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EA Engineering,
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**Corrective Action Plan – Soil and Mine Wastes, Revision 1
Three Kids Mine
Lakemoor Ventures LLC**

October 5, 2022



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October 5, 2022

Project No. 14-01-156

Alan Pineda, PE
Professional Engineer
Bureau of Industrial Site Cleanup
Nevada Division of Environmental Protection
375 E. Warm Springs Rd., Ste. 200
Las Vegas, NV 89119

Re: Corrective Action Plan – Soil and Mine Wastes, Revision 1
Three Kids Mine

Dear Mr. Pineda:

Broadbent & Associates, Inc. (Broadbent) is pleased to submit this *Corrective Action Plan – Soil and Mine Wastes, Revision 1* for the Three Kids Mine located in Henderson, Nevada.

Please do not hesitate to contact us if you should have any questions or require additional information.

Sincerely,
BROADBENT & ASSOCIATES, INC.

Kirk Stowers, CEM
Principal Geologist

cc: JD Dotchin, NDEP
James Carlton Parker, NDEP
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Dennis Smith, TMSS Inc.

**Corrective Action Plan – Soil and Mine Wastes, Revision 1
Three Kids Mine
Henderson, Nevada**

JURAT: I, Karen Gastineau, hereby certify that I am responsible for the services in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulation and ordinances.

Karen Gastineau

Karen Gastineau
Senior Hydrogeologist
CEM #2468 (4/1/2023)

October 5, 2022

Date

The following individuals contributed significantly to the preparation of this document:

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1.0 INTRODUCTION

On behalf of Lakemoor Ventures LLC (Lakemoor), Broadbent & Associates, Inc. (Broadbent), with their teaming partner EA Engineering, Science, and Technology, Inc. PBC (EA), prepared this Corrective Action Plan – Soil and Mine Wastes (CAP) for Three Kids Mine site (the Site) in Henderson, Nevada. Lakemoor, in partnership with the Nevada Division of Environmental Protection (NDEP), has agreed to undertake the steps necessary to achieve closure of legacy contamination associated with former mining activities.

This CAP describes the preferred remedy as selected in the Focused Feasibility Study (FFS) Report – Soil and Mine Waste (EA, 2022a) with modifications to the solid waste management approach and is based on results presented in the Remedial Investigation (RI) Report (Broadbent, 2022d). After a public comment period, NDEP will prepare a Record of Decision (ROD), which will describe the final remedy. The ROD will support a Mine Remediation and Reclamation Agreement (MRRRA) pursuant to the Three Kids Mine Remediation and Reclamation Act, United States Public Law 113-135, Section 3.b.2.B.

The preferred remedy is a combination of Alternatives S-3 and S-4 and includes the following:

- Tailings, waste rock, and select contaminated soil are excavated and consolidated into the open pits.
- Specifically, tailings are isolated in the Hydro Pit under a liner. (Tailings may also be isolated deep in the A-B Pit, as a contingency if tailings do not fit in the Hydro Pit. Suitable engineering protection, such as a liner, will be constructed in the event that tailings are placed in the A-B Pit.)
- Ten feet of clean cover is placed to separate waste material from soil exposure pathways, and an environmental covenant is enacted on soil deeper than 10 feet to require agency notification for deep construction.
- Asbestos containing material (ACM) and concrete and debris (C&D) currently in the deep pits remains in place as inert, non-mobile waste, and concrete is used as fill deep in the pits (Alternative S-3). ACM and municipal waste from the surface of the former mine site is consolidated and disposed offsite (Alternative S-4).

1.1 SITE LOCATION AND DESCRIPTION

The Site is located approximately five miles northeast of central Henderson, Nevada, along East Lake Mead Parkway (State Road 564). The Site occupies most of Section 35 and parts of Sections 26, 34, and 36 of Township 21S, Range 63E of the Mount Diablo Meridian. Access to most of the Site is gained via unpaved roads heading southeast from Lake Mead Parkway just east of Henderson. Three small portions of the Site are located north of Lake Mead Parkway and can be accessed by foot. Figure 1-1 is a map that shows the location of the Site.

The Project area consists of approximately 1,165 acres in 18 parcels, of which 411 acres are considered the disturbed former mine site, 97 acres were evaluated for impacts by windblown sediment receiving a no further action determination from NDEP, 597 acres are considered undisturbed, or background, and the remaining 60 acres are located in the Lake Mead Parkway corridor. Parcels have been given ID numbers as shown in Figure 1-2. Seven parcels totaling approximately 851 acres are under federal administration. The remaining 314 acres are distributed across 11 parcels, controlled by three different

entities: Lakemoor (295 acres), Laker Plaza (5 acres), and Lake Mead Boat Storage (14 acres). The latter two are not part of this CAP and are being addressed separately by NDEP.

The Site is the former Three Kids Mine and Mill. It was used for the mining of manganese from 1917 to 1961. Site operations were permanently discontinued in 1961 when open pits were economically exhausted. Key features of the Site include three major open pits, waste rock, ore yard, mill, and three tailings ponds (Figure 1-3). The three major open pits are the combined A and B Pits (A-B Pit), Hydro Pit, and Hulin Pit as shown on Figure 1-3. A smaller open pit, the original Three Kids Mine Pit, is located east of the A-B Pit. The three major pits represent approximately nine million cubic yards of vacant volume (Zenitech, 2007). Overburden and waste rock generated from excavation during mining are left in piles near the pits. Based on previous sample results, the overburden is composed of gypsiferous sandstone/siltstone and low-grade wad, a dark brown or black impure mixture of manganese and other oxides (GeoTek, 2007).

In the northeast of the Site are mill building foundations remaining in part or in whole, and remnants of eight circular flotation cells that were used in the manganese beneficiation process. Three tailings ponds are located in the west central portion of the Site and were used in the past for disposal of tailing slurry produced from the beneficiation process.

Most areas of the Site are erosive and the mill site, mine pits, and waste piles are poorly vegetated, causing visible dust during moderate and high wind conditions. Despite numerous measures implemented, the Site is largely unprotected and allows for easy access, trespassing, and widespread illegal dumping. Abandoned boats and automobiles, lubricants, appliances, tires, construction debris, and trash are present at the Site.

1.2 SITE HISTORY

Manganese ore was discovered at the Site in 1917 and was mined intermittently from 1942-1943 and 1953-1961. The mill operations at the Site utilized a process of acidulation, flotation, and sintering. Details of the Site history are described in the Phase I Environmental Site Assessment (ESA; Zenitech, 2007). The previous mine operations caused the Site to be contaminated with metals, especially arsenic, lead, and manganese, although these metals are also naturally occurring at the Site. After mill operations were terminated in the summer of 1961, mill equipment was auctioned off in January 1962 and secondary lead, a byproduct of the kilns was transported off the Site from 1961 to 1963. Following is a summary of the activities after mill closure.

- 1959: Manganese nodules remaining from mining operations were stockpiled for government reserves beginning in 1959. In 2004, the last of the nodule reserves were moved from the west side of the ore yard to a portion of Tailings Pond 1.
- 1963 - present: Unpermitted salvage, dumping, and vandalism takes place.
- 1979 - 1984: Dumping activity near the Hulin Pit was permitted by Clark County as a landfill that received construction waste and friable asbestos.
- 1982: A portion of the privately held land at the Site was developed into a boat storage facility (currently known as Lake Mead Boat Storage) and a gas station/convenience store (currently known as Laker Plaza). Other privately owned parcels were assembled by an entity composed of three local businessmen under the name Three Kids Enterprises (TKE).

- 1992 - 1995: NDEP opened case file H-001347 for the elevated lead found in the soils to the north of the Site, under the current roadbed of Lake Las Vegas Parkway. The soil was remediated under the name Henderson Lead Site and the case was closed in 1995 (NDEP, 2008).
- 1999: Total petroleum hydrocarbons (TPH) were found exceeding NDEP reporting levels and Nevada soil action level (SAL) in a portion of the tailings owned by TKE. Because lead at the Henderson Lead Site was traced to run-off from the Site, NDEP re-opened case file H-001347 which remains open at the time of this report.
- 2006: Lakemoor brings together the City of Henderson, NDEP, the Bureau of Land Management (BLM), and the Bureau of Reclamation in a public-private partnership with a creative win-win solution to remediate the Site.
- 2007-8: Lakemoor completes a comprehensive Phase I ESA and initial soils testing.
- 2009: The City of Henderson annexes the project area and establishes the Lakemoor Canyon Redevelopment Area. The property taxes created from the homes built in the Redevelopment Zone will be used over 30 years to reimburse the cleanup costs.
- 2011: BLM demonstrates support and viability of the project by testifying in a U.S. House of Representatives hearing.
- 2014: The Three Kids Mine Remediation and Reclamation Act, Public Law 113-135 is signed into law.
- 2015: The Redevelopment Zone is extended to 45 years from the date of federal land transfer due to financial shortfall from the original 30 years.

A series of other Site investigations were conducted to characterize the Site contamination. Details of previous Site investigation activities can be found in the Phase II Sampling and Analysis Plan (Phase II SAP; Broadbent, 2021b) and the FFS (EA, 2022a).

1.2.1 Leading Up to the Three Kids Mine Remediation and Reclamation Act

Clean-up proposals contemplating the property's use as a residential development began in the 1990s. Lakemoor entered the picture in 2007 and started discussions with government agencies about the property to successfully complete the remediation. The initial discussions centered on using the pits to place mine waste to secure the Site from an environmental and safety standpoint. The unsuccessful proposals to clean up and redevelop the Site prior to Lakemoor were all ultimately abandoned due to unrealistic estimates of the scale of required remediation, as well as the complexities posed by the mix of private and federal ownership at the project area. Lakemoor's goal from the beginning was to implement the perfect public-private partnership and create a true win-win for all involved parties – the state enables a cleanup of a long-standing blighted area, the federal government is able to clean up its old mine liability without additional appropriations, Lakemoor will be able to create a quality development with all the cleanup reimbursed via property tax increment, and the City of Henderson Redevelopment Agency will gain a substantial tax base increase upon completion of the redevelopment efforts.

While work began in 2007, the economy was heavily impacted in late 2009 and a long national recession began. By 2010, all entities stopped spending money on the project, except to keep moving on the national legislation for the public land. On July 25, 2014, U.S. Congress passed the Three Kids Mine Remediation and Reclamation Act (Act), which provides a timeframe and means by which federally owned land within the Site can be conveyed to the City of Henderson Redevelopment Agency for the purpose of remediation and reclamation. The Act is included as Appendix A.

The Bureau of Industrial Site Cleanup (BISC) of NDEP is the lead environmental agency overseeing assessment and remediation of the Site. Under a partnership with BISC-NDEP, Lakemoor has agreed to undertake the Site cleanup. Lakemoor initiated Site investigation activities from 2007 to 2009 before the Act was completed, and then again in 2021 to 2022 (present), documented in the following reports:

- Phase I ESA (Zenitech, 2007): identifies recognized environmental conditions per the American Society for Testing and Materials (ASTM) standard, via records review, interviews, and a Site inspection.
- Preliminary Geotechnical Engineering Study for Remediation of the Former Three Kids Mine and Mill Site (GeoTek, 2007): evaluates geotechnical conditions at the Site to inform remediation.
- RI Report (Broadbent, 2022d): describes nature and extent of mining-related impacts (submitted on August 26, 2022 with approval pending).
- Background Soil Report (Broadbent, 2022b): establishes background threshold values (BTVs) for principal Site metals which establishes areas of rock and soil suitable for clean cover over mine wastes (approved by NDEP on April 12, 2022).
- Asbestos Survey Report (Broadbent, 2022c): describes asbestos sampling and results (approved by NDEP on May 17, 2022).
- Focused Feasibility Study – Soil and Mine Wastes (EA, 2022a): evaluates remedial alternatives for the Site (approved by NDEP on July 21, 2022).
- Leaching Analysis Report (Broadbent, 2022a): provides analysis on whether mine wastes may generate a leachate above U.S. Environmental Protection Agency (EPA) Regional Screening Levels (RSLs) which in turn could migrate to and impact groundwater (approved by NDEP on September 26, 2022).
- Screening Level Ecological Risk Assessment: inventories current ecological receptors at the Site (submitted on October 3, 2022 with approval pending).
- Screening Level Human Health Risk Assessment for downwind volcanic units (EA, 2022b): demonstrates no potential human health concerns on the volcanic ridge east of the Site, clearing it for use as borrow material (approved by NDEP on August 22, 2022 stating no further action is required).

These studies comprise the Site assessment required in the Act as a condition for conveyance of the federal land.

Based on the results of the RI and FFS, the remedy proposed herein provides virtually the only economic option to address mine site contamination, thus rendering the Site suitable for residential redevelopment.

1.3 ROLES AND RESPONSIBILITIES

BISC-NDEP is the lead environmental agency overseeing assessment and remediation of the Site. The agency is responsible for reviewing reports provided on Site investigation and remediation, determining when the remedial action goals have been achieved, and deciding when the remediation can be terminated and the Site closed to allow for intended use. The Bureau of Land Management (BLM) and City of Henderson also have a role in review of environmental documents in support of federal land

conveyance as stipulated in the Act, in which the federal land is initially transferred to the City of Henderson Redevelopment Agency.

As will be specified in the MRRRA, Lakemoor is accepting responsibility for the Site remediation under the partnership with BISC-NDEP. The Lakemoor Site remediation and reclamation team includes:

- A contractor to implement the CAP,
- Environmental oversight consisting of a certified environmental manager (CEM),
- An asbestos abatement contractor to perform asbestos abatement activities,
- An asbestos abatement consultant (AAC) to oversee asbestos abatement, and
- Construction Quality assurance (CQA) testing by a third parties (e.g, a geotechnical contractor, liner testing).

In accordance with the agreements with all parties, the CEM and AAC will have the authority to stop work if the CAP is not followed or if unforeseen circumstances are encountered, and all parties have the authority to stop work if unsafe work practices are observed.

1.4 DOCUMENT PURPOSE AND ORGANIZATION

The purpose of this document is to provide a summary of the overall approach and strategy for implementing the preferred remedy for the Site.

The report is organized into nine sections which include:

Section 1. Introduction describes the Site and its history, presents roles and responsibilities of parties involved in the Site remediation, and lays out organization of this report.

Section 2. Nature and Extent of Contamination summarizes the nature and extent of contamination at the Site.

Section 3. Remedial Action Objectives and Preferred Remedy provides remedial action objectives (RAOs) and remediation goals and describes the preferred remedy to be implemented at the Site.

Section 4. Site Preparation outlines activities to prepare the Site for remediation, including well abandonment, permitting, utility clearance, surveying, work area setup, haul road construction, and access construction to open pits.

Section 5. Remediation Implementation describes remedial activities to be conducted including asbestos abatement and removal, demolition, excavation, placement of excavated materials in the open pits, cover construction, stormwater basin construction, final Site grading, and implementation of an environmental covenant.

Section 6. Environmental Controls focuses on controls during the construction to protect the environment and workers' health and safety.

Section 7. Reporting and Documentation outlines reports that may be needed to provide updates on construction and Corrective Action Completion Reports after the remediation is completed.

Section 8. Schedule provides a general schedule of remedial activities and construction.

Section 9. References provides references cited in the report.

Responses to NDEP comments are provided in Appendix B.

2.0 NATURE AND EXTENT OF CONTAMINATION

The Three Kids Mine site presently and principally consists of open pits from which ore was mined, overburden and waste rock dumps, tailings ponds, and remnant structures in and around the former mill site where ore was crushed and processed in thickener tanks (later converted to flotation tanks).

Ore was initially leached with sulfur dioxide to produce manganese sulfate salt, then later crushed and mixed with beneficiation reagents including diesel fuel, plant-based oils, detergents, and sulfurous acid. This latter beneficiation resulted in TPH and polynuclear aromatic hydrocarbon (PAH) contamination in processed tailings.

Contaminants of potential concern (COPCs) at the Three Kids Mine can be assigned to the types of mine waste. The largest volume of mine waste at the Site is native materials: overburden and waste rock stripped from the surface to access the economic ore, which add up to approximately 7.0 million cubic yards. Waste rock was proximal to ore grade mineralization, and it too has elevated concentrations of metals – principally arsenic, cadmium, lead, and manganese. These metals in waste rock typically exceed BTVs or RSLs (Broadbent, 2022b and EPA, 2021).

Tailings comprise the second largest volume of mine wastes adding up to approximately 1.6 million cubic yards, and tailings are distributed in tailings ponds, in and around the mill site, and in areas where transport by wind and water eroded and deposited tailings. The COPCs present in the tailings include metals arsenic, lead, and manganese; TPH; and PAHs, including benzo(a)pyrene, benzo(b)fluoranthene, and naphthalene. Like the waste rock, metals in the tailings are leachable via MWMP. The PAHs are considered immobile (Broadbent, 2022a).

Contaminated soil in and immediately around the mill site contains elevated arsenic, cadmium, lead, and manganese; TPH; and PAHs, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene, chrysene, and indeno(1,2,3 cd)pyrene. Chromium VI and dioxins exceeded RSLs in two samples collected in the thermal processing area.

Certain metals concentrations are elevated in native soil underlying waste rock piles and tailings, which could be an indication of past leaching of metals; however, the occurrence of elevated metals (principally arsenic, lead, and manganese) at significant depths and below horizons where metals were low in concentration indicate these occurrences are likely natural and related to elevated metals proximal to ore deposition. Hydrothermal fluids likely enriched subsurface metals throughout the mine site.

Many of the samples collected in the mine site exceed BTVs or RSLs, so the concept that materials above these thresholds can be excavated to acceptable levels at depth is not feasible. Therefore, this CAP specifies consolidation of mine wastes in the former pits and low areas onsite (i.e., the central valley area), followed by placement of 10 feet of clean cover to eliminate shallow soil and construction worker pathways. Consolidation of mine wastes in the pits will 1) eliminate future surface water and wind erosion and transport of tailings; 2) control surface drainage and minimize infiltration to isolate wastes from infiltrating water; 3) eliminate the current and short-term physical hazards (i.e., over the course of implementation of this CAP) related to the open pits, and 4) remove wastes above BTVs and RSLs currently exposed at the surface and exposing trespassers.

Background samples were collected from west of the mine site in an area consisting of alluvium and the Muddy Creek Formation (MCF) and from River Mountain volcanics south and east of the mine site. Northeast of the mine site is an area of volcanics that may have some impacts from windblown tailings. This area was sampled and analyzed for metals and PAHs, and although not considered background, metals and PAH concentrations are either below BTVs or RSLs, except for two samples for which manganese exceeded the BTV and the RSL with a hazard quotient of 0.1. However, as shown in the NDEP-approved Screening Level Human Health Risk Assessment for the area, cumulative risk from manganese above BTVs is within an acceptable risk threshold with a hazard quotient below 1.0 (EA, 2022b). Results of the study demonstrate that the material is suitable for use as clean cover along with volcanics to the south and MCF to west. The transfer of public land was intended to be a larger area than just the land to be cleaned up so that borrow material would be available for clean fill. Because the preferred alternative includes ten feet of clean cover, the planned volume of borrow material is significant to implement this CAP.

In summary, mine site wastes exceed BTVs and RSLs for certain metals (primarily arsenic, lead, and manganese), and in the case of tailings and some mill site soil, TPH and PAHs. Minor occurrences of other COPCs are present. Subsurface native soils and rock have highly variable distribution of metals – arsenic, lead, and manganese – that suggest elevation concentrations in rock proximal to ore emplacement. Removal or scraping of shallow soil to unimpacted native soil with COPC concentrations less than BTVs or RSL is not technically feasible.

2.1 SUMMARY OF ASBESTOS WORK PERFORMED

An ACM survey was performed at the Site periodically from May 2021 through February 2022. To perform the ACM survey, the Site was divided into sixteen sample areas. The sample areas were developed based on Site features and observations made during the performance of the inspection. Details regarding the ACM survey were presented in a Broadbent report dated April 6, 2022 entitled Asbestos Survey Report – Revision 2, Former Three Kids Mine Facility, Henderson, Nevada (Asbestos Survey Report). Figure 2-1 depicts the boundaries of the sixteen sample areas that were established as documented in the Asbestos Survey Report.

The findings of the survey identified ACM in varying quantities in twelve of the sixteen sample areas established for the Site (Broadbent, 2022c). The ACM was identified in sporadic volumes on the surface of the ground, in debris piles of various sizes, and in place on structures. Based on the condition of the material, it was classified as a Regulated Asbestos Containing Material (RACM) in accordance with the National Emission Standard for Hazardous Air Pollutants (NESHAP). NESHAP regulations as they pertain to asbestos are located in 40 Code of Federal Regulations (CFR) Subpart M. Figure 2-1 depicts the approximate location of the RACM identified at the Site.

3.0 REMEDIAL ACTION OBJECTIVES AND PREFERRED REMEDY

This section proposes RAOs and cleanup goals for mine wastes and contaminated soil at the Site. The section also summarizes the preferred remedy.

3.1 REMEDIAL ACTION OBJECTIVES

The RAOs were developed for mine waste and contaminated soil to address unacceptable risks and protect human health and the environment. The future land use and contaminant exposure pathways were included in the RAO development. The following describes the RAOs for the Site soil.

- Prevent human exposure to the solid waste and soil with concentrations of contaminants of concern (COCs) exceeding preliminary remediation goals (PRGs).
- Minimize leaching and transport of soil and waste contaminants.
- Prevent direct human exposure to ACM.
- Convert the Site surface area to residential use wherever possible.

3.2 PRELIMINARY REMEDIATION GOALS

Site PRGs are typically developed based on future land use and results of the Site investigation including evaluation of background levels of contaminants. Site PRGs proposed below are RSLs based on a target cancer risk of 1×10^{-6} and a target hazard quotient of 1.0 (EPA, 2021) or BTVs calculated for the sedimentary units (alluvium and MCF) to the west of the Site (Broadbent, 2022b). The following are the proposed soil PRGs:

- Arsenic – 20.85 milligrams per kilogram (mg/kg; the BTV for the MCF)
- Cadmium – 7.1 mg/kg (the residential RSL)
- Chromium VI – 0.3 mg/kg (the residential RSL)
- Lead – 400 mg/kg (the residential RSL)
- Manganese – 1,800 mg/kg (the residential RSL)
- PAHs (all residential RSL) – benzo(a)anthracene, 1.1 mg/kg; benzo(a)pyrene, 0.11 mg/kg; benzo(b)fluoranthene, 1.1 mg/kg; chrysene, 110 mg/kg; dibenz(a,h)anthracene, 0.11 mg; indeno(1,2,3-cd)pyrene, 1.1 mg/kg; and naphthalene, 2 mg/kg
- Total Petroleum Hydrocarbons – 100 mg/kg (the state screening level)
- Dioxins – 4.8 ng/kg (the residential RSL)

3.3 PREFERRED REMEDY

The preferred remedy is a combination of Alternatives S-3 and S-4 in the FFS (EA, 2022a). Main components of the remedy include:

- Excavation and removal of tailings and waste rock,
- Consolidation of the excavated materials into the open pits and central valley area,
- Abatement of ACM,
- Asbestos containing material (ACM) and C&D currently in the deep pits remains in place as inert, non-mobile waste, and concrete is used as fill deep in the pits (Alternative S-3). Asbestos containing material (ACM) and municipal waste from the surface of the former mine site is consolidated and disposed offsite (Alternative S-4),
- Placement of a 10-foot clean cover over the contaminated materials,
- Enactment of an environmental covenant on excavation of soil deeper than 10 feet to require agency notification for deep construction, and
- Capping of wastes placed in the Hydro Pit with a synthetic liner via installation of the stormwater detention basin. If tailings are placed in the A-B Pit in addition to the Hydro Pit (contingency only), suitable engineered protection, such as a liner, will be implemented.

The tailings, which are the waste created as a result of the ore beneficiation process, are the primary mining impact to be resolved. Per Nevada Administrative Code (NAC) 445A.431, which is a consideration under the CERCLA process, tailings stabilization (i.e., binding and containing so as to avoid impacts to surface or groundwater) is required as part of mine site remediation. While the waste rock, the material moved to access manganese ore, is also part of the mining process and requires handling, waste rock is considered differently in mining regulations, which generally allow waste rock to be left in place and covered with sufficient soil to promote vegetation growth. Overburden and waste rock are an exception under RCRA as stated in 40 CFR 261.4(b)(3), "mining overburden returned to the mine site." The waste rock has not been processed, and from the perspective of mine closure, is suitable for reuse in reclamation as backfill in the open pits and central valley areas (i.e., returned to the mine site).

