

Closure Unit 4 Work Completion Report, Revision 1
Three Kids Mine
Henderson, Nevada

Prepared for:

PN II. Inc., a Nevada Corporation
7255 S Tenaya Way, Suite 200
Las Vegas, NV 89113

Prepared by:



8 W. Pacific Ave
Henderson, NV 89105
702-563-0600
www.broadbentinc.com

June 16, 2026

Project No. 23-01-200



BROADBENT

8 West Pacific Ave., Henderson, NV 89015

[T] 702-563-0600 [F] 702-563-0610

broadbentinc.com

Creating Solutions. Building Trust.

June 16, 2026

Project No. 23-01-200

Bureau of Industrial Site Cleanup
Nevada Division of Environmental Protection
375 E. Warm Springs Rd., Ste. 200
Las Vegas, NV 89119
(Submitted Electronically via Email)

Attn: Alan Pineda, Supervisor

Re: **Closure Unit 4 Work Completion Report, Revision 1**
Three Kids Mine, Henderson, Nevada

Dear Mr. Pineda:

Please find attached the *Closure Unit 4 Work Completion Report, Revision 1* for the Three Kids Mine in Henderson, Nevada, pursuant to Paragraph 111 of the Mine Remediation and Reclamation Agreement and Administrative Order on Consent signed on November 17, 2023 (MRRRA-AOC). Please do not hesitate to contact us if you should have any questions or require additional information.

Sincerely,
BROADBENT & ASSOCIATES, INC.

Karen Gastineau, CEM, PG, CHG
Senior Hydrogeologist

Reviewed and Approved By:

Kirk Stowers, CEM
Principal Geologist

CC:

- JD Dotchin, NDEP
- Danielle Ward, NDEP
- Joe McGinley, McGinley & Associates, Inc.
- Caitlin Jelle, McGinley & Associates, Inc.
- Robert Unger, Lakemoor Ventures LLC
- Mindy Unger-Wadkins, Lakemoor Ventures LLC
- Leo Drozdoff, Drozdoff Group, LLC
- Karen Gastineau, Broadbent & Associates, Inc.
- Christene Klimek, City of Henderson
- Sean Robertson, City of Henderson
- Stephanie Garcia-Vause, City of Henderson
- Anthony Molloy, City of Henderson
- Quincy Edwards, Pulte Group
- Doug Adair, Pulte Group
- Paul Kenner, on behalf of Pulte Group
- Michael Ford, Snell & Wilmer
- Brad Cahoon, Dentons
- Charles M. Damus, Laker Development, LLC
- Darryn Padfield, River Mountain Bike Shop
- David Grossheim, Laker Plaza, Inc.
- Frank Sator, Laker Development, LLC
- Laird Sanders, Lake Mead Boat Storage
- Rhonda Sanders, Lake Mead Boat Storage
- Tyler Cahoon, Dentons

Closure Unit 4 Work Completion Report, Revision 1
Three Kids Mine
Henderson, Nevada

REVIEW AND APPROVAL:

JURAT: I, Karen Gastineau, 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, regulations, ordinances, and the requirements of the Mine Remediation and Reclamation Agreement and Administrative Order on Consent for the Three Kids Mine Site.

Karen Gastineau

Karen Gastineau
Senior Hydrogeologist
CEM #2468 (4/1/2027)

June 16, 2026

Date

TABLE OF CONTENTS

1.0	Introduction	1
1.1	Purpose	1
1.2	Date of NDEP Site Inspection	1
1.3	Organization	1
2.0	Background	2
2.1	Hydro Pit	2
2.2	Summary of Leaching Analysis	2
2.3	Closure Unit 4 Performance Standards	3
2.4	Roles and Responsibilities	4
3.0	Remediation and Reclamation Work Completed	4
3.1	Asbestos Abatement	4
3.2	Solid Waste Management	5
3.3	Tailings Remediation	5
3.4	Waste Rock Reclamation	8
3.5	Other Excavated Material	8
3.5.1	PAH-Impacted Soil	9
3.5.2	Northeast Drainage	9
3.6	Material Placement in the Hydro Pit	10
3.6.1	Quantities of Material Placed in the Hydro Pit	10
3.6.2	Settlement Monitoring	11
3.7	Liner System Installation	11
3.7.1	Silt Layer Placement	11
3.7.2	Anchor Trench Excavation	12
3.7.3	Liner Installation	12
3.7.4	Liner QC Testing	12
3.7.5	Drainage Net and Geotextile Installation	13
3.7.6	Backfilling the Anchor Trench	13
3.7.7	Drainage System Installation	13
3.8	Cover Construction	14
3.9	Geotechnical Oversight	15
3.10	Summary and Status of HHRA	15
3.11	Environmental Covenant	16
4.0	Future Request for NFA	16
5.0	Limitations	16

6.0	References	17
-----	------------------	----

LIST OF FIGURES

Figure 1	Site Location
Figure 2	Site Features Map – Closure Unit 4
Figure 3	Sitewide Asbestos Work Areas
Figure 4	Tailings Pond 3 West, Excavation Surface
Figure 5	Tailings Pond 3 East, Excavation Surface
Figure 6	Tailings Pond 2 South, Excavation Surface
Figure 7	Tailings Pond 2 North, Excavation Surface
Figure 8	Tailings Pond 1 West, Excavation Surface
Figure 9	Tailings Pond 1 East, Excavation Surface
Figure 10	Tailings Stockpile Area, Excavation Surface
Figure 11	Tailings Seam Southeast of LMBS, Excavation Surface
Figure 12	Tailings East of LMBS/South of Laker Plaza, Excavation Surface
Figure 13	Tailings-Impacted Soil North End of Closure Unit 3b
Figure 14	Tailings from Mill Site
Figure 15	PAH-Impacted Soil, Excavation Surface
Figure 16	Northeast Drainage, Excavation Surface
Figure 17	Hydro Pit Pre-Silt Layer Surface
Figure 18	Hydro Pit Top of Silt Layer Surface
Figure 19	Hydro Pit Liner As-Built
Figure 20	Hydro Pit Liner As-Built Details

LIST OF APPENDICES

Appendix A	Responses to NDEP Comments
Appendix B	Tailings Remediation Photos
Appendix C	Stamped Survey Drawings
Appendix D	PAH-Impacted Soil Excavation Verification Model
Appendix E	Earthwork Volume Reports
Appendix F	Hydro Pit Silt Layer Permeability Testing Results
Appendix G	Hydro Pit Silt Layer Under Liner Verification
Appendix H	Liner Surface Slope Analysis
Appendix I	Manufacturer’s Data Sheets
Appendix J	Liner QC Testing Records
Appendix K	Zone 1 and Zone 3 Material Testing Results
Appendix L	Hydro Pit Cover Verification Model

LIST OF ACRONYMS

AAC	Asbestos Abatement Consultant
AOC	Administrative Order on Consent
APN	Assessor's Parcel Number
Broadbent	Broadbent & Associates, Inc.
CC&Rs	covenants, conditions and restrictions
CEM	Certified Environmental Manager
cm/s	centimeters per second
CY	cubic yards
EA Engineering	EA Engineering, Science, and Technology, Inc. PBC
ft³	cubic feet
HDPE	high density polyethylene
HHRA	Human Health Risk Assessment
HOA	homeowners' association
LMBS	Lake Mead Boat Storage
MRRA	Mine Remediation and Reclamation Agreement
NDEP	Nevada Division of Environmental Protection
NDOT	Nevada Department of Transportation
NFA	No Further Action
PAHs	Polycyclic Aromatic Hydrocarbons
PAMP	Perimeter Air Monitoring Plan – Revision 1
psi	pounds per square inch
Pulte	PN II, Inc. dba Pulte Homes of Nevada
QC	Quality control
RACM	Regulated asbestos containing material
RAO	Remedial Action Objective
Remedial Design	Remedial Design Report, Revision 1
ROD	Record of Design
Site	Three Kids Mine site
SNHD	Southern Nevada Health District
WMK	Wallace Morris Kline Surveying

1.0 INTRODUCTION

On behalf of PN II. Inc., a Nevada Corporation (Pulte), Broadbent & Associates, Inc. (Broadbent) prepared this *Closure Unit 4 Work Completion Report* for Three Kids Mine site (the Site) in Henderson, Nevada. Pulte, under the oversight of 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. A Site Location Map is included as Figure 1.

1.1 PURPOSE

The purpose of the *Closure Unit 4 Work Completion Report* is to document work completed in Closure Unit 4, corresponding to the former Hydro Pit and depicted in Figure 2.

Work completed at the Site is in general accordance with the following documents:

- *Remedial Design Report, Revision 1* dated March 4, 2024 prepared by Broadbent (Remedial Design) and subsequent modifications, including:
 - *Modification No. 4 to the Remedial Design Report, Closure Unit and Borrow Area Boundary Modification* dated December 10, 2024 (Broadbent 2024b)
 - *Modification No. 7 to the Remedial Design Report, Hydro Pit Liner* dated July 21, 2025 (Broadbent 2025a)
 - *Modification No. 8 to the Remedial Design Report, Closure Unit Modifications* dated November 7, 2025 (Broadbent 2025b)
- *Record of Decision* dated September 2023 prepared by NDEP (ROD)
- Mine Remediation and Reclamation Agreement (MRRRA), referred to as the Administrative Order on Consent (AOC) pursuant to the Three Kids Mine Remediation and Reclamation Act, United States Public Law 113-135, Section 3.b.2.B., effective date February 28, 2024

As of the time of submittal, completion of the following activities is pending: 1) placement of additional cover material as defined *Modification No. 7 to the Remedial Design Report* and 2) connection of the Hydro Pit liner drainage system to the stormwater system for the development. Documentation of these actions will be submitted as addendums to this *Closure Unit 4 Work Completion Report*. A request for a No Further Action (NFA) determination for Closure Unit 4 will be included with final addendum submitted.

1.2 DATE OF NDEP SITE INSPECTION

NDEP conducted a site inspection on October 23, 2025 to observe the liner installation process. A pre-NFA NDEP site inspection will be conducted after performance standards for Closure Unit 4 have been met and prior to submittal of the NFA request, pursuant to Paragraph 111 in the MRRRA-AOC.

1.3 ORGANIZATION

The report is organized into six sections which include:

Section 1.0 Introduction provides the purpose of this report, date of NDEP site inspection, and lays out the organization of the report.

Section 2.0 Background describes the Hydro Pit, summarizes the leaching study, and lists performance standards for Closure Unit 4 as identified in the Remedial Design Report and *Modification No. 7 to the Remedial Design Report*.

Section 3.0 Remediation and Reclamation Work Completed describes steps taken to complete work required in the Remedial Design and subsequent modifications.

Section 4.0 Future Request for NFA will be included in an addendum to this *Closure Unit 4 Work Completion Report*.

Section 5.0 Limitations lists limitations of the report.

Section 6.0 References provides references cited in the report.

Responses to NDEP comments will be included in Appendix A in subsequent revisions.

2.0 BACKGROUND

Below is description of the former Hydro Pit, a summary of the leaching analysis for the backfilled Hydro Pit, and a list of performances standards required to complete work in Closure Unit 4 as defined in the Remedial Design and *Modification No. 7 to the Remedial Design Report*.

2.1 HYDRO PIT

The Hydro Pit, located approximately in the center of the mine site, was previously the deepest of three prominent open pits at the former Three Kids Mine used to extract manganese ore. Mining of the Hydro Pit began in 1956 and was completed by 1961 when the onsite mill was shut down. At its deepest, the Hydro Pit was approximately 300 feet deep. Overburden and waste rock removed from the pit was placed in waste rock dumps around the former mine site. After the mine site was abandoned, trash was disposed of in the Hydro Pit, including abandoned cars and boats, tires, and other debris.

The selected alternative included excavation of tailings from three tailings ponds and a tailings stockpile and placement in the Hydro Pit along with impacted soil from the mill site and some waste rock (NDEP 2023). An impermeable liner with two feet of cover material was also specified as part of the selected alternative to prevent infiltration in the backfilled Hydro Pit.

2.2 SUMMARY OF LEACHING ANALYSIS

Broadbent and EA Engineering, Science, and Technology, Inc. PBC (EA Engineering) prepared a leaching analysis demonstrating that site related chemicals including metals, organic compounds, and semi-volatile organic compounds in soils, rock, and mining waste would not impact groundwater beneath the Hydro Pit (Broadbent and EA Engineering 2022a). NDEP approved the leaching analysis on September 26, 2022 (NDEP 2022). The geochemical modeling scenario for the Hydro Pit included backfill with tailings and waste rock to a depth of 290 feet at a 90:10 ratio and installation of an impermeable synthetic cover. The model simulated the potential generation of leachate from the Hydro Pit in the deepest thickness of the backfill. Model inputs included average concentration of metals in leachate generated from tailings

material as the initial pore water leachate composition and hydraulic properties measured from tailings-waste rock mixtures. No infiltration was assumed based on the installation of the impermeable liner.

Model results showed that downward migration of metals and organics is retarded to variable degrees by sorption and degradation reactions via clays and iron oxide minerals present in tailings and natural materials and by solubility limits for constituents like calcium and sulfate. The reactive transport model shows little vertical migration below the bottom of the backfilled pit with a slow downward velocity of leachate estimated at a rate of 0.017 inches per year. Except for pH and arsenic, Nevada Profile I standards were not exceeded for the constituents at the base of the section in the backfill after 72 years of backfill drain down. Although arsenic concentrations in leachate exceeded Nevada Profile I standards, they were consistent with leachate generated by the ore body present at a thickness of 50 feet or more at the base of the Hydro Pit. Organic constituents modeled showed no breakthrough at the bottom of the Hydro Pit during the 72-year simulation. Overall, geochemical model results demonstrate the Hydro Pit backfilled with a tailings-waste rock mixture will not impact the waters of Nevada.

2.3 CLOSURE UNIT 4 PERFORMANCE STANDARDS

The Remedial Design listed the following performance standards for Closure Unit 4:

- Containment of tailings, waste rock, and contaminated soil in Hydro Pit
- Demonstration that fill placement and compaction standards have been met
- Installation and quality control testing of liner (including inspection of liner seam welds) covering tailings footprint and allowing for drainage away from Hydro Pit
- Placement of a minimum of two feet of native soil cover to protect liner
- Within 90 days of receiving an NFA determination, enact an environmental covenant that prohibits disturbance of liner, prohibits construction of residential homes, and prohibits installation of water supply wells for potable use.

Modification No. 7 to the Remedial Design Report Hydro Pit Liner was submitted to NDEP on July 21, 2025 and approved by NDEP on July 21, 2025 (Broadbent 2025a and NDEP 2025). The Hydro Pit liner was redesigned at a lower elevation due to the actual volume of tailings-waste rock mixture, allowing for a thicker cover and more flexibility for future park design features. Additionally, the footprint of the liner was modified to match the actual footprint of tailings-waste rock mixture. The modification serves as the basis for comparison of the as-built liner and the final cover thickness. Modification No. 7 also noted that development design plans no longer included a peaking/detention basin over the former Hydro Pit.

The performance standards listed above achieve the Remedial Action Objectives (RAOs):

- Prevent human exposure to mining wastes and soil that pose an unacceptable risk to human health and the environment via consolidation in the Hydro Pit and covering with an impermeable liner and native soil cover.
- Minimize leaching and transport of soil and waste into groundwater, surface water, and other Site soil via construction of an impermeable liner with a drainage system to direct water off the liner and away from buried mine waste.
- Prevent direct human exposure to asbestos via covering asbestos inside deep pits and transporting asbestos from the surface to an offsite disposal facility.

These actions eliminate potential exposure pathways and allow the site to be redeveloped for beneficial use.

2.4 ROLES AND RESPONSIBILITIES

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.

As specified in the MRRRA-AOC, Pulte is accepting responsibility for the Site remediation under the oversight of NDEP. The Site remediation and reclamation team includes:

- VT Construction, contractor implementing the Remedial Design;
- Broadbent, environmental oversight consisting of certified environmental managers (CEMs) and an asbestos abatement consultant (AAC) to oversee asbestos abatement;
- Logistical Solutions LLC, asbestos abatement contractor performing asbestos abatement activities;
- Centurion Consultants, geotechnical contractor;
- Wallace Morris Kline Surveying (WMK), licensed land surveyor;
- Westwood Professional Services, Inc. (Westwood), development design;
- EA Engineering, subcontractor to Broadbent providing expertise in geochemical modeling (leaching analysis) and risk assessment;
- Ramboll, subcontractor to Broadbent supporting the air monitoring program;
- EC Applications, liner installation and quality control (QC) testing; and
- 3-Rivers Drilling & Blasting, blasting contractor.

3.0 REMEDIATION AND RECLAMATION WORK COMPLETED

Actions taken at the Site to implement the Remedial Design related to Closure Unit 4 performance standards include asbestos abatement; solid waste management; excavation and containment of mine waste, including tailings, waste rock, and impacted soil; material placement in the Hydro Pit; liner system installation; cover construction; geotechnical oversight; preparation of a Human Health Risk Assessment (HHRA); and preparation of an environmental covenant.

Throughout remediation and reclamation work completed for Closure Unit 4, perimeter air monitoring was performed in accordance with the *Perimeter Air Monitoring Plan, Revision 1* (PAMP; Ramboll 2024). Air monitoring data are presented in the *2024 Annual Report of Site Work, Revision 1* (Broadbent 2025c) and *2025 Annual Report of Site Work* (Broadbent 2025d).

3.1 ASBESTOS ABATEMENT

Asbestos abatement began on May 1, 2024 and concluded on February 6, 2025. Logistical Solutions LLC served as a subcontractor to VT Construction and the licensed asbestos abatement contractor for the project responsible for performing the asbestos abatement. Broadbent served as the role of AAC, providing oversight during the performance of abatement activities, including guiding abatement

activities, performing air monitoring, collecting additional samples of bulk material as needed, and performing post-abatement inspections.

Three locations containing Regulated Asbestos Containing Material (RACM) were abated within Closure Unit 4: 09 – Hydro Pit Debris Pile, 10 – Hydro Pit Debris Pile, and 41– Hydro Pit Debris Pile. Locations 09 and 41 were covered and left in place within the Hydro Pit, consistent with the approach described in Broadbent’s letter to the solid waste management authority (SWMA) for the Site, the Southern Nevada Health District (SNHD), dated August 23, 2022 (Broadbent 2022). SNHD indicated the outlined approach was acceptable in an email dated August 29, 2022 (SNHD 2022). At location 10, approximately 405 cubic feet (ft³) of RACM were removed to allow for construction of a haul road into the Hydro Pit and disposed of offsite at the Republic Services disposal facility, located at 13550 North Highway 94, Las Vegas, Nevada. Asbestos abatement locations are depicted in Figure 3.

Additional details regarding asbestos abatement activities and results of perimeter air monitoring performed to evaluate airborne asbestos are included in the *Asbestos Removal Report – Revision 1* dated November 21, 2025 (Broadbent 2025e).

3.2 SOLID WASTE MANAGEMENT

Abandoned boats, automobiles, appliances, tires, and other municipal waste were dumped in the Hydro Pit after the mine shut down and prior to remediation. Solid waste in the Hydro Pit remained in place and was covered with backfilled tailings and waste rock as indicated in the Remedial Design. Additionally, the SNHD stated that this approach is acceptable in an email dated August 29, 2022 responding to Broadbent’s letter dated August 23, 2022 regarding the methods for solid waste management.

3.3 TAILINGS REMEDIATION

Although the tailings ponds were not located within Closure Unit 4, a key performance standard for Closure Unit 4 includes containment of tailings in the Hydro Pit, the deepest open pit in the former mine site. As such, tailings excavation and transport are described below.

VT Construction initiated tailings remediation on June 3, 2024. Material was excavated from the Tailings Stockpile area through June 4, 2024 to refine processes before expanding to larger-scale operations. Tailings remediation then resumed on June 17, 2024. Tailings were removed via excavator or loader, placed in a 777 haul truck, driven to the bottom of the Hydro Pit, and dumped on the floor of the Hydro Pit, where material was spread out with a bulldozer. The tailings ponds were excavated to a maximum depth of approximately one to three feet below the bottom of the tailings. Excavation of the additional material below the tailings allowed for a clean surface for visual inspections. The native material also helped achieve required compaction in the Hydro Pit. Waste rock was also transported to the bottom of the Hydro Pit as needed to aid in sufficient compaction. Additional information on compaction and geotechnical oversight is provided in Section 3.9.

After completing tailings excavation in each tailings pond, VT Construction surveyed the maximum excavation elevation in each tailings pond using a drone, and data was checked by WMK using surveyed control points. Additional details for each tailings pond are provided below. Photographs are included as Appendix B. WMK-verified survey surfaces are included in Appendix C.

Tailings Pond 3

Tailings Pond 3 was located north of the former Hulin Pit and is labeled “TP3” in Figure 2. Tailings Pond 3 remediation occurred from June 19, 2024 to August 14, 2024. Required CEM clearance occurred in two stages: the western portion of Tailings Pond 3 (Tailings Pond 3 West) and the eastern portion of Tailings Pond 3 (Tailings Pond 3 East).

An initial CEM clearance walk for Tailings Pond 3 West was completed on July 17, 2024. Control points were placed and surveyed by WMK the same day, and a VT drone collected elevation data of the maximum surface of excavation the following day, July 18, 2024. WMK used the surveyed control points to verify the drone-collected elevation data. Additional gray-stained waste rock material was removed from the edges of Tailings Pond 3 West, and a final CEM clearance walk was completed on July 22, 2024. Drone photographs were taken on July 25, 2024. Figure 4 depicts the elevation of the excavation surface of Tailings Pond 3 West. Appendix B includes photographs of Tailings Pond 3 as of July 25, 2024.

CEM clearance of Tailings Pond 3 East occurred on August 13, 2024. A VT Construction drone collected elevation data of the maximum surface of excavation, and WMK placed and surveyed control points on August 14, 2024. WMK used the surveyed control points to verify the drone-collected elevation data. Drone photographs were collected on August 16, 2024. The excavation surface of Tailings Pond 3 East is shown in Figure 5. Appendix B includes photographs of Tailings Pond 3 as of August 16, 2024.

Tailings Pond 2

Tailings Pond 2 was located on the western portion of the former mine site and is labeled “TP2” in Figure 2. Tailings Pond 2 remediation was initiated on August 2, 2024 and was completed on November 14, 2024. CEM clearance occurred in two stages: the southern portion of Tailings Pond 2 (Tailings Pond 2 South) and the northern portion of Tailings Pond 2 (Tailings Pond 2 North).

CEM clearance of Tailings Pond 2 South occurred on September 3, 2024. VT Construction collected elevation data via drone of the maximum surface of excavation and photographs the following day, September 4, 2024. Control points were also placed and surveyed by WMK on September 4, 2024, and WMK used the surveyed control points to verify the elevation data. The excavation surface of Tailings Pond 2 South is shown in Figure 6. Appendix B includes photographs of Tailings Pond 2 as of September 4, 2024.

CEM clearance of Tailings Pond 2 North occurred on November 14, 2024. VT Construction collected elevation data via drone of the maximum surface excavation and photographs on November 18, 2024. WMK surveyed control points on November 13, 2024 and used the surveyed control points to verify the elevation data. The excavation surface of Tailings Pond 2 North is shown in Figure 7. Appendix B includes photographs of Tailings Pond 2 as of November 18, 2024.

The north wall of the former Tailings Pond 2 was observed to have a gray color but was interpreted to be waste rock. Supporting evidence for this interpretation is described below. The north wall was an approximately 60-foot slope angled at about 45 degrees. The far northern edge of the wall is approximately 200 feet past the observed surface expression of Tailings Pond 2 during the Remedial Investigation. The top two-thirds of the slope varied in color from light gray to tan to white, while the bottom third was typically tan to white, similar to the floor of the former tailings pond. The grain size of material on the top two-thirds of the Tailings Pond 2 North wall was observed to be trace silt, fine to coarse sand, fine to coarse gravel, cobbles up to 12 inches, and boulders up to two feet. Boulders contained significant amounts of white material, interpreted to be gypsum, which is typical of waste rock

material at the Site. This is distinctly different from tailings, which consists of clay, silt, and fine sand. The color of gray material on the top two-thirds of the north wall is lighter than waste rock observed in other locations of the Site, as waste rock color varies from light gray to darker gray to tan. The north wall of Tailings Pond 2 is depicted on page 20 of Appendix B.

Tailings Pond 1

Tailings Pond 1 was located northwest of the former Hydro Pit and is labeled “TP1” in Figure 2. Tailings Pond 1 remediation began on October 4, 2024, and the bulk of Tailings Pond 1 material removal was completed on March 18, 2025. CEM clearance occurred in two stages: the western portion of Tailings Pond 1 (Tailings Pond 1 West) and the eastern portion of Tailings Pond 1 (Tailings Pond 1 East).

CEM clearance of Tailings Pond 1 West occurred February 18, 2025. VT Construction collected elevation data via drone of the maximum surface excavation on February 19, 2025, and control points were placed and surveyed by WMK on the same day. WMK used the surveyed control points to verify the elevation data. Drone photographs were taken on February 21, 2025. The excavation surface of Tailings Pond 1 West is shown in Figure 8. Appendix B includes photographs of Tailings Pond 1 as of February 21, 2025.

A CEM clearance walk for Tailings Pond 1 East was conducted on March 18, 2025, but clearance was not completed due to uncertainty of remaining depth of tailings next to the property line with Lake Mead Boat Storage (LMBS). VT Construction collected elevation data via drone of the maximum surface excavation on March 24, 2025, and control points were placed and surveyed by WMK on March 21, 2025. WMK used the surveyed control points to verify the elevation data. Drone photographs were taken on April 28, 2025. Elevation models confirmed that there was tailings material present within two feet of future grade along the LMBS property boundary, and additional excavation along the property line occurred on April 18, 2025. Additional tailings were identified near the middle-south end of the LMBS property line on April 29, 2025. Following a rainstorm on May 5 through 7, 2025, further tailings washed down from the LMBS property line which was subsequently excavated on May 13 through May 16, 2025. CEM observations were completed after removal of the washed-out material on May 16, 2025. VT Construction surveyed the elevation of the excavation surface using GPS equipment on the ground. Waste rock and cover material were placed on May 16, 2025 to avoid additional migration of material from the LMBS property line. A final CEM clearance of Tailings Pond 1 East was not completed until the removal of a remaining tailings seam located south of Tailings Pond 1 (see additional details below). A CEM clearance walk of Tailings Pond 1 East and the tailings seam southeast of Tailings Pond 1 was conducted on June 24, 2025. The excavation surface of Tailings Pond 1 East is shown in Figure 9.

Tailings Stockpile

The Tailings Stockpile area was located south of the former Hydro Pit and is labeled as “TS” on Figure 2. Tailings Stockpile remediation began on June 3, 2024 as stated above and was completed on September 3, 2024. CEM clearance of the Tailings Stockpile area occurred on September 3, 2024. VT Construction collected elevation data via drone of the maximum surface of excavation and photographs the following day, September 4, 2024. Control points were also placed and surveyed by WMK on September 4, 2025, and WMK used the surveyed control points to verify the elevation data. The excavation surface of the Tailings Stockpile area is shown in Figure 10. Appendix B includes photographs of the Tailings Stockpile area as of June 17, 2024; August 1, 2024; and September 4, 2025.

Tailings Seam Southeast of Tailings Pond 1

Following removal of tailings material along the Tailings Pond 1 East property boundary, a tailings seam was identified extending southeast of the former Tailings Pond 1 around the southern LMBS property line.

Excavation began on May 19, 2025 and continued until May 29, 2025, when work was paused. Three test pits were installed on June 4, 2025 to evaluate the seam's extent. The seam was subsequently removed and transported to the Hydro Pit on June 23 through 24, 2025. A CEM clearance walk of Tailings Pond 1 and the tailings seam southeast of Tailings Pond 1 was conducted on June 24, 2025. VT Construction collected drone-based elevation data and photographs of the maximum excavation surface the same day. Control points were surveyed by WMK on July 8, 2025, and WMK used the surveyed control points to verify the elevation data. The location of tailings material removed and excavation surface are depicted in Figure 11. Appendix B includes photographs of the cleared area as of June 24, 2025 and a drone photograph as of July 29, 2025.

Tailings East of LMBS/South of Laker Plaza

A trench was installed along the Laker Plaza and LMBS property lines to relocate a utility line. During the trench exaction, tailings were identified in the corner of the two properties, east of LMBS and south of Laker Plaza. Tailings material was removed and transported to the Hydro Pit on February 11, 2025. A CEM clearance walk was conducted the same day. The location of tailings material removed and excavation surface are depicted in Figure 12. Appendix B includes photographs of the tailings excavation and cleared area on February 11, 2025.

Tailings-Impacted Soil in the North End of Closure Unit 3b

Soil apparently impacted by tailings was observed at the north end of Closure Unit 3b/Development Area 4 during excavation of waste rock and native soil to accommodate the 10-foot cover. The tailings-impacted soil was removed and placed in the Hydro Pit on May 13, 2025, and a CEM clearance walk occurred on May 14, 2025 which confirmed removal of the tailings material. The location of material removed is depicted in Figure 13. Appendix B includes photographs of the impacted soil on April 24, 2025 and the cleared area as of May 21, 2025.

Tailings from Mill Site

A layer of tailings material approximately one-half to two feet thick was identified southeast of the flotation cell area of the mill site on March 19, 2025. The tailings material was excavated and transported to the Hydro Pit on March 25 and 26, 2025. CEM clearance occurred on March 26, 2025. The location of material removed is depicted in Figure 14. Appendix B includes photographs of the tailings material on March 19, 2025 and the cleared area as of March 26, 2025.

3.4 WASTE ROCK RECLAMATION

Concurrently with tailings remediation, waste rock piles were ripped with a bulldozer and pre-soaked using sprinklers to increase the moisture content to reduce dust and assist in achieving required compaction. Waste rock was added to the Hydro Pit as needed to achieve compaction. Waste rock was excavated, transported, placed, and compacted using bulldozers, excavators, loaders, scrapers, and haul trucks with assistance from water trucks and water pulls as dust control and water conditioning.

3.5 OTHER EXCAVATED MATERIAL

In addition to tailings, the Remedial Design specified that polycyclic aromatic hydrocarbon (PAH)-impacted Soil and chemical processing release material in the northeast drainage would be placed in the Hydro Pit due to presence of petroleum hydrocarbons. Details on remediation of PAH-impacted soil from the mill site and chemical processing release material in the northeast drainage are provided below.

