human remains or a funerary object". Execution of this MOA means that the provisions for notification found in NRS 383.121, as amended, do not apply. Standard notification requirements found in NRS 383.150 to NRS 383.190, amended, do apply.

#### IV. Dispute Resolution

- A. Should any signatory or concurring party object to any proposed actions or to the manner in which the terms of this MOA are implemented, the BLM shall notify the other signatories and concurring parties and consult with the objecting party to resolve the objection. If either the objecting party or the BLM determines the objection cannot be resolved, the following actions may be taken:
1. The BLM shall forward all of the documentation relevant to the dispute to the ACHP. The ACHP shall provide the BLM and the objecting party its advice on resolution of the objection within 30 days of receipt of adequate documentation. Prior to reaching a final decision on the dispute, the BLM shall prepare a written response that takes into account the advice provided by the ACHP and any comments from signatories or concurring parties to this MOA. The BLM shall provide the written response to all signatories and concurring parties. The BLM shall then proceed according to its final decision.
  2. If the ACHP does not provide advice regarding the dispute within 30 days, the BLM may make a final decision provided it has taken into account the comments provided by the signatories and concurring parties. The BLM shall provide all parties and ACHP with the final written decision and proceed accordingly.
  3. BLM's responsibility to carry out all other actions subject to the terms of this MOA that are not the subject of a dispute will remain unchanged.

#### V. Amendments

- A. This MOA may be amended with the written consent of the signatories. Any amendment will be effective on the date a copy is signed by all of the signatories. The BLM shall provide a copy to the ACHP.

#### VI. Termination

- A. If any signatory to this MOA determines that its terms will not or cannot be carried out, that signatory shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation V, above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatory and invited signatory.

If the MOA is terminated, and prior to work continuing on the undertaking, the BLM must either (a) execute an MOA pursuant to 36 CFR § 800.6, or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. The BLM shall notify the signatories as to the course of action it will pursue.

VII. Duration

- A. This MOA will become effective upon execution by the BLM and the SHPO, and will expire if its stipulations are not carried out within four (4) years from the date of full execution or unless it is terminated under Stipulation VI. At such time, and prior to work continuing on the Project, BLM shall either (a) execute a MOA pursuant to 36 C.F.R. § 800.6, or (b) request, take into account, and respond to the comments of the ACHP under 36 C.F.R. § 800.7. Prior to such time, BLM may consult with the SHPO and Newmont to reconsider the terms of the MOA and amend it in accordance with Stipulation V. above. BLM shall notify the SHPO and Newmont as to the course of action it will pursue.

VIII. Execution

- A. Execution of this MOA by the BLM and the SHPO, and implementation of its terms evidence that the BLM has taken into account the effects of the Project on historic properties.
- B. This MOA may be executed in counterparts, each of which shall constitute an original, and all of which shall constitute one and the same agreement.

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**CONCURRING PARTIES:**

**Fort McDermitt Paiute and Shoshone Tribe**

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Tildon Smart, Chairman

Date:

**CONCURRING PARTIES:**

**Battle Mountain Band of the Te-Moak Tribe of Western Shoshone**

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Lydia Johnson, Chairwoman

Date:

**Shoshone-Bannock Tribes of the Fort Hall Reservation**

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Nathan Small, Chair

Date:

**APPENDIX A:**  
**PROPOSED ACTION**  
**AND**  
**PROJECT FIGURES**

The following project description was extracted from pages four through six of the Twin Creeks Mine Sage Tailings Storage Facility Project, Environmental Assessment (DOI-BLM-NV-W010-2018-0025-EA):

The Proposed Action consists of the proposed construction, operation, reclamation, and closure of the Sage TSF at the TCM. The Sage TSF would be used to store approximately 150 million tons of tailings on approximately 1,142 acres of public and private lands (Table 1). It would range in height from 125 to 260 feet, with a dam crest of no less than 100 feet. The project would be located entirely within the TCM Plan boundary.