The preferred remedy will address the RAOs by capping the contaminated materials to prevent the direct exposure to the environment and minimizing potential migration of contaminants to the other Site soil and surface water. The lined basin will reduce the infiltration, therefore reducing the potential for leaching of contaminants into the groundwater. ACM and municipal wastes will be consolidated and disposed offsite. The Site will be converted to full residential use, under the stipulation that wastes will be covered with 10 feet of native soil and an environmental covenant will be enacted on soil below 10 feet.

4.0 SITE PREPARATION

Site preparation activities include well abandonment, permitting, utility clearance, land survey, work area preparation, haul road construction, and developing access roads to open pits, and these activities are described below.

4.1 WELL ABANDONMENT

Prior to the construction, the Three Kids Partnership monitoring well located in the northeast corner of the property will be properly plugged and abandoned by a driller licensed in the State of Nevada. The method and procedure of well plugging and abandonment will meet the requirements in NAC 534.360 – 438. The driller will submit a report to the State after the well abandonment.

4.2 PERMITTING

This section presents the federal, state, and local agency permits that are required to implement the preferred remedy at the Site. The permits will include, but not be limited to:

- **Clark County Department of Air Quality (CCDAQ) NESHAP Permit:** as required for the abatement of the RACM.
- **Nevada Occupational Safety and Health and Administration (OSHA) Asbestos Abatement Project Permit:** as required for the abatement of the RACM.
- **Southern Nevada Health District (SNHD) Transportation Permit:** as required for the transportation of the RACM.
- **Construction Stormwater Permit:** A Construction Stormwater General Permit NVR100000 will be applied for prior to mobilizing to the Site. The objective of the permit is to control and reduce pollution to waters of the state. The NDEP requires owner/operators to obtain a Construction Stormwater Permit if the project will discharge to surface water and project will disturb one or more acres. For the coverage under the Construction Stormwater General Permit NVR100000, a Notice of Intent must be completed by filling in the required information with a signature of an authorized representative and a filing fee of \$200 to NDEP. A Stormwater Pollution Prevention Plan (SWPPP) will be required as well.
- **Spill Prevention, Control, and Countermeasure (SPCC) Plan:** 40 CFR Part 112 includes spill prevention and countermeasure plans for spills from aboveground and certain underground storage tanks. A construction project must meet SPCC regulatory requirements if it meets the following three criteria:
 - It stores, uses, transfers, or otherwise handles oil;
 - It has a maximum aboveground storage capacity greater than 1,320 gallons of oil (which includes both bulk and operational storage volumes) OR total underground storage capacity greater than 42,000 gallons of oil; and

- There is a reasonable expectation (based on the location of your Site) that an oil spill would reach navigable waters or adjoining shorelines of the U.S.

Preparation of the SPCC Plan is the responsibility of the facility owner or operator (the party who is in charge of the Site cleanup in this case), or it can be prepared by an engineer or consultant, but it must be certified by a registered Professional Engineer. A temporary fueling station will be set up at the Site prior to the construction, therefore a SPCC Plan will be prepared and certified by a Professional Engineer licensed in the State of Nevada.

- **Construction Air Quality Monitoring and Dust Control:** The construction team will conduct the air quality monitoring and control dust generated during the construction in accordance with the requirements of Clean Air Act and National Ambient Air Quality Standards, State of Nevada air quality standards, and standards established by OSHA. This includes obtaining a CCDAQ Dust Control Permit as required for the disturbance of soil in excess of 0.25 acres in overall area. Prior to the construction, the air monitoring plan and standards will be established to ensure protection of the environment and human health during the construction. Construction superintendent, Site supervisors, foremen, and water truck drivers and operators will attend and pass the online Air Quality Dust Class required by the Clark County Nevada before mobilizing to the Site.

4.3 UTILITY CLEARANCE

A utility clearance survey will be conducted by a utility locate company to identify and flag underground utilities at the Site where excavation and demolition activities may take place. If there are overhead utilities, they may be re-routed or discontinued as appropriate.

4.4 LAND SURVEY

A land survey has been conducted, and the survey data will be used to develop a base topographic map needed for the design and engineering calculations for excavation, soil cover, stormwater detention basins, and final Site grading. Topography of the Site and Site features, for example, ditches, drains, roads, utility lines, property lines, and former mine features and footprint have also been surveyed.

4.5 WORK AREA PREPARATION

Work areas to be prepared may include exclusion zones, decontamination zones, staging areas, temporary storage zones, and temporary fueling stations. Vegetation in the excavation areas will be cleared and grubbed as needed to make the Site accessible to heavy equipment.

Exclusion and decontamination zones will be used for asbestos abatement activities and are described in more detail in Section 6.1.1. These areas will change frequently based on work locations. Specific exclusion and decontamination zones are not anticipated for other remediation work, although site security will be enforced as described in Section 6.1.

A staging area to include temporary offices and meeting locations will be created. Temporary storage zones may be used to stockpile clean soil for the soil cover construction and clean equipment. A temporary fueling station will also be established, and the location of the temporary storage tank and its

secondary containment will meet the requirements specified in the Site SPCC Plan. No Smoking signage and guard posts around the fuel station(s) will be set up to prevent accidental fire and damage to the storage tank(s). An area for decontamination of heavy equipment between handling tailings and clean borrow materials will be established, if needed. Heavy equipment will also be decontaminated before it leaves the Site.

4.6 HAUL ROAD CONSTRUCTION

Haul roads will be constructed, and existing roads will be modified to be used during construction. The roads may be widened to accommodate two-way construction traffic if needed. Waste rock to the south and west of the Hydro Pit will be removed to improve hauling sight lines. Weight of the heavy equipment and vehicles will be considered during the design and construction of the roads so that roads will support and remain supportive of construction traffic throughout the entire remedial action. Vehicle speeds will not exceed 30 miles per hour (mph), and traffic flow direction signage will be added as needed.

4.7 ACCESS ROADS TO OPEN PITS

Access to open pits will be established to support the equipment needing to gain ingress and egress of the pits easily and safely. Existing access to the bottom of A-B Pit will be used after minor modifications to widen the route. Access to the Hydro Pit and the Hulin Pit presents challenges because new ramps will need to be constructed. A steep, one-way access road to the Hydro Pit (sufficient for bulldozers, compactors, and six-wheel-drive water trucks) is planned to allow equipment to the bottom of the pit to mix and compact tailings and waste rock after it is dumped. A steep access road will also be constructed into the Hulin Pit to transport equipment for compacting.

5.0 REMEDIATION IMPLEMENTATION

Remediation of the Site will include multiple steps described in this section that include:

1. Asbestos abatement and removal
2. Special waste inventory and disposal
3. Municipal waste consolidation and disposal
4. Demolition
5. Excavation
6. Placement of excavated material in open pits and central valley area
7. Cover construction
8. Stormwater basin construction
9. Site final grading
10. Enactment of an environmental covenant on soil deeper than 10 feet below land surface (bls)

5.1 ASBESTOS ABATEMENT AND REMOVAL

Abatement of RACM at the Site will be performed by an asbestos abatement contractor licensed in the State of Nevada. The abatement activities will be performed in accordance with applicable OSHA regulations by properly trained workers that have been licensed in Nevada through the Asbestos Control Program. Applicable OSHA regulations can be found in 29 CFR 1926.1101 and NAC 618.850 through 618.986. In general, OSHA requires the asbestos abatement work to include the establishment of regulated areas, use of wet methods (no visible emissions), prompt clean-up, use of leak tight containers, and employee exposure monitoring. The asbestos abatement plan is presented in detail in Appendix C.

5.2 SPECIAL WASTE INVENTORY AND DISPOSAL

Special waste, such as hazardous or liquid waste, remaining at the Site will be inventoried to characterize the quantity and conditions of the waste in preparation of offsite disposal. Aerosol cans and other containerized waste may require overpack and other handling methods if the waste containers are in a poor condition before initiating offsite transportation and disposal. Liquid wastes, such as may be found in discarded drums, will be vacuumed out and containerized. Special wastes will be properly profiled and transported offsite for disposal.

5.3 MUNICIPAL WASTE CONSOLIDATION AND DISPOSAL

As stated in Section 1.0, abandoned boats, automobiles, appliances, tires, and other municipal waste are present at the Site. In areas of substantial waste build-up, large loaders and haul trucks will collect the debris for offsite disposal. Waste will not be removed by hand, and some small amounts of scattered debris may remain on Site to be handled with mine waste for disposal in deep pits during the next steps of remediation. A combination of commercial haul trucks (with payload tarps), and solid waste roll-off bins will be transported to the Apex Landfill, or another nearby permitted landfill for the disposal of the majority of surface waste. Effort will be taken to minimize the amount of incidental dirt loaded into these transports in order to reduce the overall volume transported to the landfill.

Municipal waste in the pits will remain in place. Concrete from the former mine site will be broken into large chunks and used as fill deep in the A-B Pit, described below in Section 5.4 and 5.6.

As stated in an email dated August 29, 2022 responding to Broadbent's letter dated August 23, 2022 regarding the approach for solid waste management, the approach described in this section is acceptable with the solid waste management authority (SWMA) for the Site, the SNHD, provided that a geotechnical report is submitted to SNHD that demonstrates suitability of concrete as deep fill.

5.4 DEMOLITION

After the ACM are abated and disposed offsite, the demolition areas will be inspected to confirm the ACM is completely removed prior to initiation of demolition work. The former mine facility structures (i.e., mill building foundations and remnants of eight circular flotation cells as shown in Figure 5-1) will be demolished by excavators, hydraulic hammers, and other equipment. The majority of structures consist of concrete with some wood, metal, and other building materials.

The three mill site dumps (West Dump, East Dump, and Engineering Dump, depicted in Figure 5-1) contain building debris and concrete below grade that will be included in with demolition. The West Dump is primarily comprised of waste rock and can be handled with other waste rock after separation of building materials. Only a small amount of building materials was observed during the RI in the East Dump, and that area primarily consists of soil. The Engineering Dump contains large concrete blocks over six feet in length, often containing rebar. These areas will be excavated and demolished along with other building structures on Site.

The former fuel farm area (depicted in Figure 5-1) contains two wooden sumps with bunker fuel that will be demolished. The bunker fuel will be mixed with soil until solid, characterized, and disposed offsite at Apex Landfill or other permitted facility.

Clean concrete will be staged in a nearby area, broken into pieces, and transported to the A-B Pit and placed as deep fill. Other materials (such as wood, metal, and building debris) will be separated and disposed offsite in a manner similar to municipal waste described above in Section 5.3. Air quality will be monitored, and dust control will be performed by spraying clean water over the area. Details of the dust control are included in Section 6.2 of this document.

The structures to be demolished are not anticipated to contain any liquid, however, if found, the liquid must be vacuumed out and containerized. The waste will be characterized for offsite disposal.

5.5 EXCAVATION

Areas to be excavated primarily consist of tailings ponds and waste rock piles. Other areas where excavation is needed include the fuel farm, the northeast drainage, and mill site soil excavated to facilitate the 10-foot clean cover below final grade. These locations are depicted in Figure 5-2.

During the excavation, proper protective systems will be used to protect Site workers, i.e., sloping, benching, shoring, or shielding if the depth of excavation is greater than five feet. Trenching and shoring activities will be conducted by following protective system requirements in OSHA Technical Manual

Section V, Chapter 2. During excavation, dust will be controlled via water truck. Additional details are provided in Section 6.2.

5.5.1 Tailings

Tailings, the byproduct created from the beneficiation of manganese ore, are present primarily in three ponds on Site. The three tailings ponds, as well as the portion of tailings to the east of Tailings Pond 3 and the tailings stockpile area, will be excavated to the maximum extent of tailings. Lateral extent of tailings in Tailings Pond 1 is defined by the tailings dam, in Tailings Pond 2 by topography, and Tailings Pond 3 by waste rock piles on each side. The total estimated volume of tailings is 1.6 million cubic yards. Depth of excavation is tentatively planned to the surface of the pre-mining 1917 topographic map but will continue based on visual observations by a CEM. As observed during the RI, tailings are dark gray to black consisting of sandy silt, while native material consists of primarily reddish sand and gravel, so the contact between tailings and native will be visually apparent. The remediation surface, or surface below the maximum depth excavated, will be documented with photographs. The remediation surface will also be documented via survey. Impacts to native soil and rock below tailings is minimal (Broadbent, 2022d), and due to the placement of a 10-foot clean cover, potentially impacted native material will not be excavated.

5.5.2 Waste Rock

Waste rock piles, material removed to access manganese ore and depicted in Figure 5-2, will be excavated to the pre-mining surface as interpreted by the 1917 topographic map. The total estimated volume of waste rock is 7.0 million cubic yards. A CEM will be present to make visual observations on the vertical extent of waste rock. However, due to the overburden's similarity to native alluvium and rock, it is not anticipated that the maximum excavated surface of waste rock will deviate significantly from the 1917 surface. The lateral extent of waste rock piles is visually apparent and will match the polygons as depicted in Figure 5-2. As with the tailings excavation, the remediation surface will be documented with photographs and via survey. In the central valley area, waste rock may be left in place if geotechnical tests suggest sufficient stability.

5.5.3 PAH-Impacted Soil

After demolishing the wooden sumps and removing remaining bunker fuel for offsite disposal, PAH-impacted soil below each sump containing bunker fuel will be excavated to 13 feet bls based on data collected during the RI (Broadbent, 2022d). The remaining areas of the former fuel farm area will have a two-foot scrape to remove surface soil impacted with PAHs. Results from sampling surface soil in the chemical processing area and thermal processing areas also indicated soil impacted with PAHs above RSLs (Broadbent, 2022d). These two areas will also receive a two-foot scrape to remove impacted soil.

The fuel farm, chemical processing, and thermal processing areas are depicted in Figure 5-2. As described in Section 5.6.1, soil with PAH impacts will be interred in the Hydro Pit along with the tailings, which also has impacts from petroleum hydrocarbons. Results from the Leaching Analysis Report suggest that PAHs will not be mobilized.

5.5.4 Northeast Drainage

A release of processing solution in the northeast drainage containing elevated metals, TPH, and PAHs was documented in the RI Report (Broadbent, 2022d). Based on observations of the lateral extent, the material is anticipated to be present in an area approximately 200 feet by 100 feet adjacent to Lake Mead Parkway at the surface to a maximum observed depth of nine feet bls. Because stormwater drainage is intended to be routed through this low point on the Site (described in more detail in Section 5.8 below), the process material will be excavated and handled in a manner similar to the tailings. The impacted material is visually apparent (dark gray to black and fine-grained) with a hydrocarbon odor and will be excavated to a maximum depth based on visual observations by a CEM.

5.5.5 Ore Yard and Mill Site Soil Excavated to Facilitate 10-Foot Cover to Final Grade

Based on the remedy described herein which includes placing a 10-foot clean cover over the Site to prevent exposure, excavation of mill site soil exceeding screening levels as documented in the RI is not needed. However, a significant portion of the mill site area will be excavated to allow for the placement of 10 feet of cover below the planned development final grade. These areas are depicted in yellow in Figure 5-2 and include the majority of the ore yard area and the southern and western portions of the mill site. Additionally, in locations where utilities are deeper than 10 feet below final grade, existing soil will be excavated to accommodate the placement of clean cover to two feet below the depth of utility, where necessary to be protective. Soil excavated from the ore yard area and mill site area below the two-foot scrape described in Section 5.5.3 will be handled in a manner similar to waste rock and can be placed in any of the pits or central valley area. Maximum depth of excavation will be ten feet below final grade to allow for clean cover placement.

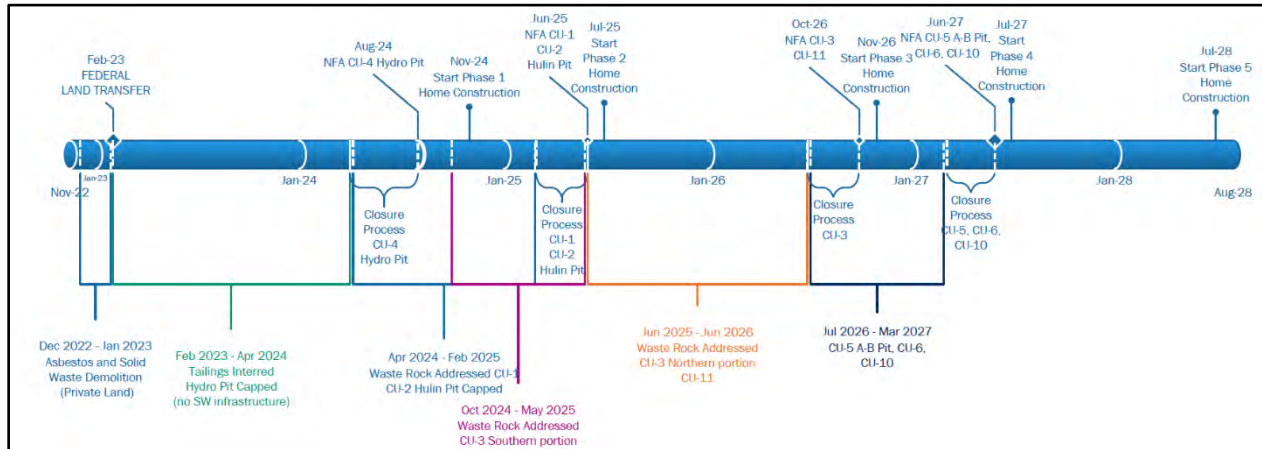
5.6 PLACEMENT OF EXCAVATED MATERIALS

Excavated material will be contained in the three major open pits and a central valley area north of the Hulin Pit. This will separate the mine site wastes from the potential for human exposure, as well as resolve the physical hazard presented by the open pits. Tailings and petroleum-contaminated soil will be placed in the Hydro Pit. Tailings and petroleum-contaminated soil may also be placed deep in the A-B Pit if the tailings-waste rock mixture is a greater volume than the Hydro Pit. Other excavated material, including overburden, waste rock, concrete, and soil excavated to achieve final grade will be placed in any of the three pits or the central valley area. The types of waste and their designated disposal area are listed in the table below.

Type of Waste	Hydro Pit	Hulin Pit	A-B Pit	Central Valley
Tailings	X		X*	
Waste rock and overburden	X	X	X	X
Concrete		X	X	
PAH-impacted soil	X		X*	
Process solution release from northeast drainage	X		X*	
Soil excavated to facilitate 10-foot cover	X	X	X	X
Solid waste presently in deep pits	X	X	X	

*Only as contingency if tailings and petroleum-contaminated soil do not fit in Hydro Pit as anticipated

The method of placing materials to open pits is pit specific depending on pit condition, especially ramp slope. Existing debris and trash in the pits, such as tires and boat frames, will be left in place. Placement of excavated materials in the pits will occur via a phased approach based on each planned phase of home construction, with the anticipated completion date of earthwork in March 2027. Additional details on the preliminary timeline are provided below and in Appendix D, and as in all development, are subject to change based on fluctuations in the economy.



Development Timeline



Closure Units

5.6.1 Hydro Pit

A mixture of approximately 90 percent tailings and 10 percent waste rock will be placed in the Hydro Pit. The ratio of tailings to waste rock may be modified to achieve compaction standards. Petroleum-contaminated soil from the mill site will also be placed in the Hydro Pit. The steep slope of the Hydro Pit makes frequent equipment traffic to the bottom infeasible. Therefore, materials will be dumped over the side of the pits over either a tailings dump slope or a waste rock dump slope during one shift (Figure 5-3). The next shift, another crew will rehandle, mix, and place the material in the bottom of the pits using earthmoving equipment, accessing the bottom of the pit via the steep one-way access road depicted in Figure 5-3. Loose material will be placed in approximately 12-inch lifts and compacted. In-place density will be tested onsite to ensure the compaction meets the design requirement. A water truck will spray clean water over material to control the dust in the area. The area will be monitored for dust as specified in Section 6.2.

5.6.2 Hulin Pit

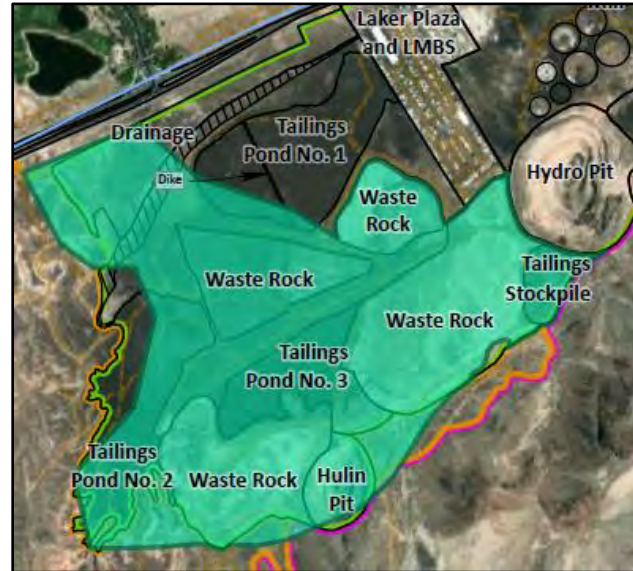
Waste rock will be placed into the Hulin Pit over a dump slope, similar to the one described above for the Hydro Pit. Loose material will be placed in approximately 12-inch lifts and compacted. In-place density will be tested onsite to ensure the compaction meets the design requirement. A water truck will spray clean water over material to control the dust in the area. The area will be monitored for dust as specified in Section 6.2.

5.6.3 A-B Pit

Waste rock and concrete pieces will be driven into the A-B Pit on the improved access road and placed in approximately 12-inch lifts and compacted. Tailings and petroleum-contaminated soil may also be placed deep in the A-B Pit, as a contingency if the volume of tailings and petroleum-contaminated soil does not fit in the Hydro Pit. Placement and compaction of material abutting the sheer wall will follow a different process based on safety requirements so that workers and equipment are not within 50 feet of the sheer wall. A park rather than residences is planned for this area, so compaction requirements may differ. In-place density will be tested onsite to ensure the compaction meets the design requirement. A water truck will spray clean water over material to control the dust in the area. The area will be monitored for dust as specified in Section 6.2.

5.6.4 Central Valley Area

An area of the Site north of the Hulin Pit extending to Lake Mead Parkway (shown here and in Figure 5-4) will require a significant amount of fill to be brought to the final grade. Waste rock will be placed in this central valley area up to ten feet below final grade, allowing space for placement of the clean cover. Waste rock in this area will be placed via heavy equipment in approximately 12-inch lifts and compacted. In-place density will be tested onsite to ensure the compaction meets the design requirement. A water truck will spray clean water over material to control the dust in the area. The area will be monitored for dust as specified in Section 6.2.



Central Valley area in green

5.7 COVER CONSTRUCTION

Mine site wastes will be capped with 10-foot cover, except where a liner will be placed over the Hydro Pit. A minimum of two feet of clean cover will be placed over the Hydro Pit liner. A community park is planned for the Hydro Pit, and cover thickness over the liner will be coordinated with City of Henderson Parks and Recreation Department based on park design. In locations of the Site where utilities are deeper than 10 feet below final grade, clean cover will be placed a minimum of two feet below the depth of utility inverts, where necessary to be protective.