3.5.1 PAH-Impacted Soil

Excavation of PAH-impacted soil in the chemical processing (flotation cell) area, thermal processing area, and fuel farm areas of the mill site began on August 14, 2024 and was completed on June 24, 2025. Model confirmation using survey data was completed on August 19, 2025. As specified in the Remedial Design, the top two feet of soil were removed from the three areas. VT Construction collected pre-excavation survey data via drone on June 19, 2024, which was verified by WMK on June 10, 2024 and June 19, 2024. Post-excavation surveys were taken by VT Construction and verified by WMK on June 5, 2025 for the majority of the PAH-impacted soil excavation area. Survey data for two additional areas was taken on June 26, 2025 by VT Construction and verified by WMK on July 8, 2025. The final excavation surface is depicted in Figure 15 with areas surveyed on June 5, 2025 in gray and areas surveyed on June 26, 2025 in brown, and the model depicting the depth of excavation (difference between the two surfaces) is included as Figure EX-1 in Appendix D.

The purpose of the two-foot excavation in the three mill site areas was to remove soil impacted with PAHs and other Site contaminants. In many instances, concrete or bedrock was encountered within two feet of the surface. As a result, the model does not show that two feet of soil were removed in those areas. This includes the concrete flotation cell structures, the octagonal sumps, and several other underground concrete and bedrock locations. Two other locations in the model indicate that two feet of impacted soil was not removed: location #19 and location #37. Location #19 consists of a slope built up as part of the second construction water pond as well as a J-stand for filling water units. Soil was removed to two feet below original grade to the extent possible without compromising the construction water pond. Location #37 contains a thin layer of track-out rock added after the two-foot excavation was completed in that area. These two locations and other concrete and bedrock locations were documented by Broadbent with coordinates shown in Figure EX-2 and photographs, both included in Appendix D.

Bunker fuel was removed from the fuel farm area, transported offsite, and disposed of at the Apex Landfill on April 30, 2025. Additional PAH-impacted soil was excavated from the fuel farm area with CEM oversight and transported to the Hydro Pit from April 30 to May 8, 2025. Material visibly impacted with oil was identified and transported to the Hydro Pit. Additional excavation of soil below the former bunker fuel sumps was excavated to 13 feet below ground surface and transported to the Hydro Pit on June 24, 2025. Appendix B includes photographs of the fuel farm excavation on May 1, 2025 and the cleared area as of May 9, 2025.

3.5.2 Northeast Drainage

A chemical processing release material was observed during the Remedial Investigation as a thinly bedded layer of fine-grained black material with a sweet/hydrocarbon odor. Excavation of chemical processing release material in the northeast drainage occurred from March 10, 2025 to April 2, 2025. Excavated material was transported to the Hydro Pit. The bulk of chemical processing release material was removed from March 10 to March 12, 2025. Four test pits were installed near samples SS-333-22 and SS-333-02 collected during the Remedial Investigation to confirm lack of chemical processing release material in those areas post-excavation. A CEM cleared the area based on visual confirmation. Additional chemical processing release material was excavated directly adjacent to the Nevada Department of Transportation (NDOT) right-of-way on March 25, 2025 and April 2, 2025. Excavation areas were backfilled with waste rock on April 3 to April 4, 2025 to cover remaining chemical processing material in the NDOT right-of-way

and to avoid future ponding of water. Figure 16 depicts the excavation area and surface in the northeast drainage. Appendix B includes photographs of the northeast drainage excavation on March 11, 2025 and March 12, 2025 and the cleared area as of October 2, 2025.

3.6 MATERIAL PLACEMENT IN THE HYDRO PIT

Tailings, waste rock, impacted soil, and native soil from below tailings were placed in the Hydro Pit in lifts using haul trucks. A haul road was established into the Hydro Pit starting in mid-May, completed by May 28, 2024. The Hydro Pit access road allowed for haul trucks and light vehicles to access the bottom of the pit, and multiple passing areas for haul trucks allowed for two-way traffic. After placement in the pit, material was further spread and compacted using bulldozers and rolling with haul trucks. This method of placement differed from the method described in the Remedial Design, in which tailings would have been dumped over the side of the pit during one shift, and rehandled and compacted from the bottom of the pit during the second shift. The placement method used was safer and more conducive to effective dust control.

3.6.1 Quantities of Material Placed in the Hydro Pit

The total volume of tailings, waste rock, impacted soil, and native material below tailings added to the Hydro Pit was 2,379,051.2 cubic yards (CY). This volume was estimated by comparing the original topography of the Hydro Pit to the final topography prior to liner installation, accounting for compaction and shrinkage.

Surveys for quantities of tailings material excavated from each tailings pond and placed in the Hydro Pit were flown as portions of the ponds were completed. Estimated quantities of material removed from ponds were calculated by comparing the pre-excavation surface and the post-excavation surface and are provided below.

- 243,750.4 CY were removed from Tailings Pond 3 as of August 6, 2024.
- 30,989.9 CY were removed from the Tailings Stockpile area as of August 6, 2024.
- 131,708.1 were removed from Tailings Pond 2 South as of September 25, 2024.
- 928,183.8 CY were removed from Tailings Pond 2 North as of November 13, 2024, for a total of 1,059,891.9 CY from Tailings Pond 2.
- 929,146.3 CY of material was removed from Tailings Pond 1 as of February 19, 2025.

Earthwork Volume Reports are included as Appendix E.

To estimate relative quantities of materials in the Hydro Pit, multiple methods were used. The volume of tailings placed was estimated using the flight survey data. Native soil/rock beneath the tailings was estimated to have been excavated at an average depth of two feet below the base of the tailings. A volume of native soil/rock below tailings was calculated using this assumption and the total excavation area from each pond as shown in the flight survey data. The volume of native soil/rock beneath the tailings was subtracted from the total volume of material removed from the tailings ponds. Lastly, the volumes of waste rock and impacted soil placed in the Hydro Pit were estimated based on haul truck load counts. The approximate composition of material placed in the Hydro Pit is as follows: 75% tailings, 10% waste rock, 10% native soil/rock, and 5% impacted soil.

3.6.2 Settlement Monitoring

After placement of silt material on top of the tailings-waste rock mixture (described in more detail below in Section 3.7.1) and prior to installation of the liner, WMK installed six settlement monitoring stations around the Hydro Pit. The first three settlement monitors were installed on July 10, 2025. Two additional settlement monitors were added on August 4, 2025, and the sixth settlement monitor was added on August 6, 2025. Elevation measurements were collected by WMK on working days at the six stations until September 10, 2025. Centurion analyzed the settlement data to decide when settlement had slowed enough to proceed with liner installation. Centurion reported their findings and recommended proceeding with liner installation in a report titled *Settlement Monitoring Phase 1 – Report for Hydro Pit* revised on March 12, 2026 and provided to NDEP on June 16, 2026 (Centurion 2026a).

3.7 LINER SYSTEM INSTALLATION

The designed Hydro Pit Liner System is depicted in the revised Figure G-17 in the *Modification No. 7 to the Remedial Design Report, Hydro Pit Liner* dated July 21, 2025. The liner system consists of a one-foot silt layer with a permeability of 1×10^{-5} centimeters per second (cm/s) or less, a 60-mil high density polyethylene (HDPE) smooth liner, a 0.2-inch drainage net, and an eight-ounce geotextile fabric. The liner system also includes a drainage system consisting of a trapezoidal channel with a six-inch perforated HDPE pipe filled with Zone 3 material (drain rock).

A CEM was present each day of liner installation activities. During their observation of the liner installation, the CEM documented liner installation equipment and activities, confirmed placement of the liner to the anchor trench, helped inspect areas needing repairs, and observed the welding and QC processes. The CEM was also present to confirm that the liner system was installed according to the Remedial Design and Modification No. 7. Additional details on liner system installation are provided below.

3.7.1 Silt Layer Placement

The Remedial Design included a silt bedding layer under the liner (underliner) to prevent the percolation of water to the tailings and provide a flat surface on which the 60-mil HDPE liner could be installed. A permeability of no greater than 1×10^{-5} centimeters per second (cm/s) was specified in the Remedial Design. Permeability testing for two different sources of silt material from parcels being developed in Lake Las Vegas, Parcel H (a portion of Assessor's Parcel Number [APN] 160-27-212-001) and Parcel J2 (APNs 160-15-714-001, 160-15-719-001, and 160-15-718-038) resulted in estimated permeabilities of 4.34×10^{-7} cm/s and 7.71×10^{-6} cm/s, respectively. Permeability testing results are included as Appendix F.

Placement of silt material was conducted on June 11, 2025 through July 31, 2025 and September 11, 2025 through September 22, 2025. Silt material was placed in the Hydro Pit with scrapers, then graded and leveled using a grader. Compaction was performed using scrapers, empty haul trucks, water trucks while applying water throughout the pit, and a roller. The roller was further used to create a flat surface free of gravel. Voids were filled by hand with sandy material. Immediately before installing the HDPE liner, a roller smoothed the area where the liner would be placed. A figure depicting the Hydro Pit surface prior to silt placement is included as Figure 17, and a figure depicting the surface after silt placement is included as Figure 18.

A model demonstrating the silt layer's minimum thickness of one foot is included as Appendix G. The silt layer is one-and-a-half to two feet thick in most places. An analysis of the slope of the silt layer liner bedding is included as Appendix H. The slope of the liner is greatest in the southeast corner (approximately 7%), approaches 1% in the center, and increases to approximately 4% near the drainage outlet on the northwest corner.

3.7.2 Anchor Trench Excavation

WMK placed stakes to identify the edge of the designed liner, typically offset at 20 feet outside of the edge. VT Construction then dug the anchor trench using a small excavator with an 18-inch-wide bucket. The anchor trench in the southern portion of the Hydro Pit was excavated on October 2 and 3, 2025, and the anchor trench in the northern portion of the Hydro Pit was excavated on October 15 and 16, 2025. On October 24, 2025, WMK surveyed the edge of the anchor trench to confirm that the actual liner footprint extended past the edge of the tailings-waste rock mixture. Two areas were modified based on those results. The existing anchor trench was backfilled, the silt layer was rerolled, and the anchor trench was excavated again on October 28, 2025 and reverified by WMK on October 29, 2025. Survey data from October 29, 2025 confirmed that the liner extends at a minimum to the end of the tailings-waste rock mixture.

3.7.3 Liner Installation

EC Applications of Anaheim, California, subcontractor to VT Construction, installed the liner system over the Hydro Pit from October 14, 2025 until October 31, 2025. The process included liner placement, welding sections together, QC testing, geocomposite (drainage net plus geotextile) placement, and backfilling the anchor trench.

The 60-mil HDPE smooth liner (SKAPS product number 60-HD-00-BLK-BLK-AVG-STD-24.00) was delivered on 49 rolls. Product certification records are included as Appendix I. The liner crew began by loading a support rod into the HDPE liner spool on a forklift. The liner was then manually rolled out and placed on the silt layer as the forklift reversed and unspooled the liner. A tie-in is created when the end of a previously laid layer is connected to a new layer. When a new liner section is deployed, it overlaps neighboring liners by a minimum of six inches to allow sufficient overlap to create a proper weld.

The overlapped HDPE smooth liners are welded together using a Demtech 3XL Pro Wedge welder, which creates a dual-track fusion weld—two parallel seams with an internal air channel. The machine applies heat and pressure to create the seal, and the air channel enables later QC testing. Sections that were cut out for testing, defective welds, or protruding rocks that damage the liner are cut out then patched using a Pro-X extrusion welder. Extrusion welding consists of melting a plastic rod and extruding the molten material through a nozzle, then applying pressure to create a strong bond as the joint cools.

An as-built figure of the liner is included as Figure 19.

3.7.4 Liner QC Testing

EC Applications performed three types of QC tests on the HDPE liner, described in more detail below. QC tests passed within acceptable ranges. QC records prepared by EC Applications are included as Appendix J.

1. **Tensile Strength Test:** A small section of the welded liner is cut out and tested using a DemTech Pro-Tester Double Pull Tensiometer. The test applies tensile stress until the liner tears. The weld must remain intact, and the minimum tensile strength requirement is 91 pounds per square inch (psi). A failed weld indicates poor quality and requires repair. Tensile strength test results are included on the Destructive Sample Information Form.
2. **Air Channel Pressure Test:** Three sides of a small square are cut out from the dual-track weld of each section. A blow torch is used to melt the ends to isolate the air channel between the dual welds. A needle gauge is inserted in one end of the isolated section and air is applied at 25 to 30 psi and monitored for five minutes. If the pressure holds, the weld passes. Any pressure loss greater than five psi prompts an investigation of the leak and is repaired and retested. At least one air channel pressure test was conducted on each seam between two liner pieces. Air channel pressure tests are included on the Seam Control Form.
3. **Extrusion Weld Test:** Soapy water is applied to the extrusion weld, and a vacuum box is placed over the area. A vacuum is applied, and the weld is observed for bubbles. Bubbles indicate a failed weld requiring rewelding. If no bubbles appear, the weld passes. Each extrusion weld was tested with the vacuum method. Extrusion weld tests are included on the Repair Report.

In addition to the three types of QC tests, EC Applications also performed checks on their equipment twice per shift: once at the start of the shift and once after a midday break. These equipment tests are documented on the Preweld Test Report.

3.7.5 Drainage Net and Geotextile Installation

The 0.2-inch drain net and 8-oz geotextile were installed as a combined geocomposite material (SKAPS product number TN 220-1-8). The Remedial Design specified a 6-oz geotextile, and the 8-oz geotextile exceeds that rating. Product certification records are included as Appendix I. The geocomposite layer was placed over the smooth HDPE liner in the same configuration as the liner pieces. A forklift lifted the spools of geocomposite from the edge, and the material was rolled out manually. Each layer of geocomposite was deployed with a six-inch overlap, and sections of drainage net were tied together using zip ties, spaced approximately every five feet along seams and every one foot at tie-ins. The geotextile fabric on top is sealed using a torch to keep the geotextile in place and prevent cover material from reaching the drainage net.

3.7.6 Backfilling the Anchor Trench

Both the HDPE liner and the geocomposite material extend into the anchor trench. The liner was cut beyond the midpoint of the trench along the backside of the trench, then the trench was backfilled with silt material and compacted using the grader that pushes the material into the trench.

3.7.7 Drainage System Installation

The Hydro Pit drainage system consists of the drainage net layer and a trapezoidal channel with a perforated pipe covered with Zone 3 material (drain rock) leading to an outlet at the low end of the Hydro Pit on the northwest corner. The drainage channel is approximately ten feet wide and two feet deep and was excavated into silt material by dragging a trapezoidal unit on September 29 and 30, 2025. The channel

was fine graded on October 6 through 8 and October 20, 2025. Fine grading was accomplished using a roller, and laborers removed gravel and filled voids with sand as needed. The bottom of the channel is lined with a minimum of one foot of the silt material (as described in Section 3.7.1). EC Applications installed the HDPE liner and the geocomposite material into the drainage channel as part of the liner installation described above in Sections 3.7.3 through 3.7.5. The Remedial Design included only drainage net on top of the liner at the bottom of the drainage channel, but because the drainage net and geotextile material were installed from one roll, the geotextile material was also placed into the drainage channel. This has the added benefit of protecting the drainage net at the base of the channel from the Zone 3 drain rock material used to fill the channel.

A six-inch perforated HDPE pipe was installed in the drainage channel on December 2 through December 5, 2025. Specifications for the HDPE pipe material are included in Appendix I. An analysis of the slope of the drainage channel is included on Figure 19 and demonstrates a minimum of 0.5% slope for the perforated pipe. Three short sections do not meet the minimum slope requirement. However, there is positive drainage throughout the channel system with a minimum slope of 0.23% so water will drain and not pond. This was confirmed during two rain events that occurred after the drainage channel was lined, but before it was backfilled with Zone 3 material. On November 16, 2025, 0.65 inches of rain were recorded at the onsite meteorological station and on November 19, 2025, 0.42 inches were recorded. In both instances, water did not pond in the drainage channel except at an unfinished portion (as of mid-November) where the T-connection was yet to be tied in to the interim drainage pipe. On December 5, 2025, the perforated drainage pipe was connected to the interim drain pipe using a T-connection tightened with hose clamps. Details of the drainage system are depicted in the Hydro Pit Liner As-Built Detail included as Figure 20. The interim drainage will eventually tie in to the stormwater channel built as part of the development. Details will be provided in an addendum to this report.

Zone 3 material, specified as 100% passing a 3/8-inch sieve and 100% retained on a 1/8-inch sieve with a uniformity coefficient of 1.9 to 2.4, free of organics, and particles that are subangular to rounded, was procured from offsite. Broadbent field personnel observed that the material appeared to be subangular and was free of organics. Test results showed that the uniformity coefficient was met at 2.24. The Zone 3 material was slightly more coarse than specified, with 13% retained on the 3/8-inch sieve. However, the 13% fraction did pass the 1/2-inch sieve. The Zone 3 material also contained more fine-grained material than specified, with 5% of material passing the number 8 sieve (0.0937 inches). The engineer of record for the liner system reviewed and approved the material as documented in a memorandum dated November 25, 2025. NDEP also reviewed and approved the material in an email dated December 1, 2025. The memorandum referenced and the Zone 3 testing results are provided in Appendix K. Zone 3 material was used to backfill the trapezoidal channel on December 2 through December 5, 2025. VT Construction installed a layer of geocomposite material on top of the Zone 3 material by attaching the drainage net with zip ties and sealing the geotextile with a torch as described in Section 3.7.5.

3.8 COVER CONSTRUCTION

The Remedial Design specified one foot of Zone 1 material over the geocomposite layer, defined as processed or natural material with 100% passing a 3/4-inch sieve that is subangular to rounded, free of organics, and has a uniformity coefficient of 1.9 to 2.4. Cover material was sourced from Development Area 1, also identified as the Sedimentary Unit Background/Muddy Creek Formation in the *Background Soil Report, Revision 2* (Broadbent and EA Engineering 2022b) and the *Human Health Risk Assessment* (Broadbent and EA Engineering 2025). Material was stockpiled south and east of the Hydro Pit. Zone 1

material was pre-conditioned with moisture using sprinklers and water units. An assembly with a screen and radial conveyor belts was used to separate material using a 3/4-inch screen. Broadbent field personnel observed that the material was free of organics and appeared to be subrounded to subangular. The Zone 1 material met the uniformity coefficient requirement with a value of 2.3. Test results showed that only 98% rather than 100% of the material passed the 3/4-inch sieve. However, 100% of the material passed the 1-inch sieve. The engineer of record for the liner system reviewed and approved the material as documented in a memorandum dated November 25, 2025. NDEP also reviewed and approved the material in an email dated December 1, 2025. The Remedial Design also specified one foot of material less than three inches on top of the Zone 1 material. Instead, two feet of Zone 1 material was placed, as Zone 1 material meets the specifications for the second layer of material less than three inches. The memorandum referenced and the test results of the Zone 1 material after screening are included in Appendix K.

Zone 1 cover material was belted on top of the geocomposite layer then spread out to a minimum thickness of two feet with a wide-track bulldozer to minimize weight and pressure on the liner system. Wrinkles in the geocomposite layer were flattened using manual labor as the bulldozer spread cover material. If wrinkles did occur, they were positioned upwards or pointing downslope. A water unit was used to increase compaction and for moisture conditioning. The surveyed surface of the two-foot cover is included in Appendix C. A model depicting the depth of cover material over the liner is included in Appendix L. A compaction of 95% was specified in the Remedial Design. Compaction testing results are included in the revised *Partial Final Grading Report – Update 1, Lakemoor Mass Grading, Hydro Pit (DA5) and Hulin Pit (DA2)* dated December 12, 2025.

As shown in *Modification No. 7 to the Remedial Design Report*, additional cover material will be placed on top of the two-foot cover. Details on this work will be presented in a separate addendum to this report, along with a demonstration that ten feet of cover material was placed in areas of Closure Unit 4 outside of the liner footprint.

3.9 GEOTECHNICAL OVERSIGHT

Geotechnical oversight of the project is performed by Centurion Consultants on behalf of Pulte in accordance with the *Geotechnical Exploration Report* dated March 31, 2022 and prepared by Centurion Consultants (2022). Centurion personnel are onsite on a continuous basis to observe placement of deep fills, including tailings, native soil and rock, and waste rock in the Hydro Pit. Continuous visual observations include verifying fill material and placement in accordance with the geotechnical recommendations, proper moisture conditioning, lift thickness, and sufficient compaction. Compaction is done via tracking, equipment traffic, and surcharge load effects and is confirmed via proof rolling with heavy equipment. Centurion also oversees placement of cover material. Additional details are provided in Centurion's *Partial Final Grading Report – Update 1 – Rev1, Lakemoor Mass Grading, Hydro Pit (DA5) and Hulin Pit (DA2)* dated June 16, 2026 (Centurion 2026b).

3.10 SUMMARY AND STATUS OF HHRA

The HHRA for borrow areas for native soil cover titled *Human Health Risk Assessment for Soil Borrow Areas, Revision 1* was submitted to NDEP on January 5, 2026 (Broadbent and EA Engineering 2026) and approved by NDEP on January 21, 2026 (NDEP 2026). The HHRA was completed to evaluate potential risks to human health and the environment due to exposure to analytes in native soils used as cover material.

Native soil from the Muddy Creek Formation, River Mountain Volcanics, and Downwind River Mountain Volcanics areas were demonstrated to be acceptable for use in a residential community.

3.11 ENVIRONMENTAL COVENANT

Pulte submitted a draft environmental covenant to NDEP on March 29, 2024, within 30 days of the Effective Date of the MRRRA-AOC pursuant to Paragraph 49. NDEP and Pulte worked together to create a final draft dated February 26, 2026.

The environmental covenant provides the following restrictions on Closure Unit 4:

- The installation of wells for potable water use is prohibited.
- Pulte's covenants, conditions and restrictions (CC&Rs) applicable to the Property will prohibit homeowners' associations (HOAs) or the City of Henderson, from any excavation more than eight feet below the finished grade. This prohibits excavation within one foot of the liner.
- Construction of residential homes is prohibited.

Pulte acknowledges that an environmental covenant must be recorded within 90 days of receiving an NFA determination for Closure Unit 4. Title evidence and a certified copy of the original recorded instrument showing the clerk's recording stamps will be submitted to NDEP upon recording.

4.0 FUTURE REQUEST FOR NFA

An addendum to this *Closure Unit 4 Work Completion Report* will contain the request that NDEP issue an NFA determination for Closure Unit 4 of the former Three Kids Mine Site. Relevant information necessary to support the request is contained herein with the following exceptions, to be included with the addendum:

- Demonstration of placement of native soil cover as shown in *Modification No. 7 to the Remedial Design Report, Hydro Pit Liner* dated July 21, 2025
- Additional settlement monitoring data of the native soil cover placed over the Hydro Pit liner
- Demonstration that the Hydro Pit liner drainage system was connected to the stormwater system for the development

Outstanding documentation listed above is anticipated to be completed and submitted as development of the Site progresses eastward.

5.0 LIMITATIONS

The findings presented in this report are based upon observations of field personnel, points investigated, survey data, and laboratory analytical results. 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.

6.0 REFERENCES

- Broadbent & Associates, Inc. (Broadbent). 2022. *Letter Re: Approach for Solid Waste Management, Three Kids Mine, Henderson, Nevada*. August 23.
- Broadbent. 2024a. *Remedial Design Report, Revision 1, Three Kids Mine, Henderson, Nevada*. March 4.
- Broadbent. 2024b. *Modification No. 4 to the Remedial Design Report, Closure Unit and Borrow Area Boundary Modification, Three Kids Mine, Henderson, Nevada*. December 10.
- Broadbent. 2025a. *Modification No. 7 to the Remedial Design Report, Hydro Pit Liner, Three Kids Mine, Henderson, Nevada*. July 21.
- Broadbent. 2025b. *Modification No. 8 to the Remedial Design Report, Closure Unit Modifications, Three Kids Mine, Henderson, Nevada*. November 7.
- Broadbent. 2025c. *2024 Annual Report of Site Work, Revision 1, Three Kids Mine, Henderson, Nevada*. March 14.
- Broadbent. 2025d. *2025 Annual Report of Site Work, Three Kids Mine, Henderson, Nevada*. October 10.
- Broadbent. 2025e. *Asbestos Removal Report – Revision 1, Three Kids Mine, Henderson, Nevada*. November 21.
- Broadbent and EA Engineering, Science, and Technology, Inc. PBC (EA Engineering). 2022a. *Leaching Analysis Report, Revision 1, Three Kids Mine, Henderson, Nevada*. August 17.
- Broadbent and EA Engineering. 2022b. *Background Soil Report, Revision 2, Three Kids Mine, Lakemoor Ventures, LLC*. April 5.
- Broadbent and EA Engineering. 2026. *Human Health Risk Assessment for Soil Borrow Areas, Revision 1, Three Kids Mine*. January 5.
- Centurion Consultants, Inc. (Centurion). 2022. *Geotechnical Exploration Report, Three Kids Mine Site Mixed-Use Development, Sec Lake Mead Parkway and Lake Las Vegas Parkway, Henderson, Nevada*. Prepared for: Pulte Homes. March 31.
- Centurion. 2026a. *Settlement Monitoring Phase 1 – Report for Hydro Pit, Lakemoor Development Project, SEC Lake Mead Parkway & Lake Las Vegas Parkway, Henderson, Nevada*. March 12.
- Centurion. 2026b. *Partial Final Grading Report – Update 1 – Rev1, Lakemoor Mass Grading, Hydro Pit (DA5) and Hulin Pit (DA2), Lake Mead Blvd/Lake Las Vegas, Henderson, NV 89015, COHB&G Permit No.: BSGR2024307736, Project No. 2023241050, Date: 10/6/2025, Update: 12/12/2025, Revision Date: 6/16/2026*. Prepared for VT Construction.
- Nevada Division of Environmental Protection (NDEP). 2022. *Letter Re: H-001347, Former Three Kids Mine, NDEP Response to: Leaching Analysis Report, Revision 1, Dated: August 17, 2022*. September 26.

NDEP. 2023. *Record of Decision*. Three Kids Mine Site. September.

NDEP. 2025. *Letter Re: H-001347, Former Three Kids Mine, NDEP Response to: Modification No. 7 to the Remedial Design Report, Hydro Pit Liner, Revision 1, Dated: July 21, 2025*. July 21.

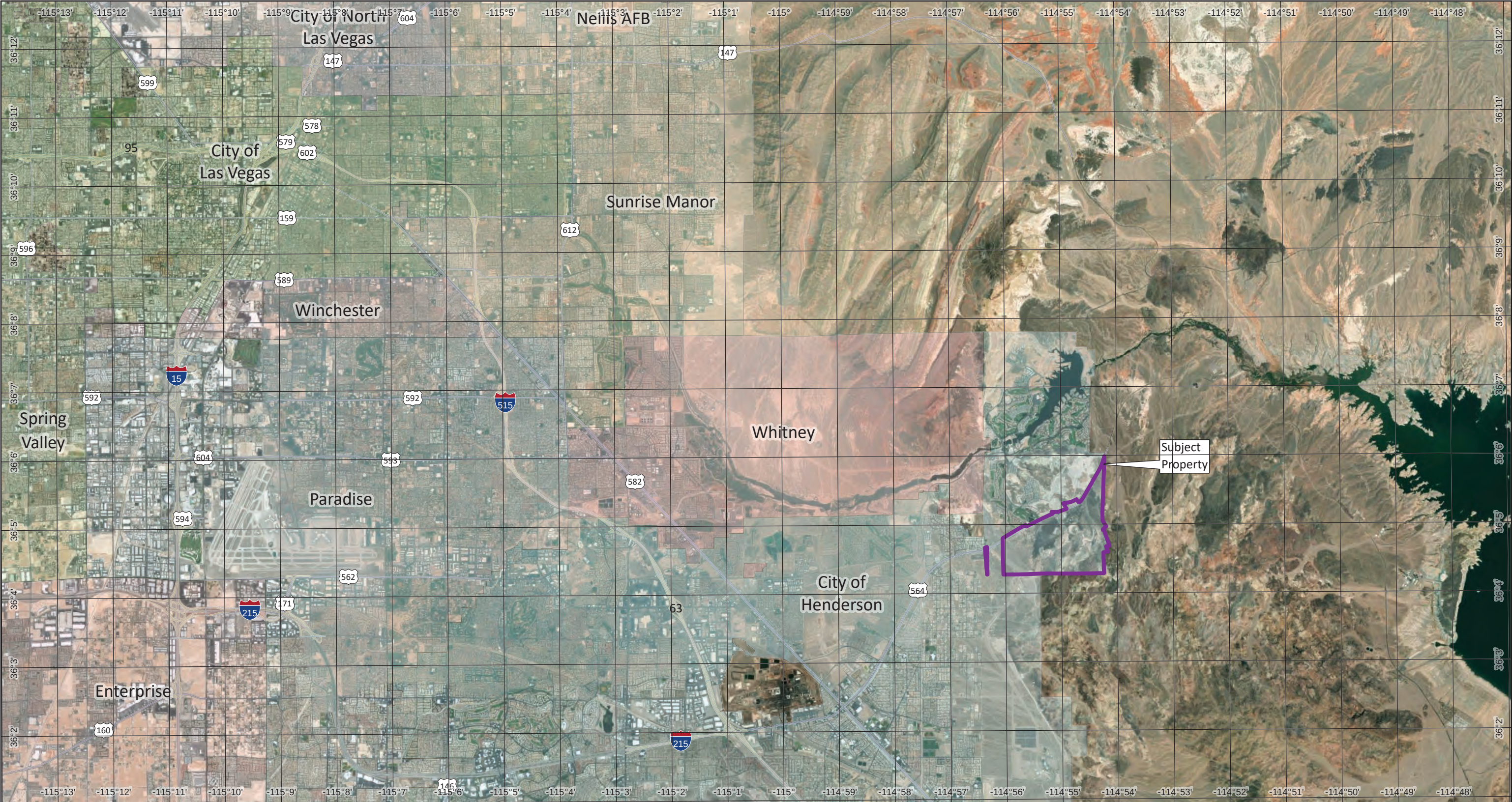
NDEP. 2026. *Letter Re: H-001347, Former Three Kids Mine, NDEP Response to: Human Health Risk Assessment for Soil Borrow Areas, Revision 1, Dated: January 5, 2026*. January 21.