**Table 1. Existing and Proposed Surface Disturbance**

Disturbance	Existing Disturbance (acres)		Proposed Disturbance (acres)		Total Disturbance (acres)	
	Private	Public	Private	Public	Private	Public
Geological Evaluations	95	82	0	0	95	82
Access/Haul Roads	160	165	0	0	160	165
Open Pit	1,515	341	0	0	1,515	341
OISA	2,211	3,834	0	0	2,211	3,834
Storage/Equipment	568	1,548	0	0	568	1,548
Heap Leach Pads	646	634	0	0	646	634
Tailings Areas	513	563	142	1,000	655	1,563
Structure/Buildings	82	24	0	0	82	24
Water Management	214	84	0	0	214	84
<b>Sub-Total</b>	<b>6,004</b>	<b>7,275</b>	<b>142</b>	<b>1,000</b>	<b>6,146</b>	<b>8,275</b>
<b>Total</b>	<b>13,279</b>		<b>1,142</b>		<b>14,421</b>	

The Proposed Action proposes to add an additional TSF (Sage TSF) to the two authorized and existing TSFs (Juniper TSF which is currently in-use and Pinon TSF which is in closure) within the TCM Plan boundary. Mining is expected to fill the Juniper TSF by the end of 2026, and mine processing would continue through approximately 2040. During those years, TCM will continue to process ore from the Turquoise Ridge Joint Venture and TCM ore stockpiles. Under the Proposed Action, the Sage TSF would store tailings generated from previous BLM authorizations, extend the tailings storage capacity, and extend the processing timeline until 2050. The Sage TSF would be constructed in phases starting in 2023 prior to when the Juniper TSF would be filled. Initial construction would consist of installing electrical power, pipelines, the underdrain pond and pumping facilities, roads, fencing, and the initial phase of the Sage TSF. Some simultaneous operation of the Juniper TSF would occur as the Sage TSF is brought on-line for process solution balance and management purposes. As additional capacity is needed, the next phases of the Sage TSF would be constructed.

During construction of the Sage TSF, clearing and grubbing would initially occur using mobile equipment such as dozers (track and rubber tired), scrapers, motor graders, off-road haul trucks, and loaders. Only enough land would be cleared at each stage to accommodate construction of that particular phase. Brush and vegetation would be pushed into piles by dozers, then loaded onto trucks and hauled to stockpiles or waste dumps. The underlying material (i.e., alluvium) would then be graded and compacted to design specifications. Alluvium would not be removed from the project site specifically for reclamation purposes. Once the surface has been

cleared/grubbed of all vegetation and fine soils, a dozer and scrapper would cut (the high spots) and fill (the low spots) to even the overall terrain.

The Sage TSF and ancillary infrastructure would be constructed and operated for management of tailings slurry, solids, and reclaim solution. The Sage TSF would be fully-lined with geomembrane, and the liner would extend beneath the impoundment basin and perimeter embankments which would allow use of mine waste or spent and rinsed heap leach ore for embankment construction material (Golder 2017). The liner system would consist of (from bottom to top): prepared subgrade or liner bedding, 80 mil high density polyethylene geomembrane (HDPE), a minimum 18-inch-thick liner cover soil layer, and a perforated collection piping network embedded in the liner cover to help drain the tailings and increase water re-use in the mill.

Existing tailings delivery pumps would deliver tailings slurry to the TSF, and the delivery pipeline would consist of either a HDPE pipe installed in a HDPE-lined channel, or a HDPE double containment pipe (pipe within a pipe), to provide secondary containment. The underdrain collection system would consist of various sizes of solid wall and perforated HDPE pipe as well as double-wall perforated corrugated polyethylene pipes. The underdrain collection system would be constructed above the impoundment liner system and convey pore waters removed from deposited tailings. An underdrain collection tank would be located within the underdrain overflow pond. The pond would be double-lined and serve as emergency storage in the event the collection tank overflows.

Leak detection for the TSF would consist primarily of dual containment HDPE piping or single wall HDPE piping. Located above HDPE geomembrane liners, visual inspections of the primary containment where solution is concentrated would be completed on a regular basis. In addition to the TSF leak detection system, locations for vibrating wire piezometers to monitor pore pressures would be identified along with the location of one or more downgradient monitoring wells during detailed design development. The underdrain overflow pond would include a leak detection layer between the primary and secondary geomembrane liner for leak detection and fluid evacuation.