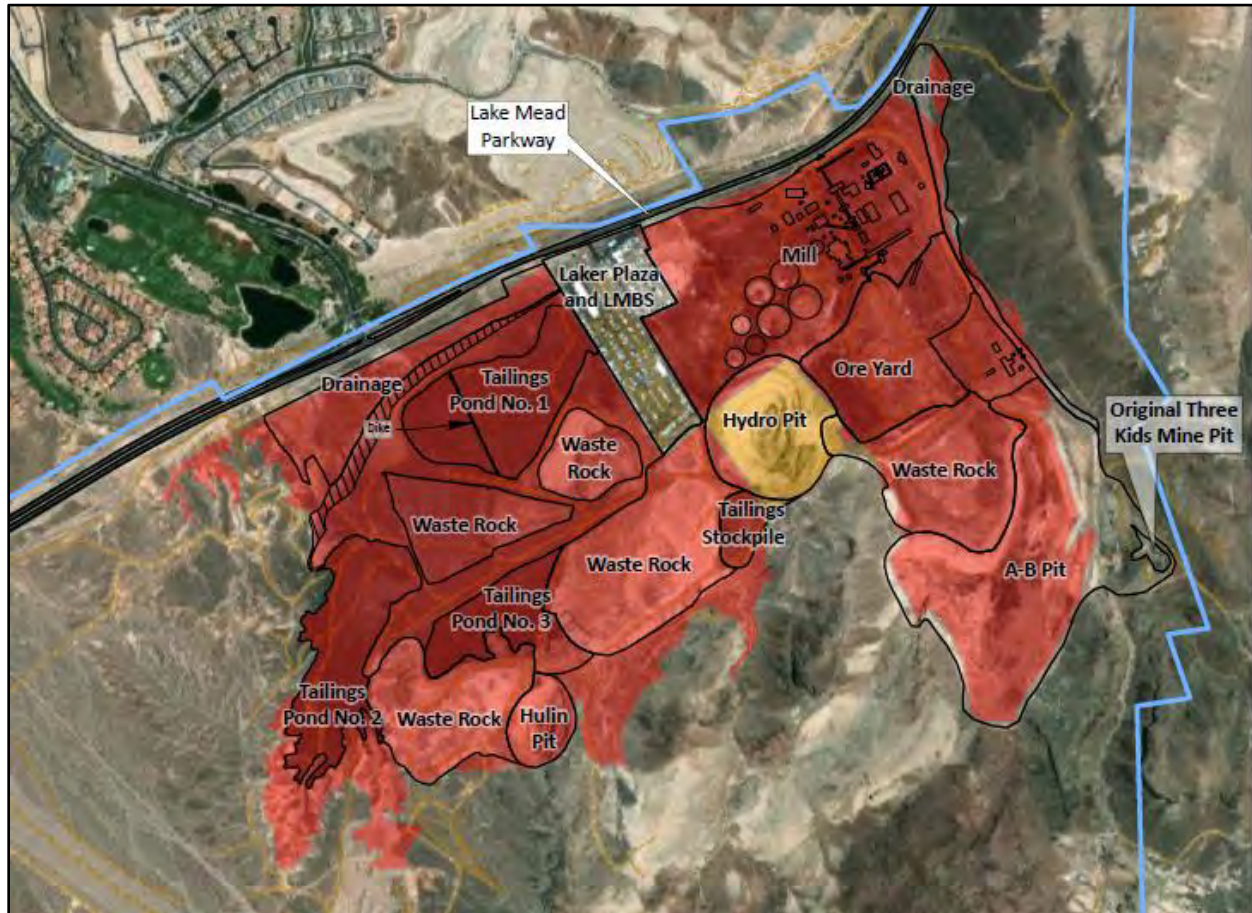
The cover soil and rock will be imported from borrow sources located to the east, south, and west of the Site (Figure 5-5). Borrow areas were evaluated during the background study (Broadbent, 2022b) and consist of background areas and the downwind volcanic area, which received a No Further Action Declaration (NFAD) from NDEP on August 22, 2022 based on a screening level human health risk assessment (EA, 2022b).

The cover material will be placed in loose lifts consisting of a maximum thickness of 12 inches. The fill material will be placed and compacted to design requirements across the area prior to placement of next lift. The area will be graded to meet the designed elevations.

During the cover construction, in-place soil density and moisture content will be tested by a geotechnical professional to ensure that the two parameters meet the performance specifications. Flyover surveys will be conducted via drone at a minimum on a monthly basis to track cover construction progress.

The location of the 10-foot cover is shown in Figure 5-6 and below. Ten feet of clean soil will be placed over Closure Units 1, 2, 3, 5, and 6, as shown on the timeline in Appendix D. These Closure Units include all areas to be developed as residential except for Closure Unit 11. Closure Unit 11, a small sliver directly adjacent to Laker Plaza and Lake Mead Boat Storage, will receive the maximum amount of fill possible

based on following OSHA safe work practices for slope stability. The environmental covenant will be adjusted accordingly to be protective of human health and the environment.



Location of 10-foot clean cover in red

5.8 STORMWATER BASIN CONSTRUCTION

Stormwater basins will be constructed to 1) control stormwater runoff and direct stormwater away from closed areas of the Site (i.e., soil below clean cover), 2) reduce infiltration of precipitation into the covered and protected mine site wastes, and 3) facilitate Site development. Two stormwater detention basins are currently planned as part of the overall Site grading plan: one covering the northeast corner of the Hydro Pit and a second east of the A-B Pit next to the original Three Kids Mine Pit (Figure 5-7).

Design of the Hydro Pit stormwater basin is ongoing at the time of this report and will include a low permeability liner. Prior to initiating installation of the stormwater basins, materials to be used in the basin construction (i.e., low permeability liner datasheets and specifications) will be reviewed and approved by a Professional Engineer to ensure the materials meet the design specifications.

The stormwater basin east of the A-B Pit will be cut into native rock with a concrete spillway and concrete inlet structures directing stormwater from the River Mountains to the south and east. The original Three Kids Mine Pit will be filled and regraded as part of the stormwater infrastructure construction. From the stormwater basin east of the A-B Pit, stormwater will be directed into concrete

channels north toward Lake Mead Parkway, through the existing northeast drainage. There an outfall structure will be constructed to dissipate stormwater prior to reaching Lake Mead Parkway. Design details of the outfall structure are not finalized at the time of this report, so they are not included in Figure 5-7.

In-place density will be tested periodically during the construction of the basins to ensure the compaction of the soil meets the requirements. Elevations of the basins will be confirmed and surveyed by a land surveyor.

5.9 SITE FINAL GRADING

The remediation surface (i.e., the maximum depth of excavation) will be tracked so that a minimum of 10 feet cover can be placed between the remediation surface and final grade for residential development. The final grade for residential development is determined by the homebuilder. As-builts will be provided that show both the remediation surface and the final grade.

The majority of the site final grading will be in preparation for building residential homes. Current plans for development over the backfilled Hydro Pit include a community park constructed on top of the detention basin that may contain irrigated fields. If irrigated fields are included in the final park design, suitable engineering protection will be constructed to prevent infiltration below the liner. A park or open space element is planned for the top of the backfilled Hulin Pit and may contain pools and splashpads. Current plans over the backfilled A-B Pit include a park adjacent to the sheer wall of the A-B Pit with homes covering the remaining portion.

5.10 ENVIRONMENTAL COVENANT

An environmental covenant will be placed on soil below 10 feet bls to protect construction workers who may encounter soil at depths greater than 10 feet bls. The covenant will work through the homeowner's association of the development and city of Henderson permitting. If a resident requests a permit for construction deeper than 10 feet bls, this will require NDEP notification, and an approved Soil Management Plan will need to be in place before work is completed. In locations where clean cover is greater than 10 feet to accommodate deep (greater than 10 feet bls) utility inverts, the environmental covenant will be placed on soil below the total depth of the clean cover. As a result, a Soil Management Plan would not be needed for utility work unless soil would be disturbed below the clean cover.

6.0 ENVIRONMENTAL CONTROLS

This section presents approaches to control the Site in an effort to mitigate impacts on the environment and Site workers during the remediation construction.

6.1 SITE ACCESS CONTROL

The Site will not be enclosed by a fence due to its large size, but access will be controlled through daily constant inspection to identify trespassing and unauthorized access. In general, typical Site access control will include the following:

- Signage will be posted along the construction perimeter to warn public away from the remediation areas and restrict unauthorized access.
- Dedicated personnel will be assigned to patrol the Site at all times to identify unauthorized access and inspect the equipment/material storage areas. Storage containers, if any, will be locked.

Details on site control specific to asbestos abatement are provided in Appendix C.

6.2 AIR MONITORING AND DUST CONTROL

Dust control will be an ongoing endeavor during remediation and construction, especially considering the dry climate of the Site. Multiple water trucks will be used at all times to spray clean water over the construction area as necessary without creating runoff. The construction superintendent, all Site supervisors, foremen, and water truck drivers and operators will attend and pass the online Air Quality Dust Class required by Clark County. Multiple dust monitors will be used to monitor the dust level at the Site. Additional details will be provided in the forthcoming Air Monitoring Plan.

Details on perimeter air monitoring during asbestos abatement activities are provided in Appendix C.

6.3 STORMWATER EROSION CONTROL

The construction will disturb more than one acre of land; therefore, a Notice of Intent will be submitted to NDEP to request coverage under the Construction Stormwater General Permit NVR100000. A Stormwater Pollution Prevention Plan will be developed to address stormwater protection and erosion controls for the Site remediation.

BMPs for erosion control will be incorporated into the overall Site design, and BMPs will be installed prior to any land disturbing activities. Considering low precipitation in the area, typical BMPs include silt fences, inlet protection, rock berms, steep slope protection, and a stabilized Site entrance, which may be installed as needed. These BMPs will be implemented throughout the project to control erosion and stormwater run-on and run-off during excavation.

6.4 SPILL PREVENTION AND CONTROL

Aboveground fuel storage tank(s) may be installed at the Site for fueling of construction vehicles. Because the total aggregate capacity of aboveground oil storage containers (e.g., tanks, totes) will be likely greater than 1,320 gallons of oil, the Site will be subject to the SPCC Rule. Therefore, a SPCC Plan will be developed to establish Site requirements to prevent, control, contain, and clean up spills. Construction activities will follow the SPCC Plan requirements.

Fuel, chemical, and waste storage areas will be properly protected from on- and offsite vehicle traffic. Tanks (including fuel storage and waste storage) must be equipped with secondary containment. These tanks must be inspected daily for signs of leaks. Accumulated water must be inspected for signs of contamination (e.g., product sheen, discoloration, and odor) before being discarded.

Spill control materials will be maintained at fuel storage and dispensing location(s), and at waste storage areas. Incidental spills will be contained with sorbent and disposed of properly. Spilled materials must be immediately contained and controlled. Spill response procedures include:

1. Immediately warn any nearby workers and notify supervisor.
2. Assess the spill area to ensure that it is safe to respond.
3. Evacuate area if spill presents an emergency.
4. Ensure any nearby ignition sources are immediately eliminated.
5. Stop source of spill.
6. Establish Site control for spill area.
7. Contain and control spilled material through use of sorbent booms, pads, or other material.
8. Use proper personal protective equipment (PPE) in responding to spills.

Spilled material, contaminated sorbent, and contaminated media will be cleaned up and removed as soon as possible. Contaminated spill material will be drummed, labeled, and properly stored until material is disposed. Contaminated spill material will be managed as waste and disposed according to applicable, federal, state, and local requirements.

6.5 DECONTAMINATION

Vehicles that are used to transport contaminated materials (i.e., during tailings removal and placement of excavated materials in the open pits) must be decontaminated before transporting clean borrow source materials. Daily inspection will be conducted for the equipment and vehicles that are assigned to transport clean materials to ensure they are clean and free of contaminants and debris. Heavy equipment will be decontaminated before it leaves the Site.

Details on specific equipment decontamination procedures that will be conducted during the abatement of RACM at the Site are provided in Appendix C.

6.6 HEALTH AND SAFETY

A Health and Safety Plan will be prepared and submitted to NDEP to establish requirements for construction activities. Job Safety Analyses will be also prepared for different scopes of work (e.g., asbestos abatement, environmental oversight, construction). During field activities, onsite personnel will

follow OSHA requirements for general industrial and hazardous waste Site operations and construction. Onsite workers may potentially be exposed to hazardous materials, therefore personnel who may potentially be in direct contact with the contaminated materials (e.g., ACM, contaminated soil, and tailings) must be 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) trained in accordance with the requirements of 40 CFR 1910.120 (including current eight-hour refresher).

It is anticipated that construction activities will require modified Level D PPE, which may consist of steel-toe boots, nitrile gloves, safety glasses, ear plugs, hard hats, and construction reflective safety vests. The level of personal protection can be upgraded as necessary in accordance with a Health and Safety Plan to be prepared prior to the construction.

An onsite health and safety manager who is 40-hour HAZWOPER trained will be responsible for hosting daily safety meetings, health and safety inspection and audits, monitoring of air quality and other safety activities, and implementing PPE upgrade if necessary.

Details on personal air monitoring during asbestos abatement activities are provided in Appendix C.

7.0 REPORTING AND DOCUMENTATION

This section provides general documentation and reporting related to the Site remediation.

7.1 DAILY REPORTS

Daily Reports will be prepared to document each day's field activities and relevant observations of remediation progress. The reports will include, but not be limited to, the following:

- Date and time of Site construction
- Personnel onsite
- Health and safety briefing (tailgate meeting)
- Activities conducted that day
- Materials used, and quantities of materials that are used that day
- Imported materials' datasheets or specifications if any
- Volume of excavation and placement of materials
- Field geotechnical testing conducted (i.e., in-place density test)
- Survey
- Air monitoring results (dust and metal concentrations)
- Health and safety inspection
- SWPPP inspection
- SPCC inspection
- Issues encountered and rework items if any
- Field notes and photographs

7.2 INTERIM STATUS REPORTS

Status reports will be prepared to update NDEP of remediation progress at the Site after significant milestones. The reports will provide the following information as appropriate:

- Significant milestones of ACM abatement and removal, excavation, placement of excavated materials in open pits, cover construction, construction of stormwater basins, and grading
- Actual locations where 10-foot cover was placed
- Volume of materials excavated and placed in open pits
- Construction of stormwater basins
- Monitoring results of air quality including dust and metal concentrations
- Geotechnical testing results
- Remediation surface as-builts
- Final Site grading

7.3 CLOSURE REPORT

A Closure Report will be prepared when the remediation is complete for a given Closure Unit (as defined in Section 8.0 below). The report will include but not be limited to following:

- Introduction (purpose of the report, Site location and description, and report organization)
- Remedial objectives and goals
- Remedy implemented
- Construction chronology
- Remedial activities
- Quality assurance and quality control activities conducted to ensure the construction meets the design requirements
- Health and safety and environmental control
- Certification of construction completion (inspection conducted by contractors and regulatory agency)
- Risk assessment on clean cover
- Appendices (permits, sample and/or monitoring results, geotechnical testing results, photographs, as-builts, and imported materials' specifications and datasheets)

8.0 CLOSURE UNITS AND SCHEDULE

Appendix D provides a project schedule that shows milestones of major tasks under the corrective action. After mobilizing to the Site, it will be prepared for construction. ACM abatement and removal will take place before earthmoving activities followed by demolition and excavation, then stormwater basin construction and final Site grading. It is estimated that entire construction will take approximately five years.

Excavation and site grading will be completed in a phased approach based on planned development. Closure Units are depicted below and in Figure 8-1 based on this phased approach. The preliminary timeline for closure of each Closure Unit presented in Appendix D is approximate and may change based on economic fluctuations. Closure method will vary by unit as follows:

- Closure Units 1, 2, 3, 5, and 6 will be closed by eliminating exposure pathways via placing ten feet of clean cover.
- Closure Unit 4 (the Hydro Pit) will be closed by installing a liner over the excavated materials followed by a minimum of two feet of clean soil on top of the liner.
- Closure Unit 7 was closed via the Screening Level Human Health Risk Assessment for the downwind volcanic area, submitted under a separate cover and approved by NDEP on August 22, 2022.
- Closure Units 8 and 9, located on the north side of Lake Mead Parkway, are not considered under this CAP as they are not part of the planned development.
- Closure Unit 10 will be closed as a non-residential utility corridor with infrastructure to manage stormwater.
- Closure Unit 11 will be closed by placing as close to 10 feet of clean cover as can be safely done following OSHA safe work practices and without encroaching onto Laker Plaza/Lake Mead Boat Storage properties. This may result in a small portion that has six feet of clean cover, resulting in an environmental covenant that requires a Soil Management Plan when ground below six feet is disturbed.



Closure Units

Closure unit boundaries may change as a result of the development timeline but will follow the approach described above. Closure unit boundaries will be clearly defined in their respective Closure Reports.

9.0 LIMITATIONS

The findings presented in this CAP are based upon observations of field personnel; points investigated; results of laboratory tests as presented in the RI; and our understanding of Nevada Administrative Code. Our services were performed in accordance with the generally accepted standard of practice at the time this report was written. No other warranty, expressed or implied, is made, and Broadbent assumes no liability for any loss resulting from errors or omissions arising from the use of inaccurate/incomplete information or misrepresentations made by others. Third parties who rely on this report shall do so at their own risk.

ACRONYMS

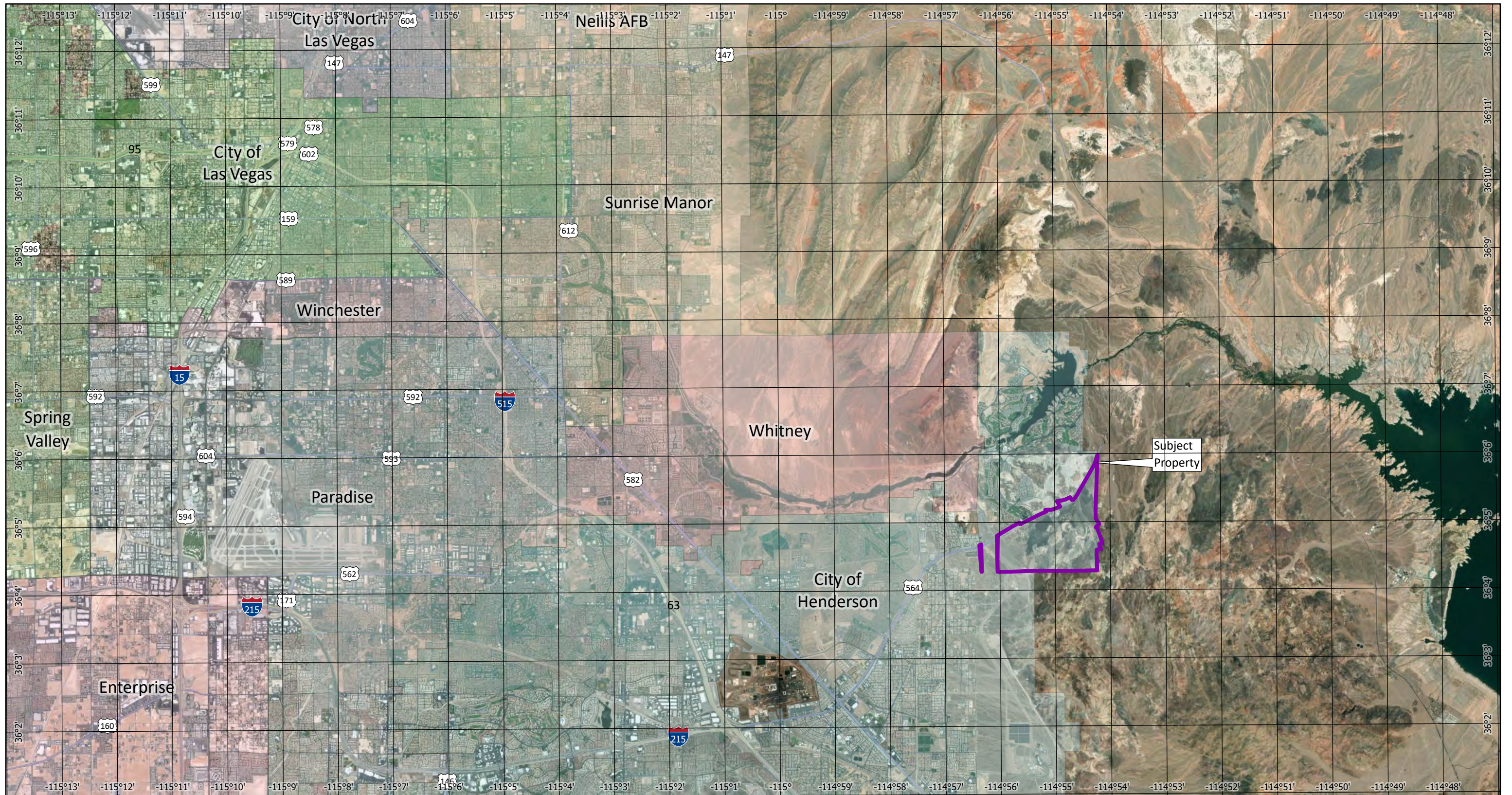
AAC	Asbestos Abatement Consultant
ACM	Asbestos Containing Material
ACP	Asbestos Competent Person
Act	Three Kids Mine Remediation and Reclamation Act
amsl	Above Mean Sea Level
ASTM	American Society for Testing and Materials
BISC	Bureau of Industrial Site Cleanup
BLM	Bureau of Land Management
bls	Below land surface
BMP	Best management practice
BRC	Basic Remediation Company
Broadbent	Broadbent & Associates, Inc.
BTV	Background Threshold Value
CAP	Corrective Action Plan
CCDAQ	Clark County Department of Air Quality
CEM	Certified Environmental Manager
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Contaminant of Concern
COPC	Contaminant of Potential Concern
CQA	Construction quality assurance
CSM	Conceptual Site Model
C&D	Concrete and debris
EA	EA Engineering, Science, and Technology, Inc.
EL	Excursion Limit
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
f/cc	Fibers per cubic centimeter
FFS	Focused Feasibility Study
HAZWOPER	Hazardous Waste Operations and Emergency Response
HEPA	High-efficiency particulate absorbing
HHRA	Human Health Risk Assessment
Lakemoor	Lakemoor Ventures, LLC
LPM	Liters per minute
MCEF	Mixed cellulose ester filter
MCF	Muddy Creek Formation
mg/kg	Milligrams per kilogram
Mm	Millimeter
MMRA	Mine Remediation and Reclamation Agreement
mph	Miles per hour
MWMP	Meteoric Water Mobility Procedure
NAC	Nevada Administrative Code
NDEP	Nevada Division of Environmental Protection
NESHAP	National Emission Standard for Hazardous Air Pollutants
NFAD	No Further Action Determination

NIOSH	National Institute for Occupational Safety and Health
NRS	Nevada Revised Statutes
OSHA	Occupational Safety and Health Administration
PAH	Polycyclic Aromatic Hydrocarbons
PCM	Phase Contract Microscopy
PCB	Polychlorinated Biphenyl
Phase II SAP	Phase II Sampling and Analysis Plan
PPE	Personal protective equipment
PRG	Preliminary remediation goal
QA	Quality assurance
RACM	Regulated asbestos containing material
RAO	Remedial action objective
RI	Remedial Investigation
ROD	Record of Design
RSL	EPA Regional Screening Level
SAL	Soil action level
Site	Three Kids Mine site
SNHD	Southern Nevada Health District
SPCC	Spill Prevention, Control, and Countermeasure
SRC	Site Related Chemical
SWMA	Solid Waste Management Authority
SWPPP	Stormwater Pollution Prevention Plan
TEM	Transmission Electron Microscopy
TKE	Three Kids Enterprises
TPH	Total Petroleum Hydrocarbons
TSI	Thermal system insulation
TWA	Time weighted average
USGS	United States Geological Survey
°F	Degrees Fahrenheit

REFERENCES

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- Zenitech. 2007. *Phase I Environmental Site Assessment, Three Kids Mine and Mill Site, Clark County, Nevada*. Boulder City (NV).

FIGURES



8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) • (702) 563-0610 (F)

Job # 14-01-156 Date: 9/19/2022

Legend:

- Subject Property
- City of Henderson
- City of Las Vegas
- City of North Las Vegas
- Clark County
- Enterprise
- Nellis AFB
- Paradise
- Spring Valley
- Sunrise Manor
- Whitney
- Winchester

Notes:

1. Imagery Source: Esri World Imagery (Earthstar Geographics)
2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
3. Political Boundary Source: Clark County GIS Management Office.
4. Parcel Boundary Source: Clark County Assessor.
5. Roads Source: Nevada DOT GeoHub.