Ramboll. 2024. *Perimeter Air Monitoring Plan Revision 1 – PAMP, Three Kids Mine Remediation and Reclamation Project*. April 23.

Southern Nevada Health District (SNHD). 2022. *Email Re: Three Kids Mine Solid Waste Management*. August 29.

State of Nevada, Department of Conservation and Natural Resources, Division of Environmental Protection. 2023. *Mine Remediation and Reclamation Agreement and Administrative Order on Consent, Three Kids Mine, Henderson, Nevada*. November 17.

FIGURES



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

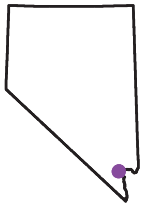
Job # 14-01-156 Date: 9/19/2022

Legend:

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



Scale: 1:100,000



Figure 1

Site Location

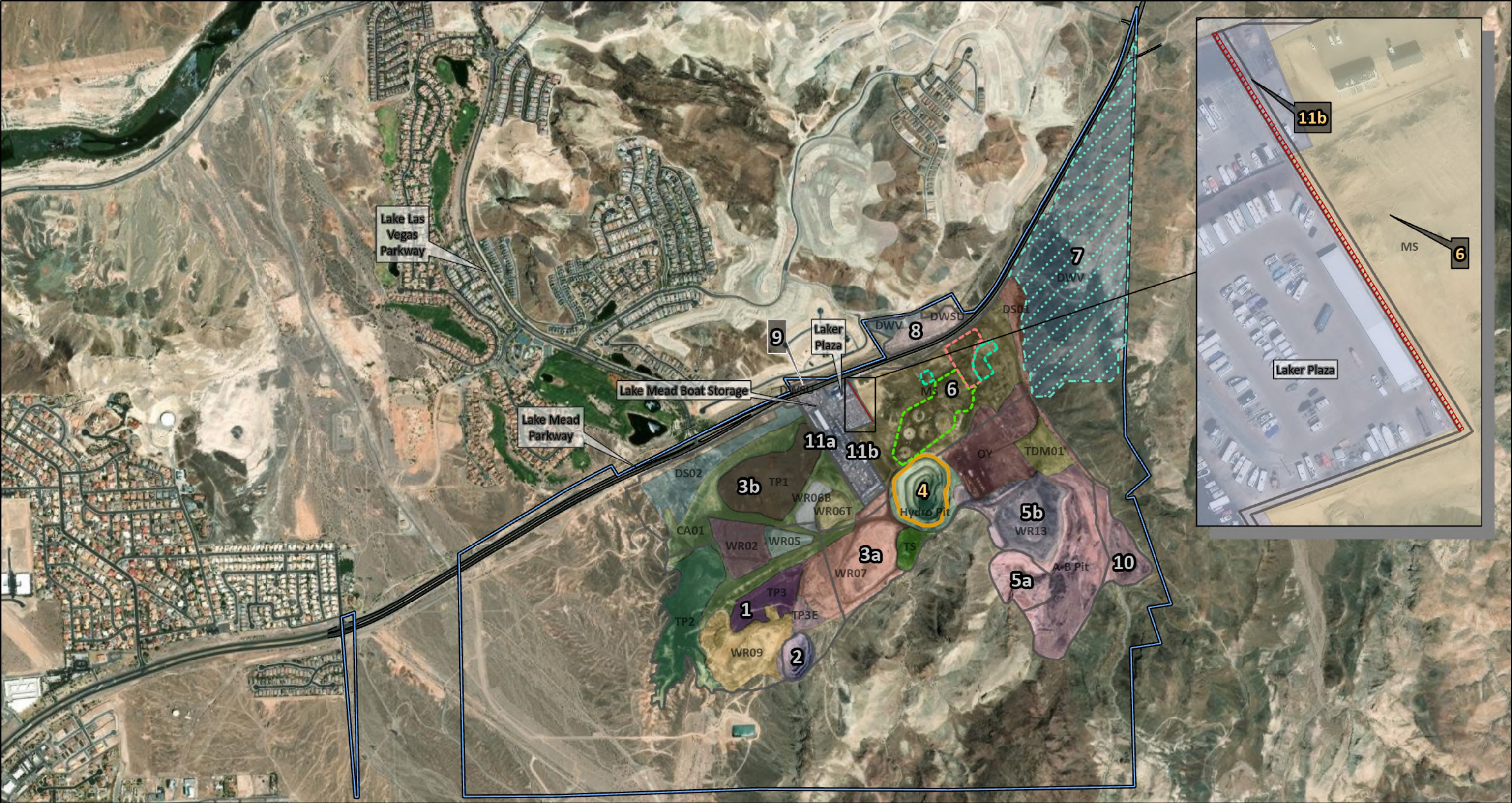
Three Kids Mine

Designed

Drawn

Approved

JCM



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

Job # 23-01-200 Date: 11/6/2025

Legend:			
Closure Unit 4	Floatation circuit	CA01	OY
Other Closure Unit	Thermal processing area	DS01	PR
2 ft Cover	Fuel farm	DS02	TDM01
Area of Closure Unit 11b	Project Area	DWSU	TP1
NFA, See Note 5	2024 IU	DWV	TP2
		Hulin Pit	TP3
		Hydro Pit	TP3E
		MS	TS
		A-B Pit	
		WR02	
		WR05	
		WR06B	
		WR06T	
		WR07	
		WR09	
		WR13	

Notes:

1. Imagery Source: Esri World Imagery (Microsoft, Vantor, Vantor)

2. Datum: NAD 1983 StatePlane Nevada East FIPS 2701 Feet

3. Not a survey.

4. Closure Unit 11a includes a 33 ft buffer to the west of the Laker Plaza/Lake Mead Boat Storage properties and Closure Unit 11b includes an 11.5 ft buffer east of Lake Mead Boat Storage, a 10 ft buffer south of Laker Plaza, and a 14.5 ft buffer east of Laker Plaza.

5. Closure Unit 7 received a No Further Action Determination (NFA) from NDEP on August 22, 2022.

6. 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 ##.

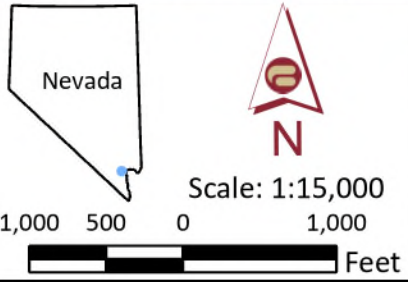
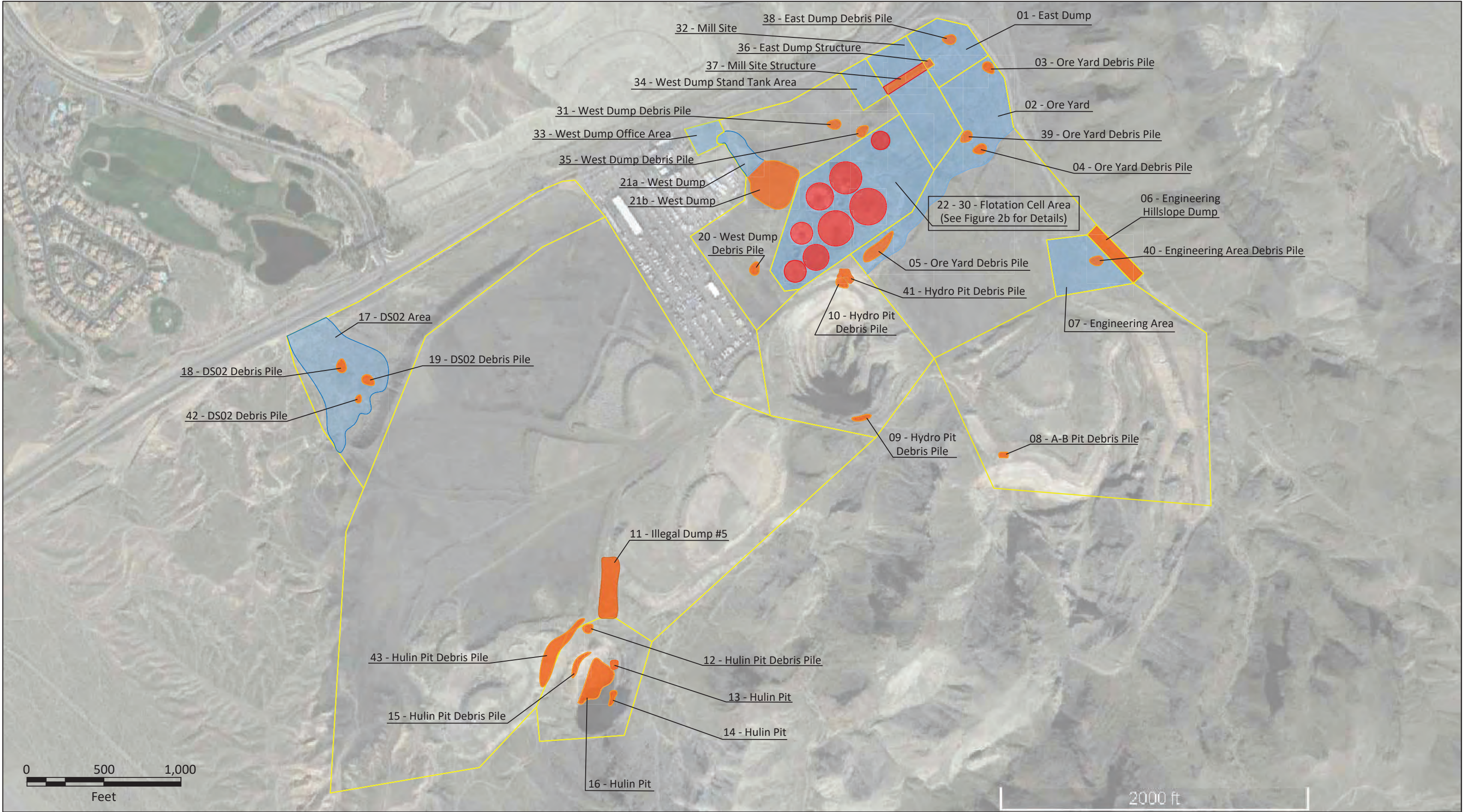


Figure 2	
Site Features Map – Closure Unit 4	
Three Kids Mine	
Designed	
Drawn	JCM
Approved	



LEGEND

- RACM = Regulated Asbestos Containing Material
-  Area transected and RACM removed by non-mechanical means under OSHA Class IV Work.
 -  RACM abated using mechanical means under Class IV Work.
 -  Debris removed from interior of flotation cell under Class IV Work.
In place RACM removed under OSHA Class II Work.

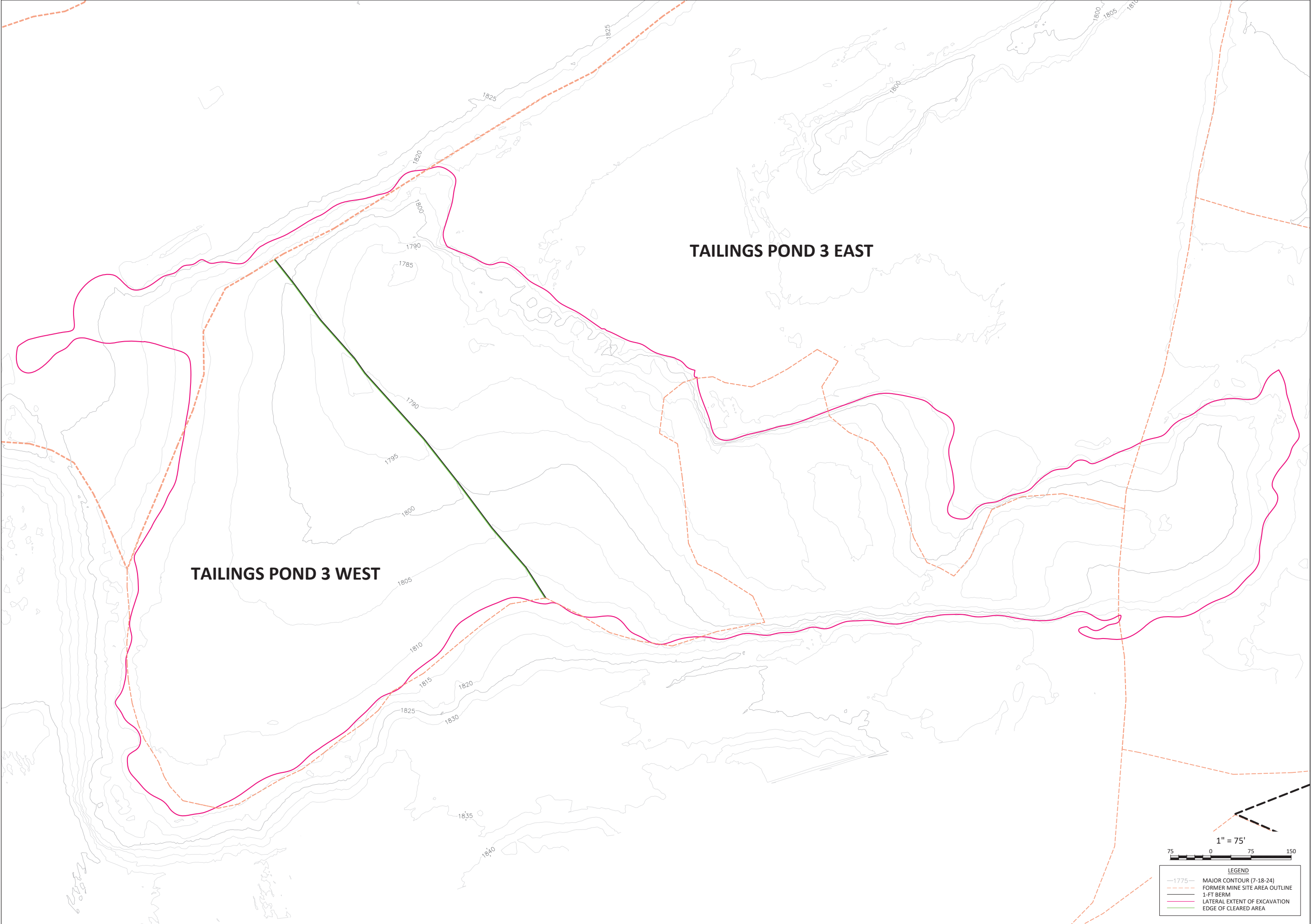


Three Kids Mine
Henderson, Nevada
Project No. 23-01-200



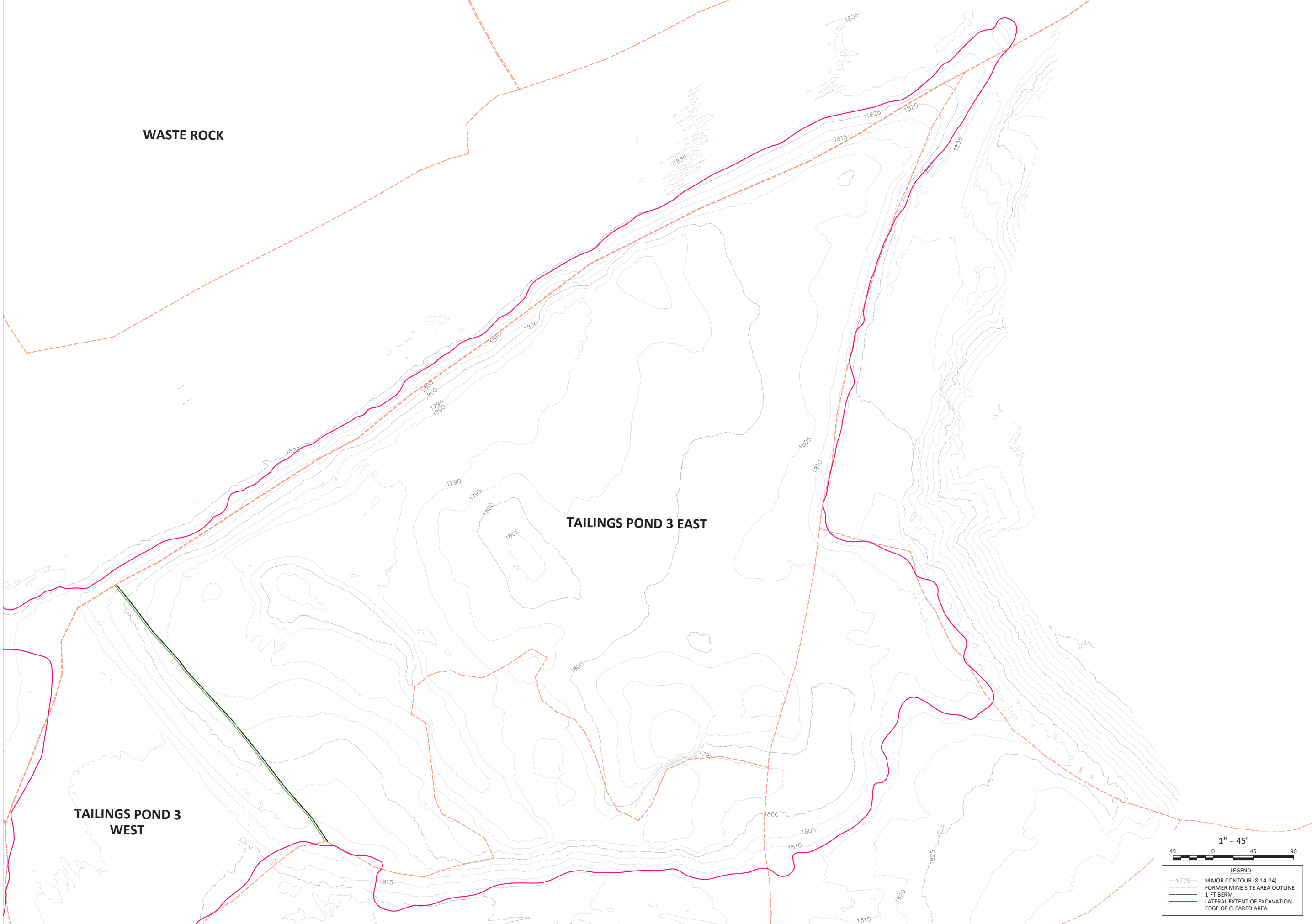
Figure No. 3
Sitewide Asbestos Work Areas

September 25, 2025 Z:\JOBS\2025\23-01-200 PULTE 3 KIDS MINE\SURVEY 2024\EXCAVATION EXTENT DRAWINGS\POND 3 WEST - EXTENTS 9.2025.DWG



PROJECT NUMBER: 23-01-200		THREE KIDS MINE HENDERSON, NV		 8 WEST PACIFIC AVENUE HENDERSON, NV 89015 (702) 563-0600 BROADBENTINC.COM	
SCALE: AS SHOWN		TAILINGS POND 3 WEST EXCAVATION SURFACE			
DESIGNED BY: CBC					
REVIEWED BY: MES					
		FIGURE 4			
				REV	DATE
				1	9-25-2025
				MES	BY
REVISED AND STANDARDIZED PROJECT DRAWINGS.					
DESCRIPTION					

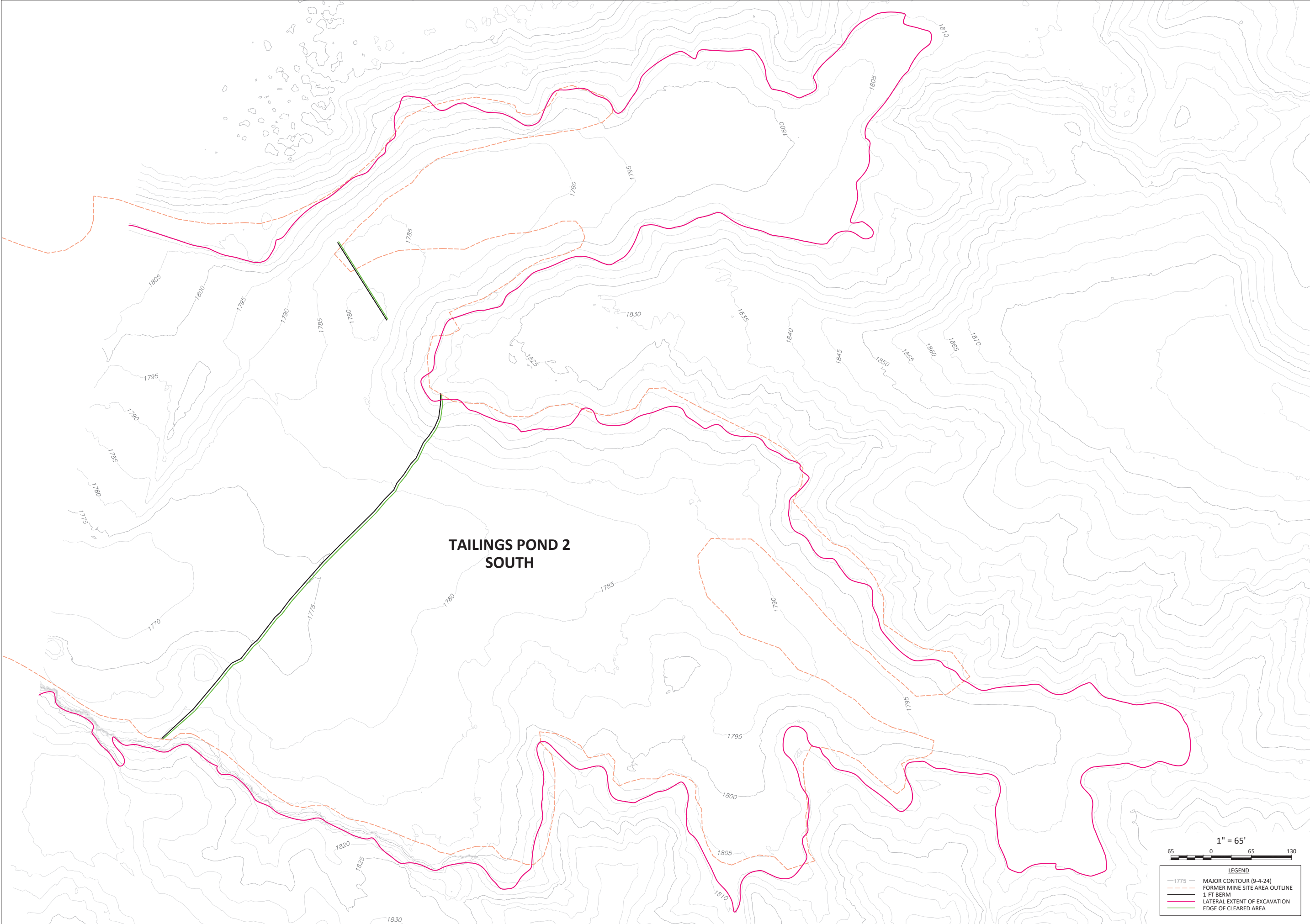
September 26, 2025 2:\JOBS\2025\23-01-200 PULTE 3 KIDS MINE\SURVEY 2024\EXCAVATION EXTENT DRAWINGS\POND 3 EAST - EXTENTS 9.2025.DWG



 BROADBENT 8 WEST PACIFIC AVENUE HENDERSON, NV 89015 (702) 563-0600 BROADBENTINC.COM		THREE KIDS MINE HENDERSON, NV		TAILINGS POND 3 EAST EXCAVATION SURFACE	
PROJECT NUMBER: 23-01-200					
SCALE: AS SHOWN					
DESIGNED BY: CBC					
REVIEWED BY: MES					
					
FIGURE 5					

REV	DATE	BY	DESCRIPTION
1	9-26-2025	MES	REVISED AND STANDARDIZED PROJECT DRAWINGS.

October 1, 2025 Z:\JOBS\2023\23-01-200 PULTE 3 KIDS MINE\SURVEY 2024\EXCAVATION EXTENT DRAWINGS\POND 2 SOUTH - EXTENTS 9.2025.DWG



PROJECT NUMBER: 23-01-200				
SCALE: AS SHOWN				
DESIGNED BY: CBC				
REVIEWED BY: MES				
FIGURE 6				
THREE KIDS MINE HENDERSON, NV				
TAILINGS POND 2 SOUTH EXCAVATION SURFACE				
 8 WEST PACIFIC AVENUE HENDERSON, NV 89015 (702) 563-0600 BROADBENTINC.COM				
REV 1	DATE 9-26-2025	MES	BY	DESCRIPTION REVISED AND STANDARDIZED PROJECT DRAWINGS.

September 26, 2025 2:\JOBS\2025\23-01-200 PULTE 3 KIDS MINE\SURVEY 2024\EXCAVATION EXTENT DRAWINGS\POND 2 NORTH - EXTENTS 9.2025.DWG

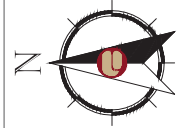
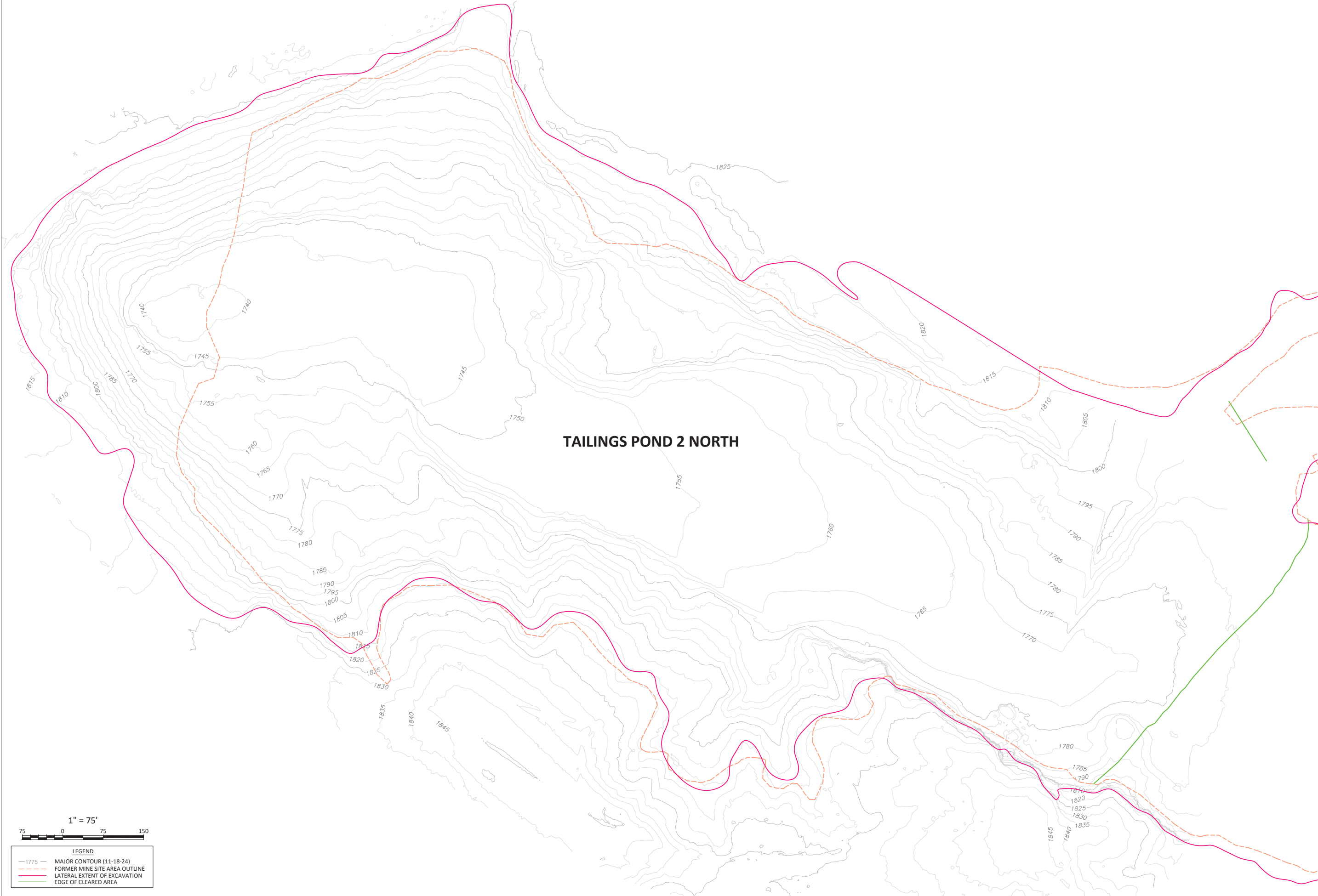


FIGURE
7

PROJECT NUMBER:
23-01-200

SCALE:
AS SHOWN

DESIGNED BY:
CBC

REVIEWED BY:
MES

THREE KIDS MINE
HENDERSON, NV

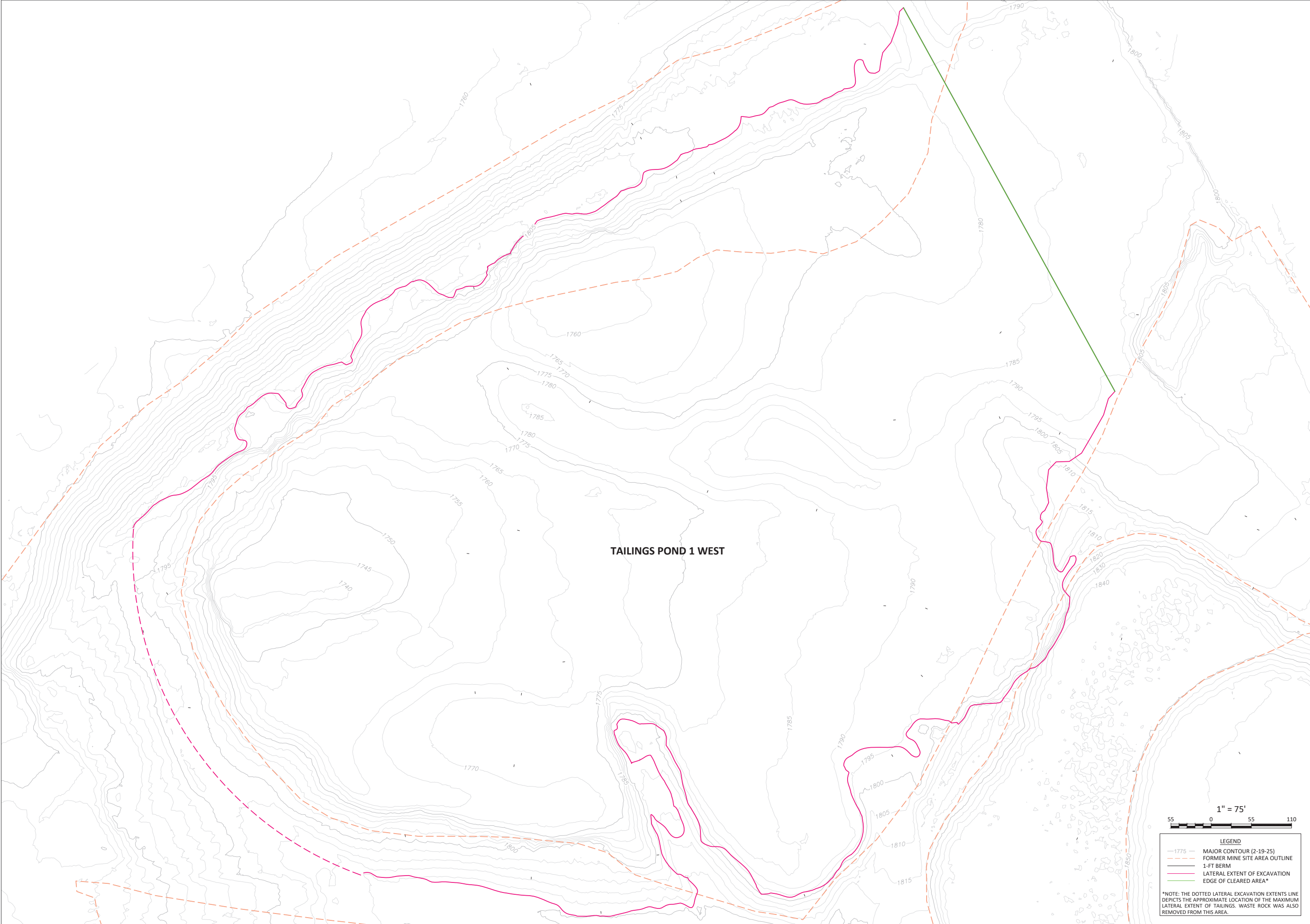
TAILINGS POND 2 NORTH
EXCAVATION SURFACE

BROADBENT
SURVEYING & CONSULTING, INC.