The existing Stormwater Pollution Prevention Plan (SWPPP) would be modified to allow for runoff from the additional facilities. New sediment retention basins would be used to settle sediment and would be unlined and constructed to accommodate runoff from two-year, 24-hour storm events. Stormwater diversion ditches would be constructed to divert runoff from 100-year, 24-hour storm events from entering the Sage TSF. The SWPPP structures would be operated, maintained, and updated as needed through closure.

Pipeline infrastructure would be constructed and operated to pump slurry and reclaim solution between the Sage TSF, Sage, and Juniper mill areas. The pipeline would consist of either a HDPE pipe in a HDPE-lined channel or a HDPE double containment pipe. A light vehicle perimeter road would be constructed and operated around the Sage TSF to facilitate site access, maintenance, and operations. An existing 120 kilovolt overhead power transmission line would be removed and rebuilt east of the Sage TSF adjacent to a county road. A fence and any necessary signs and berms would be constructed to provide security and safety around the

perimeter of the underdrain pond. This would prevent access by livestock, wildlife, and the public to the pond area. The fence would be located within 20 to 30 feet of the pond liner and would tie in with the existing TCM perimeter fence around active mining areas. Four-strand barbed wire fences (three top strands may be barbed, but the bottom wire would be smooth to allow wildlife to safely pass underneath) would be used (BLM Handbook 1741-1), as well as chain link fences where higher security would be needed. Fences would be eight feet tall.

Site access would continue to be restricted to employees and authorized visitors. Compliance with Mine Safety and Health Administration (MSHA) regulations, which set mandatory safety and health standards for metal mines, as well as internal Newmont Global Health and Safety Standards would continue to be maintained.

The project would maintain existing employment levels through the proposed life of the mine (until about 2050). Newmont employs approximately 481 people at the mine and has an average of about 50 contractors on-site daily. Construction, mining operations, processing operations, and associated activities would be performed primarily by Newmont personnel using Newmont-owned equipment. The project would contribute to the continued operation of the mine and the sustainment of employment levels required for operating these facilities.

Permanent lighting would be installed at or near the underdrain pond and supernatant pond reclaim pumps for safety concerns to light areas where employees would park and work. Walkways around the underdrain pond would also be lit to provide illumination for inspecting equipment and process components. During construction of the embankment, nighttime construction may occur, and temporary lighting (one or two diesel powered light plants) would be provided in the area where trucks would be unloading material for embankment construction and for dozers, graders, and compactors to grade, level, and compact the material.

#### Reclamation

Reclamation has been described under previous NEPA documents (BLM 1996, 2008a, 2011, and 2015a) and reclamation activities, with a few exceptions, remain relatively unchanged from the original reclamation plan (Westec 1996). Reclamation activities for the project were designed to achieve post-mining land uses consistent with the goals of the Winnemucca Resource Management Plan (RMP) (BLM 2015b).

Reclamation activities would include: grading and slope configuration to provide drainage; placement of oxide and alluvium to minimize infiltration into the Sage TSF; fence removal; and cover and revegetation. The reclamation schedule would encompass the period between cessation of mining through post-reclamation monitoring. As facilities reach the end of their period of use, Newmont would initiate reclamation activities concurrent with ongoing mining operations. The proposed post-reclamation topography is shown on Figure 2.1. Additional details of the reclamation plan can be found in the original Plan and the proposed Plan modification (Westec 1996; Newmont 2017).

The project would not remove or salvage alluvium specifically for reclamation purposes. There is substantial alluvium already stockpiled at TCM for the reclamation of the Sage TSF (Newmont 2018a).

**APPENDIX B:**  
**HISTORIC PROPERTY TREATMENT PLAN**

This attachment contains information that may be exempt from Freedom of Information Act Requests.

Please consult the appropriate federal agency to obtain this information.