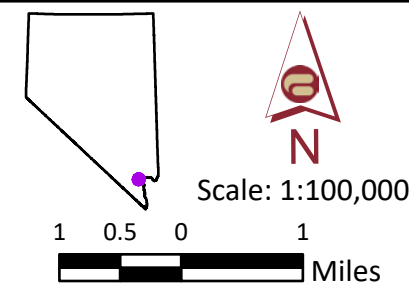
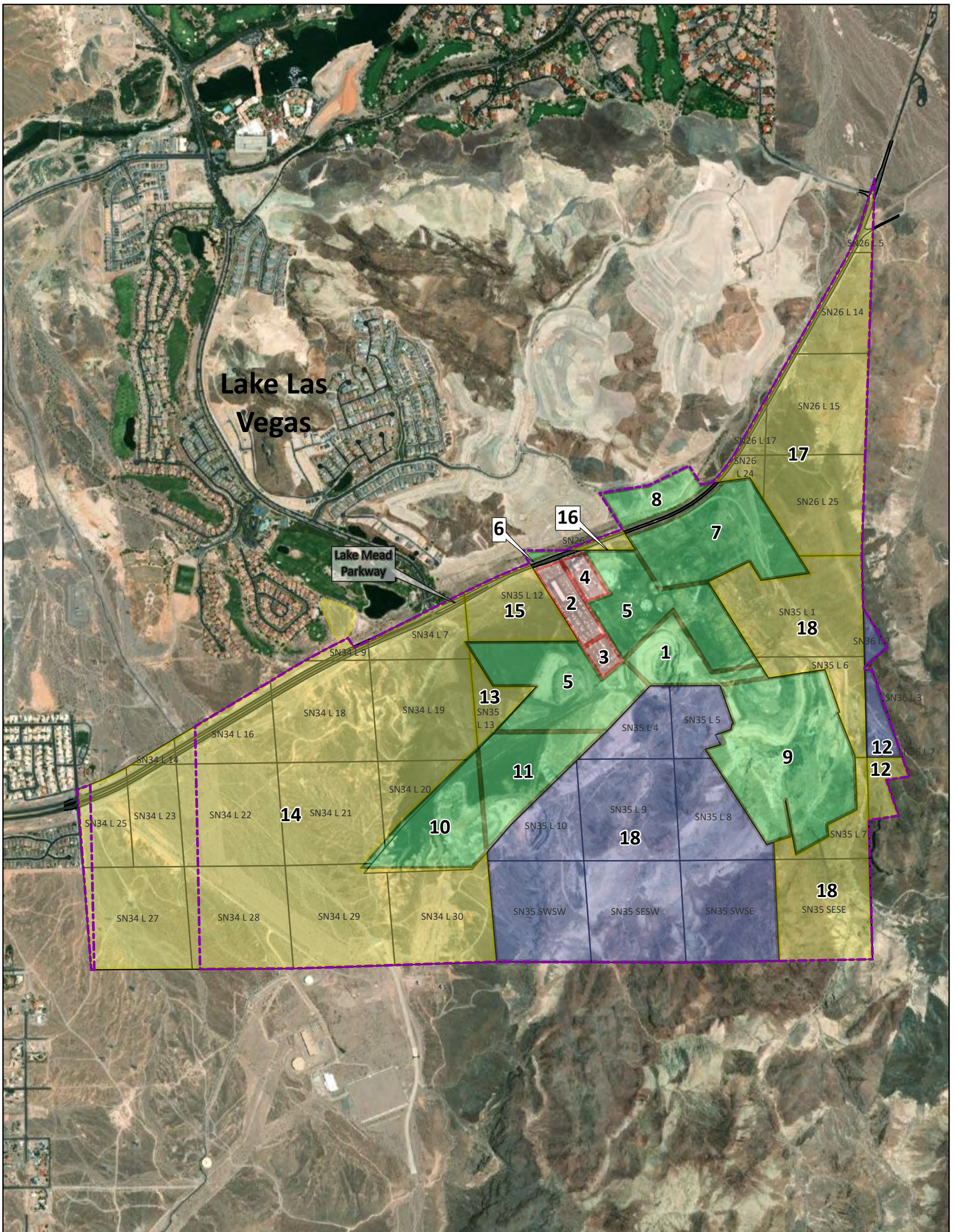


Figure 1-1

Site Location

Three Kids Mine

Designed	
Drawn	JCM
Approved	



Legend:

Project Area	M&R LP and Laker Plaza Inc.
BOR Withdrawn	BLM
Three Kids Inc. et al. and Kings Beach Ltd.	Public Lands Survey System (BLM, 10/29/2020)

Nevada

Scale: 1:15,000

1,000 500 0 1,000 Feet

Figure 1-2

Parcel Map

Three Kids Mine

BROADBENT

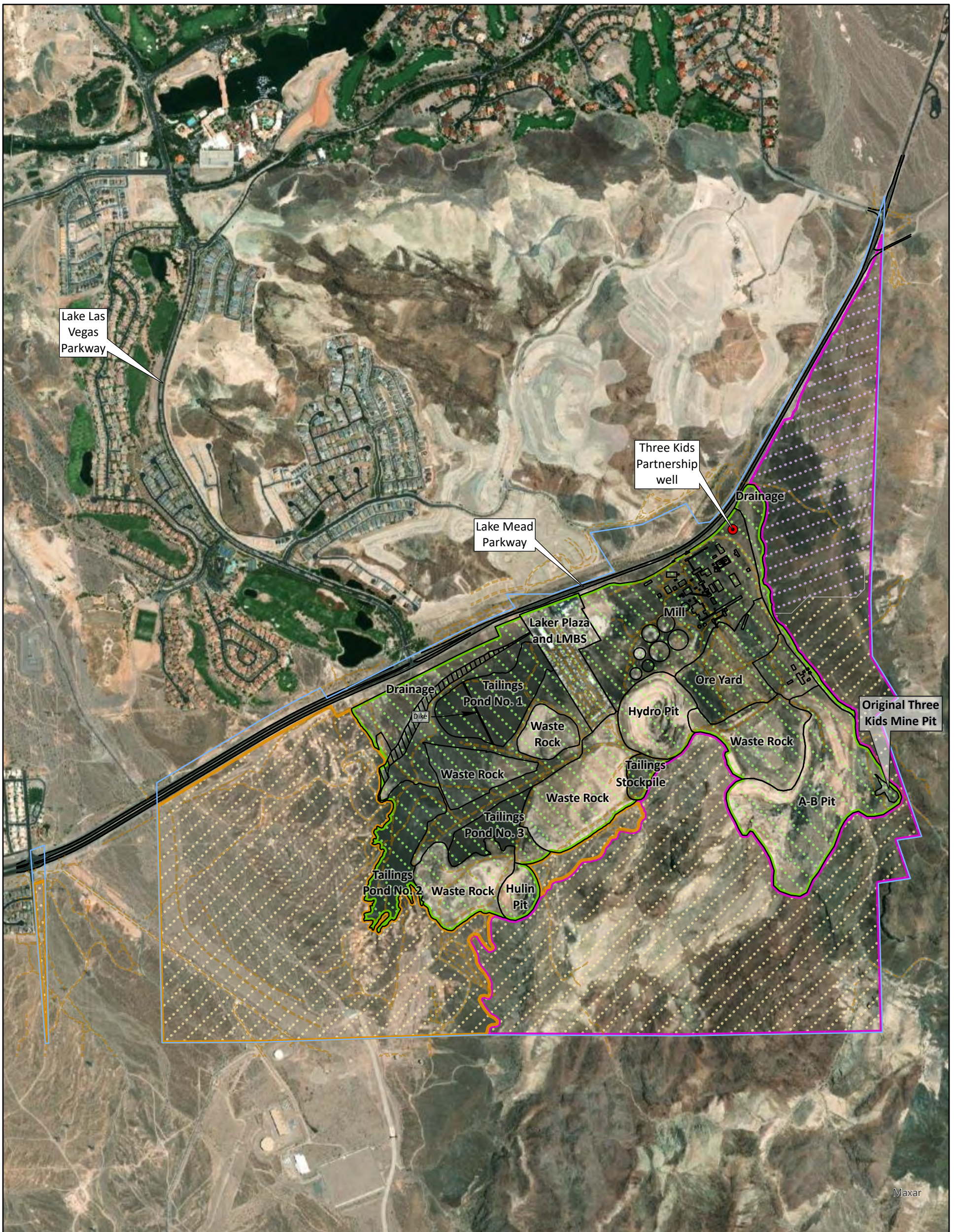
8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) • (702) 563-0610 (F)

Job # 14-01-156 Date: 9/19/2022

Notes:

1. Imagery Source: Esri World Imagery (Maxar)
2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
3. Not a survey.
4. Parcel Source: Clark County Assessor and BLM Administrative Units.

Designed	
Drawn	JCM
Approved	



Legend:

	Site Feature		Sedimentary Units (alluvium and Muddy Creek Formation)
	Three Kids Partnership well		River Mountain Volcanics
	Unimproved Road		Disturbed former mine site
	Tailings Dam		Area evaluated for impacts by windblown sediment, receiving a no further action determination from NDEP
	Project Area		Undisturbed/background
	Mine Site		

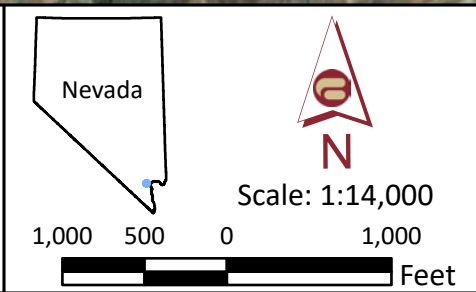


Figure 1-3

Mine Site Layout

Three Kids Mine

BROADBENT

8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) • (702) 563-0610 (F)

Job # 14-01-156 Date: 9/19/2022

Notes:

1. Imagery Source: Esri World Imagery
2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
3. Not a survey. Derived from aerial imagery.


Designed	
Drawn	JCM
Approved	




LEGEND

ACM = Asbestos Containing Material

RACM = Regulated Asbestos Containing Material

 Abate sporadic ACM/RACM debris under OSHA Class IV Work Practices and further evaluate area for additional suspect ACM

 Abate isolated ACM/RACM debris pile under OSHA Class IV Work Practices

 Abate ACM/RACM under OSHA Class I/Class II Work Practices

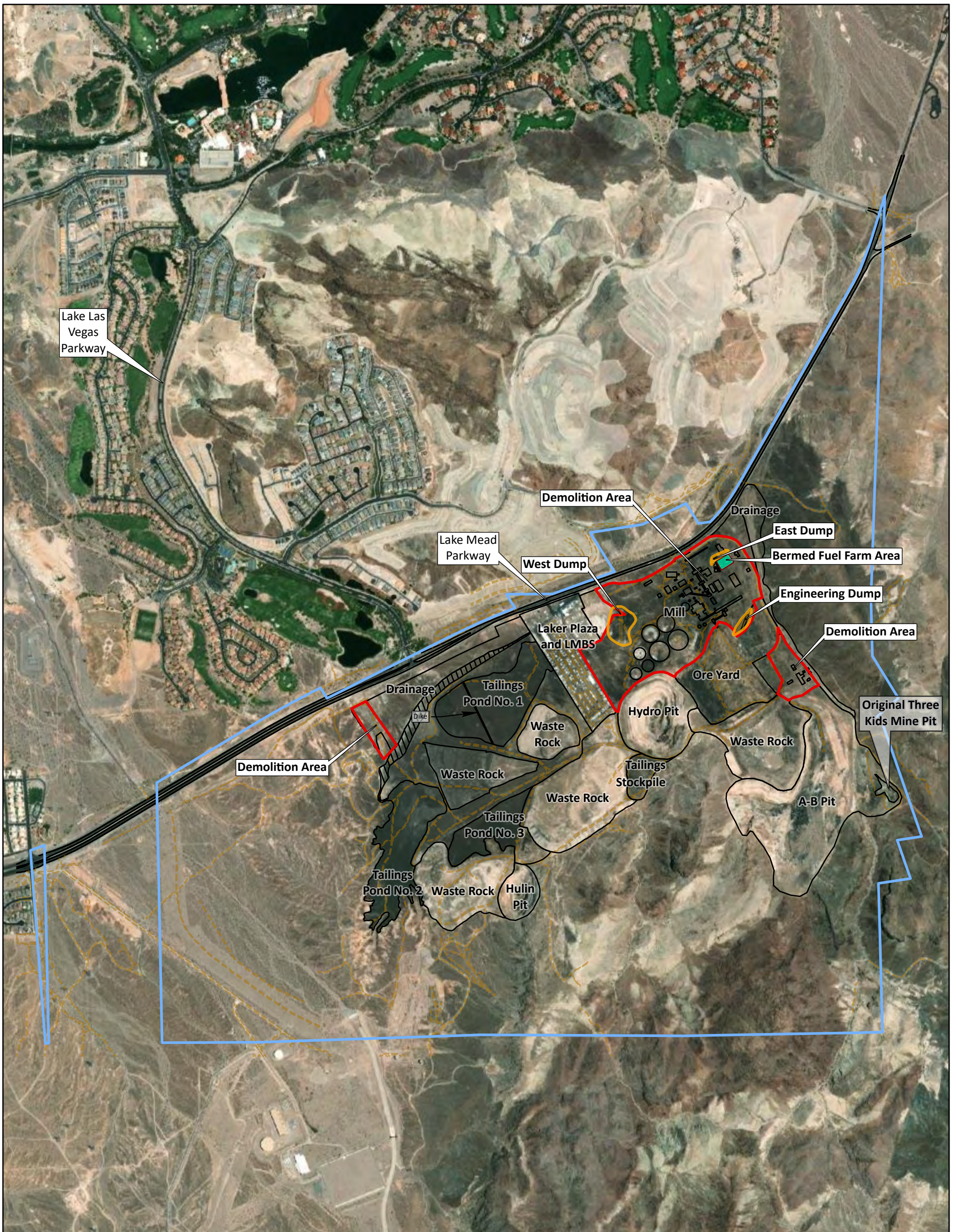


Former Three Kids Mine
Henderson, Nevada

Project No. 14-01-156



Figure No. 2-1
RACM Locations



Legend:

Demolition Area	Mill Dump
Site Feature	Bermed Fuel Farm Area
Unimproved Road	Project Area
Tailings Dam	

Nevada

Scale: 1:14,000

1,000 500 0 1,000 Feet

Figure 5-1

Demolition Areas

Three Kids Mine

BROADBENT

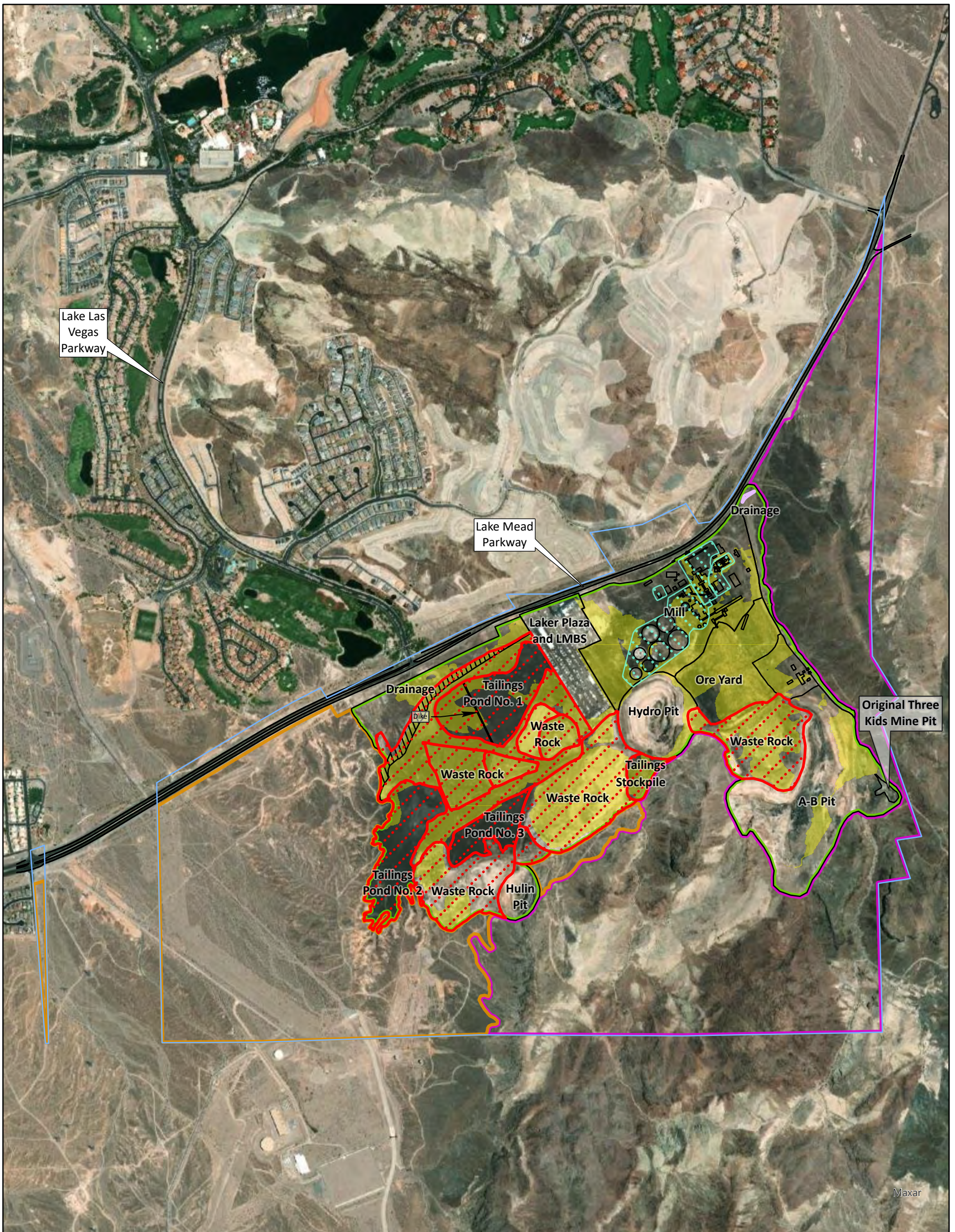
8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) * (702) 563-0610 (F)

Job # 14-01-156 Date: 9/19/2022

Notes:

1. Imagery Source: Esri World Imagery (Maxar)
2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
3. Not a survey. Derived from aerial imagery.

Designed	
Drawn	JCM
Approved	



Legend:

Tailings and waste rock excavation	Site Feature
Excavation to facilitate final grade elevation	Tailings Dam
Approximate excavation area for processing solution release in northeast drainage	Project Area
PAH-impacted soil excavation	Mine Site
	Sedimentary Units (alluvium and Muddy Creek Formation)
	River Mountain Volcanics

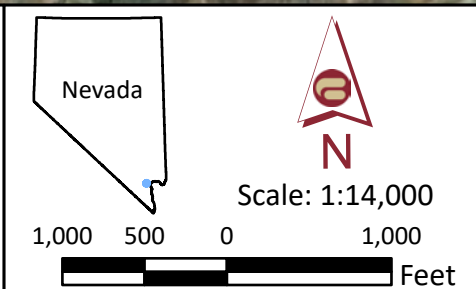


Figure 5-2

Excavation Areas

Three Kids Mine

BROADBENT

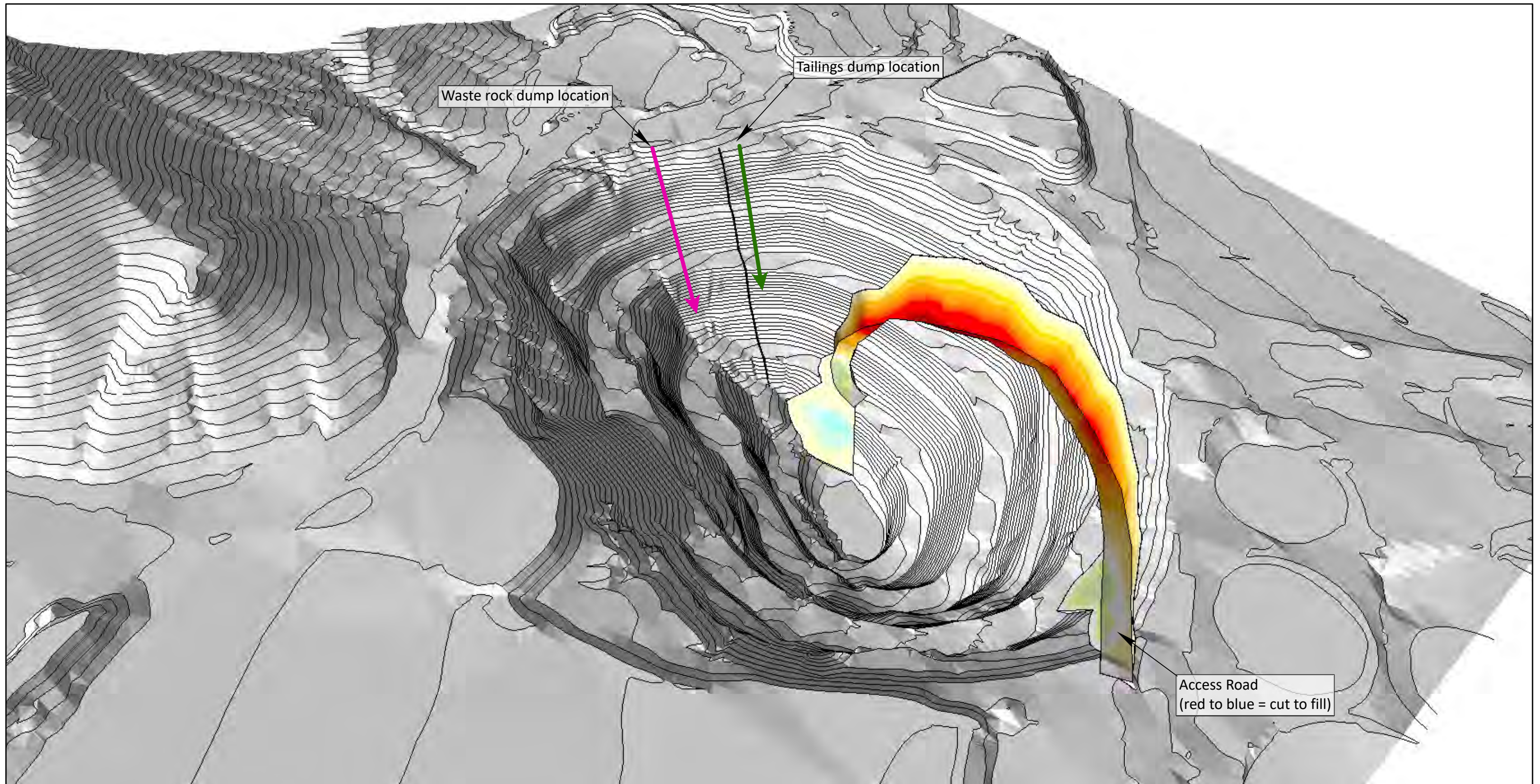
8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) • (702) 563-0610 (F)

Job # 14-01-156 Date: 9/19/2022

Notes:

1. Imagery Source: Esri World Imagery
2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
3. Not a survey. Derived from aerial imagery.