8 WEST PACIFIC AVENUE
HENDERSON, NV 89015
(702) 563-0600
BROADBENTINC.COM

REV	DATE	BY	DESCRIPTION
1	9-26-2025	MES	REVISED AND STANDARDIZED PROJECT DRAWINGS.

October 1, 2025 Z:\JOBS\2023\23-01-200 PULTE 3 KIDS MINE\SURVEY 2024\EXCAVATION EXTENT DRAWINGS\POND 1 WEST - EXTENTS 9.2025.DWG

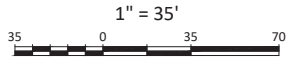
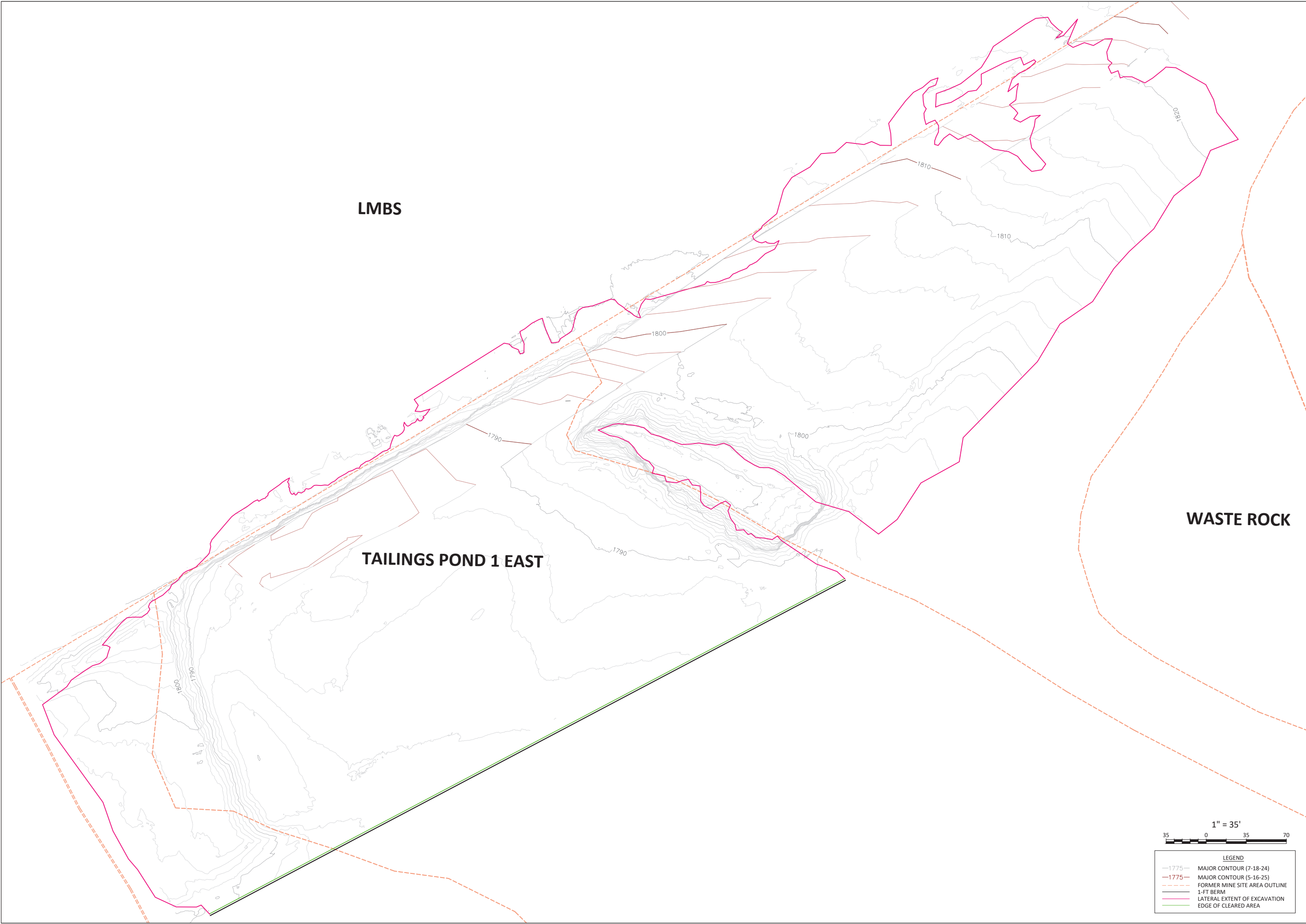


PROJECT NUMBER: 23-01-200	
SCALE: AS SHOWN	
DESIGNED BY: CBC	
REVIEWED BY: MES	
	
FIGURE 8	

THREE KIDS MINE HENDERSON, NV	
TAILINGS POND 1 WEST EXCAVATION SURFACE	

	
8 WEST PACIFIC AVENUE HENDERSON, NV 89015 (702) 563-0600 BROADBENTINC.COM	

REV	DATE	BY	DESCRIPTION
1	9-29-2025	MES	REVISED AND STANDARDIZED PROJECT DRAWINGS.



LEGEND	
—1775—	MAJOR CONTOUR (7-18-24)
—1775—	MAJOR CONTOUR (5-16-25)
- - - - -	FORMER MINE SITE AREA OUTLINE
- - - - -	1-FT BERM
—	LATERAL EXTENT OF EXCAVATION
—	EDGE OF CLEARED AREA



FIGURE
9

PROJECT NUMBER:
23-01-200

SCALE:
AS SHOWN

DESIGNED BY:
CBC

REVIEWED BY:
MES

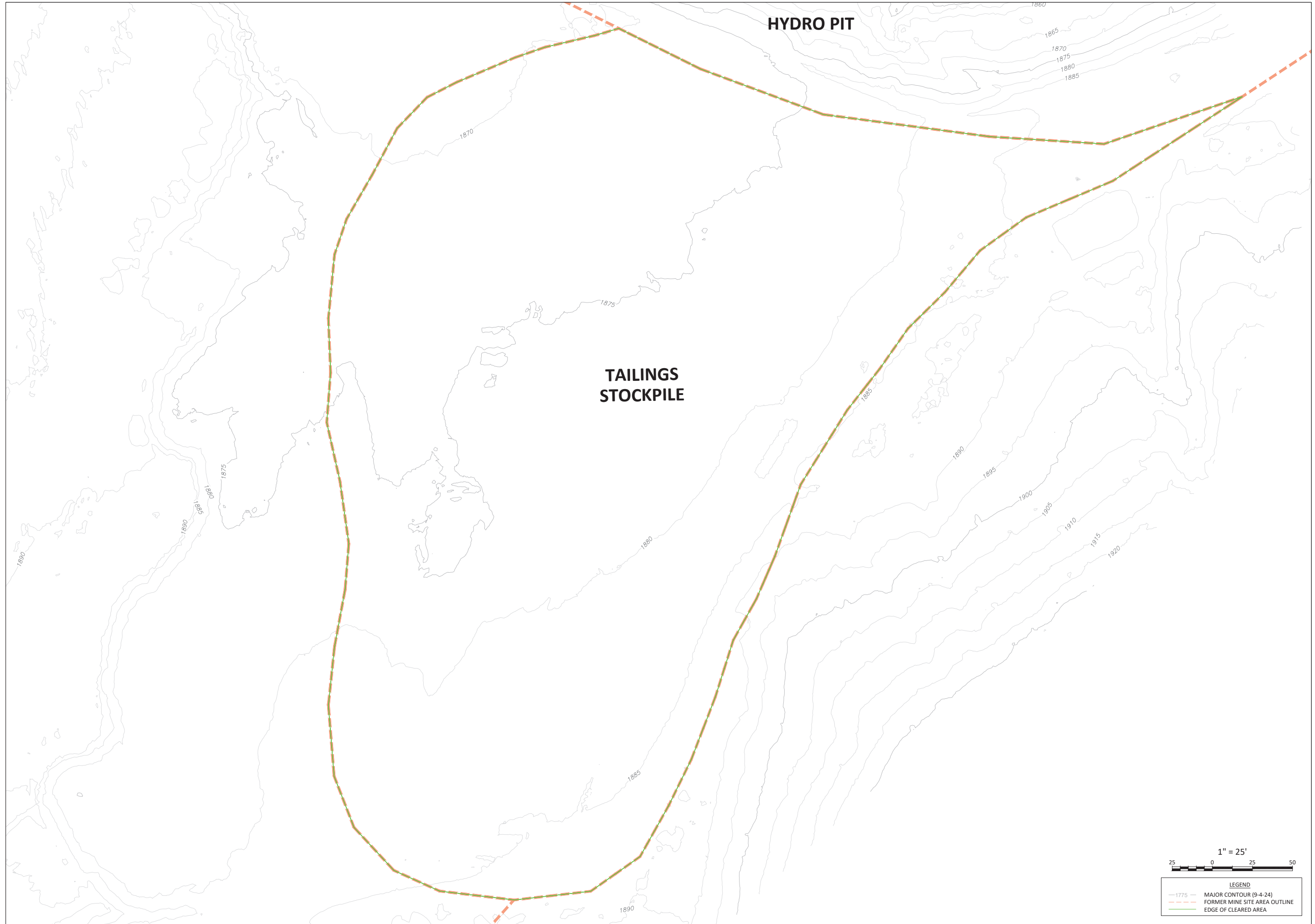
THREE KIDS MINE
HENDERSON, NV

TAILINGS POND 1 EAST
EXCAVATION SURFACE

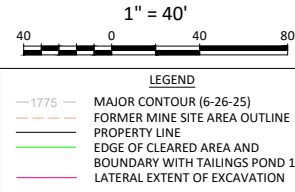
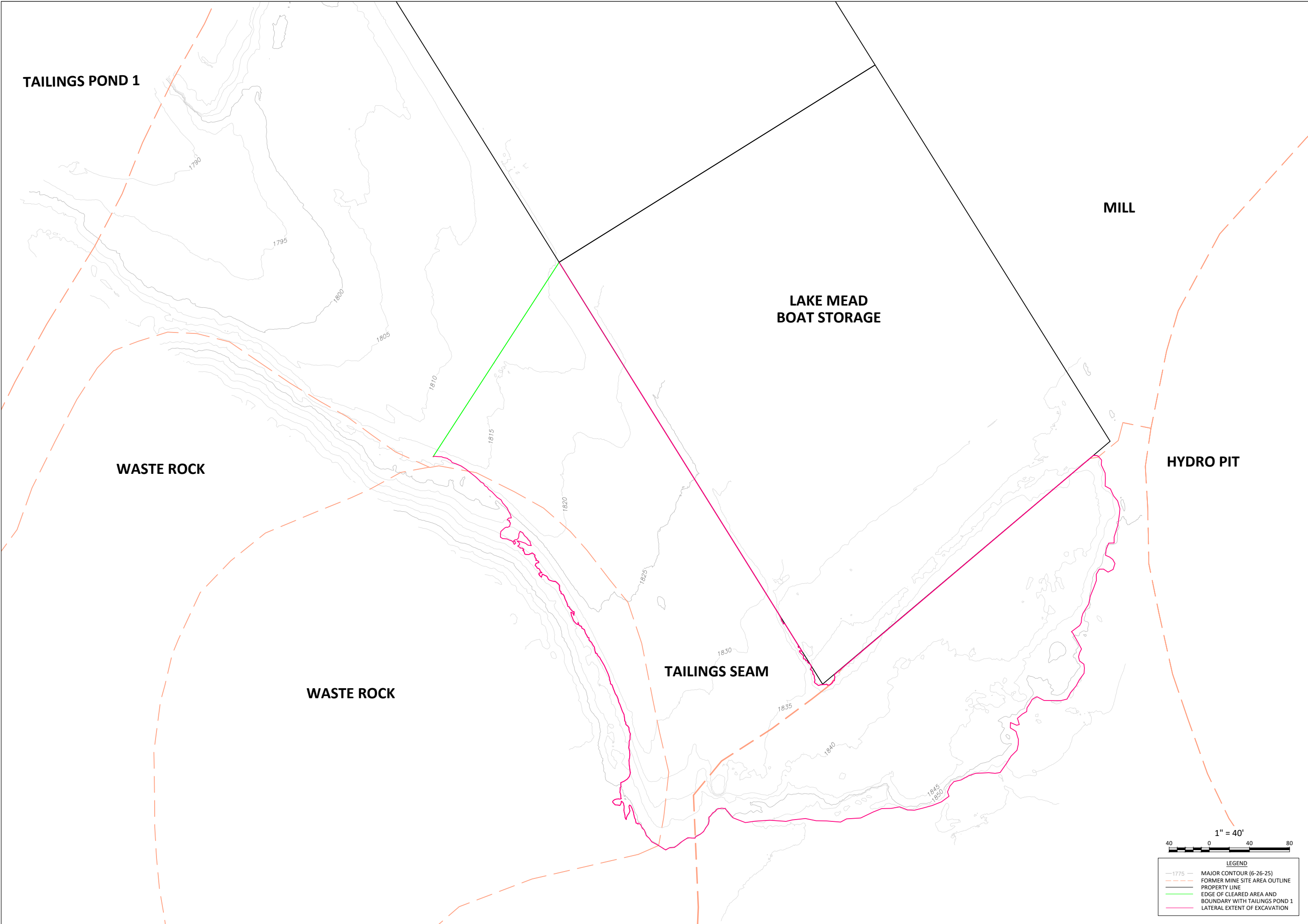
BROADBENT
CONSTRUCTION & MINING

8 WEST PACIFIC AVENUE
HENDERSON, NV 89015
(702) 563-0600
BROADBENTINC.COM

REV	DATE	BY	DESCRIPTION
1	9-29-2025	MES	REVISED AND STANDARDIZED PROJECT DRAWINGS.

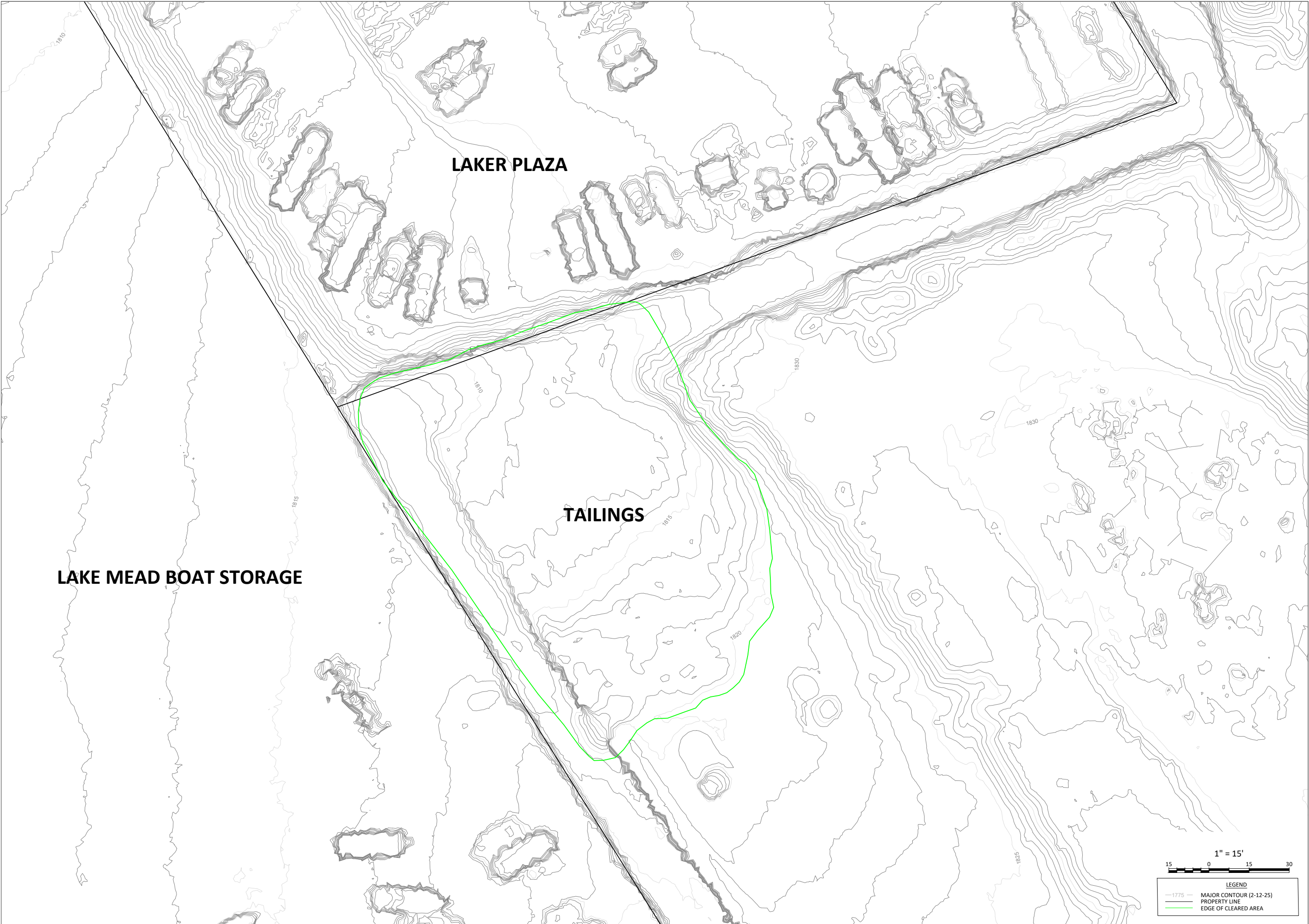
[illegible]

October 1, 2025 Z:\JOBS\2023\23-01-200 PULTE 3 KIDS MINE\CLOSURE REPORTS\TAILINGS REMEDIATION\FIGURES\TAILINGS SEAM SOUTH OF LMBS\TAILINGS SEAM SE LMBS 9.2025.DWG



 BROADBENT 8 WEST PACIFIC AVENUE HENDERSON, NV 89015 (702) 563-0600 BROADBENTINC.COM		THREE KIDS MINE HENDERSON, NV		TAILINGS SEAM SOUTHEAST OF LMBS EXCAVATION SURFACE	
PROJECT NUMBER: 23-01-200		SCALE: AS SHOWN		DESIGNED BY: CP	
REVIEWED BY: MES				FIGURE 11	
REV	DATE	MES	BY	DESCRIPTION	
1	9-29-2025				

October 1, 2025 Z:\JOBS\2023\23-01-200 PULTE 3 KIDS MINE\SURVEY 2025\LMBS-LAKER TAILINGS CORNER FROM VT\LAKEMOOR-LAKER PLAZA CONTOURS 2-12-25 9.2025.DWG



PROJECT INFORMATION		REVISIONS	
THREE KIDS MINE HENDERSON, NV		REV	DATE
TAILINGS EAST OF LMBS/ SOUTH OF LAKER PLAZA EXCAVATION SURFACE		BY	DESCRIPTION
PROJECT NUMBER: 23-01-200			
SCALE: AS SHOWN			
DRAWN BY: MES			
REVIEWED BY: KG			
BROADBENT 8 WEST PACIFIC AVENUE HENDERSON, NV 89015 (702) 563-0600 BROADBENTINC.COM			
FIGURE 12			

 BROADBENT ENGINEERING										
8 WEST PACIFIC AVENUE HENDERSON, NV 89015 (702) 563-0600 BROADBENTINC.COM										
						1	9-29-2025	MES		
						REV	DATE	BY		
										REvised AND STANDARDIZED PROJECT DRAWINGS.
										DESCRIPTION

THREE KIDS MINE
HENDERSON, NV

TAILINGS-IMPACTED SOIL NORTH END OF
CLOSURE UNIT 3B

PROJECT NUMBER:
23-01-200

SCALE:
AS SHOWN

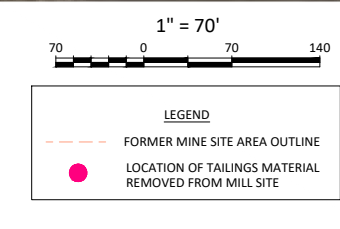
DRAWN BY:
MES

REVIEWED BY:
KG



FIGURE

13



THREE KIDS MINE HENDERSON, NV	TAILINGS FROM MILL SITE
----------------------------------	-------------------------

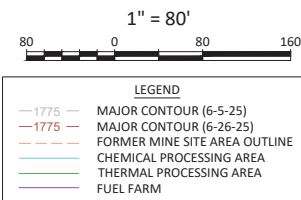
TAILINGS FROM MILL SITE

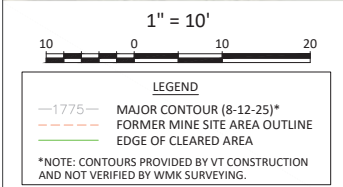
BROADBENT
INSURANCE • FINANCIAL • RISK SERVICES

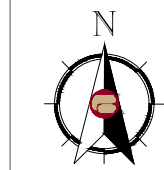
8 WEST PACIFIC AVENUE
HENDERSON, NV 89015
(702) 563-0600
BROADBENTINC.COM

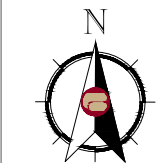
(702) 563-0600
BROADBENTING.COM

[illegible]

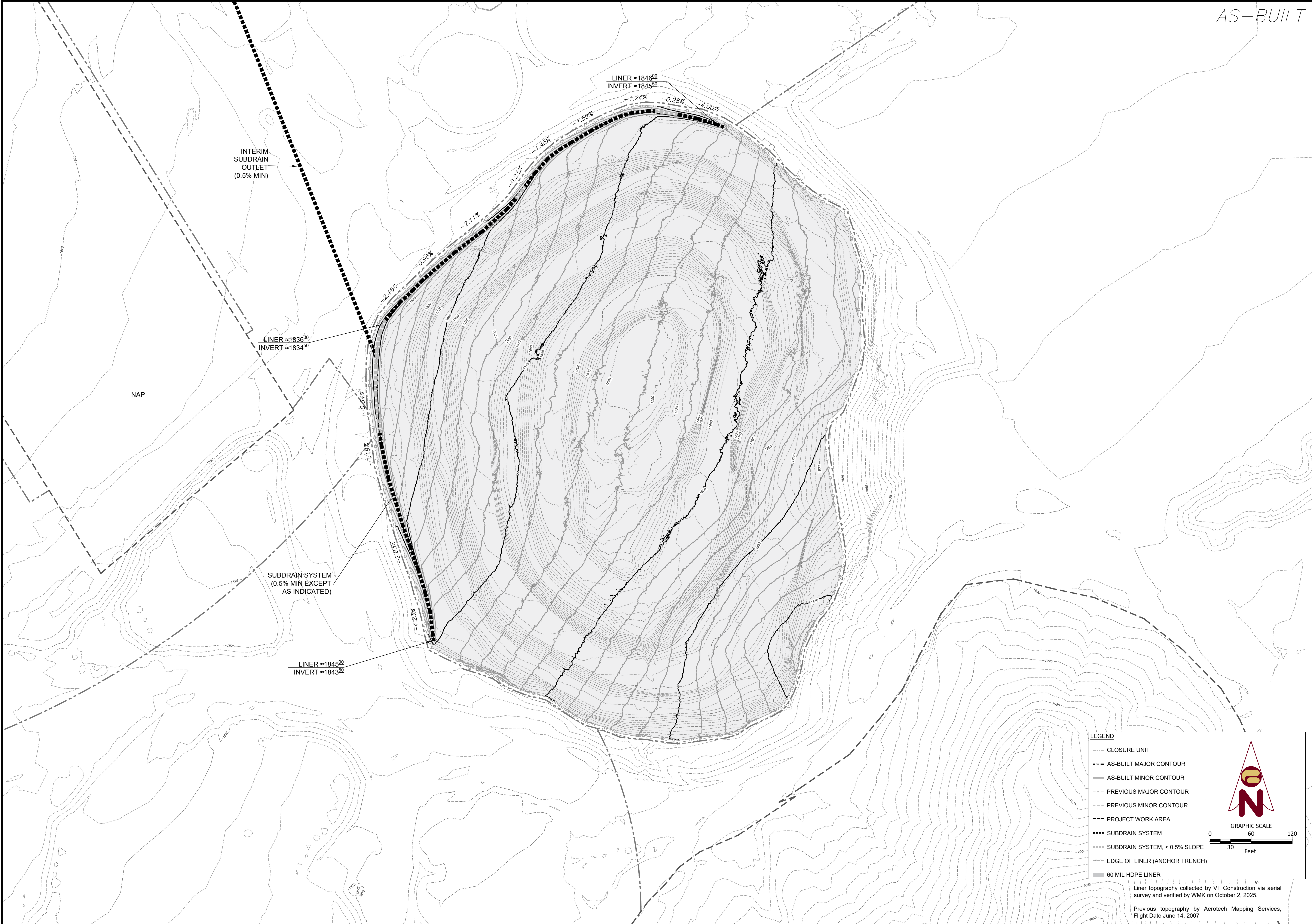
[illegible]





[illegible]

December 11, 2025 Z:\JOBS\2023\23-01-200 PULTE 3 KIDS MINE\SURVEY\2025-10-02 HYDRO PIT SILT LAYER\HYDRO PIT LINER DRAWING 11-21-25 MES.DWG



LEGEND

- CLOSURE UNIT
- - - AS-BUILT MAJOR CONTOUR
- AS-BUILT MINOR CONTOUR
- - - PREVIOUS MAJOR CONTOUR
- - - PREVIOUS MINOR CONTOUR
- - - PROJECT WORK AREA
- SUBDRAIN SYSTEM
- SUBDRAIN SYSTEM, < 0.5% SLOPE
- EDGE OF LINER (ANCHOR TRENCH)
- 60 MIL HDPE LINER

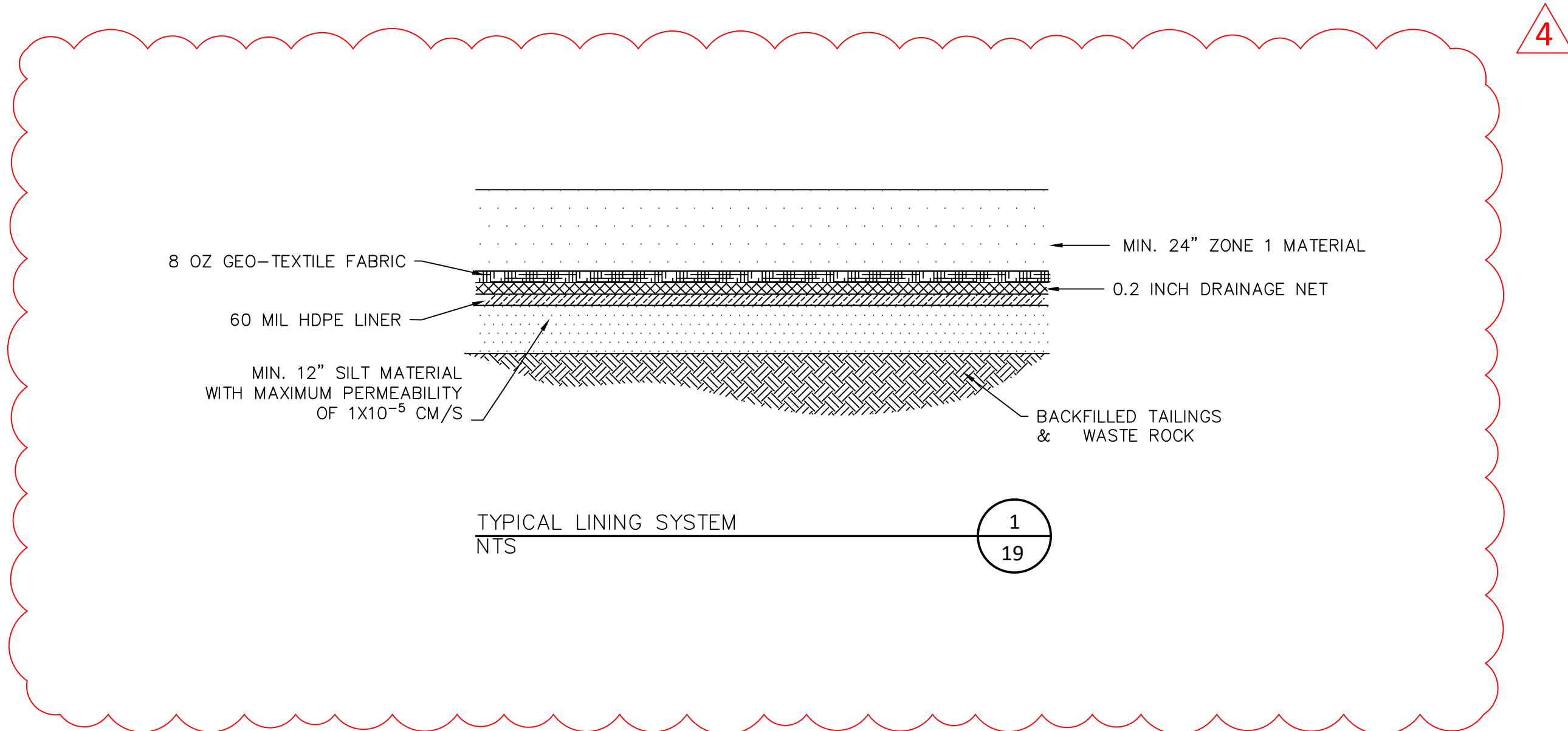
Liner topography collected by VT Construction via aerial survey and verified by WMK on October 2, 2025.
Previous topography by Aerotech Mapping Services, Flight Date June 14, 2007