Designed	
Drawn	JCM
Approved	



8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) * (702) 563-0610 (F)

Job # 14-01-156 Date: 8/25/2022

Legend:

-  Tailings Dump Slope
-  Waste Rock Dump Slope

Notes:

1. Preliminary design of access road to be constructed at approximately 25% slope.

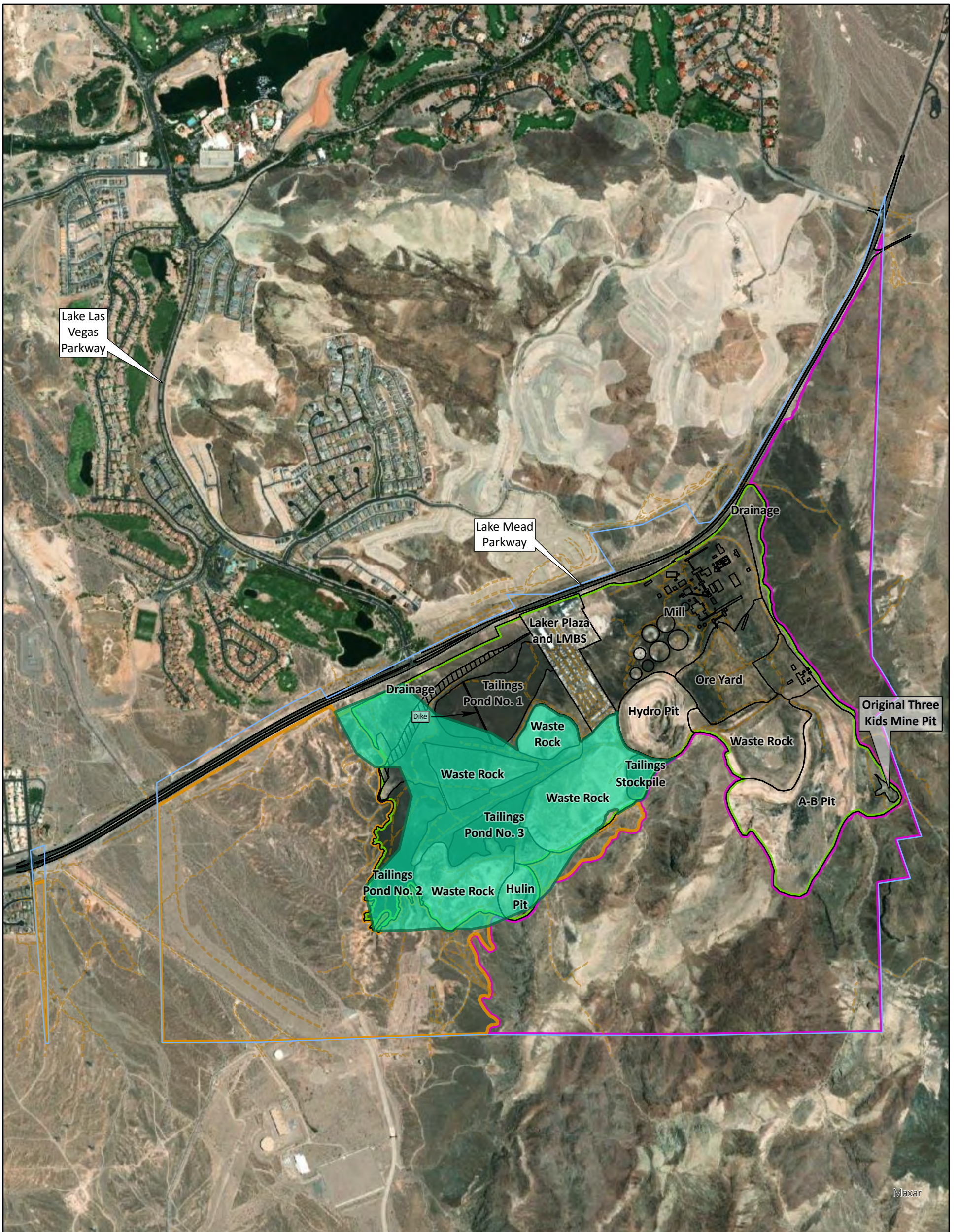


Figure 5-3

Placement of Excavated Material in Hydro Pit

Three Kids Mine

Designed	
Drawn	JCM
Approved	



Legend:

Central Valley Area	Project Area
Site Feature	Mine Site
Unimproved Road	Sedimentary Units (alluvium and Muddy Creek Formation)
Tailings Dam	River Mountain Volcanics

Nevada

Scale: 1:14,000

1,000 500 0 1,000 Feet

Figure 5-4

Central Valley Area

Three Kids Mine

BROADBENT

8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) • (702) 563-0610 (F)

Job # 14-01-156 Date: 9/20/2022

Notes:

1. Imagery Source: Esri World Imagery
2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
3. Not a survey. Derived from aerial imagery.

Designed	
Drawn	JCM
Approved	



Legend:

- Project Area

Stratum

- Sedimentary units (Muddy Creek Formation and alluvium)
- River Mountain volcanics
- Downwind River Mountain volcanics

Nevada

Scale: 1:12,000

1,000 500 0 1,000 Feet

Figure 5-5

Borrow Source Locations

BROADBENT

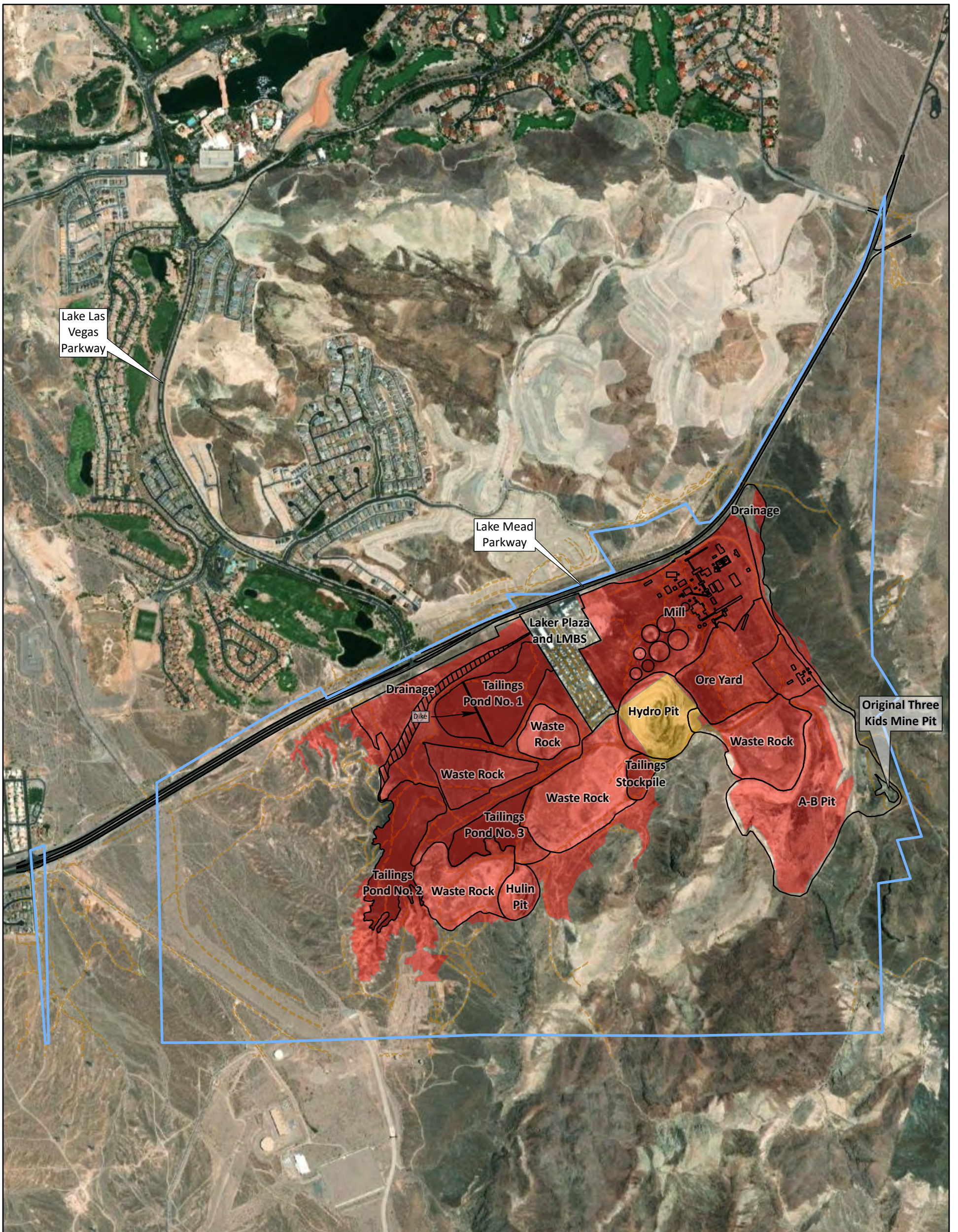
8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) • (702) 563-0610 (F)

Job # 14-01-156 Date: 9/19/2022

Notes:

1. Imagery Source: Esri World Imagery
2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
3. Not a survey.

Three Kids Mine	
Designed	
Drawn	JCM
Approved	



- Legend:
- Ten-foot clean cover
 - Liner plus two-foot clean cover
 - Site Feature
 - Unimproved Road
 - Tailings Dam
 - Project Area

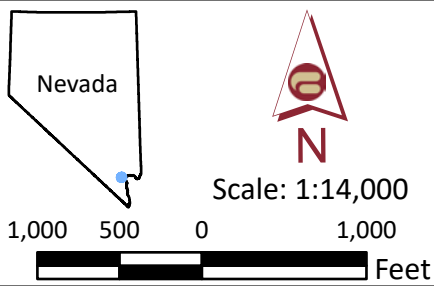


Figure 5-6

Location of Ten-Foot Cover

Three Kids Mine








Designed	
Drawn	JCM
Approved	

BROADBENT
 8 West Pacific Avenue
 Henderson, NV, 89015
 (702) 563-0600 (P) * (702) 563-0610 (F)
 Job # 14-01-156 Date: 9/19/2022


- Notes:
1. Imagery Source: Esri World Imagery (Maxar)
 2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
 3. Not a survey. Derived from aerial imagery.



Legend:

 Stormwater Basin	 Sedimentary Units (alluvium and Muddy Creek Formation)
 Dissipation structure, design to be determined	 River Mountain Volcanics
 Project Area	 Subgrade Lines
 Mine Site	

Nevada



Scale: 1:10,000


500 250 0 500

Feet

Figure 5-7

Stormwater Basins

Three Kids Mine



BROADBENT

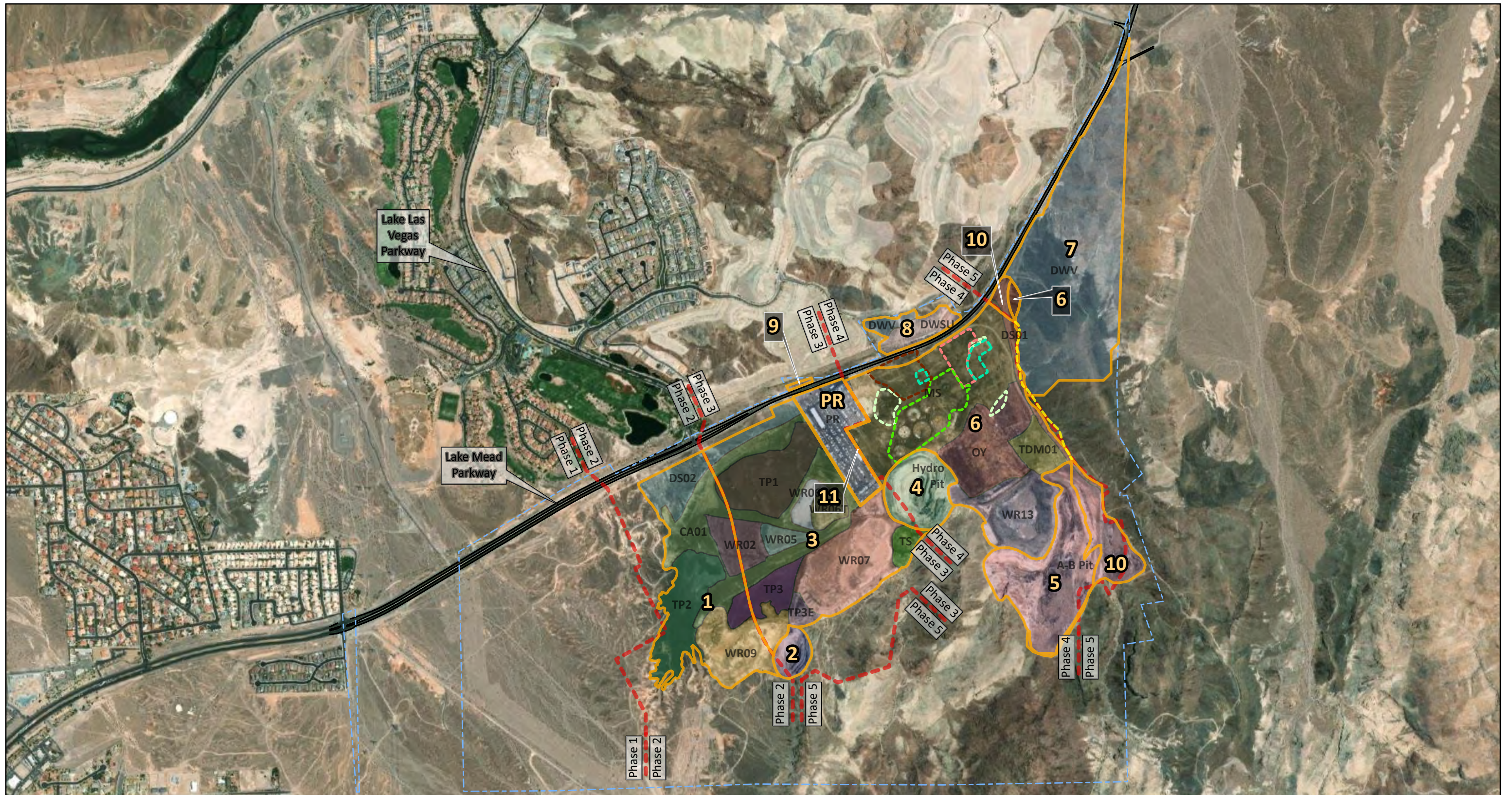
8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) • (702) 563-0610 (F)

Job # 14-01-156 Date: 9/19/2022

Notes:

1. Imagery Source: Esri World Imagery
2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
3. Not a survey. Derived from aerial imagery.

Designed	
Drawn	JCM
Approved	



8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) * (702) 563-0610 (F)

Job # 14-01-156 Date: 9/19/2022

Legend:

Closure Unit	Thermal processing area	CA01	OY	WR02
Approx. location of stormwater infrastructure connecting parts of unit 10	Drainages	DS01	PR	WR05
Phase Boundary	Mill dumps	DS02	TDM01	WR06B
Flootation circuit	Fuel farm	DWSU	TP1	WR06T
	Project Area	DWV	TP2	WR07
	2021 IU	Hulin Pit	TP3	WR09
	A-B Pit	Hydro Pit	TP3E	WR13
		MS	TS	

Notes:

1. Imagery Source: Esri World Imagery (Maxar)
2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
3. Not a survey.
4. Closure Unit 11 includes a ten-foot buffer around the Laker Plaza/Lake Mead Boat Storage properties.
5. Investigative Units are abbreviated as: A-B Pit = A-B Pit, CA01 = Compacted Area 01, DS## = Disturbed Soils ##, DWSU = Downwind sedimentary units, DWV = Downwind volcanics, Hulin Pit = Hulin Pit, Hydro Pit = Hydro Pit, MS = Mill Site, OY = Ore Yard, PR = Laker Plaza and Lake Mead Boat Storage, TDM01 = Scale house, TP # = Tailings Pond #, TS = Tailings Stockpile, WR## = Overburden ##.

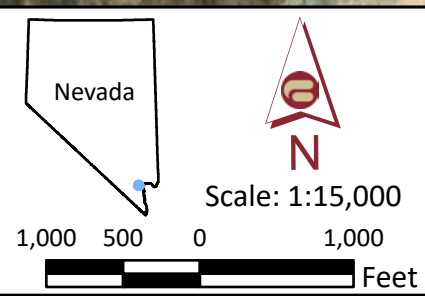


Figure 8-1	
Closure Units	
Three Kids Mine	
Designed	
Drawn	JCM
Approved	

APPENDICES

APPENDIX A

Three Kids Mine Remediation and Reclamation Act

PUBLIC LAW 113-135—JULY 25, 2014

**THREE KIDS MINE REMEDIATION AND
RECLAMATION ACT**

Public Law 113–135
113th Congress

An Act

July 25, 2014
[H.R. 697]

To provide for the conveyance of certain Federal land in Clark County, Nevada, for the environmental remediation and reclamation of the Three Kids Mine Project Site, and for other purposes.

Three Kids Mine
Remediation and
Reclamation Act.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Three Kids Mine Remediation and Reclamation Act”.

SEC. 2. DEFINITIONS.

In this Act:

(1) **FEDERAL LAND.**—The term “Federal land” means the approximately 948 acres of Bureau of Reclamation and Bureau of Land Management land within the Three Kids Mine Project Site, as depicted on the map.

(2) **HAZARDOUS SUBSTANCE; POLLUTANT OR CONTAMINANT; REMEDY.**—The terms “hazardous substance”, “pollutant or contaminant”, and “remedy” have the meanings given those terms in section 101 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601).

(3) **HENDERSON REDEVELOPMENT AGENCY.**—The term “Henderson Redevelopment Agency” means the redevelopment agency of the City of Henderson, Nevada, established and authorized to transact business and exercise the powers of the agency in accordance with the Nevada Community Redevelopment Law (Nev. Rev. Stat. 279.382 to 279.685).

(4) **MAP.**—The term “map” means the map entitled “Three Kids Mine Project Area” and dated February 6, 2012.

(5) **RESPONSIBLE PARTY.**—The term “Responsible Party” means the private sector entity designated by the Henderson Redevelopment Agency, and approved by the State of Nevada, to complete the assessment, remediation, reclamation and redevelopment of the Three Kids Mine Project Site).

(6) **SECRETARY.**—The term “Secretary” means the Secretary of the Interior.

(7) **STATE.**—The term “State” means the State of Nevada.

(8) **THREE KIDS MINE PROJECT SITE.**—The term “Three Kids Mine Project Site” means the approximately 1,262 acres of land that is—

(A) comprised of—

(i) the Federal land; and

- (ii) the approximately 314 acres of adjacent non-Federal land; and
- (B) depicted as the “Three Kids Mine Project Site” on the map.

SEC. 3. LAND CONVEYANCE.

(a) **IN GENERAL.**—Notwithstanding sections 202 and 203 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1712, 1713), not later than 90 days after the date on which the Secretary determines that the conditions described in subsection (b) have been met, and subject to valid existing rights and applicable law, the Secretary shall convey to the Henderson Redevelopment Agency all right, title, and interest of the United States in and to the Federal land.

(b) **CONDITIONS.**—

(1) **APPRAISAL; FAIR MARKET VALUE.**—

(A) **IN GENERAL.**—As consideration for the conveyance under subsection (a), the Henderson Redevelopment Agency shall pay the fair market value of the Federal land, if any, as determined under subparagraph (B) and as adjusted under subparagraph (F).

(B) **APPRAISAL.**—The Secretary shall determine the fair market value of the Federal land based on an appraisal—

(i) that is conducted in accordance with nationally recognized appraisal standards, including—

(I) the Uniform Appraisal Standards for Federal Land Acquisitions; and

(II) the Uniform Standards of Professional Appraisal Practice; and

(ii) that does not take into account any existing contamination associated with historical mining on the Federal land.

(C) **REMEDICATION AND RECLAMATION COSTS.**—

(i) **IN GENERAL.**—The Secretary shall prepare a reasonable estimate of the costs to assess, remediate, and reclaim the Three Kids Mine Project Site.

(ii) **CONSIDERATIONS.**—The estimate prepared under clause (i) shall be—

(I) based on the results of a comprehensive Phase II environmental site assessment of the Three Kids Mine Project Site prepared by the Henderson Redevelopment Agency or a Responsible Party that has been approved by the State; and

(II) prepared in accordance with the current version of the ASTM International Standard E–2137–06 (2011) entitled “Standard Guide for Estimating Monetary Costs and Liabilities for Environmental Matters”.

(iii) **ASSESSMENT REQUIREMENTS.**—The Phase II environmental site assessment prepared under clause (ii)(I) shall, without limiting any additional requirements that may be required by the State, be conducted in accordance with the procedures of—

(I) the most recent version of ASTM International Standard E–1527–05 entitled “Standard Practice for Environmental Site Assessments:

Deadlines.
Determinations.

Cost estimate.

Phase I Environmental Site Assessment Process”;
and

(II) the most recent version of ASTM International Standard E-1903-11 entitled “Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process”.

(iv) REVIEW OF CERTAIN INFORMATION.—

(I) IN GENERAL.—The Secretary shall review and consider cost information proffered by the Henderson Redevelopment Agency, the Responsible Party, and the State in the preparation of the estimate under this subparagraph.

(II) FINAL DETERMINATION.—If there is a disagreement among the Secretary, Henderson Redevelopment Agency, and the State over the reasonable estimate of costs under this subparagraph, the parties shall jointly select 1 or more experts to assist the Secretary in making the final estimate of the costs.

(D) DEADLINE.—Not later than 30 days after the date of enactment of this Act, the Secretary shall begin the appraisal and cost estimates under subparagraphs (B) and (C), respectively.

(E) APPRAISAL COSTS.—The Henderson Redevelopment Agency or the Responsible Party shall reimburse the Secretary for the costs incurred in performing the appraisal under subparagraph (B).

(F) ADJUSTMENT.—The Secretary shall administratively adjust the fair market value of the Federal land, as determined under subparagraph (B), based on the estimate of remediation, and reclamation costs, as determined under subparagraph (C).

(2) MINE REMEDIATION AND RECLAMATION AGREEMENT EXECUTED.—

(A) IN GENERAL.—The conveyance under subsection (a) shall be contingent on—

Notification.

(i) the Secretary receiving from the State written notification that a mine remediation and reclamation agreement has been executed in accordance with subparagraph (B); and

(ii) the Secretary concurring, not later than 30 days after the date of receipt of the written notification under clause (i), that the requirements under subparagraph (B) have been met.

(B) REQUIREMENTS.—The mine remediation and reclamation agreement required under subparagraph (A) shall be an enforceable consent order or agreement between the State and the Responsible Party who will be obligated to perform under the consent order or agreement administered by the State that—

(i) obligates the Responsible Party to perform, after the conveyance of the Federal land under this Act, the remediation and reclamation work at the Three Kids Mine Project Site necessary to ensure all remedial actions necessary to protect human health and the environment with respect to any hazardous substances,

pollutant, or contaminant will be taken, in accordance with all Federal, State, and local requirements; and
 (ii) contains provisions determined to be necessary by the State and the Henderson Redevelopment Agency, including financial assurance provisions to ensure the completion of the remedy.

(3) NOTIFICATION FROM AGENCY.—As a condition of the conveyance under subsection (a), not later than 90 days after the date of execution of the mine remediation and reclamation agreement required under paragraph (2), the Secretary shall accept written notification from the Henderson Redevelopment Agency that the Henderson Redevelopment Agency is prepared to accept conveyance of the Federal land under subsection (a).

SEC. 4. WITHDRAWAL.

(a) IN GENERAL.—Subject to valid existing rights, for the 10-year period beginning on the earlier of the date of enactment of this Act or the date of the conveyance required by this Act, the Federal land is withdrawn from all forms of—

Effective date.
Time period.

(1) entry, appropriation, operation, or disposal under the public land laws;

(2) location, entry, and patent under the mining laws; and

(3) disposition under the mineral leasing, mineral materials, and the geothermal leasing laws.

(b) EXISTING RECLAMATION WITHDRAWALS.—Subject to valid existing rights, any withdrawal under the public land laws that includes all or any portion of the Federal land for which the Bureau of Reclamation has determined that the Bureau of Reclamation has no further need under applicable law is relinquished and revoked solely to the extent necessary—

(1) to exclude from the withdrawal the property that is no longer needed; and

(2) to allow for the immediate conveyance of the Federal land as required under this Act.

(c) EXISTING RECLAMATION PROJECT AND PERMITTED FACILITIES.—Except as provided in subsection (a), nothing in this Act diminishes, hinders, or interferes with the exclusive and perpetual use by the existing rights holders for the operation, maintenance, and improvement of water conveyance infrastructure and facilities, including all necessary ingress and egress, situated on the Federal land that were constructed or permitted by the Bureau of Reclamation before the effective date of this Act.

SEC. 5. ACEC BOUNDARY ADJUSTMENT.

Notwithstanding section 203 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1713), the boundary of the River Mountains Area of Critical Environmental Concern (NVN 76884) is adjusted to exclude any portion of the Three Kids Mine Project Site consistent with the map.

SEC. 6. RESPONSIBILITIES OF THE PARTIES.

(a) RESPONSIBILITY OF PARTIES TO MINE REMEDIATION AND RECLAMATION AGREEMENT.—On completion of the conveyance under section 3, the responsibility for complying with the mine remediation and reclamation agreement executed under section 3(b)(2) shall apply to the Responsible Party and the State of Nevada.

Applicability.

(b) SAVINGS PROVISION.—If the conveyance under this Act has occurred, but the terms of the agreement executed under section 3(b)(2) have not been met, nothing in this Act—

(1) affects the responsibility of the Secretary to take any additional response action necessary to protect public health and the environment from a release or the threat of a release of a hazardous substance, pollutant, or contaminant; or

(2) unless otherwise expressly provided, modifies, limits, or otherwise affects—

(A) the application of, or obligation to comply with, any law, including any environmental or public health law; or

(B) the authority of the United States to enforce compliance with the requirements of any law or the agreement executed under section 3(b)(2).

SEC. 7. SOUTHERN NEVADA PUBLIC LANDS MANAGEMENT ACT.

Southern Nevada Public Land Management Act of 1998 (31 U.S.C. 6901 note; Public Law 105–263) shall not apply to land conveyed under this Act.

Approved July 25, 2014.

LEGISLATIVE HISTORY—H.R. 697:

HOUSE REPORTS: No. 113–137 (Comm. on Natural Resources).

SENATE REPORTS: No. 113–147 (Comm. on Energy and Natural Resources).

CONGRESSIONAL RECORD:

Vol. 159 (2013): July 22, considered and passed House.

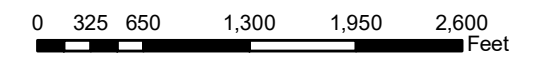
Vol. 160 (2014): July 9, considered and passed Senate.



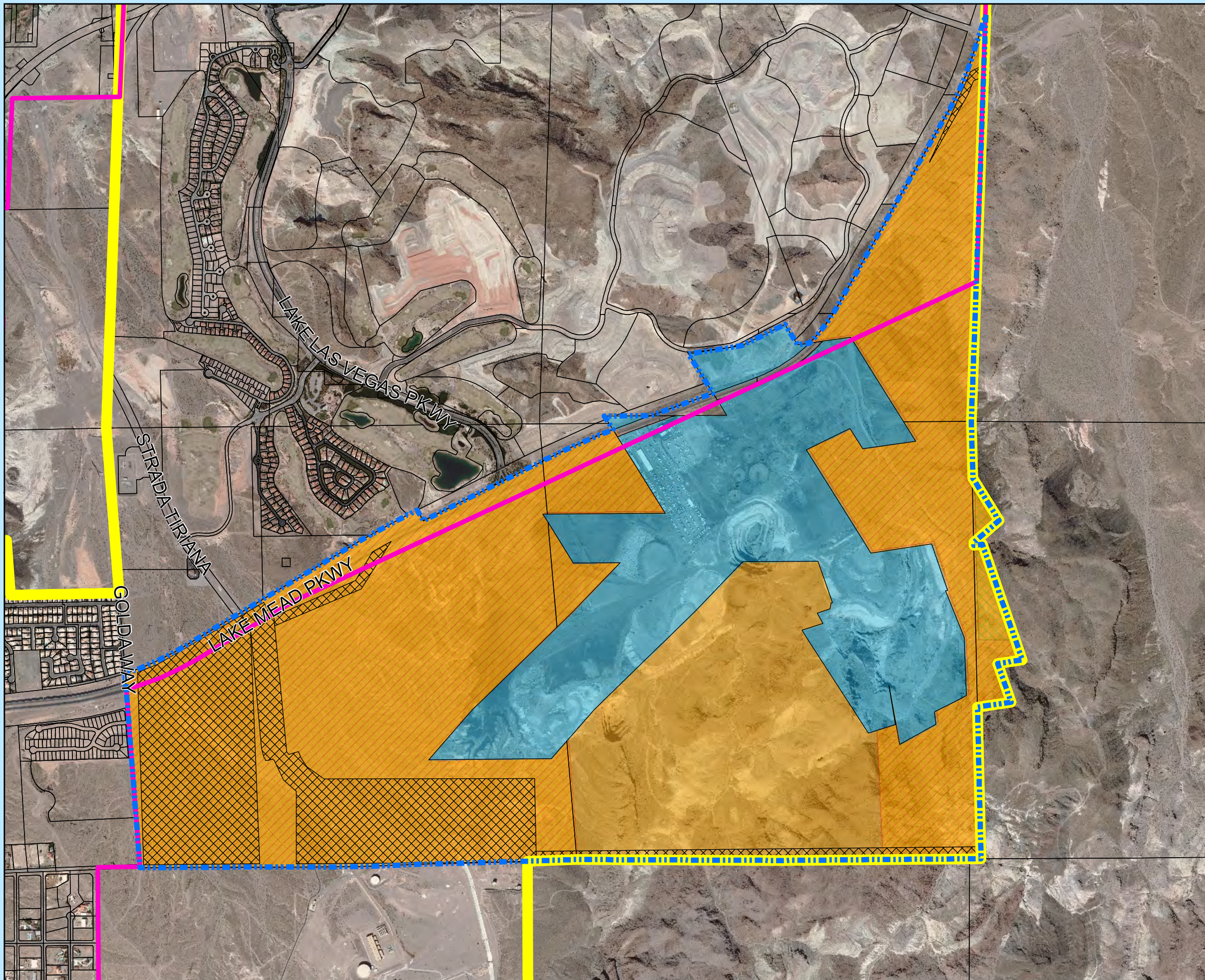
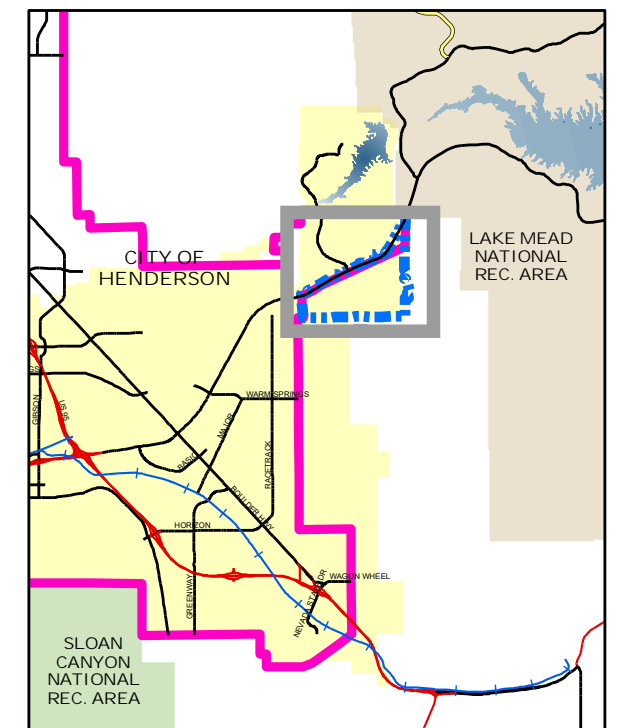


Three Kids Mine Project Site Map

- Three Kids Mine Project Site
- SNPLMA Disposal Boundary
- City of Henderson Municipal Boundary
- Permanent Easements
- Three Kids Mine Private Patented Property
- Area of Critical Environmental Concern (approx. 9.5 acres)
- Bureau of Reclamation Withdrawn Public Lands
- BLM Administered Public Lands



NOTE: Map intended to be printed on Tabloid (11"x17") size paper from the original document. Map scale will not be accurate when printed from the PDF and enlarged or reduced.



Geographic Information Systems
Community Development



map created: 17 December 2007
map revised: 28 April 2011

APPENDIX B

Responses to Comments

APPENDIX B

Responses to NDEP Comments made on August 20, 2022

1. **General Comment #1** – Several sections of the CAP indicate that placement of ACM and C&D waste in the pits as part of the preferred remedy (Alternative S-3) will require a Class III landfill waiver. The CAP should indicate that approval of the waiver is still pending, and that Alternative S-4 (offsite disposal of ACM and C&D waste) will be implemented as the preferred remedy if the Class III landfill waiver is not approved.

The approach for management of solid waste at the Site has changed since submittal of the first version of the CAP. Revision 1 has been updated to reflect the current approach, which includes the following: 1) solid waste including ACM that is currently in any of the deep pits will remain in the pits, 2) ACM and solid waste from the surface of the mine site will be consolidated and disposed offsite, and 3) concrete will be used as fill deep in the pits. This approach was outlined in a letter to the Southern Nevada Health District (SNHD) on August 23, 2022. SNHD stated their approval of the approach in an email dated August 29, 2022.

2. **General Comment #2** – The CAP should distinguish between the Southern Nevada Health District (SNHD) and the Solid Waste Management Authority (SWMA), and should clarify which of the two is expected to approve the Class III landfill waiver (Section 1.2 suggests SNHD, while Section 4.2 and Appendix C suggest SWMA). Additionally, reporting and notification requirements and other stipulation from SWMA are discussed in Appendix C. Anticipated requirements from SNHD should be included in Appendix C as well.

SNHD is the SWMA for the Site. The revised CAP was edited to clarify this point, but as stated in the response to comment #1, the approach to solid waste management at the Site has changed, and Lakemoor does not anticipate applying for a waiver.

3. **General Comment #3** – Throughout the CAP, there is reference to meeting design requirements or specifications, and in the case of the Hydro Pit stormwater basin, the design is ongoing. However, the schedule in Appendix D does not show any design phase. The project schedule provided under separate cover does show a design phase. Please provide more detail on the design and the design schedule.

Specifications for the Hydro Pit liner will be included in the Remedial Design. The Hydro Pit stormwater basin design will be completed during Phase 4 (shown on Figure 8-1), the development phase area in which the stormwater infrastructure is located.

4. **General Comment #4** – State of Nevada mine reclamation requirements are applicable to this project. The CAP should comply with the requirements for a mine reclamation plan at NAC 519A.270. Requirements that are not currently addressed include but are not limited to: the technical criteria used to determine the final gradient and stability of slopes created or affected by the mining operation, the kinds of access roads and their estimated width and length which will be built and the manner in which they will be reclaimed, and a description of the best management practices employed during operation and reclamation to control erosion and minimize the transport and delivery

of sediment to surface water. It is recognized that these topics will likely be covered in a corrective action design, but the design phase is not in the current schedule.

Nevada mine reclamation requirements as outlined in NAC 519A.270 are not applicable to the Site because mining operations ceased prior to January 1, 1981. Rather, these regulations are “to be considered” as listed in Table 2-1 of the Focused Feasibility Study – Soil and Mine Wastes, Revision 2, which was approved by NDEP on July 21, 2022.

5. **General Comment #5** – The CAP should provide more specifics on: the proposed use and management of subcontractors; a detailed cost estimate broken down by task and subtask, including subcontractor cost breakdown using a Work Breakdown Structure; and a drawing register listing all drawings and specifications that will be prepared. It is recognized that these topics will likely be covered in a corrective action design, but the design phase is not in the current schedule in the CAP.

Roles and responsibilities are listed in Section 1.3. The CAP and Remedial Design will not contain cost estimates. Instead, a cost estimate is provided in EA’s Basis of Estimate for Site Reclamation dated June 22, 2022. Drawings and specifications will be presented in the forthcoming Remedial Design, anticipated submittal in November 2022.

6. **General Comment #6** – There are a number of specifications cited throughout the CAP and likely more to come in the design. Will a Construction Quality Assurance Plan be prepared that details the systems and controls that will be established to ensure that the construction will meet the design criteria, plans, and specifications? If so, will the document be available review?

Additional details and specifications will be provided in the forthcoming Remedial Design (anticipated November 2022).

7. **Section 1.0 Introduction** – It would be helpful for the second paragraph to also discuss the Record of Decision and how it relates to the Mine Remediation and Reclamation Agreement.

The second paragraph in Section 1.0 was edited to include the ROD.

8. **Section 1.1 Site Location and Description** – The second paragraph defines the size of the disturbed, impacted, and undisturbed areas. Please superimpose each of these areas on Figure 1-2 or include an additional figure to identify them.

The disturbed former mine site, the area evaluated for potential impacts from windblown sediments (received a no further action determination from NDEP), and the undisturbed/background areas are depicted in Figure 1-3.

9. **Section 1.3 Roles and Responsibilities** – The first paragraph states that “the Bureau of Land Management (BLM) and City of Henderson also have a role in review of environmental documents in support of federal land conveyance as stipulated in the Act, in which the federal land is initially transferred to the City of Henderson Redevelopment Agency.” What is the role of BLM and the City of Henderson Redevelopment Agency after land conveyance?

The BLM will not have a role in environmental work at the Site after land conveyance. The City of Henderson will be involved in permitting.

10. **Section 5.6 Placement of Excavated Materials** – Please include a table identifying the proposed disposal location(s) (e.g., Hydro Pit, Hulin Pit, etc.) for each type of waste (e.g., ACM, tailings, overburden, etc.).

A table indicating the designated disposal area for each type of waste was added to Section 5.6.

11. **Section 1.2.1 Leading Up to the Three Kids Mine Remediation and Reclamation Act** – The fourth bullet point states that the Background Soil Report was “approved by NDEP on March 24, 2022.” The Background Soil Report was approved by NDEP on April 12, 2022. Please correct this discrepancy.

The referenced text in Section 1.2.1 was corrected.

12. **Section 1.2.1 Leading Up to the Three Kids Mine Remediation and Reclamation Act** – Please update the sixth bullet point to indicate that the Focused Feasibility Study was approved by NDEP on July 21, 2022.

The referenced text in Section 1.2.1 was updated. Additional updates to document versions, submittals, and approvals were included in Section 1.2.1.

13. **Section 2.0 Nature and Extent of Contamination** – If spatial modeling for post cover verification is determined to be applicable and is used, the CAP should include a description discussing how it is intended to support a post closure in place verification effort.

Spatial modeling for post cover verification will not be performed. Instead, topographic maps constructed from drone surveys will be used to demonstrate a minimum of 10 feet of clean cover.

14. **Section 2.0 Nature and Extent of Contamination** –
- Please indicate in the fifth paragraph the volume of contaminated soil that will be removed from the site.
 - Please indicate in the sixth paragraph the volume of native soil that will be removed from the site to accommodate placement of 10 feet of clean cover.

- Soil described in the fifth paragraph in Section 2.0 will not be removed from the Site. As stated in Section 5.5.3, it will be excavated and placed in the Hydro Pit.
- Native soil beneath tailings and waste rock, as described in the sixth paragraph, will not be removed from the site nor will it be excavated. Instead, it will be left in place and capped with 10 feet of clean cover.

15. **Section 2.0 Nature and Extent of Contamination** – The seventh paragraph states that “this CAP specifies consolidation of mine wastes in the former pits and low areas onsite, followed by placement of 10 feet of clean cover.” Which “low areas onsite” is this statement referring to? Is it referring to the Central Valley Area defined in Section 5.6.4? Please clarify.

“Low areas onsite” refers to the central valley area, and Section 2.0 was edited to clarify.

16. **Section 2.1 Summary of Asbestos Work Performed** – This section states that “Figure 2-1 depicts the boundaries of the sixteen sample areas that were established as documented in the Asbestos Survey Report” and that “Figure 2-1 depicts the approximate location of the RACM identified at the Site.” However, Figure 2-1 is not included in the CAP. Please include Figure 2-1 in the CAP.

Figure 2-1 is included in the revised CAP.

17. **Section 3.2 Preliminary Remediation Goals** – The first paragraph indicates that proposed site PRGs are RSLs “or BTVs calculated for the sedimentary units (alluvium and MCF) to the west of the Site.” Why are PRGs based on Muddy Creek Formation BTVs instead of River Mountain Background BTVs? Please provide the rationale for this decision.

PRGs are based on the BTVs calculated for the alluvium and Muddy Creek Formation because these two geologic units underlie the majority of the former mine site as depicted on Figure 11 in the RI Report (Broadbent, 2022d). The River Mountain volcanics are separated from the Site to the south and east via faulting.

18. **Section 3.3. Preferred Remedy** – The first bullet point identifies “excavation and removal of tailings and waste rock” as a main component of the remedy. Figures 9A, 9B, and 9C of the RI Report suggest a significant areal extent of soil COC contamination exceeding BTVs or RSLs, including some on the periphery that may not be associated with tailings and waste rock. Will these locations be addressed? BLM is concerned that “Hot Spots” of elevated contamination may not get excavated and placed in a pit, or may not be protected by the 10 foot cover.

The disturbed former mine site, including areas such as the mill site and drainages that do not contain waste rock, will receive the 10-foot cover. Locations to receive the 10-foot cover are depicted in Figure 5-6.

19. **Section 3.3. Preferred Remedy** – The fifth bullet point identifies “placement of a 10-foot clean cover over the contaminated materials” as a main component of the remedy. Please clarify if the 10-foot cover applies to areas of the site to be redeveloped as well as the various pits that receive waste.

See response to comment #18.

20. **Section 3.3. Preferred Remedy** – The sixth bullet point identifies “enactment of an environmental covenant on excavation of soil deeper than 10 feet.” How will the environmental covenant on excavation address areas that do not receive the full 10 ft cover, if this condition is expected for the redeveloped land?

An environmental covenant will be enacted for the Site, whether there is 10 feet of clean cover or less than 10 feet of clean cover. The environmental covenant will trigger a Soil Management Plan for excavations on soil beyond a specified depth (in most cases, 10 feet). Redeveloped land within the disturbed former mine site will receive the 10-foot cover (see Figure 5-6). Two areas of the redeveloped land may receive less than 10 feet of clean cover: Closure Units 10 and 11. Environmental covenants for Closure Unit 10 (utility corridor) and Closure Unit 11 (ten-foot transition zone between Laker Plaza and Lake Mead Boat Storage) will be modified as needed to reflect the fact that there may be less than 10 feet of clean cover in those areas. If there is less than 10 feet of clean cover in a given area, the environmental covenant will be enacted such that a Soil Management Plan will be triggered when the total depth of clean cover is reached during an excavation project.

21. **Section 3.3 Preferred Remedy** – The final paragraph states that “the lined basin will reduce the infiltration, therefore reducing leaching of contaminants into the groundwater.” Given that groundwater is estimated to be approximately 200 feet below the base of the Hydro Pit, perhaps it would be more accurate to state that “the lined basin will reduce the infiltration, therefore reducing *the potential for* leaching of contaminants into the groundwater.”

The text in Section 3.3 was modified.

22. **Section 3.3. Preferred Remedy** – Please clarify what land will be converted to residential. In Section 1 it was stated that not all of the site will be converted, but the last paragraph of Section 3.3 states that the Site will be converted to “full residential use.”

The entire site will ultimately have a zoning designation of “Planned Community” from the City of Henderson once entitlements are finalized. The community is currently planned to be only residential with no commercial development. Residential areas will include parks and open space in addition to homes.

23. **Section 3.3. Preferred Remedy** – Please indicate which pits, if any, will be backfilled to grade. If any pits are not backfilled to grade, add a bullet on security/safety measures to prevent public access to the pits.

Both the Hulin and Hydro pits will be backfilled to grade. The A-B Pit will also be backfilled to match adjacent grades other than the western edge of the pit, where there is a vertical rock face that will remain after the pit is filled. The rock face today is over 200 feet in height but will be minimized to roughly 50 feet in height once the pit is filled. When this area of the development is completed, access to this rock face and the area immediately above the top of the rock face will be prohibited and measures such as fencing will be used to prevent access to this area.

24. **Section 4.2 Permitting** – The penultimate bullet point discusses construction air quality monitoring and dust control. Please briefly discuss the air monitoring and personnel protection requirements pursuant to the requirements of Clean Air Act and National Ambient Air Quality Standards, State of Nevada air quality standards, and standards established by OSHA, as well as how such requirements will help control impacted dust.

Dust control will be managed in accordance with Clark County Air Quality Regulation Section 94, *Permitting and Dust Control for Construction Activities*. A Dust Control Permit is required by Section 94.4.1 which states *“Prior to engaging in any CONSTRUCTION ACTIVITIES, the property OWNER AND/OR OPERATOR, who is the owner’s designee shall apply for and obtain a DUST CONTROL PERMIT from the Clark County Department of Air Quality and Environmental Management.”* The Dust Control Permit application will be submitted on the Clark County website as required by Section 94.5.1.

Nevada standards of quality for ambient air are provided in NAC 445B.22097. Nevada has adopted National Ambient Air Quality Standards (NAAQS) in its state implementation plan. Site-related air pollutants with NAAQS applicable to the Dust Control Plan are particulate matter 10 micron (PM₁₀), PM_{2.5}, and lead. These pollutants will be monitored upwind and downwind using methods specified in Attachment 1 NAC 445B.22097, which will include use of high volume and low volume samplers. A detailed air monitoring plan will be prepared and submitted with the Remedial Design documents.

During the period of asbestos abatement and removal, personal air monitoring will be performed in accordance with OSHA Standard 1926.1101, Appendix A. For the purposes of the project, a perimeter threshold of 0.01 fibers per cubic centimeter (f/cc) will be used. The threshold is based on the final clearance concentration standard for re-occupancy of a building subsequent to the completion of asbestos abatement activities as set for in NAC 618.956. Both are discussed in more detail in Appendix C of the CAP.

Site worker protection will be specified in the site Health and Safety Plan. For site workers, applicable standards will be OSHA Permissible Exposure Levels (PELs). Work area monitoring and personnel monitoring will be conducted.

Adherence to the Dust Control Permit will control dust emissions utilizing Soil Stabilization methods specified in Section 94.8 and Best Available Control Measures (BACM) in Section 94.9, and adherence to Emissions Standards in Section 94.11.

25. **Section 4.5 Work Area Preparation** – Please clarify if there will be a decontamination pad for heavy equipment to be used before the equipment exits the site. Also, Section 6.5 states that “vehicles that are used to transport contaminated materials...must be decontaminated before transporting clean borrow source materials.” This should also be mentioned in Section 4.5.

There will be a decontamination area for heavy equipment as it exits the Site. Additionally, a sentence on establishing a decontamination area was added to Section 4.5.

26. **Section 5.1 Asbestos Abatement and Removal** – The asbestos abatement approach (Appendix C) reflects standard bulk regulated asbestos containing material (RACM) processes which are geared to building abatement, demolition, and OSHA requirements. The approach does not correlate well with current EPA Guidance (OLEM Directive No. 9200.0-90. 2021) which is more human health multimedia risk assessment driven. Given the intended future use of the site, this Guidance is

considered relevant and appropriate. It is recommended that EPA's approach be consulted to ensure that the approach for the site is consistent and equally protective.

The proposed cleanup approach addresses abatement of the bulk RACM; however, the plan does not address the potential for surface soils located beneath the bulk RACM to have been impacted.

The EPA Framework for Investigating Asbestos-Contaminated Superfund Sites (OLEM Directive 9200.0-90) was reviewed. In general, the guidance document provides a framework for addressing asbestos at Superfund Sites, recommending a risk-based approach for site evaluation based on current asbestos science. As documented in the Asbestos Survey Report (Broadbent, 2022c), the bulk RACM at the Site is largely present sporadically as well as in isolated and limited debris piles at the Site. Visual observations performed to date suggest the RACM is located on or near the surface of the ground. Based on the nature of the RACM present at the Site, visual inspections performed in accordance with NAC 618.956(2)(a) appear to be a sufficient methodology to evaluate the successful removal of the RACM. However, to further ensure impacts to the Site from RACM are adequately addressed, the CAP was revised to reflect a surface scrape of soils located beneath the RACM as needed as part of the asbestos abatement. Additionally, personal air monitoring will be performed in accordance with OSHA Standard 1926.1101, Appendix A. For the purposes of the project, a perimeter air monitoring threshold of 0.01 fibers per cubic centimeter (f/cc) will be used. Lastly, the preferred remedy includes covering the Site with a 10-foot clean cap. As such, a risk-based approach for asbestos remediation in soil is not warranted.

27. **Section 5.3 Municipal Waste Consolidation and Disposal** – The first paragraph indicates that municipal waste is present at the site.

- a. Has municipal waste been characterized? Will municipal waste in pits pose an additional hazard?
- b. Please indicate the final disposition of municipal waste not present in the pits.

a. Municipal waste on the surface of the Site has been largely characterized via visual observation during the RI. If intact drums or liquid waste are located during remediation, they will be characterized for offsite disposal. A CEM will be present to address scenarios such as discovery of unknown liquids. NDEP and the SNHD have stated that leaving solid waste in the pits is acceptable due to the safety hazards associated with collecting and disposing of this waste offsite. (SNHD concurred with the approach outlined in an August 23, 2022 letter in an email dated August 29, 2022.) The same is true for characterization of the material.

b. Municipal waste not located in pits (on the surface of the Site) will be disposed offsite as described in a letter to the SNHD dated August 23, 2022. SNHD stated this approach was acceptable in an email dated August 29, 2022.