HYDRO PIT LINER AS-BUILT

Closure Unit 4 Work Completion Report
Three Kids Mine

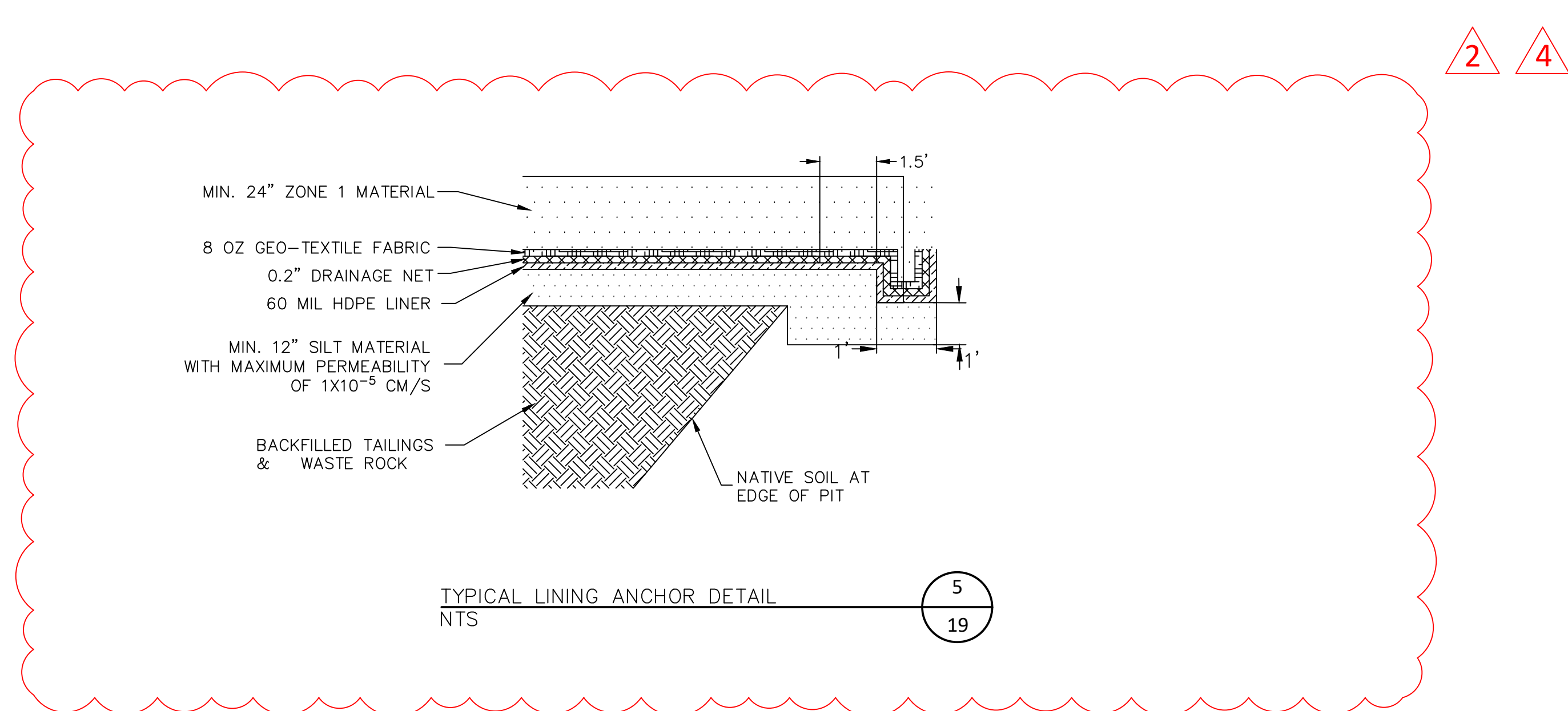
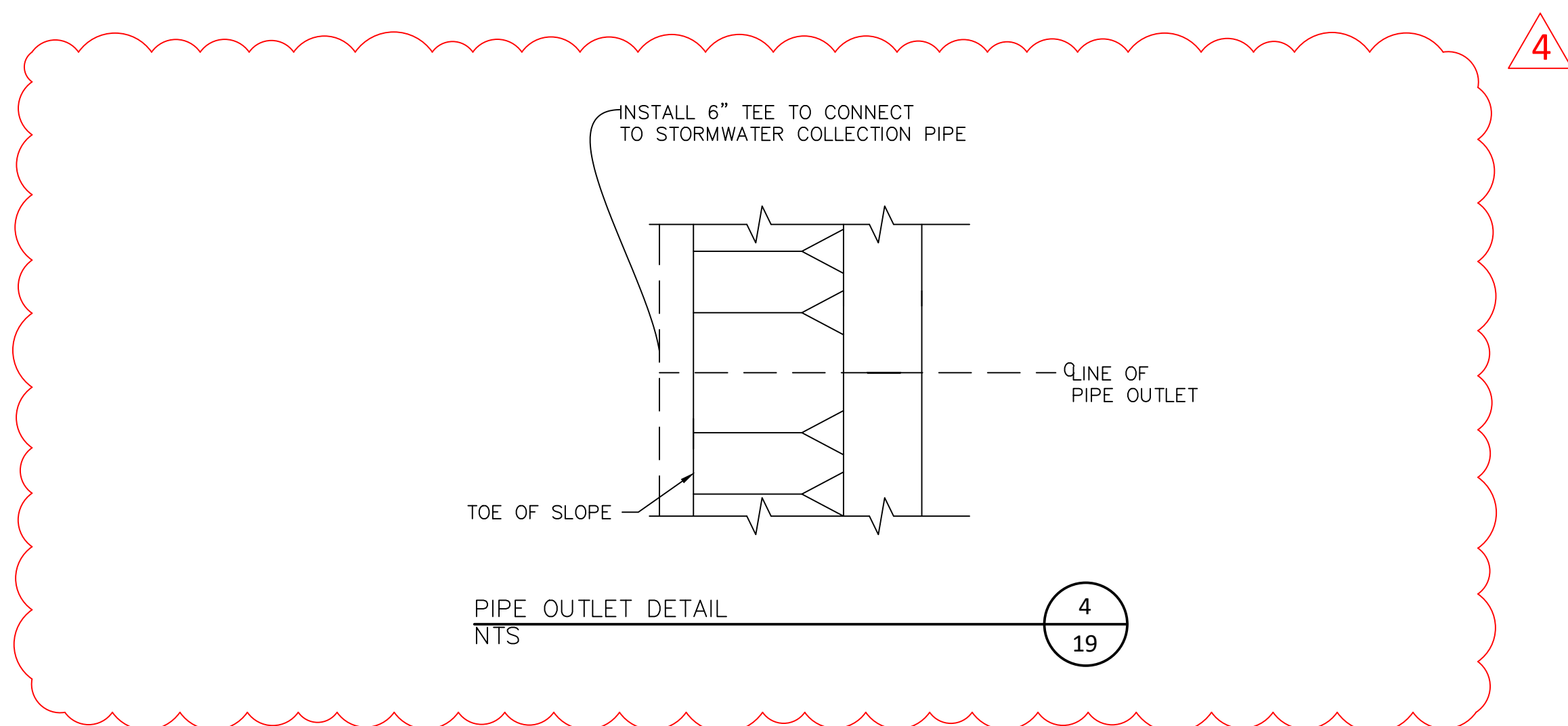
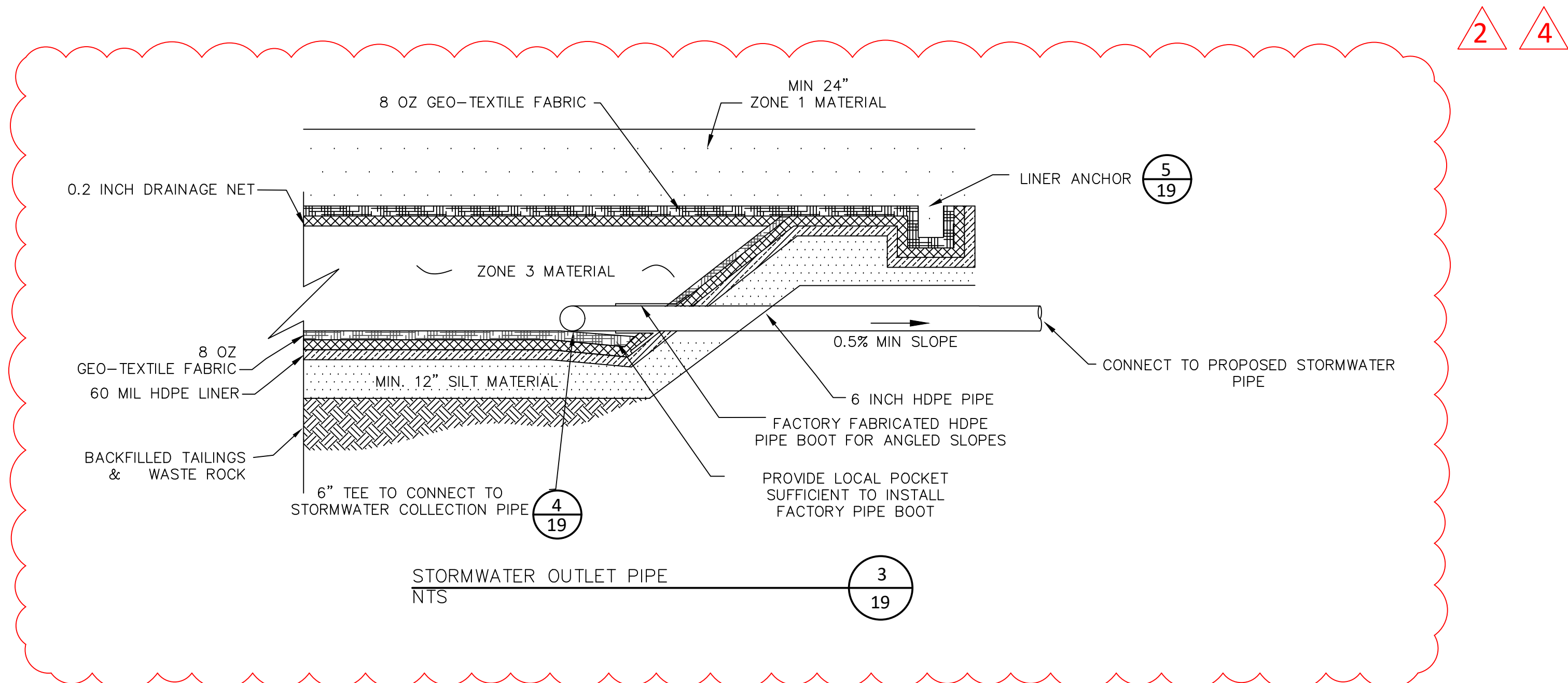
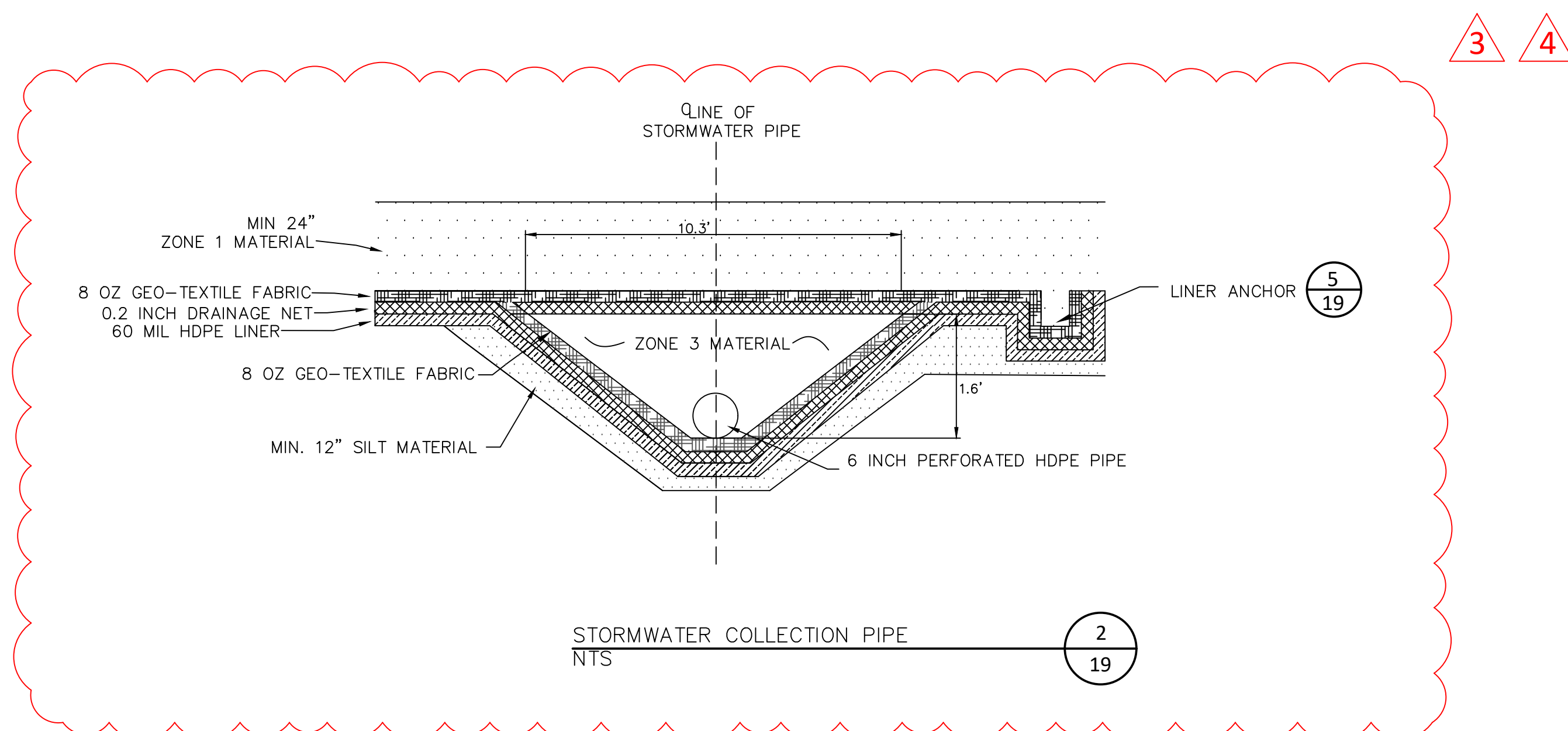
FIGURE 19

PROJECT NUMBER: 23-01-200			
SCALE: 1"=60'			
DESIGNED BY: CAC			
DRAWN BY: JD			
CHECKED BY: CAC			
PN II, INC., A NEVADA CORPORATION 7255 S TENAYA WAY, SUITE 200 LAS VEGAS, NV 89113			
BROADBENT 8 WEST PACIFIC AVENUE HENDERSON, NEVADA, 89015 (702) 563-0600 (P) • (702) 563-0610 (F) COPYRIGHT © 2025 BY BROADBENT & ASSOCIATES, INC. ALL RIGHTS RESERVED			
1	12/11	CC	AS-BUILT
REV	DATE	BY	DESCRIPTION

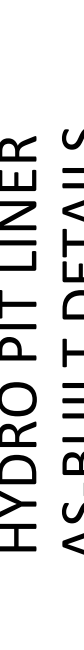


- CONSTRUCTION NOTES

1. ZONE 1 MATERIAL SHALL BE PROCESSED OR NATURAL MATERIAL WITH 100% PASSING A $\frac{3}{8}$ " SIEVE, NO CRUSHED STONE, PARTICLES MUST BE SUB-ANGULAR TO ROUNDED AND FREE OF ORGANICS AND DEBRIS OF ANY KIND. UNIFORMITY COEFFICIENT OF 1.9 TO 2.4 AND COMPACTED TO 95% PER ASTM D1557.
2. ZONE 3 MATERIAL SHALL BE PROCESSED OR NATURAL MATERIAL WITH 100% PASSING A $\frac{3}{8}$ " SIEVE AND 100% RETAINED ON THE $\frac{1}{2}$ " SIEVE. NO CRUSHED STONE, PARTICLES MUST BE SUB-ANGULAR TO ROUNDED AND FREE OF ORGANICS AND DEBRIS OF ANY KIND. UNIFORMITY COEFFICIENT OF 1.9 TO 2.4
3. THE CONTRACTOR SHALL BACKFILL AND FINAL GRADE ALL CUT OR FILL SLOPES TO MATCH EXISTING CONDITIONS TO THE SATISFACTION OF THE ENGINEER.
4. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION SURVEYING. ANY DEVIATIONS FROM EXISTING GRADES AS SHOWN ON THE PLANS SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER.
5. AREAS OF STOCKPILED MATERIALS WITHIN THE CONSTRUCTION AREA ARE TO BE TREATED IN SUCH A MANNER AS TO PREVENT MOVEMENT OR EROSION RESULTING FROM WIND CONDITIONS OR RAINFALL. THE CONTRACTOR IS TO SWEEP ON A DAILY BASIS ROADWAYS THAT ARE ALONG ITS ROUTES AND IMMEDIATELY CLEAN UP MUD THAT FALLS ON ANY PAVEMENT OUTSIDE OF ITS LIMITS OF CONSTRUCTION OR HAULING ACTIVITIES.
6. SOILS PREPARATION SHALL CONFORM TO THE REQUIREMENTS OF THE GEOTECHNICAL REPORT FOR FORMER THREE KIDS MINE SITE, CENTURY CONSULTANTS, JOB NUMBER 22004 AUGUST 19, 2022.
7. IMPERMEABLE LAYER CONSISTS OF SILT/CLAY MATERIAL WITH A PLACED PERMEABILITY OF NO GREATER THAN 1×10^{-5} CM/S.
8. FINAL DEPTHS AND ELEVATIONS TO BE PROPOSED BY CONTRACTOR AND APPROVED BY ENGINEER PRIOR TO PLACEMENT.



AS-BUILT

 BROADBENT 8 WEST PACIFIC AVENUE HENDERSON, NEVADA, 89015 (702) 563-0600 (P) • (702) 563-0610 (F) COPYRIGHT © 2025 BY BROADBENT & ASSOCIATES, INC. ALL RIGHTS RESERVED	PN II, INC., A NEVADA CORPORATION 7255 S TENAYA WAY, SUITE 200 LAS VEGAS, NV 89113			
	1	03/11/25	CAC	ANCHOR TRENCH UPDATE
	2	06/27/25	CAC	ANCHOR TRENCH UPDATE
	3	07/18/25	CAC	ANCHOR TRENCH UPDATE
	4	12/11/25	CAC	AS-BUILT
PROJECT NUMBER: 23-01-200				
SCALE: NTS				
DESIGNED BY: CAC				
DRAWN BY: TM				
CHECKED BY: CAC				
HYDRO PIT LINER AS-BUILT DETAILS		CLOSURE UNIT 4 WORK COMPLETION REPORT THREE KIDS MINE		
		12-11-25		
FIGURE 20				

APPENDICES

Appendix A
Responses to NDEP Comments

APPENDIX A
Responses to NDEP Comments made on March 18, 2026
to the Closure Unit 4 Work Completion Report, dated December 14, 2025

1. **Section 1.2 Date of NDEP Site Inspection** – For clarity, consider editing the first sentence to just indicate when NDEP was onsite for this inspection: “NDEP conducted a site inspection on October 23, 2025 to observe....”

Section 1.2 in the revised report was edited as suggested.

2. **Section 3.1 Asbestos Abatement** – The second sentence is the first mention of VT Construction in this report. Consider describing their role.

Section 2.4 was added to the revised report describing roles and responsibilities of the project team.

3. **Section 3.1 Asbestos Abatement** – This section indicates that two locations (09 and 10) were abated for this work; however, Figure 3 identifies area 41 as being directly next to Area 10. Was it removed for the haul road also? Suggest including Area 41 here to be consistent with the figure.

Information regarding location 41 was added to Section 3.1.

4. **Section 3.1 Asbestos Abatement** – This section states that “Additional details regarding asbestos abatement activities and results of perimeter air monitoring performed to evaluate airborne asbestos are included in the *Asbestos Removal Report* dated August 8, 2025 (Broadbent 2025e).” This reference should be updated to the *Asbestos Removal Report – Revision 1* dated November 21, 2025.

The reference was updated as suggested.

5. **Section 3.3 Tailings Remediation** – In the second paragraph, it is unclear what “test days” are. Suggest clarification here.

Clarification was added to the second paragraph in Section 3.3 regarding the first two days of tailings remediation.

6. **Section 3.3 Tailings Remediation, Tailings Pond 2 subsection** – This subsection states that “VT Construction collected [Tailings Pond 2 North] elevation data via drone of the maximum surface excavation and photographs on November 18, 2025.” Change 2025 to 2024 for consistency with the photos presented in Appendix B.

Dates were corrected from 2025 to 2024 in the Tailings Pond 2 subsection, as applicable.

7. **Section 3.3 Tailings Remediation, Tailings Pond 1 subsection** – This subsection states that “A CEM clearance walk for Tailings Pond 1 East was conducted on March 18, 2024...” Change 2024 to 2025 for consistency with the Tailings Pond 1 remediation time frame.

The date referenced in the Tailings Pond 1 subsection was corrected.

8. **Section 3.3 Tailings Remediation, Tailings Stockpile subsection** – It is not clear from Figure 10 where the tailings stockpile was located. Please describe its location and include a reference to Figure 2 where its location is labeled as “TS.”

A description of the location of the Tailings Stockpile area and reference to Figure 2 was added to Section 3.3, along with location descriptions for the tailings ponds. Additionally, the edge of the Hydro Pit was labeled in Figure 10.

9. **Section 3.3 Tailings Remediation, Tailings Seam Southeast of Tailings Pond 1 subsection** – The Tailings Pond 1 subsection states that “A final CEM clearance of Tailings Pond 1 East was not completed until the removal of a remaining tailings seam located south of Tailings Pond 1.” The Tailings Seam Southeast of Tailings Pond 1 subsection states that “A CEM clearance walk was conducted on June 24, 2025;” it is suggested that this statement be edited to explicitly indicate that CEM clearance of Tailings Pond 1 East and the Tailings Seam Southeast of Tailings Pond 1 was conducted on June 24, 2025.

Clarification regarding the date of CEM clearance was added to the two relevant subsections, Tailings Pond 1 and Tailings Seam Southeast of Tailings Pond 1.

10. **Section 3.3 Tailings Remediation, Tailings from Mill Site subsection** – Add a figure depicting the location of the area from where the tailings material described in this subsection was excavated, or identify the area in one of the existing figures.

A figure depicting the location of tailings material removed from the mill site was added as Figure 14.

11. **Section 3.3 Tailings Remediation, Tailings from Mill Site subsection** – There is no discussion of a CEM clearance walk here. Suggest adding one or an explanation as to why one was not conducted for this area.

A CEM clearance walk was conducted by a CEM representative on March 26, 2025, and the text in Section 3.3 was revised to indicate that.

12. **Section 3.5.1 PAH-Impacted Soil** – This section states that “Excavation of PAH-impacted soil...was completed on June 24, 2025...[and] post-excavation surveys were taken by VT Construction and verified by WMK on June 5, 2025.” Please explain how post-excavation surveys were taken and verified prior to the completion of excavation.

The bulk of PAH-impacted soil removal occurred prior to June 5, 2025 when a post-excavation survey was flown. Additional soil was removed from two areas shown with brown topo lines in Figure 15. These areas were surveyed on June 26, 2025. Additional explanation was added to Section 3.5.1.

13. **Section 3.5.2 Northeast Drainage** – How was lack of chemical processing release confirmed via test pit? Based on CEM visual clearance? Suggest more description here.

The chemical processing release material was visually distinct from other drainage sediments. A description of the material was added to Section 3.5.2 along with a statement that removal was confirmed based on visual confirmation.

14. **Section 3.6.2 Settlement Monitoring** – This section references “a report titled *Settlement Monitoring Phase 1 – Report for Hydro Pit* dated September 22, 2025 and provided to NDEP on October 10, 2025 (Centurion 2025a).” It would be appropriate to include a copy of the referenced report as an appendix to the *Closure Unit 4 Work Completion Report*.

A copy of the *Settlement Monitoring Phase 1 – Report for Hydro Pit* dated March 12, 2026 is provided with this revised report.

15. **Section 3.7 Liner System Installation** – If possible, add more photographs to the report showing liner system installation including silt layer, anchor trench, liner placement, and completed liner installation.

Additional photographs of liner installation were added to Appendix B.

16. **Section 3.7.4 Liner QC Testing** – A brief statement or description of the test results would be helpful here.

A statement indicating that QC tests passed within acceptable ranges was added to Section 3.7.4.

17. **Section 3.8 Cover Construction** – This section states that “The surveyed surface of the two-foot cover is included in Appendix C [Stamped Survey Drawings (included with electronic submittal)].” However, Appendix C is empty, and corresponding files do not appear to have been included with the electronic submittal of the *Closure Unit 4 Work Completion Report* as suggested.

Survey files are included with the *Closure Unit 4 Work Completion Report, Revision 1* submittal.

18. **Section 3.10 Summary and Status of HHRA** – Please update this section to reflect current status.

Section 3.10 was updated to reflect that the HHRA has been approved by NDEP.

19. **Section 3.11 Environmental Covenant** – Additional revised drafts of the Environmental Covenant were submitted after submittal of the *Closure Unit 4 Work Completion Report*. This section should be updated to reflect that. It may be sufficient to specify the submittal date of the initial draft (pursuant to the AOC), and the date of the most recent draft rather than listing the submittal date of every iteration.

Section 3.11 was updated to state that the final draft of the environmental covenant was dated February 26, 2026.

20. **Section 4.0 Future Request for NFA** – The list of items to be included with the addendum referenced in this section should also include the Settlement Monitoring Phase 2 Report for Hydro Pit that is referenced in the first paragraph of the *Settlement Monitoring Phase 1 – Report for Hydro Pit* dated September 22, 2025.

Additional settlement monitoring data was added to the list of items to be included in the addendum with a request for NFA.

21. **Figure 3, Sitewide Asbestos Work Areas** – The legend indicates that RACM was removed from area 9 (Hydro Pit Debris Pile). However, Section 3.1 (Asbestos Abatement) states that “Location

09 was covered and left in place within the Hydro Pit” (with permission). Please correct this discrepancy.

The legend in Figure 3 was changed to identify that RACM was abated in areas indicated.

22. **Appendix B Tailings Remediation Photos, Page 10, Tailings Pond 2 North** – Consider identifying the north wall in the picture(s) to support the discussion in the last paragraph of the *Tailings Pond 2* subsection in Section 3.3.

The north wall of Tailings Pond 2 was identified in the picture on page 20 of Appendix B.

23. **Appendix D PAH-Impacted Soil Excavation Verification Model** – Figure EX-2 depicts 3 and 4 as two distinct locations, but the corresponding photos are identical. Is this accurate?

The photograph for location #4 was updated in Appendix D.

24. **Appendix D PAH-Impacted Soil Excavation Verification Model** – Figure EX-2 labels locations #19 and #37 as a concrete or bedrock location, but the photo captions suggest that they are neither (#19 is a slope containing construction water pond and J-stand, and #37 is a haul road constructed over excavation area with track-out rock). Is the two-foot excavation of PAH-impacted soil from these areas pending?

Explanation regarding locations #19 and #37 was added to Section 3.5.1. Additional excavation of PAH-impacted soil from locations #19 and #27 is not pending.