28. **Section 5.3.1 Onsite Disposal** – The first paragraph states that “ACM and C&D waste will be interred in either the Hulin Pit or the A-B Pit.” What factors still need to be considered to determine which pit will be used as a landfill?

The approach to solid waste management has changed, and the revised CAP reflects the current approach. ACM and C&D currently in the pits will remain in the pits.

29. **Section 5.3.1 Onsite Disposal** – The second paragraph states that “after consolidation as described in Section 3.3, the compressed and destroyed waste and rubble will be spread evenly across the area”
- What area is this statement referring to? Please revise this statement to more clearly define “area.”
 - Consolidation does not appear to be described in Section 3.3. Should this statement refer to Section 5.3 instead? Please clarify.

Section 5.3.1 has been removed due to the change in approach to solid waste management.

30. **Section 5.4 Demolition** – The last sentence of the last paragraph appears to indicate that liquid waste will only be characterized for offsite disposal if it is hazardous. This should clarify that all liquid waste will be characterized in general. Additionally, will all liquid waste be disposed of offsite, or will non-hazardous liquid be disposed of onsite?

Section 5.4 was updated to clarify that liquid waste will be characterized. Based on changes to the approach to solid waste management, liquid waste will be disposed offsite.

31. **Section 5.5 Excavation** – Please clarify if there are areas to be redeveloped that will not be excavated.

Excavation areas are depicted in Figure 5-2. Additionally, the former mine site will be covered with 10 feet of clean cover as shown in Figure 5-6.

32. **Section 5.5.1 Tailings and Section 5.5.2 Waste Rock** – How will the complete removal of tailings and waste rock be confirmed?

Removal of tailings and waste rock is currently planned to the elevation of a 1917 topographic map. Removal will be confirmed via visual observation by a CEM. Additionally, removal will be documented in the closure reports with photographs and as-built topographic surfaces.

33. **Section 5.5.4 Northeast Drainage** – Will soils be tested to characterize residual contamination prior to stormwater drainage construction?

Soils will not be tested to characterize prior to stormwater drainage construction because soil was sufficiently characterized during the RI. While final design of the stormwater structure in the area will not be completed until that stage of the phased development, current designs include conveyance of stormwater via a concrete channel.

34. **Section 5.5.5 Ore Yard and Mill Site Soil Excavated to Facilitate 10-Foot Cover to Final Grade** – According to the RI report Table 7 (Ore Yard), the two samples collected at depths less than 10 feet bls had metal concentrations greater than the screening levels. Metals also exceeded the screening level in several soil samples collected at depths less than or equal to 10 feet at the General Mill Site (Table 12). Please clarify how excavation of mill site soil exceeding screening levels as documented in the RI is not needed.

Excavation of mill site soil exceeding screening levels is not needed because it will be covered with 10 feet of clean fill.

35. **Section 5.6 Placement of Excavated Materials** – It is stated that excavated material will be contained in the three major open pits to resolve the physical hazard presented by the open pits. Please indicate if the pits will be filled to grade or what protections will be established.

See response to comment #23.

36. **Section 5.6.1 Hydro Pit** – Please clarify the extent to which the Hydro Pit will be backfilled before placement of the cap.

The final grade of the Hydro Pit will be consistent with surrounding elevation. However, the exact elevation of the top of backfilled tailings in the Hydro Pit is not known due to uncertainty on the total volume of tailings, the tailings-waste rock ratio, and the amount of compaction. The elevation of the detention basin will also be dependent on the surrounding stormwater infrastructure, the design of which will be finalized during Phase 4.

37. **Section 5.6.2 Hulin Pit** – The CAP includes discussion of what will ultimately be constructed on top of the Hydro Pit (retention basin) and the A-B Pit (a park) but there is no mention of the plans for the Hulin Pit. It would be helpful for the CAP to include this somewhere for a complete picture of the Site.

The Hulin Pit will ultimately be a park or an open space element integrated into the development community once it is returned to grade with waste rock and a clean cover. The park or open space may contain pools and splash pads. Residential development will not be placed over the reclaimed Hulin Pit. A park is also planned over the detention basin over the Hydro Pit and over the deep fill area adjacent to the sheer wall on the west side of the A-B Pit. The park over the Hydro Pit may contain irrigated fields and playgrounds. Other portions of the A-B Pit will be developed for homes. A brief description of development plans for the Site was added to Section 5.9.

38. **Section 5.6.2 Hulin Pit** – The paragraph indicates ACM will be placed in the Hulin Pit. Section 5.3.1 indicates a decision has not been made on the final disposition of the ACM. Please clarify.

ACM from the surface will be disposed offsite.

39. **Section 5.6.3 A-B Pit** – Will testing be conducted prior to park construction? Will there be a variance for the environmental covenant on excavation deeper than 10 feet?

Compaction testing and settlement monitoring will confirm design requirements have been met prior to development or park construction. An environmental covenant will be enacted on soil deeper than 10 feet in a manner similar to the rest of the Site.

40. **Section 5.7 Cover Construction** – Figure 5-7 indicates the borrow areas to the west and east will be developed. Additional details should be added to this section regarding backfill excavation, regrading, and restoration.

The borrow areas to the west and east of the mine site will be developed with residential homes after the clean material necessary to create the 10 feet of cover is removed from the source areas. These areas, outside the limits of the former mine site, will be graded in such a way that residential pad grades will be generated once the cover source material is removed. As the residential lots are finished, the areas east and west of the mine site that were affected by the grading of the source material but were not developed into residential lots will be restored and revegetated with native plants.

41. **Section 5.7 Cover Construction** – Figure 5-7 indicates Closure Unit 11 is adjacent to the Hydro Pit, which will not be backfilled (Figure 5-6). Please provide more discussion in this section about security and safety measures that will be in place to protect the public from the physical hazard presented by the pit adjacent to a residential development.

The Hydro Pit will be backfilled with tailings and waste rock, which will be covered by a liner and minimum of two feet of clean cover. The final surface will be at grade with the surrounding development.

42. **Section 7.3 Corrective Action Completion Report** – BLM agrees that a risk evaluation should be included in the Corrective Action Completion Report. The risk evaluation will support BLMs property transfer process.

Comment noted.

43. **Section 8.0 Closure Units and Schedule** – The fourth bullet point indicates that Closure Units 8 and 9 are not considered under this CAP. If Closure Units 8 and 9 are not considered under this CAP, how will they be closed and under what documentation?

Closure Units 8 and 9 will be closed independently at a later date, as this cleanup is not tied to the federal land transfer or development. The CAP may be used as the framework document.

44. **Figure 5-3 Placement of Excavated Material in Hydro Pit** – The two dump locations and the color interpretation of the access road in Figure 5-3 are difficult to interpret. Please revise for clarity.

Figure 5-3 was revised to more clearly show the two dump slopes in the Hydro Pit.

45. **Figure 5-7 Stormwater Basins and Figure 8-1 Closure Units** – Figure 8-1 show the borrow area to the east to be Closure Unit 7. Figure 5-7 shows the borrow area to the west will be developed yet it has not been designated as a Closure Unit. Please clarify.

The borrow area to the west is not part of the former mine site and is considered background (see Figure 1-3).

46. **Appendix C Asbestos Abatement, Page 6 of 12, Hulin Pit Area, Item 2** – This statement should indicate that if RACM needs to be moved from the access road area it will be done so under supervision of the AAC and with proper handling.

A sentence was added on page 6 of Appendix C.

47. **Appendix C Asbestos Abatement** – There is no discussion of anticipated PPE for the abatement work. This should be included or a reference to an anticipated HASP should be included.

A sentence was added to page 1 of Appendix C referencing a forthcoming HASP.

APPENDIX C

Asbestos Abatement

ASBESTOS ABATEMENT

Three Kids Mine
Henderson, Nevada

Details are provided below related to the asbestos abatement portions of the Corrective Action Plan (CAP).

Project Personnel and OSHA Classes of Work

Abatement of RACM at the Site will be performed by an asbestos abatement contractor licensed in the State of Nevada. The abatement activities will be performed in accordance with applicable OSHA regulations by properly trained workers that have been licensed in Nevada through the Asbestos Control Program. Applicable OSHA regulations can be found in 29 CFR 1926.1101 and NAC 618.850 through 618.986. In general, OSHA requires the asbestos abatement work to include the establishment of regulated areas, use of wet methods (no visible emissions), prompt clean-up, use of leak tight containers, and employee exposure monitoring. Additional details on worker safety will be provided in the forthcoming Health and Safety Plan, including worker PPE. The following OSHA Classes of Work apply to the abatement of RACM at the Site.

- 1) Class I Asbestos Work – Defined as activities involving the removal of thermal system insulation (TSI) and surfacing ACM. This definition applies to the surfacing ACM remaining in place on structures located within the boundaries of the Flotation Cell Area.
- 2) Class II Asbestos Work – Defined as activities involving the removal of ACM which is not thermal insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile and sheeting, roofing, siding shingles, and construction mastics. This definition applies to the abatement of penetration mastic, expansion joint, and gaskets located within the boundaries of the Flotation Cell Area.
- 3) Class IV Asbestos Work – Defined as maintenance and custodial activities during which employees contact but do not disturb ACM and activities to clean up dust, waste, and debris resulting from Class I and II activities. This definition applies to the abatement of sporadic debris on the surface of the ground as well as in the various debris piles located throughout the Site.

During the abatement of RACM, the asbestos abatement contractor will provide a licensed Asbestos Competent Person (ACP). An ACP is defined as a person who is capable of identifying existing asbestos hazards, selecting the appropriate control strategy for asbestos exposure, and who has the authority to take prompt corrective measures to eliminate the hazards. In addition to the ACP provided by the licensed asbestos abatement contractor, an Asbestos Abatement Consultant (AAC) licensed through the Asbestos Control Program will provide oversight during the performance of the abatement activities. At a minimum, the AAC will be accredited as an Inspector and a Project Monitor. The AAC will assist in evaluating and mitigating hazards resulting from the work at the Site, guide abatement activities at the Site, perform air sampling, perform post abatement inspections, and collect additional material samples in the event additional suspect ACM is identified.

Site Control for Asbestos Abatement

Within the boundaries of the secured Site as described above, support areas, contaminant reduction areas, and asbestos regulated areas will be constructed. These Site control areas will be established first

and not dismantled until the location passes a visual inspection for remnant RACM as performed by an AAC in accordance with NAC 618.956(2)(a). As the RACM is present in multiple locations at the Site, multiple support areas, contamination reduction areas, and asbestos regulated areas will be constructed. These Site control areas will be constructed at the discretion of the ACP and in coordination with the AAC. Provided to follow is a description of the activities that will be performed in each area.

The support area will serve as the areas of the Site that are free from asbestos contamination. These locations will be used for administrative, planning, and staging that will support the operations in the contaminant reduction area and the asbestos regulated area. A key feature of the support area will include a designated location where roll-off bins, haul trucks, or other various containers can be prepared to be loaded (i.e., lined with plastic sheeting) with RACM.

The contaminant reduction area(s) will serve as the transition zone between the support area and the regulated area. This is the area where asbestos trained workers will enter and exit the regulated area and where decontamination activities will take place. Key features of the contaminant reduction area will include a worker decontamination area and equipment decontamination areas. Due to the numerous locations that contain RACM at the Site, the decontamination equipment used will be mobile but will have the ability to containerize wash water.

Regulated areas will be established for Class I and Class II work. In addition, with the exception of small-scale work (i.e., picking up sporadic RACM debris), Class IV work will be performed within regulated areas. Class IV work that will be performed within a regulated area includes abatement and segregation of isolated waste piles throughout the Site. Loading and securement of RACM into containers for disposal will be performed within a regulated area.

Asbestos Fiber Mitigation

During the performance of the abatement activities, wet methods will be used to remove RACM in accordance with OSHA and NESHAP regulations. In addition, as the RACM is located outside, on the surface of unpaved surfaces, and will be removed by mechanical means in certain instances (i.e., skid steer, backhoe, etc.), mitigation of dust using engineering controls, work practice controls, and administrative controls will also be implemented. Broadbent anticipates that the use of wet methods will be successful in minimizing the generation of asbestos fibers so that 1) personal air monitoring results for workers on the project do not exceed the Nevada OSHA established Permissible Exposure Limit for the 8-hour Time Weighted Average (TWA) or the 30-minute Excursion Limit (EL) for asbestos and 2) potential asbestos fibers do not migrate beyond the regulated area. As the overall Site restoration activities associated with the project will disturb an area in excess of 0.25 acres in overall area, a Dust Control Permit will be obtained from CCDAQ. Dust control measures specified in the Dust Control Permit as well as the measures outlined in this document will be adhered to during the asbestos abatement portion of the project. These additional measures include the following items.

- 1) All RACM will be removed using wet methods and promptly placed into leak tight containers.
- 2) All visibly dry disturbed soil surfaces associated with an established asbestos work area, including within the regulated area, will be wetted using water to minimize dust emissions. Water will be applied by means of water truck(s) prior to and concurrent with ground disturbance to minimize dust emissions to the fullest extent possible. Water will be applied

to disturbed areas as daily ground disturbance activities and environmental conditions warrant. The dust control measures will continue to be implemented during weekends in the event abatement activities are not complete in an established asbestos work area.

- 3) Disturbed work areas will be sprayed down at the end of the work shift to form a thin crust.
- 4) Working hours will be adjusted based on expected wind speeds and other exposure factors. Criteria used to suspend work will be based on constant wind speeds in excess of 25 mph or instantaneous wind speeds measured to be at least 40 mph. Wind speed will be determined using an Ambient Weather WM-4 Handheld Weather Station (or similar).
- 5) Vehicle speeds with an established asbestos work area will not exceed 15 mph.

Area-Specific Abatement Work

The following sections provide the general scope of asbestos work to be performed in the areas of the Site that RACM was identified to be present. Figure 2-1 shows the locations of ACM abatement and removal areas. However, if additional suspect ACM or RACM are identified that were not presented in the Asbestos Survey Report, work will stop and the ACP/AAC immediately notified so appropriate measures can be implemented to address the change in conditions.

1. East Dump Area

Sporadic and limited RACM was identified on the surface of the ground within the boundaries of the East Dump Area. As part of the RI, a trench and four test pits were excavated through the East Dump located within a portion of the East Dump Area. Results of the excavation activities did not identify RACM below grade within the boundaries of the trench or test pits. The following general scope of asbestos abatement work is to be executed within the boundaries of the East Dump Area.

- 1) The area is to be transected by the asbestos abatement contractor and all visible RACM will be removed prior to ground disturbance. Due to the limited volume of RACM, it is anticipated the RACM can be successfully mitigated by hand collection.
- 2) During the initial disturbance of shallow soil in the East Dump, a licensed asbestos abatement inspector will be present to continue to screen for RACM. In the event ACM/RACM is identified, work must stop, and the material removed by a licensed abatement contractor in accordance with applicable regulations.

2. Ore Yard Area

Sporadic and limited RACM was identified on the surface of the ground in the northern portion of the Ore Yard Area. Three isolated debris piles containing RACM were also present in the northern portion of the Ore Yard Area. Furthermore, as part of the RI, a trench and five test pits were excavated within the Ore Yard Area to evaluate an Engineering Dump. Although significant concrete building debris was present, results of the investigation did not identify RACM below grade within the Engineering Dump. The following general scope of asbestos abatement work is to be executed within the boundaries of the Ore Yard Area.

- 1) The northern portion of the Ore Yard Area is to be transected by the asbestos abatement contractor and all visible RACM will be removed prior to ground disturbance. Due to the limited volume of RACM, it is anticipated the RACM will be successfully mitigated by hand throughout a

majority of the Ore Yard Area. However, due to the volume of RACM present in the three isolated debris piles, mechanical means will likely be required to be implemented to successfully abate the RACM in these locations.

- 2) During the excavation of the Engineering Dump located within the Ore Yard Area, a licensed asbestos abatement inspector will be present to continue to screen for RACM. In the event RACM is identified, work must stop, and the material removed by a licensed abatement contractor in accordance with applicable regulations.

3. Engineering Area

Sporadic and limited RACM was identified on the surface of the ground within the boundaries of the Engineering Area. The area is to be transected by the asbestos abatement contractor and all visible RACM will be removed prior to ground disturbance. Due to the limited volume of RACM, it is anticipated the RACM can be successfully mitigated by hand collection.

4. Engineering Hillslope Dump Area

A significant debris pile consisting of both non-ACM as well as sporadic RACM was observed along a hillslope within the boundaries of the Engineering Hillslope Dump Area. As the RACM appears to be sporadic as well as mixed into the debris pile along the hillslope, segregation of the waste stream will be performed in the event the entire debris pile is not to be classified as RACM. If segregation is performed, the work will be performed in a manner that allows a thorough inspection of the debris pile to be performed. Due to the volume and size of various waste materials present in the debris pile, mechanical means are anticipated to be required to segregate as well as remove the debris pile from the Engineering Hillslope Dump Area.

5. A-B Pit Area

An isolated debris pile of RACM was observed within the boundaries of the A-B Pit Area. Sporadic RACM throughout the area was not observed. In addition, RACM was not specifically identified at the bottom of the A-B Pit. Based on the volume of RACM identified in the debris pile, mechanical means may be required to be implemented to successfully abate the RACM. ACM within the A-B Pit will remain in place.

6. Hydro Pit Area

Two isolated debris piles containing RACM were identified in the Hydro Pit Area. The debris piles were located on a haul road leading to the bottom of the Hydro Pit and along the southern edge of the Hydro Pit. Sporadic RACM throughout the area was not observed. In addition, RACM was not specifically identified at the bottom of the Hydro Pit. ACM within the Hydro Pit will remain in place.

7. Illegal Dump #5

A significant debris pile consisting of non-ACM as well as sporadic RACM was observed along a hillslope within the boundaries of Illegal Dump #5. As the RACM appears to be sporadic as well as mixed into the debris pile along the hillslope, segregation of the waste stream will be performed in the event the entire debris pile is not to be classified as RACM. If segregation is performed, the work will be performed in a manner that allows a thorough inspection of the debris pile to be performed. Due to the volume and size of various waste materials present in the debris pile, mechanical means are anticipated to be required to segregate as well as remove the debris pile from Illegal Dump #5.

8. Mill Site Area

Sporadic and limited RACM was identified on the surface of the ground within the boundaries of the Mill Site Area. The area is to be transected by the asbestos abatement contractor and visible RACM will be removed prior to ground disturbance. Due to the limited volume of RACM, it is anticipated the RACM can be successfully mitigated by hand collection.

9. Flotation Cell Area

Eight flotation cells are present that have RACM remaining in place as well as laying in and around the structures within the Flotation Cell Area. In certain instances, the RACM present within the flotation cells appears to be present below remnant process material. Piping associated with the flotation cells was also observed that contains RACM and in isolated instances observations suggested this piping extends below grade. Sporadic and significant quantities of RACM are also present on the surface of the ground throughout the area. The following general scope of asbestos abatement work is to be executed within the boundaries of the Flotation Cell Area.

- 1) The area is to be transected by the asbestos abatement contractor and all visible RACM on the surface of the ground will be removed prior to ground disturbance or initiating abatement activities associated with RACM remaining in place on flotation cells. Based on the volume of RACM identified in the Flotation Cell Area, mechanical means may be required to be implemented to successfully abate the RACM.
- 2) Abate the RACM remaining in place on and laying around within the flotation cells prior to demolition of the structures. In select instances where process material remains within a flotation cell, segregation of the process waste from the RACM will be required. In the event segregation is not performed, the entire waste stream will be designated as RACM. If segregation is performed, the work will be performed in a manner that allows a thorough inspection of the waste stream to be performed.
- 3) As a potential exists for RACM to be present below grade associated with the subsurface flotation cell piping, a licensed asbestos abatement inspector will be present during the demolition of the flotation cells to continue to screen for RACM below grade. In the event RACM is identified, work must stop and the material removed by a licensed abatement contractor in accordance with applicable regulations.

10. West Dump Area

Within the West Dump Area, a location was identified as the West Dump. RACM on the ground in the West Dump appeared to be present in minor volumes with only trace to sporadic RACM debris located towards the northern boundary of this area. As part of the RI, a trench and four test pits were excavated through the West Dump. Results of the excavation activities did not identify RACM below grade within the boundaries of the trench or test pits to any significant depth. However, in select instances, RACM was identified to a depth of 6-inches bls.

Two isolated debris piles containing RACM were also present in the West Dump Area. Sporadic RACM throughout the remaining area was not observed. The following general scope of asbestos abatement work is to be executed within the boundaries of the West Dump Area.

- 1) As the RACM appears to be sporadic as well as mixed into the West Dump, segregation of the waste stream will be performed in the event the entire waste stream is not to be classified as RACM. If segregation is performed, the work needs to be performed in a manner that allows a

thorough inspection of the debris pile to be performed. Due to the volume and size of various waste materials present in West Dump, mechanical means are anticipated to be required to segregate as well as remove the debris from the West Dump. In addition, excavation to a depth of six inches bls may be required to successfully abatement the RACM from the West Dump.

- 2) Abate the RACM identified in the two isolated debris piles. Based on the volume of RACM identified in the two isolated debris piles, mechanical means may be required to be implemented to successfully abate the RACM.

11. Hulin Pit Area

Limited and isolated debris piles consisting of both non-ACM as well as RACM were observed on the surface of the ground outside the boundaries of the Hulin Pit. ACM within the Hulin Pit will remain in place. Sporadic and isolated debris consisting of both non-ACM as well as RACM were observed on the surface of the ground along the haul road, northeast wall, and bottom of the Hulin Pit. Observations suggested that a portion of the debris located along the northeast wall of the Hulin Pit was partially buried into the hillslope. The following general scope of asbestos abatement work is to be executed within the boundaries of the Hulin Pit.

- 1) Abate the RACM identified in the debris piles located outside the boundaries of the Hulin Pit. Based on the volume of RACM identified in the isolated debris piles, mechanical means may be required to be implemented to successfully abate the RACM. In addition, further measures may be required to address safety concerns due to the location of the RACM in relationship to the edge of the Hulin Pit.
- 2) RACM will be left in place within the boundaries of the Hulin Pit. RACM may be moved to allow for construction of an access road into the Hulin Pit. If RACM is moved to allow for construction of an access road, it will be done under supervision of the AAC with proper handling.

12. DS02 Area

Sporadic debris consisting of both non-ACM as well as RACM were observed on the surface of the ground in minor volumes in the western portion of the DS02 Area. Numerous isolated debris piles consisting of both non-suspect materials as well as RACM were observed in the western portion of the DS02 Area. In addition, an unpaved roadway is present along a hillslope that contains significant volumes of asphalt and concrete that appears to be intermixed with RACM. The following general scope of asbestos abatement work is to be executed within the boundaries of the DS02 Area.

- 1) The western portion of the DS02 area is to be transected by the asbestos abatement contractor and visible RACM will be removed prior to ground disturbance. Based on the volume of RACM identified, in select instances, mechanical means may be required to be implemented to successfully abate the RACM.
- 2) As the RACM appears to be sporadic as well as mixed into the debris pile along the hillslope of the roadway, segregation of the waste stream will be performed in the event the entire debris pile is not to be classified as RACM. If segregation is performed, the work will be performed in a manner that allows a thorough inspection of the debris pile to be performed. Due to the volume and size of the concrete and asphalt present in the debris pile, mechanical means are anticipated to be required to segregate as well as remove the debris pile from the DS02 Area.

Post-Abatement Visual Inspections

In accordance with NAC 618.956(2)(a), subsequent to completing the abatement activities at a given location, the area will be visually inspected for remnant ACM by the AAC. In the event remnant ACM is observed, the AAC in coordination with the ACP will direct the abatement contractor to remove the identified ACM. Visual inspections will continue to be performed until remnant ACM is no longer observed by the AAC. If a regulated area has been constructed, the regulated area will not be deconstructed until the location passes the visual inspection.