Appendix B
Tailings Remediation Photos



Hydro Pit Backfill – December 10, 2024



Hydro Pit silt layer placement – June 16, 2025



Hydro Pit silt layer placement – June 16, 2025



Hydro Pit silt layer placement – June 17, 2025



Hydro Pit silt layer placement – June 26, 2025



Hydro Pit backfill with silt layer – July 24, 2025



Hydro Pit silt layer placement – July 25, 2025



Hydro Pit silt layer placement – July 30, 2025



Hydro Pit silt layer completed – August 11, 2025



Hydro Pit anchor trench installation – October 2, 2025



Hydro Pit anchor trench installation – October 3, 2025



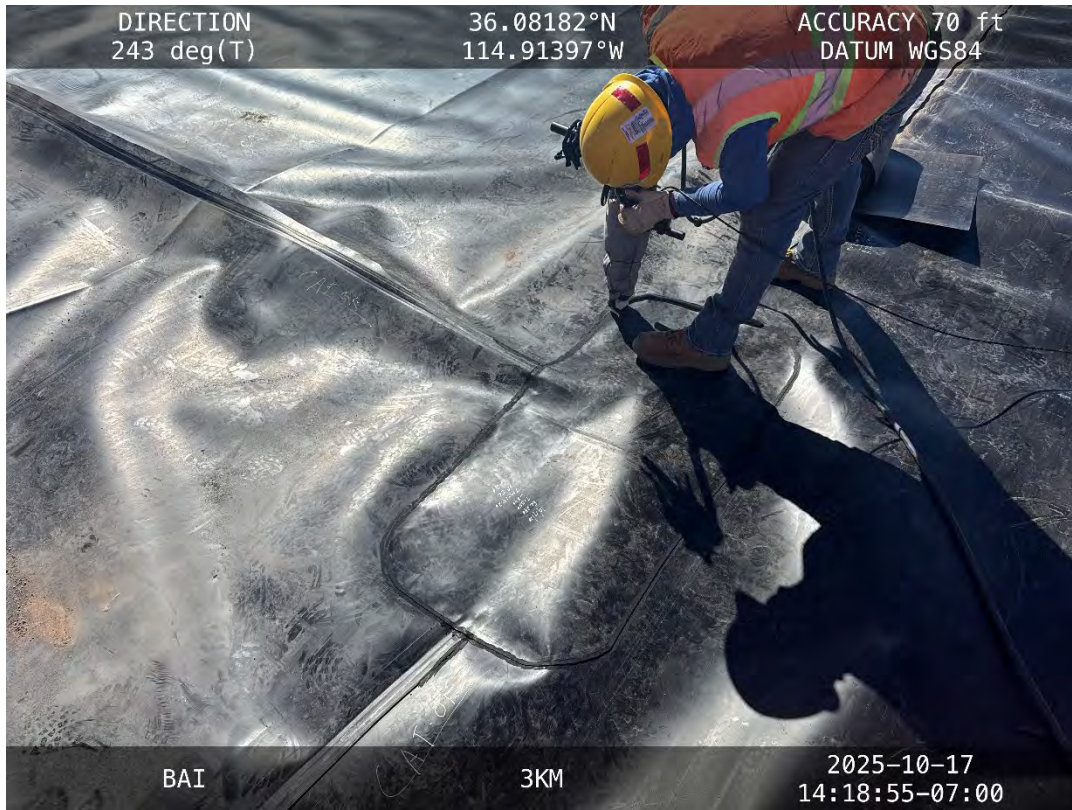
Hydro Pit liner installation – October 14, 2025



Hydro Pit liner installation – October 14, 2025



Hydro Pit liner installation – October 15, 2025



Hydro Pit liner installation – October 17, 2025



Drainage net and geotextile fabric installation over Hydro Pit liner – October 20, 2025



Drainage net and geotextile fabric installation over Hydro Pit liner – October 20, 2025



Drainage net and geotextile fabric installation over liner at anchor trench – October 21, 2025



Hydro Pit liner installation – October 23, 2025



Hydro Pit liner installation – October 27, 2025



Completed Hydro Pit liner with cover placement – October 31, 2025



Completed Hydro Pit liner with cover placement – November 3, 2025



Cover placement over Hydro Pit liner – November 3, 2025



Hydro Pit drainage channel perforated pipe installation – December 2, 2025



Hydro Pit drainage channels backfilled with Zone 3 material – December 3, 2025



Two-foot cover over Hydro Pit liner – December 10, 2025



Two-foot cover over Hydro Pit liner – December 10, 2025



Tailings Pond 3 West – July 25, 2024



Tailings Pond 3 West – July 25, 2024



Tailings Pond 3 West – July 25, 2024



Tailings Pond 3 East – August 16, 2024



Tailings Pond 3 East – August 16, 2024



Tailings Pond 2 South – September 4, 2024



Tailings Pond 2 South – September 4, 2024



Tailings Pond 2 South – September 4, 2024



Tailings Pond 2 South – September 4, 2024



Tailings Pond 2 South – September 4, 2024



Tailings Pond 2 North – November 18, 2024



Tailings Pond 2 North – November 18, 2024



Tailings Pond 2 North – November 18, 2024



Tailings Pond 1 West – February 21, 2025



Tailings Pond 1 West – February 21, 2025



Tailings Pond 1 East – April 28, 2025



Tailings Stockpile area – June 17, 2024



Tailings Stockpile area – August 1, 2024



Tailings Stockpile area – September 4, 2025



Tailings Stockpile area – September 4, 2025



Tailings Stockpile area – September 4, 2025



Tailings seam southeast of Tailings Pond 1 – June 4, 2025



Tailings seam southeast of Tailings Pond 1 – June 4, 2025



Tailings seam southeast of Tailings Pond 1 – June 24, 2025



Cleared area from tailings seam southeast of Tailings Pond 1 – June 24, 2025



Cleared area from tailings seam southeast of Tailings Pond 1 – June 24, 2025



Cleared area from tailings seam southeast of Tailings Pond 1 – July 29, 2025



Tailings at Laker Plaza corner – February 11, 2025



Laker Plaza corner after tailings removal – February 11, 2025



Tailings from north end of Closure Unit 3b/Development Area 4 – April 24, 2025



Tailings from north end of Closure Unit 3b/Development Area 4 – May 21, 2025



Tailings from Mill Site southeast of flotation cells – March 19, 2025



Tailings removal from Mill Site southeast of flotation cells – March 26, 2025



Fuel farm excavation – May 1, 2025



Fuel farm excavation – May 9, 2025



Northeast drainage – March 11, 2025



Northeast drainage – March 12, 2025



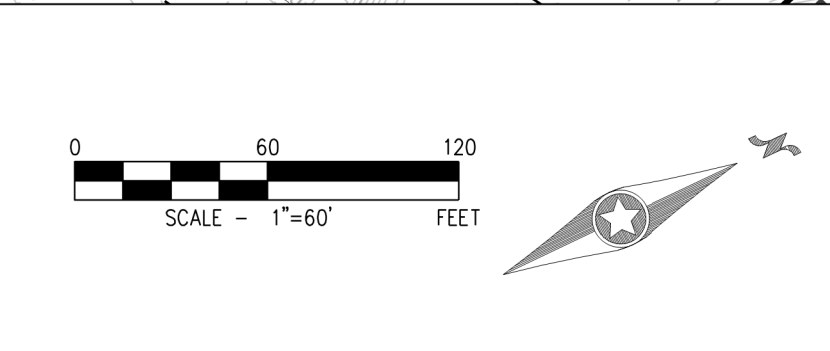
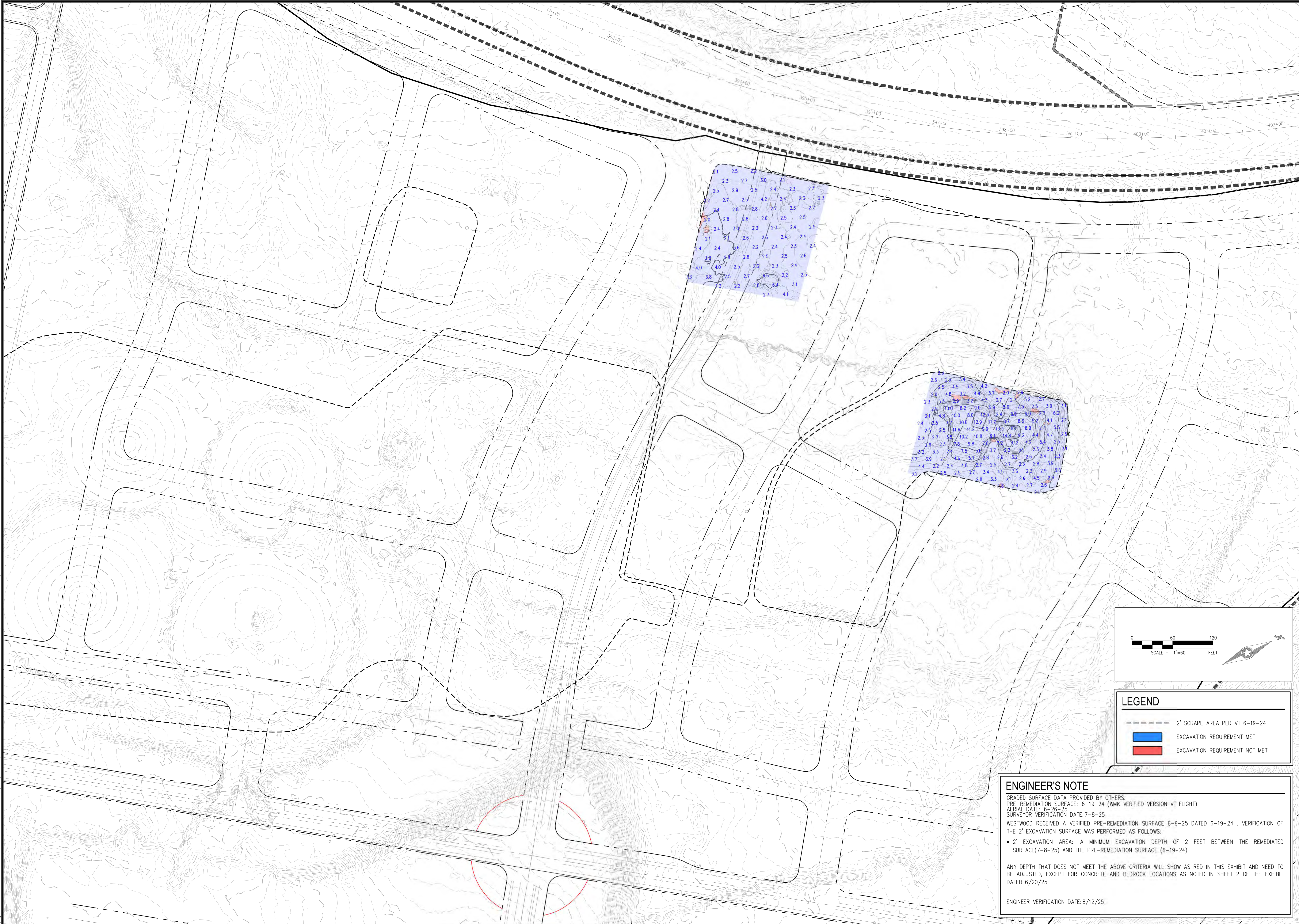
Northeast drainage – October 2, 2025

Appendix C
Stamped Survey Drawings

Appendix D

PAH-Impacted Soil Excavation Verification Model

\\p2511-000_bloomer remediation & certification\\bloomer\\bentl\\bentl\\bentl\\250717 2d\\scrape area verification\\ea\\250812 2d\\scrape area verification.dwg 8/12/2025 2:11 PM Ed Esquivia



LEGEND	
	2' SCRAPE AREA PER VT 6-19-24
	EXCAVATION REQUIREMENT MET
	EXCAVATION REQUIREMENT NOT MET

ENGINEER'S NOTE

GRADED SURFACE DATA PROVIDED BY OTHERS.
PRE-REMEDIATION SURFACE: 6-19-24 (MMK VERIFIED VERSION VT FLIGHT)
AERIAL DATE: 6-26-25
SURVEYOR VERIFICATION DATE: 7-8-25

WESTWOOD RECEIVED A VERIFIED PRE-REMEDIATION SURFACE 6-6-25 DATED 6-19-24 . VERIFICATION OF THE 2' EXCAVATION SURFACE WAS PERFORMED AS FOLLOWS:

- 2' EXCAVATION AREA: A MINIMUM EXCAVATION DEPTH OF 2 FEET BETWEEN THE REMEDIATED SURFACE(7-8-25) AND THE PRE-REMEDIATION SURFACE (6-19-24).

ANY DEPTH THAT DOES NOT MEET THE ABOVE CRITERIA WILL SHOW AS RED IN THIS EXHIBIT AND NEED TO BE ADJUSTED, EXCEPT FOR CONCRETE AND BEDROCK LOCATIONS AS NOTED IN SHEET 2 OF THE EXHIBIT DATED 6/20/25

ENGINEER VERIFICATION DATE:8/12/25

Westwood

5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
Phone (702) 284-5300
westwoodps.com

Westwood Professional Services, Inc.

NO.	DESCRIPTION	DATE	BY	APP.	DATE

LAKEMOOR

2' EXCAVATION AREA

EXHIBIT

DATE: 8/12/25

DRAFTER: EE

DESIGNER: EE

CHECKED: DY

PROJECT NO.
PUL2400

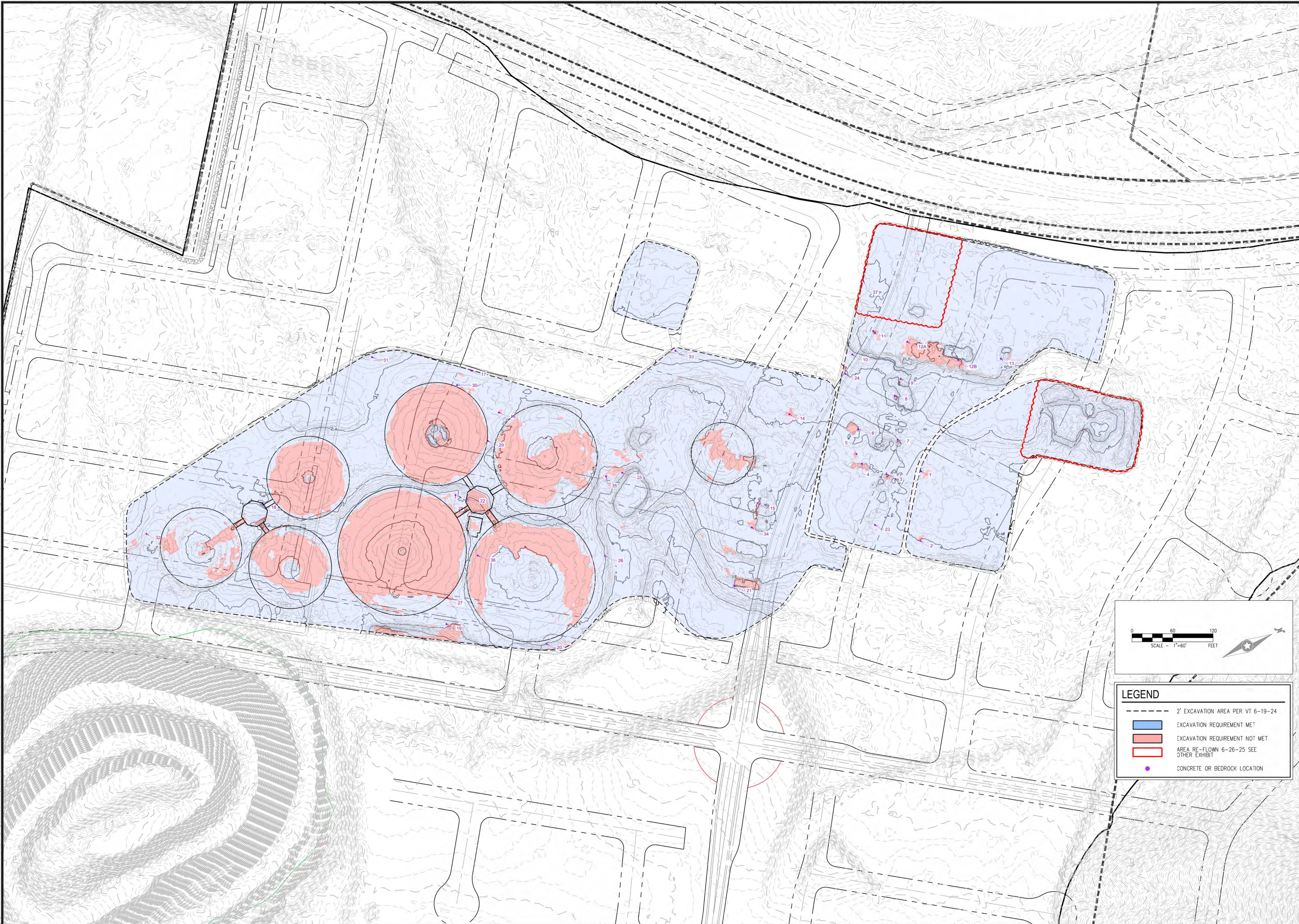
8/12/25

EX-1

SHEET 1

####

\\p2400-000\desmodr_mstr\p2400\p2400\exhibits\250810\p2400-211\scope_area_verification\250819_250810\p2400-211\scope_area_verification_comments_addressed\8/19/2025_1:57 PM EE_Espinoza



Westwood

5725 W. Badura Ave.
Suite 100
Las Vegas, NV 89118
Phone (702) 284-5300
westwoodps.com

DATE

BY

APP. DATE

NO.

DESCRIPTION

LAKEMOOR

MILL SITE 2' EXCAVATION VERIFICATION

EXHIBIT

DATE: 8/19/25

DRAFTER: EE

DESIGNER: EE

CHECKED: DY

PROJECT NO.
PUL2400

PROFESSIONAL ENGINEER - STATE OF NEVADA

EDUARDO J. BALZATE ESPINOZA

8/19/2025

CIVIL

No. 31691

8/19/25

EX-2

SHEET 2

###



Location #1 – Concrete pad



Location #1 – Concrete pad



Location #2 – Concrete pad



Location #2 – Concrete pad



Location #3 – Concrete block



Location #4 – Concrete block



Location # 5 – Concrete pad



Location # 6 – Concrete block



Location #7 – Concrete block



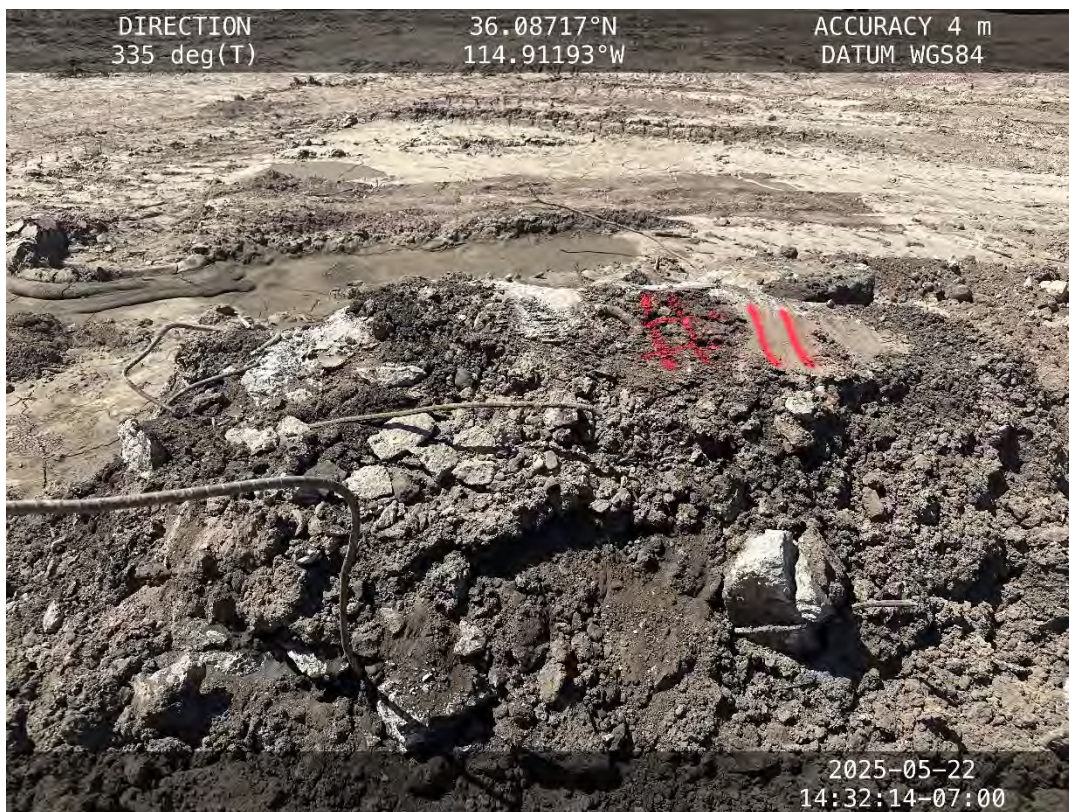
Location #8 – Concrete block



Location #9 – Concrete block



Location #10 – Hard material, concrete or gypsum bedrock



Location #11 – Concrete block



Location #12 – Concrete wall (west end)



Location #12 – Concrete wall (east end)



Location #12 – Concrete wall



Location #13 – Concrete block



Location #14 – Concrete pad



Location #15 – Concrete foundation



Location #15 – Concrete foundation



Location #16 – Hard gypsum bedrock



Location #17 - Hard gypsum bedrock



Location #18 – Western octagonal sump structure



Location #19 – Slope containing construction water pond and J-stand



Location #20 – Hard gypsum bedrock



Location #21 – Concrete block



Location #22 – Western octagonal sump structure



Location #23 – Concrete pad



Location #24 – Concrete pad



Location #25 – Hard bedrock and concrete



Location #26 – Hard bedrock



Location #27 – Hard bedrock



Location #28 – Concrete pad



Location #29 – Concrete and hard bedrock



Location #30 – Concrete pad



Location #31 – Hard bedrock



Location #32 – Hard bedrock



Location #33 – Concrete pad



Location #34 - Concrete foundation



Location #35 – Hard bedrock



Location #36 – Hard bedrock



Location #37 – Haul road constructed over excavation area with track-out rock

Appendix E
Earthwork Volume Reports

Project File Data	Coordinate System
Name:	Default
Size:	Default
Modified:	Datum: WGS 1984
Time zone:	Global reference datum: WGS 1984
Reference number:	Global reference epoch:
Description:	Geoid:
Comment 1:	Vertical datum:
Comment 2:	Calibrated site:
Comment 3:	

Earthwork Volume Report

Unclassified surface compared to Unclassified surface

Surfaces	
Lakemoor East EG	Classification: Unclassified
Lakemoor Hydro Pit SG 7-2-25	Classification: Unclassified

Bank Volumes Based on Surface Geometry Alone	
Cut material	9.5 yd³
Fill material	2,379,060.7 yd³
Deficit	2,379,051.2 yd³

Bank Areas Based on Surface Geometry Alone	
Cut area	284.4 ft²
Fill area	493,155.7 ft²
Zero volume area	0.0 ft²
Total	493,440.1 ft²

Depth summary	
Maximum depth of cut material	2.989 ft
Maximum depth of fill material	291.318 ft

Note: 'Cut Material' is defined as material where [Lakemoor Hydro Pit SG 7-2-25] is lower than [Lakemoor East EG]. 'Fill Material' is defined as the volume of material where [Lakemoor Hydro Pit SG 7-2-25] is higher than [Lakemoor East EG].

Note: The above volumes are calculated solely from the geometries of the selected surfaces. No material properties are applied to the above numbers.

Reported volumes are limited to those that lie within the constraining boundary.

Boundary name:	<Unnamed boundary>
Area within boundary:	493,440.1 ft ² (11.32783 AC)
Total triangulated area:	493,440.1 ft ² (11.32783 AC)

Date: 10/20/2025 8:43:50 PM	Project:	Trimble Business Center
-----------------------------	----------	-------------------------

Project File Data		Coordinate System	
Name:	C:\Doc vault\Lakemoor\Lakemoor T3 8-6-24.vce	Name:	Default
Size:	38 MB	Zone:	Default
Modified:	8/7/2024 3:02:02 PM (UTC:-7)	Datum:	WGS 1984
Time zone:	Pacific Standard Time	Global reference datum:	WGS 1984
Reference number:		Global reference epoch:	
Description:		Geoid:	
Comment 1:		Vertical datum:	
Comment 2:		Calibrated site:	
Comment 3:			

Earthwork Volume Report

Unclassified surface compared to Unclassified surface

Surfaces	
Lakemoor East EG	Classification: Unclassified
Lakemoor T3 8-6-24	Classification: Unclassified

Bank Volumes Based on Surface Geometry Alone	
Cut material	245,197.5 yd³
Fill material	1,447.1 yd³
Excess	243,750.4 yd³

Bank Areas Based on Surface Geometry Alone	
Cut area	590,525.2 ft²
Fill area	40,590.7 ft²
Zero volume area	0.2 ft²
Total	631,116.1 ft²

Depth summary	
Maximum depth of cut material	41.795 ft
Maximum depth of fill material	7.374 ft

Note: 'Cut Material' is defined as material where [Lakemoor T3 8-6-24] is lower than [Lakemoor East EG]. 'Fill Material' is defined as the volume of material where [Lakemoor T3 8-6-24] is higher than [Lakemoor East EG].

Note: The above volumes are calculated solely from the geometries of the selected surfaces. No material properties are applied to the above numbers.

Date: 8/7/2024 3:11:53 PM	Project: C:\Doc vault\Lakemoor\Lakemoor T3 8-6- 24.vce	Trimble Business Center
---------------------------	--	-------------------------

Project File Data		Coordinate System	
Name:	C:\Doc vault\Lakemoor\Lakemoor 8-6-24 Topo.vce	Name:	SCS900 Localization
Size:	121 MB	Zone:	SCS900 Record
Modified:	8/6/2024 8:57:13 PM (UTC:-7)	Datum:	WGS84 Equivalent Datum
Time zone:	Pacific Standard Time	Global reference datum:	WGS 1984
Reference number:		Global reference epoch:	
Description:		Geoid:	
Comment 1:		Vertical datum:	
Comment 2:		Calibrated site:	
Comment 3:			

Earthwork Volume Report

Unclassified surface compared to Unclassified surface

Surfaces	
Lakemoor East EG	Classification: Unclassified
Lakemoor 8-6-24 Topo	Classification: Unclassified

Bank Volumes Based on Surface Geometry Alone	
Cut material	31,294.2 yd³
Fill material	304.2 yd³
Excess	30,989.9 yd³

Bank Areas Based on Surface Geometry Alone	
Cut area	219,704.4 ft²
Fill area	32,816.5 ft²
Zero volume area	1.4 ft²
Total	252,522.3 ft²

Depth summary	
Maximum depth of cut material	23.227 ft
Maximum depth of fill material	5.324 ft

Note: 'Cut Material' is defined as material where [Lakemoor 8-6-24 Topo] is lower than [Lakemoor East EG].
'Fill Material' is defined as the volume of material where [Lakemoor 8-6-24 Topo] is higher than [Lakemoor East EG].

Note: The above volumes are calculated solely from the geometries of the selected surfaces. No material properties are applied to the above numbers.

Reported volumes are limited to those that lie within the constraining boundary.	
Boundary name:	Tailings Stockpile Cut Boundary
Area within boundary:	252,521.2 ft² (5.79709 AC)
Total triangulated area:	252,522.3 ft² (5.79711 AC)

Date: 8/7/2024 2:00:51 PM	Project: C:\Doc vault\Lakemoor\Lakemoor 8-6-24 Topo.vce	Trimble Business Center
---------------------------	---	-------------------------

Project File Data		Coordinate System	
Name:	C:\Doc vault\Lakemoor\Lakemoor 10-9-24 Topo.vce	Name:	SCS900 Localization
Size:	46 MB	Zone:	SCS900 Record
Modified:	10/9/2024 4:42:56 PM (UTC:-7)	Datum:	WGS84 Equivalent Datum
Time zone:	Pacific Standard Time	Global reference datum:	WGS 1984
Reference number:		Global reference epoch:	
Description:		Geoid:	
Comment 1:		Vertical datum:	
Comment 2:		Calibrated site:	
Comment 3:			

Earthwork Volume Report

Unclassified surface compared to Unclassified surface

Surfaces	
Lakemoor East EG	Classification: Unclassified
Lakemoor 9-25-24 Topo	Classification: Unclassified

Bank Volumes Based on Surface Geometry Alone	
Cut material	132,692.6 yd³
Fill material	984.5 yd³
Excess	131,708.1 yd³

Bank Areas Based on Surface Geometry Alone	
Cut area	519,626.6 ft²
Fill area	54,136.9 ft²
Zero volume area	0.4 ft²
Total	573,764.0 ft²

Depth summary	
Maximum depth of cut material	23.584 ft
Maximum depth of fill material	6.784 ft

Note: 'Cut Material' is defined as material where [Lakemoor 9-25-24 Topo] is lower than [Lakemoor East EG]. 'Fill Material' is defined as the volume of material where [Lakemoor 9-25-24 Topo] is higher than [Lakemoor East EG].

Note: The above volumes are calculated solely from the geometries of the selected surfaces. No material properties are applied to the above numbers.

Reported volumes are limited to those that lie within the constraining boundary.	
Boundary name:	Tailings Pond #2 Completed Cut Boundary
Area within boundary:	573,763.8 ft² (13.17181 AC)
Total triangulated area:	573,764.0 ft² (13.17181 AC)

Date: 10/10/2024 7:16:00 PM	Project: C:\Doc vault\Lakemoor\Lakemoor 10-9-24 Topo.vce	Trimble Business Center
-----------------------------	--	-------------------------

Project File Data		Coordinate System	
Name:	C:\Doc vault\Lakemoor\Lakemoor 11-13-24 Topo.vce	Name:	SCS900 Localization
Size:	72 MB	Zone:	SCS900 Record
Modified:	11/15/2024 10:26:47 AM (UTC:-8)	Datum:	WGS84 Equivalent Datum
Time zone:	Pacific Standard Time	Global reference datum:	WGS 1984
Reference number:		Global reference epoch:	
Description:		Geoid:	
Comment 1:		Vertical datum:	
Comment 2:		Calibrated site:	
Comment 3:			

Earthwork Volume Report

Unclassified surface compared to Unclassified surface

Surfaces	
Lakemoor East EG	Classification: Unclassified
Lakemoor 11-13-24 Topo	Classification: Unclassified

Bank Volumes Based on Surface Geometry Alone	
Cut material	929,231.0 yd³
Fill material	1,047.1 yd³
Excess	928,183.8 yd³

Bank Areas Based on Surface Geometry Alone	
Cut area	920,055.4 ft²
Fill area	34,693.3 ft²
Zero volume area	0.5 ft²
Total	954,749.1 ft²

Depth summary	
Maximum depth of cut material	79.990 ft
Maximum depth of fill material	10.539 ft

Note: 'Cut Material' is defined as material where [Lakemoor 11-13-24 Topo] is lower than [Lakemoor East EG]. 'Fill Material' is defined as the volume of material where [Lakemoor 11-13-24 Topo] is higher than [Lakemoor East EG].

Note: The above volumes are calculated solely from the geometries of the selected surfaces. No material properties are applied to the above numbers.

Reported volumes are limited to those that lie within the constraining boundary.	
Boundary name:	Tailings Pond #2 Cut Boundary
Area within boundary:	954,748.9 ft² (21.91802 AC)
Total triangulated area:	954,749.1 ft² (21.91802 AC)

Date: 11/16/2024 7:34:28 AM	Project: C:\Doc vault\Lakemoor\Lakemoor 11-13-24 Topo.vce	Trimble Business Center
-----------------------------	---	-------------------------

Project File Data		Coordinate System	
Name:	C:\Doc vault\Lakemoor\Lakemoor 2-19-25 Topo.vce	Name:	SCS900 Localization
Size:	195 MB	Zone:	SCS900 Record
Modified:	2/25/2025 10:16:20 PM (UTC:-8)	Datum:	WGS84 Equivalent Datum
Time zone:	Pacific Standard Time	Global reference datum:	WGS 1984
Reference number:		Global reference epoch:	
Description:		Geoid:	
Comment 1:		Vertical datum:	
Comment 2:		Calibrated site:	
Comment 3:			

Earthwork Volume Report

Unclassified surface compared to Unclassified surface

Surfaces	
Lakemoor East EG	Classification: Unclassified
Lakemoor 2-19-25 Topo	Classification: Unclassified

Bank Volumes Based on Surface Geometry Alone	
Cut material	931,070.2 yd ³
Fill material	1,923.9 yd ³
Excess	929,146.3 yd ³

Bank Areas Based on Surface Geometry Alone	
Cut area	1,259,351.8 ft ²
Fill area	70,048.0 ft ²
Zero volume area	0.4 ft ²
Total	1,329,400.2 ft ²

Depth summary	
Maximum depth of cut material	67.627 ft
Maximum depth of fill material	9.445 ft

Note: 'Cut Material' is defined as material where [Lakemoor 2-19-25 Topo] is lower than [Lakemoor East EG]. 'Fill Material' is defined as the volume of material where [Lakemoor 2-19-25 Topo] is higher than [Lakemoor East EG].

Note: The above volumes are calculated solely from the geometries of the selected surfaces. No material properties are applied to the above numbers.

Reported volumes are limited to those that lie within the constraining boundary.		
Boundary name:	Tailings Pond #1 Cut Boundary	
Area within boundary:	1,329,400.1 ft² (30.51883 AC)	
Total triangulated area:	1,329,400.2 ft² (30.51883 AC)	

Date: 2/26/2025 10:04:40 PM	Project: C:\Doc vault\Lakemoor\Lakemoor 2-19-25 Topo.vce	Trimble Business Center
-----------------------------	--	-------------------------

Appendix F
Hydro Pit Silt Layer Permeability Testing Results



6280 S. Valley View Blvd
Suite 600
Las Vegas NV. 89118

SUMMARY OF SOIL AND AGGREGATE TEST RESULTS

CLIENT: -
-
ATTN: -

REPORT DATE: 4/18/2025
PROJECT: **Lake Moor Development**
PROJECT NO.: -
PERMIT/BID ITEM NO.: 2024307736

SAMPLE INFORMATION

Sample No.: 5512
Sampled By: Negasi G
Tested By: Amitai Bautista
Sample Loc.: Import (J-2)
Sample Description: Clayey Sand W/Gravel(SC)

Client Project No.: -
Source: Import - -
Material Use: Capping

TEST RESULTS

Sieve Analysis ASTM C117, C136

Sieve Size	% Passing	Specifications		Pass/Fail
		min.	max.	
6-inch	100			
5-inch	100			
4-inch	100			
3 1/2-inch	100			
3-inch	100			
2-inch	95			
1 1/2-inch	91			
1-inch	89			
3/4inch	84			
1/2-inch	78			
3/8-inch	73			
No. 4	61			
No. 8	48			
No. 10	44			
No. 16	38			
No. 30	31			
No. 40	28			
No. 50	26			
No.100	21			
No. 200	15.0			

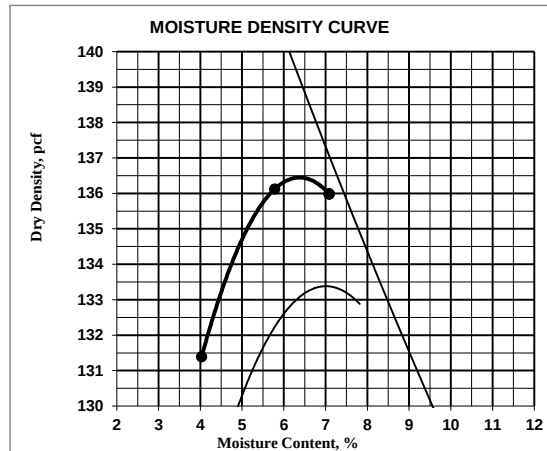
Comments:

Perm test sent to Terracon

Laboratory Test

Liquid Limit, AASHTO T89
Plasticity Index, AASHTO T90
Standard 60 psf Swell Test, %

Results	Spec's.	Pass/Fail
28.0		
10.0		
0.7		



TEST METHOD: TEST PROCEDURE:
MAXIMUM DRY DENSITY: 136.4 lb/ft³
OPTIMUM MOISTURE: 6.4 %
Specific Gravity Used For Zero Air Voids Curve: 2.60

Reviewed By: _____
For Brian Eller, P.E.

LABORATORY SERVICES REPORT

Report Number: 65241055.0004
Service Date: 04/25/25
Report Date: 04/25/25
Task:



4685 S Ash Ave, Ste H-4
Tempe, AZ 85282-6767
480-897-8200

Client

Centurion Consultants LLC
Attn: Tyrell Farnes
1441 Montiel Rd Ste 117
Escondido, CA 92026

Project

Centurion Consultants
4685 S Ash Avenue, Ste. H-4
Tempe, AZ 85282

Project No. 65241055

MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER (ASTM D5084-16a) METHOD C

SAMPLE DESCRIPTION:	Centurion Project-Lake Moore Development Lab# 5512	Remolded to 136.4 Pcf @ 6.4%
AVERAGE PERMEABILITY		7.71E-06 cm/s
INITIAL LENGTH OF SPECIMEN		7.29 cm
INITIAL DIAMETER OF SPECIMEN		7.29 cm
INITIAL WATER CONTENT		6.6 %
INITIAL DRY UNIT WEIGHT		129.3 pcf
INITIAL VOLUME		18.6 in ³
PERMEANT LIQUID		Tap Water
MAGNITUDE OF TOTAL BACK PRESSURE		60.0 psi
EFFECTIVE CONSOLIDATION STRESS		5.0 psi
RANGE OF HYDRAULIC GRADIENT USED		33.5 to 18.0
FINAL LENGTH OF SPECIMEN		7.94 cm
FINAL DIAMETER OF SPECIMEN		7.36 cm
FINAL WATER CONTENT		15.9 %
FINAL DRY UNIT WEIGHT		116.5 pcf
FINAL VOLUME		20.6 in ³
B VALUE (PRIOR TO PERMEATION)		0.95
DEGREE OF SATURATION (BEFORE AND AFTER TEST) *		63% & 100%
SPECIFIC GRAVITY USED IN CALCULATIONS OF SATURATION		2.651

TIME INTERVAL	K (cm/s)	K (ft/yr)
22	7.42E-06	7.68
24	8.10E-06	8.38
27	7.04E-06	7.28
30	8.26E-06	8.55

Services:

Terracon Rep:

Reported To:

Contractor:

Report Distribution

(1) Centurion Consultants LLC, Tyrell

Reviewed By:

Iram Bencomo
Assistant Project Manager

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.



6280 S. Valley View Blvd
Suite 600
Las Vegas NV. 89118

SUMMARY OF SOIL AND AGGREGATE TEST RESULTS

CLIENT: -
-
ATTN: -

REPORT DATE: 4/24/25
PROJECT: **Lake Moor Development**
PROJECT NO.: -
PERMIT/BID ITEM NO.: 2024307736

SAMPLE INFORMATION

Sample No.: 5521
Sampled By: Negasi G
Tested By: Amitai Bautista
Sample Loc.: On site stock pile near Hulin Pit
Sample Description: Clayey Sand W/Gravel(SC)
Client Project No.: -
Source: Import - **Parcel H**
Material Use: Underlying Material

TEST RESULTS

Sieve Analysis ASTM C117, C136

Sieve Size	% Passing	Specifications		Pass/Fail
		min.	max.	
6-inch	100			
5-inch	100			
4-inch	100			
3 1/2-inch	100			
3-inch	100			
2-inch	100			
1 1/2-inch	100			
1-inch	98			
3/4inch	94			
1/2-inch	88			
3/8-inch	84			
No. 4	74			
No. 8	67			
No. 10	65			
No. 16	59			
No. 30	53			
No. 40	51			
No. 50	48			
No.100	44			
No. 200	39.6			

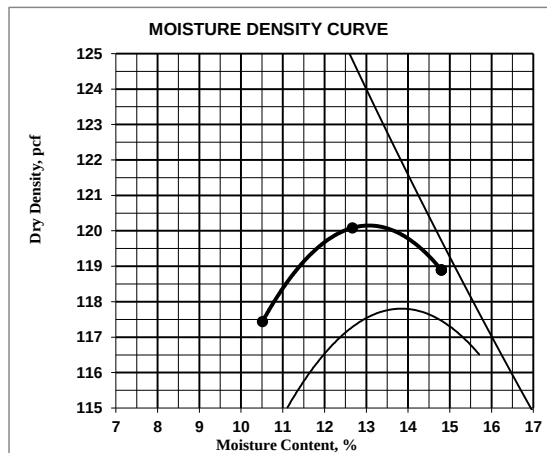
Comments:

Perm test sent to Terracon

Laboratory Test

Liquid Limit, AASHTO T89
Plasticity Index, AASHTO T90
Standard 60 psf Swell Test, %

Results	Spec's.	Pass/Fail
41.0		
20.0		
14.4		



TEST METHOD: TEST PROCEDURE:
MAXIMUM DRY DENSITY: 120.1 lb/ft³
OPTIMUM MOISTURE: 13.0 %
Specific Gravity Used For Zero Air Voids Curve: 2.68

Reviewed By: _____
For Brian Eller, P.E.

LABORATORY SERVICES REPORT

Report Number: 65241055.0005
Service Date: 04/28/25
Report Date: 04/28/25
Task:



4685 S Ash Ave, Ste H-4
Tempe, AZ 85282-6767
480-897-8200

Client

Centurion Consultants LLC
Attn: Tyrell Farnes
1441 Montiel Rd Ste 117
Escondido, CA 92026

Project

Centurion Consultants
4685 S Ash Avenue, Ste. H-4
Tempe, AZ 85282

Project No. 65241055

MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER (ASTM D5084-16a) METHOD C

SAMPLE DESCRIPTION:	Centurion Project-Lake Moore Development Lab# 5521	Remolded to 114.1 PCF @13.0%
AVERAGE PERMEABILITY		4.34E-07 cm/s
INITIAL LENGTH OF SPECIMEN		7.29 cm
INITIAL DIAMETER OF SPECIMEN		7.29 cm
INITIAL WATER CONTENT		13.0 %
INITIAL DRY UNIT WEIGHT		114.1 pcf
INITIAL VOLUME		18.6 in ³
PERMEANT LIQUID		Tap Water
MAGNITUDE OF TOTAL BACK PRESSURE		60.0 psi
EFFECTIVE CONSOLIDATION STRESS		5.0 psi
RANGE OF HYDRAULIC GRADIENT USED		36.4 to 31.8
FINAL LENGTH OF SPECIMEN		7.94 cm
FINAL DIAMETER OF SPECIMEN		7.41 cm
FINAL WATER CONTENT		23.8 %
FINAL DRY UNIT WEIGHT		101.4 pcf
FINAL VOLUME		20.9 in ³
B VALUE (PRIOR TO PERMEATION)		0.95
DEGREE OF SATURATION (BEFORE AND AFTER TEST) *		77% & 100%
SPECIFIC GRAVITY USED IN CALCULATIONS OF SATURATION		2.651

TIME INTERVAL	K (cm/s)	K (ft/yr)
104	3.15E-07	0.33
113	5.57E-07	0.58
127	3.41E-07	0.35
137	5.23E-07	0.54

Services:

Terracon Rep:

Reported To:

Contractor:

Report Distribution

(1) Centurion Consultants LLC, Tyrell

Reviewed By:

Iram Bencomo
Assistant Project Manager

The tests were performed in general accordance with applicable ASTM, AASHTO, or DOT test methods. This report is exclusively for the use of the client indicated above and shall not be reproduced except in full without the written consent of our company. Test results transmitted herein are only applicable to the actual samples tested at the location(s) referenced and are not necessarily indicative of the properties of other apparently similar or identical materials.

Appendix G

Hydro Pit Silt Layer Under Liner Verification Model

Appendix H
Liner Surface Slope Analysis

Appendix I
Manufacturer's Data Sheets



4750 Copper Sage St
Las Vegas, NV 89115

P: 702-658-7195
F: 702-395-0125

Submittal Cover Sheet

Date: July 16, 2025

General: Pulte Group **Submittal Number:** 3

ATTN: Doug Adair **Revision Number:**

Project: Lakemoor Development

"Substitution": "Or Equal":

Intended Use: Geocomposite Quality Control Certifications

By making this submittal No. 3, VT Construction does hereby approve said submittal and does certify that it has determined and verified all materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within these submittal with the requirements of the Work and of the contract documents. The Contractor further certifies that, to the best of its knowledge, the materials described within this submittal do not contain any asbestos containing materials.

07/16/25
Date

Dan Gilbert
SIGNED FOR THE CONTRACTOR

Jamie Woodworth
Submitting Individual

SUBMITTAL CONTROL FORM



DATE: June 13, 2025
SUBMITTAL NO.: 1
PROJECT NUM.: 243034
PROJECT NAME: Three Kids Mine - Hydro Pit Liner

TO: VT Construction
ATTN: Dna Gilbert
4750 Copper Sage Street
Las Vegas, NV 89115
PHONE: 702-658-7195
FAX:
E-MAIL: Dan@VTConstruction.org

FROM: EC Applications
Ruben Brito
901 E. Orangethorpe Ave.
Anaheim, CA 92801
PHONE: 714-921-9848 X 102
FAX: 866-475-1225
E-MAIL: rbrito@ecapps.com

WE ARE SUBMITTING THE ENCLOSED:

- | | | |
|--|---|----------------------------------|
| ☐ SHOP DRAWINGS | ☐ CERTIFICATES OF COMPLIANCE | ☐ SAMPLES |
| ☐ MATERIAL DATA | ☐ QC INFORMATION | ☐ OTHER |

THESE ARE TRANSMITTED FOR:

- | | | |
|---------------------------------------|--------------------------------------|-----------------------------------|
| ☐ APPROVAL | ☐ INFORMATION | ☐ RESUBMIT |
| ☐ AS REQUESTED | ☐ FOR REVIEW | |

ITEM NO.	SUBMITTAL DESCRIPTION	NO. OF COPIES	CONTRACT REFERENCE / SPECIFICATION SECTION / DRAWING SHEET NUMBER
	Geomembrane Quality Control Certifications	1	Industry Standard

NOTE:

THE ABOVE SUBMITTED ITEMS HAVE BEEN REVIEWED IN DETAIL AND ARE CORRECT AND IN GENERAL CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS EXCEPT AS OTHERWISE STATED.

Ruben Brito

ECApplications AUTHORIZED SIGNATURE

IF THE ABOVE VARIANCES ARE ACCEPTABLE, PLEASE CONFIRM IN WRITING WITHIN TEN (10) DAYS, OTHERWISE ECA WILL PROCEED PER THE PROPOSED VARIANCES.



Product: 60-HD-00-BLK-BLK-AVG-STD-24.00
Project : Lakemoor Remediation, NV
Customer: ECAApplications
Cust PO: 25029

QC'd By: *Mallkesh Patel*
Date: June 13, 2025

We hereby certify the following test results for the above referenced product/project :

Count	Roll Number	Area (sq ft)	Gross Weight (lb)	Thick ness MAV (mil)	Thick ness MIN (mil)	Tensile at Yield (ppi)		Elong at Yield (%)		Tensile at Break (ppi)		Elong at Break (%)		Tear Resistance (lb)		Punct Resist (lb)	Density (g/cc)	Carbon Black (%)	CB Disp (Views in Cat 1 or 2)	OIT (Minute)	Resin Lot #
				ASTM D 5199	ASTM D 5199	ASTM D 6693		ASTM D 6693		ASTM D 6693		ASTM D 6693		ASTM D 1004		ASTM D 4833	ASTM D 1505	ASTM D 4218	ASTM D 5596	ASTM D 3895	
						MD	TD	MD	TD	MD	TD	MD	TD	MD	TD						
01	3111028073	12,960.00	4156	65	63	144	151	22	19	320	317	806	816	51	52	141	0.948	2.5	10	259	D250132904
02	3111028074	12,960.00	4160	61	59	141	151	20	19	317	315	792	795	49	50	130	0.945	2.7	10	259	D250132904
03	3111028075	12,960.00	4108	60	59	141	151	20	19	317	315	792	795	49	50	130	0.945	2.7	10	259	D250132904
04	3111028076	12,960.00	4116	62	61	141	151	20	19	317	315	792	795	49	50	130	0.945	2.7	10	259	D250132904
05	3111028077	12,960.00	4096	61	60	141	151	20	19	317	315	792	795	49	50	130	0.945	2.7	10	259	D250132904
06	3111028078	12,960.00	4072	61	58	136	143	20	18	317	308	818	827	49	50	130	0.945	2.4	10	259	D250132904
07	3111028079	12,960.00	4104	62	58	136	143	20	18	317	308	818	827	49	50	130	0.945	2.4	10	259	D250132904
08	3111028080	12,960.00	4102	63	61	136	143	20	18	317	308	818	827	49	50	130	0.945	2.4	10	259	D250132904
09	3111028081	12,960.00	4090	61	56	136	143	20	18	317	308	818	827	49	50	130	0.945	2.4	10	259	D250132904
10	3111028082	12,960.00	4026	64	61	136	143	20	18	317	308	818	827	49	50	130	0.945	2.4	10	259	D250132904
11	3111028086	12,960.00	4000	60	55	137	147	20	19	312	293	809	780	49	50	135	0.946	2.3	10	259	D250132904
12	3111028087	12,960.00	3998	60	57	137	147	20	19	312	293	809	780	49	50	135	0.946	2.3	10	259	D250132904



Product: 60-HD-00-BLK-BLK-AVG-STD-24.00
 Project : Lakemoor Remediation, NV
 Customer: ECAApplications
 Cust PO: 25029

QC'd By: *Mallkesh Patel*
 Date: June 13, 2025

We hereby certify the following test results for the above referenced product/project :

Count	Roll Number	Area (sq ft)	Gross Weight (lb)	Thick ness MAV (mil)	Thick ness MIN (mil)	Tensile at Yield (ppi)		Elong at Yield (%)		Tensile at Break (ppi)		Elong at Break (%)		Tear Resistance (lb)		Punct Resist (lb)	Density (g/cc)	Carbon Black (%)	CB Disp (Views in Cat 1 or 2)	OIT (Minute)	Resin Lot #
				ASTM D 5199	ASTM D 5199	ASTM D 6693		ASTM D 6693		ASTM D 6693		ASTM D 6693		ASTM D 1004		ASTM D 4833	ASTM D 1505	ASTM D 4218	ASTM D 5596	ASTM D 3895	
						MD	TD	MD	TD	MD	TD	MD	TD	MD	TD						
13	3111028088	12,960.00	4022	60	59	141	149	20	19	302	316	778	832	49	50	135	0.946	2.4	10	259	D250132904
14	3111028089	12,960.00	4030	60	59	141	149	20	19	302	316	778	832	49	50	135	0.946	2.4	10	259	D250132904
15	3111028090	12,960.00	4060	61	59	141	149	20	19	302	316	778	832	49	50	135	0.946	2.4	10	259	D250132904
16	3111028091	12,960.00	4074	60	57	141	149	20	19	302	316	778	832	49	50	135	0.946	2.4	10	259	D250132904
17	3111028092	12,960.00	4066	62	60	141	149	20	19	302	316	778	832	49	50	135	0.946	2.4	10	259	D250132904
18	3111028093	12,960.00	4,062	61	59	142	146	21	20	310	305	797	809	47	49	138	0.947	2.7	10	259	D250132904
19	3111028094	12,960.00	4,054	61	59	142	146	21	20	310	305	797	809	47	49	138	0.947	2.7	10	259	D250132904
20	3111028095	12,960.00	4,060	60	56	142	146	21	20	310	305	797	809	47	49	138	0.947	2.7	10	259	D250132904
21	3111028096	12,960.00	4,064	61	59	142	146	21	20	310	305	797	809	47	49	138	0.947	2.7	10	259	D250132904
22	3111028097	12,960.00	4,060	63	60	140	145	22	19	316	327	812	864	47	49	138	0.947	2.5	10	259	D250132904
23	3111028098	12,960.00	4,036	64	60	140	145	22	19	316	327	812	864	47	49	138	0.947	2.5	10	259	D250132904
24	3111028099	12,960.00	4,042	61	59	140	145	22	19	316	327	812	864	47	49	138	0.947	2.5	10	259	D250132904



Product: 60-HD-00-BLK-BLK-AVG-STD-24.00
 Project : Lakemoor Remediation, NV
 Customer: ECAApplications
 Cust PO: 25029

QC'd By: *Mallkesh Patel*
 Date: June 13, 2025

We hereby certify the following test results for the above referenced product/project :

Count	Roll Number	Area (sq ft)	Gross Weight (lb)	Thick ness MAV (mil)	Thick ness MIN (mil)	Tensile at Yield (ppi)		Elong at Yield (%)		Tensile at Break (ppi)		Elong at Break (%)		Tear Resistance (lb)		Punct Resist (lb)	Density (g/cc)	Carbon Black (%)	CB Disp (Views in Cat 1 or 2)	OIT (Minute)	Resin Lot #
				ASTM D 5199	ASTM D 5199	ASTM D 6693		ASTM D 6693		ASTM D 6693		ASTM D 6693		ASTM D 1004		ASTM D 4833	ASTM D 1505	ASTM D 4218	ASTM D 5596	ASTM D 3895	
						MD	TD	MD	TD	MD	TD	MD	TD	MD	TD						
25	3111028100	12,960.00	4,030	63	61	140	145	22	19	316	327	812	864	47	49	138	0.947	2.5	10	259	D250132904
26	3111028101	12,960.00	4,020	62	57	140	145	22	19	316	327	812	864	47	49	138	0.947	2.5	10	259	D250132904
27	3111028102	12,960.00	4,012	63	60	139	141	19	17	313	301	818	813	47	50	137	0.946	2.3	10	259	D250132904
28	3111028103	12,960.00	4,014	60	55	139	141	19	17	313	301	818	813	47	50	137	0.946	2.3	10	259	D250132904
29	3111028104	12,960.00	3,972	60	58	139	141	19	17	313	301	818	813	47	50	137	0.946	2.3	10	259	D250132904
30	3111028105	12,960.00	3,974	60	58	139	141	19	17	313	301	818	813	47	50	137	0.946	2.3	10	259	D250132904
31	3111028106	12,960.00	3,994	60	58	134	144	20	19	305	305	800	824	47	50	137	0.946	2.5	10	248	D250230101
32	3111028107	12,960.00	3,982	60	57	134	144	20	19	305	305	800	824	47	50	137	0.946	2.5	10	248	D250230101
33	3111028108	12,960.00	3,990	60	57	134	144	20	19	305	305	800	824	47	50	137	0.946	2.5	10	248	D250230101
34	3111028109	12,960.00	3,982	60	59	134	144	20	19	305	305	800	824	47	50	137	0.946	2.5	10	248	D250230101
35	3111028110	12,960.00	4,022	60	58	134	144	20	19	305	305	800	824	47	50	137	0.946	2.5	10	248	D250230101
36	3111028111	12,960.00	4,010	60	58	134	140	21	18	317	316	832	859	49	50	138	0.944	2.6	10	248	D250230101



Product: 60-HD-00-BLK-BLK-AVG-STD-24.00
 Project : Lakemoor Remediation, NV
 Customer: ECAApplications
 Cust PO: 25029

QC'd By: *Mallkesh Patel*
 Date: June 13, 2025

We hereby certify the following test results for the above referenced product/project :

Count	Roll Number	Area (sq ft)	Gross Weight (lb)	Thick ness MAV (mil)	Thick ness MIN (mil)	Tensile at Yield (ppi)		Elong at Yield (%)		Tensile at Break (ppi)		Elong at Break (%)		Tear Resistance (lb)		Punct Resist (lb)	Density (g/cc)	Carbon Black (%)	CB Disp (Views in Cat 1 or 2)	OIT (Minute)	Resin Lot #
				ASTM D 5199	ASTM D 5199	ASTM D 6693		ASTM D 6693		ASTM D 6693		ASTM D 6693		ASTM D 1004		ASTM D 4833	ASTM D 1505	ASTM D 4218	ASTM D 5596	ASTM D 3895	
						MD	TD	MD	TD	MD	TD	MD	TD	MD	TD						
37	3111028112	12,960.00	4,014	60	58	134	140	21	18	317	316	832	859	49	50	138	0.944	2.6	10	248	D250230101
38	3111028113	12,960.00	4,014	61	60	134	140	21	18	317	316	832	859	49	50	138	0.944	2.6	10	248	D250230101
39	3111028114	12,960.00	4,010	61	58	134	140	21	18	317	316	832	859	49	50	138	0.944	2.6	10	248	D250230101
40	3111028115	12,960.00	4,028	61	59	144	144	20	19	314	316	827	847	49	50	138	0.944	2.6	10	248	D250230101
41	3111028116	12,960.00	4,030	60	58	144	144	20	19	314	316	827	847	49	50	138	0.944	2.6	10	248	D250230101
42	3111028117	12,960.00	4,020	60	58	144	144	20	19	314	316	827	847	49	50	138	0.944	2.6	10	248	D250230101
43	3111028118	12,960.00	4,034	61	58	144	144	20	19	314	316	827	847	49	50	138	0.944	2.6	10	248	D250230101
44	3111028119	12,960.00	4,020	61	59	144	144	20	19	314	316	827	847	49	50	138	0.944	2.6	10	248	D250230101
45	3111028120	12,960.00	4,014	61	58	135	145	20	18	296	297	770	790	49	51	139	0.945	2.3	10	248	D250230101
46	3111028121	12,960.00	4,006	60	58	135	145	20	18	296	297	770	790	49	51	139	0.945	2.3	10	248	D250230101
47	3111028122	12,960.00	4,012	60	57	135	145	20	18	296	297	770	790	49	51	139	0.945	2.3	10	248	D250230101
48	3111028123	12,960.00	4,010	60	58	135	145	20	18	296	297	770	790	49	51	139	0.945	2.3	10	248	D250230101



Product: 60-HD-00-BLK-BLK-AVG-STD-24.00
Project : Lakemoor Remediation, NV
Customer: ECAApplications
Cust PO: 25029

QC'd By: *Malkesh Patel*
Date: June 13, 2025

We hereby certify the following test results for the above referenced product/project :

Count	Roll Number	Area (sq ft)	Gross Weight (lb)	Thick ness MAV (mil)	Thick ness MIN (mil)	Tensile at Yield (ppi)		Elong at Yield (%)		Tensile at Break (ppi)		Elong at Break (%)		Tear Resistance (lb)		Punct Resist (lb)	Density (g/cc)	Carbon Black (%)	CB Disp (Views in Cat 1 or 2)	OIT (Minute)	Resin Lot #
				ASTM D 5199	ASTM D 5199	ASTM D 6693		ASTM D 6693		ASTM D 6693		ASTM D 6693		ASTM D 1004		ASTM D 4833	ASTM D 1505	ASTM D 4218	ASTM D 5596	ASTM D 3895	
						MD	TD	MD	TD	MD	TD	MD	TD	MD	TD						
49	3111028125	12,960.00	4,000	61	59	147	148	19	18	301	299	775	794	49	51	139	0.945	2.4	10	248	D250230101



Bayport Polymers LLC
12212 Port Road
Pasadena, TX 77507

AP CONTACT JETAL
COMMERCE GA 30529

SHIPPED TO:
SKAPS INDUSTRIES
571 INDUSTRIAL PARKWAY
COMMERCE GA 30529

Material: Our / Your reference
FB1350 (530072) /

Please find below test data and pertinent information on Bayport Polymers LLC.
Polyethylene material shipped to your plant.

Batch D250132904 Quantity 195,900 LB Railcar BPTX185853

Inspection Certificate 3.1 EN 10204

Date
04/16/2025

Purchase order item/date
30131250263-2 / 04/09/2025

Delivery item/date
88311538 000001 / 04/16/2025

Order item
33571818 000001

Customer number
81137382

Characteristic	Unit	Value
MFR 190/5	g/10 min	0.52
DENSITY	kg/m³	933.5
Railcar Prefix	-	BPTX
Railcar Number	-	185853
Railcar Seal Numbers	-	19809



AP CONTACT JETAL
COMMERCE GA 30529

Delivery item/date	Page
88311538 000001 / 05/04/2025	2

Jeremy Gasper
Laboratory Superintendent
12212 Port Road, Pasadena, Texas 77507
P.O. Box 5010, LaPorte, Texas 77572-5010



Bayport Polymers LLC
12212 Port Road
Pasadena, TX 77507

AP CONTACT JETAL
COMMERCE GA 30529

SHIPPED TO:
SKAPS INDUSTRIES
571 INDUSTRIAL PARKWAY
COMMERCE GA 30529

Material: Our / Your reference
FB1350 (530072) /

Please find below test data and pertinent information on Bayport Polymers LLC.
Polyethylene material shipped to your plant.

Batch D250230101 Quantity 196,250 LB Railcar BPTX544015

Inspection Certificate 3.1 EN 10204

Date

04/16/2025

Purchase order item/date

30131250263-3 / 04/09/2025

Delivery item/date

88311539 000001 / 04/16/2025

Order item

33571819 000001

Customer number

81137382

Characteristic	Unit	Value
MFR 190/5	g/10 min	0.58
DENSITY	kg/m ³	934.1
Railcar Prefix	-	BPTX
Railcar Number	-	544015
Railcar Seal Numbers	-	20087



AP CONTACT JETAL
COMMERCE GA 30529

Delivery item/date	Page
88311539 000001 / 05/04/2025	2

Jeremy Gasper
Laboratory Superintendent
12212 Port Road, Pasadena, Texas 77507
P.O. Box 5010, LaPorte, Texas 77572-5010



4750 Copper Sage St
Las Vegas, NV 89115

P: 702-658-7195
F: 702-395-0125

Submittal Cover Sheet

Date: July 16, 2025

General: Pulte Group **Submittal Number:** 1

ATTN: Doug Adair **Revision Number:**

Project: Lakemoor Development

"Substitution": "Or Equal":

Intended Use: Geomembrane Quality Control Certifications

By making this submittal No. 1, VT Construction does hereby approve said submittal and does certify that it has determined and verified all materials, field measurements and field construction criteria related thereto, or will do so, and has checked and coordinated the information contained within these submittal with the requirements of the Work and of the contract documents. The Contractor further certifies that, to the best of its knowledge, the materials described within this submittal do not contain any asbestos containing materials.