As Broadbent understands negative pressure enclosed containment areas will not be constructed, post abatement final air clearance monitoring activities in accordance with NAC 618.956(3) will not be performed as part of this CAP. Results of the post abatements visual inspections will be documented.

Potential for Asbestos Fibers in Soil

As documented in the Asbestos Survey Report (Broadbent, 2022c), the RACM at the Site is largely present sporadically as well as in isolated and limited debris piles at the Site. Visual observations performed to date suggest the bulk RACM is located on or near the surface of the ground. Based on the nature of the RACM present at the Site, visual inspections performed in accordance with NAC 618.956(2)(a) appear to be a sufficient methodology to evaluate the successful removal of the RACM. However, to further ensure impacts to the Site from RACM are adequately addressed, soil below areas with more than just sporadic RACM debris will be scraped down to two inches bls, placed in a bin, and disposed offsite to address the potential for asbestos fibers to be present in soil. Areas where soil removal is anticipated include various debris piles, the West Dump, and portions of the flotation circuit area.

Personal Air Monitoring

Personal air sampling will be performed daily during the project to evaluate employee exposure to airborne asbestos during asbestos abatement field activities. The sampling will be performed in a manner that allows an evaluation of the employee's exposure to asbestos concentrations in excess of the OSHA 8-hour TWA of 0.1 f/cc and the 30-minute EL of 1.0 f/cc. The personal air monitoring will be performed by both the ACP and the AAC. The ACP will be responsible for evaluating the licensed abatement contractor's employees while the AAC will be responsible for monitoring the licensed asbestos consultant's employees.

The personal air sampling will be performed in accordance with OSHA Standard 1926.1101, Appendix A. Sampling procedures will include the following items.

- 1) Low flow air pumps (Gilian BDX II or similar) will be utilized to collect air samples from the employee's breathing zone daily during the performance of the field activities.
- 2) Each low flow air pump will be calibrated prior to use with a primary gas flow calibrator (Drycal) or with a rotameter. In the event rotameter is used, it will be calibrated with a primary standard in the last six months. Each low flow air pump will be calibrated at the Site to minimize environmental influences on flow rates. A filter cassette from the same cassette lot used for calibration will be used for sampling. In the event that the flow rate changed by more than 5 percent during the sampling period, the average of the pre and post calibration rates will be used to calculate the total sample volume.

- 3) Air samples will be collected at a flow rate of 2.0 liters per minute (LPM) to minimize overloading of the filter cassettes.
- 4) The air will be drawn through a factory preassembled 0.8-micron mixed cellulose ester filter (MCEF) 25-millimeter (mm) open face cassette equipped with a 50 mm long electrically conductive extension cowl. Filter cassettes will not be reused.
- 5) Prior to connecting each personal air sample to a low flow air pump, the sample will be assigned a unique identification name.
- 6) The sample cassette will be connected to the low flow air pump using flexible tubing. Each cassette will be secured and positioned open face side down within 10 centimeters from the breathing zone of the employee under evaluation.
- 7) Upon completion of the personal air sampling, the cassette will be closed and sealed with the factory provided base and plastic plugs.
- 8) The flow rate of the low flow air pump will be verified at the completion of the daily sampling activities.
- 9) It is unlikely that factory-provided sample cassettes would be contaminated prior to receipt. However, as part of the quality assurance (QA) procedures, upon receiving and initially opening a shipment of cassettes, one sample cassette will be collected for each lot identification number and submitted without opening for laboratory analysis. In accordance with NIOSH Test Method 7400, if a lot blank sample has a fiber count in excess of five fibers observed in 100 graticule fields, the remaining cassettes associated with the lot will be returned to the manufacturer for replacement. Personal lot blank sample submittal will be performed in conjunction with perimeter lot blank samples.
- 10) To evaluate if contamination occurred during sample handling, two field blank samples will be collected daily prior to the start of operations. The field blank samples will be collected by opening an unused filter cassette for approximately 30 seconds at the sampling location with no air being drawn through it. Upon closing the cassette, the field blank sample will be handled and transported with the personal air sample cassettes collected during the workday. In accordance with Appendix A Item 11 of OSHA 1910.1101, sample sets represented by a field blank having a fiber count in excess of seven fibers observed in 100 graticule fields are to be rejected. Personal field blank sample submittal will be performed in conjunction with perimeter field blank samples.
- 11) The samples collected for the evaluation of employee exposure to airborne asbestos will be delivered under chain-of-custody procedures to an accredited laboratory in the National Voluntary Laboratory Accreditation Program for the sample analysis outlined to follow. The samples will be analyzed by Phase Contract Microscopy (PCM) per NIOSH Test Method 7400. If PCM data (analyzes for fibers of any type) suggests OSHA PELs have been exceeded, the asbestos content of the sample(s) will be confirmed using Transmission Electron Microscopy (TEM) in accordance with NIOSH Test Method 7402. This confirmation will be done since other fibrous substances, if present, may interfere with PCM analysis and result in an inaccurate

evaluation of an employee's exposure to actual asbestos fibers. Samples will be submitted with a turnaround-time request of no more than 24 hours (weekends excluded).

The personal air sample data collected during the project will be evaluated by the ACP and AAC against the OSHA 8-hour TWA and the EL. As multiple samples will be collected daily to evaluate employee's exposure to airborne asbestos, the following calculation will be used to determine the OSHA 8-hour TWA. In instances where fibers are not detected above the laboratory level of detection, the laboratory level of detection will be used as a conservative method to evaluate the employee's exposure to airborne asbestos.

$$TWA_{total} = \frac{(C1 \times T1) + (Cn \times Tn)}{480 \text{ minutes}}$$

Where:

TWA_{total} = TWA concentration across multiple samples presented in f/cc

C1 = Concentration of first sample presented in f/cc

Cn = Concentration of subsequent sample(s) presented in f/cc

T1 = Sample duration of first sample presented in minutes

Tn = Sample duration of subsequent sample(s) in minutes

Perimeter Air Monitoring

Although wet methods and dust control measures will be implemented during the abatement of the RACM during the project, asbestos has the potential to become airborne and migrate beyond the boundaries of a regulated area. As a result, a perimeter threshold for airborne asbestos will be established for the project and perimeter air sampling will be performed to evaluate asbestos concentrations to the established threshold. For the purposes of the project, a perimeter threshold of 0.01 fibers per cubic centimeter (f/cc) will be utilized. The threshold is based on the final clearance concentration standard for re-occupancy of a building subsequent to the completion of asbestos abatement activities as set for in NAC 618.956. The perimeter air monitoring will be performed by the AAC.

Pre-construction air monitoring will be performed prior to the start of remediation activities at the Site. The pre-construction air monitoring will be performed to establish background airborne asbestos concentrations at the Site as well as confirm the perimeter threshold of 0.01 f/cc can be met. The pre-construction air monitoring will consist of setting up five air monitoring stations at the Site. The monitors will be placed throughout the Site and will focus on areas in which RACM has been identified. During pre-construction air monitoring, wind direction will be documented using an Ambient Weather WM-4 Handheld Weather Station (or similar). However, monitors will not be moved to reflect changes in wind directions that may occur during the air sampling. The pre-construction air monitoring will include the collection of a total of 15 samples over three days (i.e., five samples per day). The samples will be collected at a target flow rate of 2.5 LPM over an 8-hour period resulting in a total sample volume of 1,200 liters. Figure C-1 depicts the location of the pre-construction asbestos air monitoring locations.

Upon initiating asbestos abatement activities Site, construction perimeter air monitoring will be initiated. Operation of the air monitoring stations will commence daily and will coincide with the start and stop of the asbestos abatement activities. The construction perimeter air monitoring performed will

include operating four monitoring stations around each regulated area (one on each side of the regulated area). The use of four air monitoring stations in this manner will allow representative data to be collected in the event wind directions shift during the workday. Monitors will not be moved to reflect changes in wind directions that may occur during daily operations. However, significant changes in wind direction or speed will be recorded during the collection of the construction air monitoring samples. Wind direction will be determined at the Site using an Ambient Weather WM-4 Handheld Weather Station (or similar). The monitors will be placed within five feet of the regulated area and at locations that attempt to accurately evaluate airborne asbestos concentrations potentially generated by abatement activities at the Site. Figure C-2 depicts the locations of the perimeter air monitoring stations set up in response to a regulated area established around Illegal Dump #5. Perimeter air monitoring stations will be set up as work moves to other areas of the Site, and new regulated areas are established.

In addition to the air monitoring stations setup in the immediate vicinity of the regulated area, five additional air monitoring stations will be set up to the north and east of the Site. These additional air monitoring stations will be operated to further evaluate potential airborne asbestos concentrations at sensitive receptors (i.e., commercial businesses and housing) at the Site boundaries. The location of these five additional monitoring stations is not anticipated to change during the progression of the project. Figure C-2 also depicts the location of these monitoring stations.

The following procedures will be implemented during the collection of the perimeter air samples.

- 1) Low flow air pumps (Gilian BDX II or similar) will be utilized to collect perimeter air samples. The perimeter air samples will be collected at an anticipated flow rate of 2 to 3 LPM. The flow utilized will vary daily to accommodate changing work hours but allow a minimum total sample volume of 1,200 liters to be collected.
- 2) Each low flow air pump will be calibrated prior to use with a primary gas flow calibrator (Drycal) or rotameter in the same manner as outlined above.
- 3) Prior to connecting each sample cassette to the air pump, the air sample will be assigned a unique identification name.
- 4) One cassette will be used to collect the daily perimeter air sample at each monitoring location.
- 5) The sample cassette will be connected to the air pump using 0.25-inch flexible tubing. Each cassette will be secured and positioned open face downward, perpendicular to the wind, and approximately 5 feet above ground surface.
- 6) Upon completion of the air sampling, the cassettes will be closed and sealed with the factory provided base and plastic plugs.
- 7) The flow rate of the low flow air pump will be verified at the completion of the daily sampling activities. In the event that the flow rate changed by more than 5 percent during the sampling period, the average of the pre and post calibration rates will be used to calculate the total sample volume.

- 8) The lot blank and field blank samples collected as part of the personal monitoring activities will also be used for perimeter air monitoring activities.
- 9) The perimeter air samples will be delivered under chain-of-custody procedures to an accredited laboratory in the National Voluntary Laboratory Accreditation Program for the sample analysis outlined to follow. The samples will be analyzed by PCM per National Institute for Occupational Safety and Health (NIOSH) Test Method 7400. If PCM data suggests the perimeter air threshold has been exceeded, the asbestos content of the sample(s) will be confirmed using TEM in accordance with NIOSH Test Method 7402. Samples will be submitted with a turn-around time that will not exceed 24 hours (weekends excluded).

Construction activities will be planned, managed, scheduled, and executed in a manner that attempts to ensure the perimeter monitoring threshold is not exceeded. Although not anticipated, in the event the perimeter monitoring threshold is exceeded, engineering, work practice, and administrative controls will be adjusted to further minimize the offsite migration of asbestos. These adjustments will be made by the ACP and AAC. Adjustments to these controls will be documented.

Bulk Material Sample Collection

A potential exists that additional suspect-ACM may be identified during the performance of the restoration activities at the Site. Suspect-ACM will be considered to be ACM/RACM unless it is evaluated and sampled by the AAC. Bulk material samples will be sealed in the appropriate sample container and assigned a discrete sample identification number. The bulk samples will be submitted under chain-of-custody procedures to an accredited laboratory in the National Voluntary Laboratory Accreditation Program for bulk asbestos fiber analysis.

Decontamination

The specific equipment decontamination procedures that will be conducted during the abatement of RACM at the Site are the following:

- 1) Personnel will dress in proper PPE to reduce personal exposure. Vacuums with high-efficiency particulate absorbing (HEPA) filters will be used to clean disposable PPE prior to removing. Any non-reusable PPE will be managed and disposed onsite with other RACM.
- 2) Personal equipment (shovels, trowels, rakes, etc.) will be cleaned using wet methods in the contaminant reduction zone. Wash water and waste generated during the cleaning will be containerized for disposal.
- 3) Heavy construction equipment decontamination will be conducted at the equipment decontamination pad prior to the equipment leaving the contaminant reduction area. The decontamination area will consist of a Washdown Quickberm® system (or equivalent). Decontamination wash water will be pumped from the collection area into a storage tank, which will be sampled and analyzed to determine appropriate offsite licensed disposal facility.
- 4) In the event a haul truck enters into a regulated area, the truck tires will be decontaminated in a constructed contaminated reduction zone. Impacted wash water will be collected and properly managed. Drivers entering the regulated area will have the appropriate level of asbestos training.

RACM Disposal

The section to follow presents the methods for disposing RACM generated during the abatement activities at the Site.

Onsite Disposal

ACM located within the three deep pits (Hydro, Hulin, and A-B) will be left in place. This approach is documented in a letter from Broadbent to SNHD dated August 23, 2022 and approved by SNHD in an e-mail dated August 29, 2022.

Offsite Disposal

The following general requirements apply for offsite disposal of RACM.

- 1) RACM will be transported offsite in accordance with a SNHD Permit and NDOT regulations to an appropriate disposal facility. At the time this CAP was drafted, Republic Services and Western Elite are the closest landfills to the Site that are properly permitted to accept RACM. Republic Services landfill is located at 13550 North Highway 94 in Las Vegas, Nevada. Western Elite is located at US Highway 93, Mile Marker 8, in Lincoln County, Nevada.
- 2) RACM will be containerized in properly labeled leak tight containers (double bagged). In the event bins or haul trucks are utilized for direct loading of RACM, two layers of poly sheeting will be utilized to form a leak tight container. The load will be sealed using glue and rope to ensure the contents do not open during dumping at the disposal facility.
- 3) Loads will be properly labeled, manifested, and transported in accordance with applicable regulations.



Legend:

- 1 Pre-Construction Air Monitoring Location
- Site Feature
- Unimproved Road
- Tailings Dam
- Project Area
- Mine Site
- Sedimentary Units (alluvium and Muddy Creek Formation)
- River Mountain Volcanics

Nevada

Scale: 1:10,000

500 250 0 500 Feet

Figure C-1

Pre-Construction Air Monitor Locations

Three Kids Mine

BROADBENT

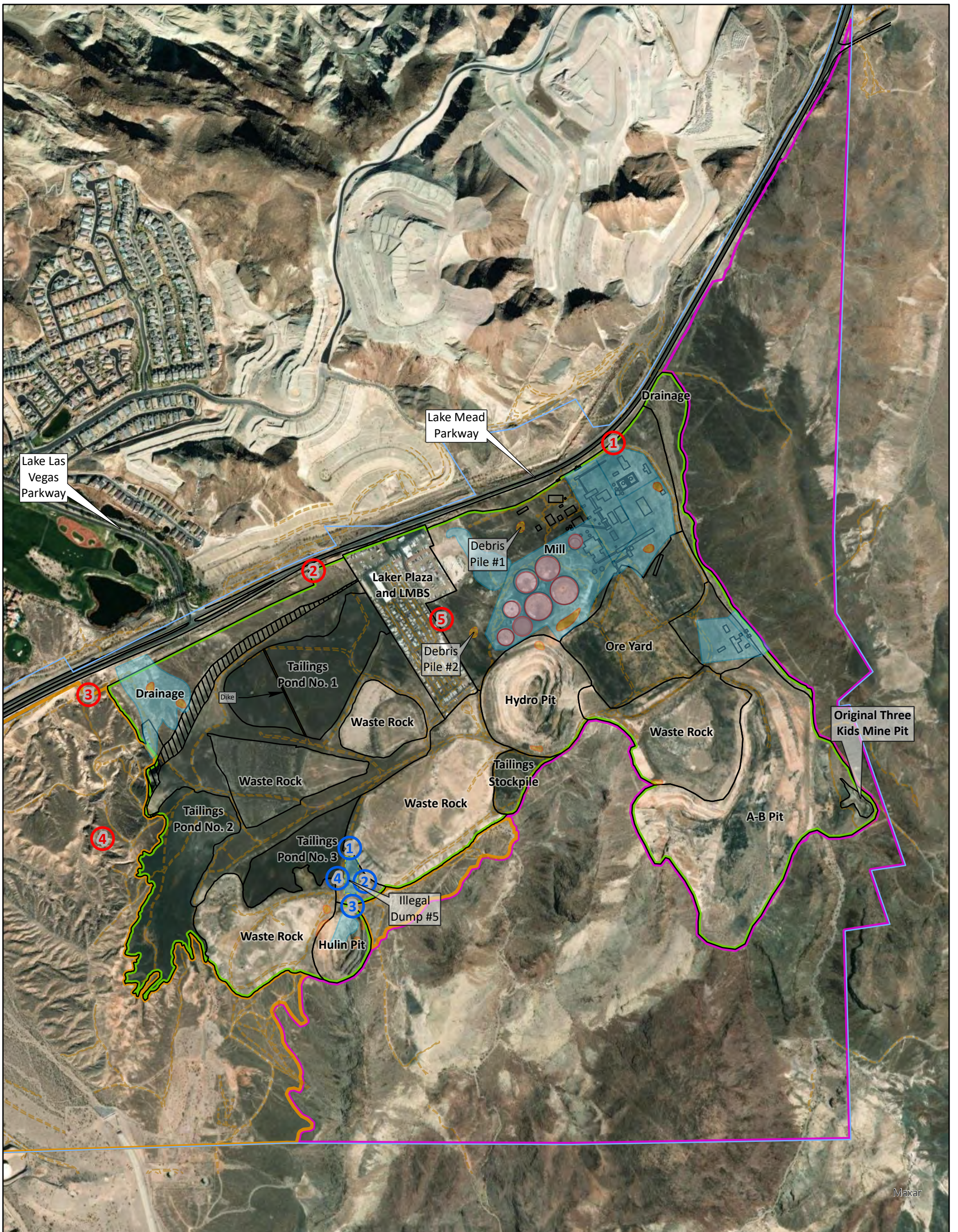
8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) • (702) 563-0610 (F)

Job # 14-01-156 Date: 9/19/2022

Notes:

1. Imagery Source: Esri World Imagery
2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
3. Not a survey. Derived from aerial imagery.

Designed	
Drawn	JCM
Approved	



Legend:

Stationary Air Monitoring Location to Evaluate Sensitive Receptors	Unimproved Road	Abate sporadic RACM debris under OSHA Class IV Work Practices and further evaluate area for additional suspect ACM
Example Construction Air Monitor Location for Regulated Area	Tailings Dam	Abate isolated RACM debris under OSHA Class IV Work Practices
Illegal Dump	Project Area	Abate RACM under OSHA Class I/ Class II Work Practices
Debris Pile	Mine Site	
Site Feature	Sedimentary Units (alluvium and Muddy Creek Formation)	
	River Mountain Volcanics	

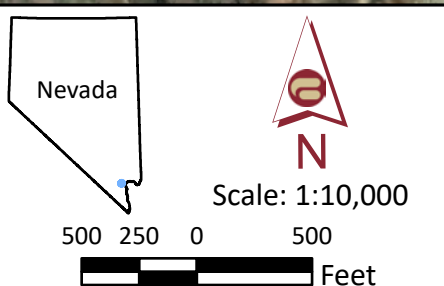


Figure C-2

Construction Air Monitor Locations

BROADBENT

8 West Pacific Avenue
Henderson, NV, 89015
(702) 563-0600 (P) • (702) 563-0610 (F)

Job # 14-01-156 Date: 9/19/2022

Notes:

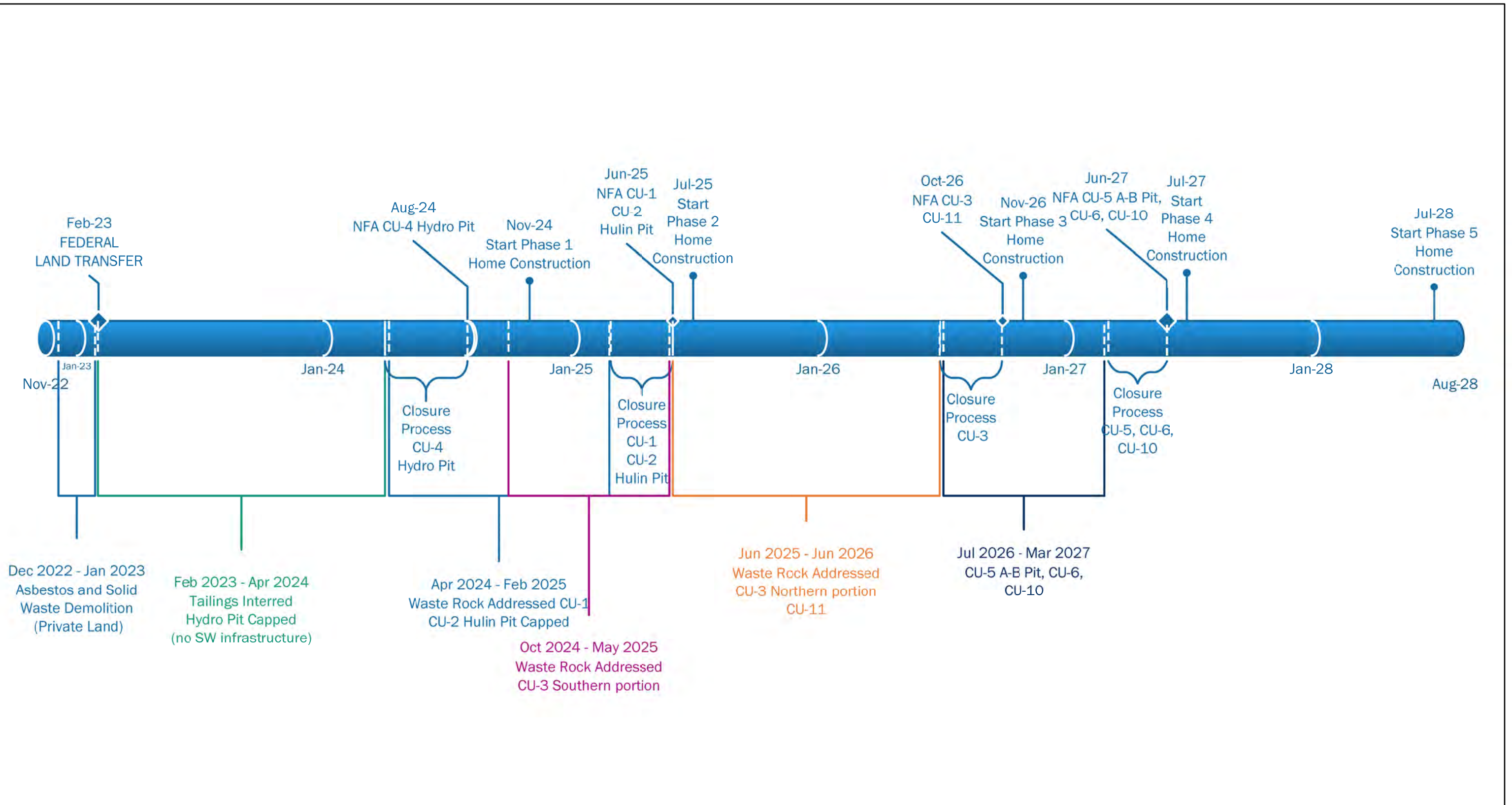
1. Imagery Source: Esri World Imagery
2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet
3. Not a survey. Derived from aerial imagery.
4. Construction air monitoring locations for regulated areas will be moved to each work area as work is performed.

Three Kids Mine

Designed	
Drawn	JCM
Approved	

APPENDIX D

Corrective Action Schedule



BROADBENT
 8 West Pacific Avenue
 Henderson, NV, 89015
 (702) 563-0600 (P) * (702) 563-0610 (F)

Job # 14-01-156 Date: 9/20/2022

Notes:
 1. Closure Units depicted in Figure 8-1.
 2. CU-7 (downwind volcanics) is anticipated to receive an NFA before this timeline.
 3. CU-8 and CU-9 are not addressed in the CAP or timeline and are separate from the Pulte agreement.

Figure D-1
 Closure Timeline
 Three Kids Mine

Designed	
Drawn	JCM
Approved	

Figure D-1
 Closure Timeline
 Three Kids Mine

Designed	
Drawn	JCM
Approved	