07/16/25
Date

Dan Gilbert
SIGNED FOR THE CONTRACTOR

Jamie Woodworth
Submitting Individual

SUBMITTAL CONTROL FORM



DATE: June 13, 2025
SUBMITTAL NO.: 3
PROJECT NUM.: 243034
PROJECT NAME: Three Kids Mine - Hydro Pit Liner

TO: VT Construction
ATTN: Dna Gilbert
4750 Copper Sage Street
Las Vegas, NV 89115
PHONE: 702-658-7195
FAX:
E-MAIL: Dan@VTConstruction.org

FROM: EC Applications
Ruben Brito
901 E. Orangethorpe Ave.
Anaheim, CA 92801
PHONE: 714-921-9848 X 102
FAX: 866-475-1225
E-MAIL: rbrito@ecapps.com

WE ARE SUBMITTING THE ENCLOSED:

- | | | |
|--|---|----------------------------------|
| ☐ SHOP DRAWINGS | ☐ CERTIFICATES OF COMPLIANCE | ☐ SAMPLES |
| ☐ MATERIAL DATA | ☐ QC INFORMATION | ☐ OTHER |

THESE ARE TRANSMITTED FOR:

- | | | |
|---------------------------------------|--------------------------------------|-----------------------------------|
| ☐ APPROVAL | ☐ INFORMATION | ☐ RESUBMIT |
| ☐ AS REQUESTED | ☐ FOR REVIEW | |

ITEM NO.	SUBMITTAL DESCRIPTION	NO. OF COPIES	CONTRACT REFERENCE / SPECIFICATION SECTION / DRAWING SHEET NUMBER
	Geocomposite Quality Control Certifications	1	Industry Standard

NOTE:

THE ABOVE SUBMITTED ITEMS HAVE BEEN REVIEWED IN DETAIL AND ARE CORRECT AND IN GENERAL CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS EXCEPT AS OTHERWISE STATED.

Ruben Brito

ECApplications AUTHORIZED SIGNATURE

IF THE ABOVE VARIANCES ARE ACCEPTABLE, PLEASE CONFIRM IN WRITING WITHIN TEN (10) DAYS, OTHERWISE ECA WILL PROCEED PER THE PROPOSED VARIANCES.



June 13, 2025

Customer: EC Applications Inc.
Customer P.O.#: 25029
Project: Lakemoor Remediation, NV
Product: TN 220-1-8

We hereby certify that the TN 220-1-8 drainage geocomposite, meets or exceeds the project requirements as stated in the specifications. The properties listed in this section are:

Property	Test Method	Unit	Value	Qualifier
Geonet³				
Thickness	ASTM D 5199	mil	200	MAV ⁶
Carbon Black	ASTM D 4218	%	2.0	Range
Tensile Strength	ASTM D 7179	lbs/in	45	MAV
Melt Flow	ASTM D 1238 ²	g/10 min	1.0	Maximum
Density	ASTM D 1505	g/cm ³	0.94	MAV
Transmissivity ^{1a}	ASTM D 4716	m ² /sec	2.0 x 10 ⁻³	MAV
Composite				
Ply Adhesion	ASTM D 7005	lb/in	1.0	MAV
Transmissivity ^{1b}	ASTM D 4716	m ² /sec	1.0 x 10 ⁻³	MAV
Geotextile^{3 & 4}				
Fabric Weight	ASTM D 5261	oz/yd ²	8.0	MARV ⁵
Grab Strength	ASTM D 4632	lbs	225	MARV
Grab Elongation	ASTM D 4632	%	50	MARV
Trap Tear Strength	ASTM D 4533	lbs	90	MARV
CBR Puncture	ASTM D 6241	lbs	600	MARV
Water Flow Rate	ASTM D 4491	gpm/ft ²	100	MARV
Permittivity	ASTM D 4491	sec ⁻¹	1.26	MARV
Permeability	ASTM D 4491	cm/sec	0.30	MARV
AOS	ASTM D 4751	US Sieve	80	MaxARV
UV Resistance (Certify Only)	ASTM D 4355	%/hrs	70/500	MARV

Notes:

- 1a. Transmissivity measured using water at $21 \pm 2^{\circ} \text{C}$ ($70 \pm 4^{\circ} \text{F}$) with a gradient of 0.1 and a confining pressure of 10,000 psf between steel plates after 15 minutes.
- 1b. Transmissivity measured using water at $21 \pm 2^{\circ} \text{C}$ ($70 \pm 4^{\circ} \text{F}$) with a gradient of 0.1 and a confining pressure of 10,000 psf between steel plates after 15 minutes.
2. Condition 190/2.16
3. Geotextile and Geonet properties are prior to lamination.
4. Geotextile data is provided by the supplier.
5. MARV is statistically defined as mean minus two standard deviations and it is the value which is exceeded by 97.5% of all the test data.
6. Minium average value

Quality Approval

Malkesh Patel





Product: TN 220-1-8
Project : Lakemoor Remediation, NV

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet					
Roll Number	Ply Adhesion (lb/in) Side "A"	Transmissivity (m ² /sec)	Resin Lot Number	Density (g/cm ³)	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m ² /sec)
153491010001	3.70	1.89 x 10 ⁻³	BPTX 185781	0.9510	226	2.46	60	3.24 x 10 ⁻³
153491010002			BPTX 185781	0.9510				
153491010003			BPTX 185781	0.9510				
153491010004			BPTX 185781	0.9510				
153491010005			BPTX 185781	0.9510				
153491010006			BPTX 185781	0.9510				
153491010007			BPTX 185781	0.9510				
153491010008			BPTX 185781	0.9510				
153491010009			BPTX 185781	0.9510				
153491010010	2.70		BPTX 185781	0.9508	218	2.70	56	
153491010011			BPTX 185781	0.9508				
153491010012			BPTX 185781	0.9508				
153491010013			BPTX 185781	0.9508				
153491010014			BPTX 185781	0.9508				
153491010015			BPTX 185781	0.9508				
153491010016			BPTX 185781	0.9508				
153491010017			BPTX 185781	0.9508				
153491010018			BPTX 185781	0.9508				
153491010019			BPTX 185781	0.9508				
153491010020	1.84		BPTX 185781	0.9507	223	2.62	59	
153491010021			BPTX 185781	0.9507				
153491010022			BPTX 185781	0.9507				
153491010023			BPTX 185781	0.9507				
153491010024			BPTX 185781	0.9507				



Product: TN 220-1-8
Project : Lakemoor Remediation, NV

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet					
Roll Number	Ply Adhesion (lb/in) Side "A"	Transmissivity (m ² /sec)	Resin Lot Number	Density (g/cm ³)	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m ² /sec)
153491010025			BPTX 185781	0.9507				
153491010026			BPTX 185781	0.9507				
153491010027			BPTX 185781	0.9507				
153491010028			BPTX 185781	0.9507				
153491010029			BPTX 185781	0.9507				
153491010030	1.80		BPTX 185781	0.9509	220	2.47	61	
153491010031			BPTX 185781	0.9509				
153491010032			BPTX 185781	0.9509				
153491010033			BPTX 185781	0.9509				
153491010034			BPTX 185781	0.9509				
153491010035			BPTX 185781	0.9509				
153491010036			BPTX 185781	0.9509				
153491010037			BPTX 185781	0.9509				
153491010038			BPTX 185781	0.9509				
153491010039			BPTX 185781	0.9509				
153491010040	2.07		BPTX 185781	0.9512	219	2.43	55	
153491010041			BPTX 185781	0.9512				
153491010042			BPTX 185781	0.9512				
153491010043			BPTX 185781	0.9512				
153491010044			BPTX 185781	0.9512				
153491010045			BPTX 185781	0.9512				
153491010046			BPTX 185781	0.9512				
153491010047			BPTX 185781	0.9512				
153491010048			BPTX 185781	0.9512				



Product: TN 220-1-8
Project : Lakemoor Remediation, NV

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet					
Roll Number	Ply Adhesion (lb/in) Side "A"	Transmissivity (m ² /sec)	Resin Lot Number	Density (g/cm ³)	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m ² /sec)
153491010049			BPTX 185781	0.9512				
153491010050	2.99		BPTX 185781	0.9511	216	2.52	62	
153491010051			BPTX 185781	0.9511				
153491010052			BPTX 185781	0.9511				
153491010053			BPTX 185781	0.9511				
153491010054			BPTX 185781	0.9511				
153491010055			BPTX 185781	0.9511				
153491010056			BPTX 185781	0.9511				
153491010057			BPTX 185781	0.9511				
153491010058			BPTX 185781	0.9511				
153491010059			BPTX 185781	0.9511				
153491010060	2.11	1.23 x 10 ⁻³	BPTX 185781	0.9512	222	2.69	64	3.04 x 10 ⁻³
153491010061			BPTX 185781	0.9512				
153491010062			BPTX 185781	0.9512				
153491010063			BPTX 185781	0.9512				
153491010064			BPTX 185781	0.9512				
153491010065			BPTX 185781	0.9512				
153491010066			BPTX 185781	0.9512				
153491010067			BPTX 185781	0.9512				
153491010068			BPTX 185781	0.9512				
153491010069			BPTX 185781	0.9512				
153491010070	1.82		BPTX 185781	0.9508	215	2.54	57	
153491010071			BPTX 185781	0.9508				
153491010072			BPTX 185781	0.9508				



Product: TN 220-1-8
Project : Lakemoor Remediation, NV

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet					
Roll Number	Ply Adhesion (lb/in) Side "A"	Transmissivity (m ² /sec)	Resin Lot Number	Density (g/cm ³)	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m ² /sec)
153491010073			BPTX 185781	0.9508				
153491010074			BPTX 185781	0.9508				
153491010075			BPTX 185781	0.9508				
153491010076			BPTX 185781	0.9508				
153491010077			BPTX 185781	0.9508				
153491010078			BPTX 185781	0.9508				
153491010079			BPTX 185781	0.9508				
153491010080	3.05		BPTX 185781	0.9509	224	2.67	63	
153491010081			BPTX 185781	0.9509				
153491010082			BPTX 185781	0.9509				
153491010083			BPTX 185781	0.9509				
153491010084			BPTX 185781	0.9509				
153491010085			BPTX 185781	0.9509				
153491010086			BPTX 185781	0.9509				
153491010087			BPTX 185781	0.9509				
153491010088			BPTX 185781	0.9509				
153491010089			BPTX 185781	0.9509				
153491010090	2.79		BPTX 185781	0.9507	225	2.55	58	
153491010091			BPTX 185781	0.9507				
153491010092			BPTX 185781	0.9507				
153491010093			BPTX 185781	0.9507				
153491010094			BPTX 185781	0.9507				
153491010095			BPTX 185781	0.9507				
153491010096			BPTX 185781	0.9507				



Product: TN 220-1-8
Project : Lakemoor Remediation, NV

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet					
Roll Number	Ply Adhesion (lb/in) Side "A"	Transmissivity (m ² /sec)	Resin Lot Number	Density (g/cm ³)	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m ² /sec)
153491010097			BPTX 185781	0.9507				
153491010098			BPTX 185781	0.9507				
153491010099			BPTX 185781	0.9507				
153491010100	2.83		BPTX 185781	0.9510	228	2.73	62	
153491010101			BPTX 185781	0.9510				
153491010102			BPTX 185781	0.9510				
153491010103			BPTX 185781	0.9510				
153491010104			BPTX 185781	0.9510				
153491010105			BPTX 185781	0.9510				
153491010106			BPTX 185781	0.9510				
153491010107			BPTX 185781	0.9510				
153491010108			BPTX 185781	0.9510				
153491010109			BPTX 185781	0.9510				
153491010110	3.66		BPTX 185781	0.9511	227	2.40	59	
153491010111			BPTX 185781	0.9511				
153491010112			BPTX 185781	0.9511				
153491010113			BPTX 185781	0.9511				
153491010114			BPTX 185781	0.9511				
153491010115			BPTX 185781	0.9511				
153491010116			BPTX 185781	0.9511				
153491010117			BPTX 185781	0.9511				
153491010118			BPTX 185781	0.9511				
153491010119			BPTX 185781	0.9511				
153491010120	1.79	1.76 x 10 ⁻³	BPTX 185781	0.9512	217	2.72	64	3.19 x 10 ⁻³



Product: TN 220-1-8
Project : Lakemoor Remediation, NV

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet					
Roll Number	Ply Adhesion (lb/in) Side "A"	Transmissivity (m ² /sec)	Resin Lot Number	Density (g/cm ³)	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m ² /sec)
153491010121			BPTX 185781	0.9512				
153491010122			BPTX 185781	0.9512				
153491010123			BPTX 185781	0.9512				
153491010124			BPTX 185781	0.9512				
153491010125			BPTX 185781	0.9512				
153491010126			BPTX 185781	0.9512				
153491010127			BPTX 185781	0.9512				
153491010128			BPTX 185781	0.9512				
153491010129			BPTX 185781	0.9512				
153491010130	2.90		BPTX 185781	0.9508	221	2.39	60	
153491010131			BPTX 185781	0.9508				
153491010132			BPTX 185781	0.9508				
153491010133			BPTX 185781	0.9508				
153491010134			BPTX 185781	0.9508				
153491010135			BPTX 185781	0.9508				
153491010136			BPTX 185781	0.9508				
153491010137			BPTX 185781	0.9508				
153491010138			BPTX 185781	0.9508				
153491010139			BPTX 185781	0.9508				
153491010140	3.11		BPTX 185781	0.9510	215	2.57	63	
153491010141			BPTX 185781	0.9510				
153491010142			BPTX 185781	0.9510				
153491010143			BPTX 185781	0.9510				
153491010144			BPTX 185781	0.9510				



Product: TN 220-1-8
Project : Lakemoor Remediation, NV

We hereby certify the following test results for the above referenced product/project :

Geocomposite			Geonet					
Roll Number	Ply Adhesion (lb/in) Side "A"	Transmissivity (m ² /sec)	Resin Lot Number	Density (g/cm ³)	Thickness (mils)	Carbon Black (%)	Tensile Strength MD (lb/in)	Transmissivity (m ² /sec)
153491010145			BPTX 185781	0.9510				
153491010146			BPTX 185781	0.9510				
153491010147			BPTX 185781	0.9510				
153491010148			BPTX 185781	0.9510				
153491010149			BPTX 185781	0.9510				
153491010150	2.30		BPTX 185781	0.9507	223	2.44	58	
153491010151			BPTX 185781	0.9507				
153491010152			BPTX 185781	0.9507				
153491010153			BPTX 185781	0.9507				
153491010154			BPTX 185781	0.9507				
153491010155			BPTX 185781	0.9507				
153491010156			BPTX 185781	0.9507				
153491010157			BPTX 185781	0.9507				
153491010158			BPTX 185781	0.9507				
153491010159			BPTX 185781	0.9507				
153491010160	3.10		BPTX 185781	0.9509	218	2.42	56	



POLYETHYLENE RESIN CERTIFICATION

Customer Name : EC Applications Inc.
Project Name : Lakemoor Remediation, NV
Geocomposite Manufacturer : SKAPS Industries
Geocomposite Production Plant : Commerce, GA
Geocomposite Brand Name : TN 220-1-8

We hereby certify the following test results for the above referenced product/project:

Resin Manufacturer	Resin Lot Number	Property	Test Method	Units	Resin Manufacturer Value	Tested Value*
Bayport Polymers	BPTX 185781	Density	ASTM D1505	g/cm ³	0.9470	0.9462
		Melt flow Index	ASTM D1238 ^(a)	g/10 min	0.35	0.17

(a) Condition 190/2.16

* Data from SKAPS Quality Control



Geotextile Certification

Product: TN 220-1-8
Project : Lakemoor Remediation, NV

We hereby certify the following test results for the above referenced product/project :

GEOCOMP ROLL#	FABRIC SIDE	WEIGHT oz/yd²	GRAB lbs. (MD)	GRAB ELG % (MD)	GRAB lbs. (XMD)	GRAB ELG % (XMD)	TRAP lbs. (MD)	TRAP lbs. (XMD)	CBR PUNCTURE lbs	AOS us sieve	WATER- FLOW gpm/ft²	PERM- ABL cm/sec	PERM- ITY sec⁻¹
153491010001	Side A	8.52	245	70	295	102	113	134	738	80	104	0.43	1.39
153491010020	Side A	8.22	262	71	277	123	103	137	714	80	104	0.43	1.39
153491010040	Side A	8.51	256	73	302	112	111	145	726	80	104	0.43	1.39
153491010060	Side A	8.23	241	85	265	111	108	126	706	80	103	0.45	1.37
153491010080	Side A	8.23	241	85	265	111	108	126	706	80	103	0.45	1.37
153491010100	Side A	8.56	243	92	287	108	110	133	673	80	103	0.45	1.37
153491010120	Side A	8.11	253	72	282	97	117	120	651	80	103	0.45	1.37
153491010140	Side A	8.50	231	87	292	95	119	130	708	80	104	0.43	1.39
153491010160	Side A	8.26	236	88	273	107	98	127	663	80	104	0.43	1.39

N-12® ST IB PIPE (PER AASHTO)

N-12 corrugated dual-wall pipe was introduced in 1987. Today's N-12 pipe offers significant performance advantages, plus the best soil-tight joint in the industry. Available in diameters from 4" to 60" (100 to 1500 mm), N-12 pipe is replacing reinforced concrete pipe as a preferred product for storm water applications.

ADS N-12 pipe contains a superior built-in bell-and-spigot joint. The joints are sealed by high-quality, factory-installed rubber gaskets that meet all the requirements of ASTM F477. A polyethylene bell minimizes joint distortion. The chipping and cracking that is common to concrete bells is eliminated.

APPLICATIONS:

Storm Sewers	Slopes/Edge Drains
Retention/Detention	Mining/Forestry/Industrial
Golf, Turf & Recreation	Foundation Drains
Culverts/Cross Drains	Downspouts/Roof Drainage
Grain Aeration	Land Reclamation
Waterways	Terracing
Ditch Enclosures	

FEATURES:

- 4" – 60" (100 to 1500 mm) diameters available
- Nominal 20 ft. (6 m) and 13 ft. (4 m) lengths available
- Bell-and-spigot joint design
- In-line bell design
- Exceptional joint strength
- Excellent abrasion and corrosion resistance
- Light weight
- Fast installation times
- Structural strength that will support H-25 live loads with 1' (0.3 m) minimum cover; 54" and 60" (1250 and 1500 mm) pipe requires 2' (0.6 m) cover for H-25 loads

ADS Service: ADS representatives are committed to providing you with the answers to all your questions, including specifications, and installation and more.



BENEFITS:

- Variety of diameters and lengths fit any project
- Joint only requires lube for fitting - ends are pushed together for easy field installation
- Unlike pipes from other manufacturers, there are no additional gasket materials, grout or sealing bands to transport and apply
- Installation cost savings from lower shipping costs, fewer people, and less heavy equipment required
- Hydraulic efficiency from smooth interior
- Long-term durability of HDPE



ADS N-12® ST IB PIPE (PER AASHTO) SPECIFICATION

SCOPE

This specification describes 4- through 60-inch (100 to 1500 mm) ADS N-12 ST IB pipe (per AASHTO) for use in gravity flow drainage applications.

PIPE REQUIREMENTS

N-12 ST IB pipe (per AASHTO) shall have a smooth interior and annular exterior corrugations.

- 4- through 10-inch (100 to 250 mm) shall meet AASHTO M252, Type S
- 12- through 60-inch (300 to 1500 mm) shall meet AASHTO M294, Type S or ASTM F2306
- Manning's "n" value for use in design shall be 0.012

JOINT PERFORMANCE

Pipe shall be joined using a bell-and-spigot joint meeting AASHTO M252, AASHTO M294, or ASTM F2306. The joint shall be soil-tight and gaskets, when applicable, shall meet the requirements of ASTM F477. Gaskets shall be installed by the pipe manufacturer and covered with a removable wrap to ensure the gasket is free from debris. A joint lubricant supplied by the manufacturer shall be used on the gasket and bell during assembly.

FITTINGS

Fittings shall conform to AASHTO M252, AASHTO M294 or ASTM F2306.. Bell and spigot connections shall utilize a spun-on or welded bell and valley or saddle gasket meeting the soil-tight joint performance requirements of AASHTO M252, AASHTO M294 or ASTM F2306.

MATERIAL PROPERTIES

Virgin material for pipe and fitting production shall be high-density polyethylene conforming with the minimum requirements of cell classification 424420C for 4- through 10-inch (100 to 250 mm) diameters, or 435400C for 12- through 60-inch (300 to 1500 mm) diameters, as defined and described in the latest version of ASTM D3350, except that carbon black content should not exceed 4%. The 12- through 60-inch (300 to 1500 mm) virgin pipe material shall comply with the notched constant ligament-stress (NCLS) test as specified in Sections 9.5 and 5.1 of AASHTO M294 and ASTM F2306, respectfully.

INSTALLATION

Installation shall be in accordance with ASTM D2321 and ADS published installation guidelines, with the exception that minimum cover in trafficked areas for 4- through 48-inch (100 to 1200 mm) diameters shall be one foot (0.3 m) and for 54- and 60-inch (1350-1500 mm) diameters, the minimum cover shall be 2 foot (0.6 m) in single run applications. Backfill for minimum cover situations shall consist of Class 1, Class 2 (minimum 90% SPD) or Class 3 (minimum 90% SPD) material. Maximum fill heights depend on embedment material and compaction level; please refer to Technical Note 2.01. Contact your local ADS representative or visit our website at www.ads-pipe.com for a copy of the latest installation guidelines.

PIPE DIMENSIONS

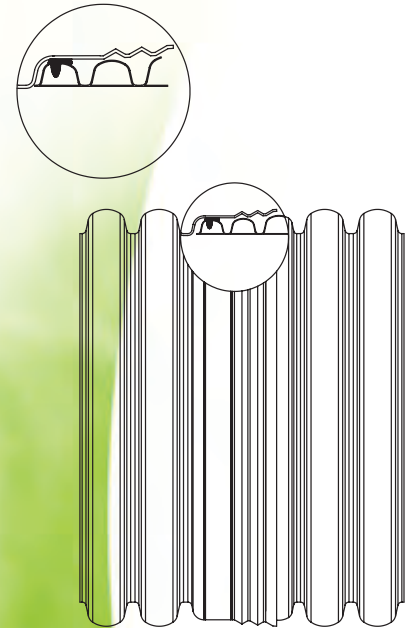
Nominal Pipe I.D.* in. (mm)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)	36 (900)	42 (1050)	48 (1200)	54 (1350)	60 (1500)
Nominal Pipe O.D.** in. (mm)	4.8 (122)	6.9 (175)	9.1 (231)	11.4 (290)	14.5 (368)	18 (457)	22 (559)	28 (711)	36 (914)	42 (1050)	48 (1200)	54 (1350)	61 (1549)	67 (1702)
Perforations	All diameters available with or without perforations.													

*Check with sales representative for availability by region.

**Pipe O.D. values are provided for reference purposes only, values stated for 12- through 60-inch are ±1 inch. Contact a sales representative for exact values.

ADS "Terms and Conditions of Sale" are available on the ADS website, www.ads-pipe.com

The ADS logo, the Green Stripe, and N-12® are registered trademarks of Advanced Drainage Systems, Inc. © 2010 Advanced Drainage Systems, Inc.
BRO 10581 07/12 MH



Technical Note

TN 1.01 Dual Wall HDPE Perforation Patterns

Overview

Perforated pipe plays an integral role in many applications of HDPE pipe. Generally, perforated pipe is used to accelerate the removal of subsurface water in soils or to allow storm water to percolate into the soil. Currently, two classifications of perforations are specified in the AASHTO material specifications for HDPE pipe: Class I, and Class II. The Class II perforation pattern comes standard when perforated pipe is ordered. Class One perforated pipe has limited availability. Please check with a local representative to determine availability. Both classes are explained in more detail in the AASHTO materials specifications (M294 and M252). AASHTO M252 covers pipe diameters 3- through 10-inch (75 - 250 mm) while M294 covers 12-inch through 60-inch (300 - 1500 mm).

Standard Perforation Patterns

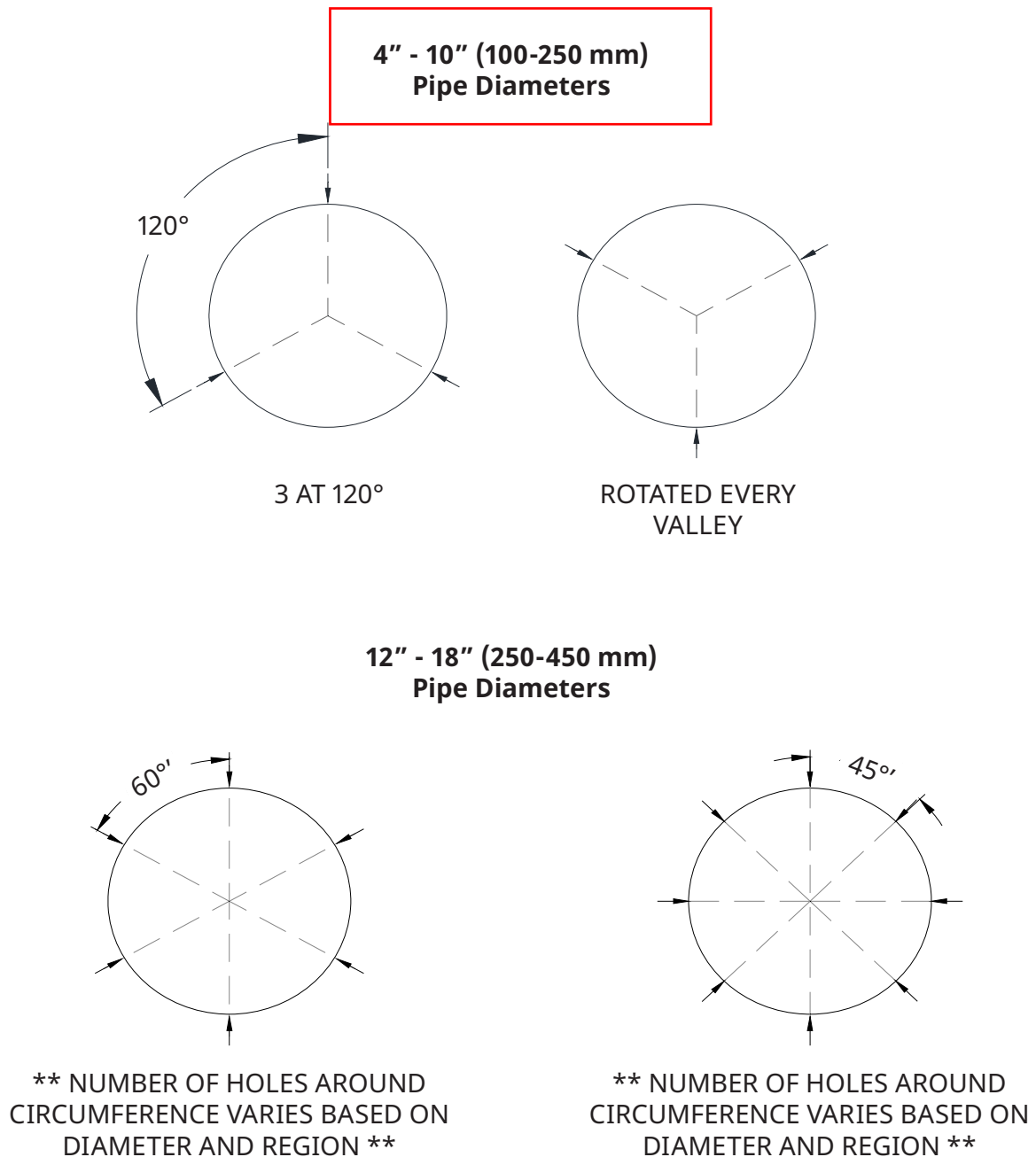
AASHTO Class II Perforation

The following terminology for perforations is derived from the applicable AASHTO specification. Differences between the specifications are covered in the table below. Class II perforations shall be located in the outside valleys of the corrugations, be circular and/or slotted and evenly spaced around the circumference and length of the pipe. The perforations shall be located in the outside valleys of the corrugations. The water inlet area shall be no less than 0.945 in²/ft (20 cm²/m) for pipe diameters 4- through 10-inch (100 - 250mm), 1.42 in²/ft (30 cm²/m) for pipe diameters 12- through 18-inch (300 - 450 mm) and 1.89 in²/ft (40 cm²/m) for pipe diameters larger than and equal to 24 inches (600 mm). Table 1 below represents ADS standard perforation patterns for AASHTO Class II

Nominal I.D.	Perforation Type	Maximum Slot Length or Diameter	Maximum Slot Width	Minimum Inlet Area
4" (100 mm)	Slot	0.875" (22 mm)	0.125" (3 mm)	1.0 in ² /ft (21 cm ² /m)
6" (150 mm)	Slot	0.875" (22 mm)	0.125" (3 mm)	1.0 in ² /ft (21 cm ² /m)
8" (200 mm)	Slot	1.18" (30 mm)	0.125" (3 mm)	1.0 in ² /ft (21 cm ² /m)
10" (250 mm)	Slot	1.18" (30 mm)	0.125" (3 mm)	1.0 in ² /ft (21 cm ² /m)
12" (300 mm)	Circular	0.313" (8 mm)	-	1.5 in ² /ft (32 cm ² /m)
15" (375 mm)	Circular	0.313" (8 mm)	-	1.5 in ² /ft (32 cm ² /m)
18" (450 mm)	Circular	0.313" (8 mm)	-	1.5 in ² /ft (32 cm ² /m)
24" (600 mm)	Circular	0.313" (8 mm)	-	2.0 in ² /ft (42 cm ² /m)
30" (750 mm)	Circular	0.375" (9.5 mm)	-	2.0 in ² /ft (42 cm ² /m)
36" (900 mm)	Circular	0.375" (9.5 mm)	-	2.0 in ² /ft (42 cm ² /m)
42" (1050 mm)	Circular	0.375" (9.5 mm)	-	2.0 in ² /ft (42 cm ² /m)
48" (1200 mm)	Circular	0.375" (9.5 mm)	-	2.0 in ² /ft (42 cm ² /m)
54" (1350 mm)	Circular	0.375" (9.5 mm)	-	2.0 in ² /ft (42 cm ² /m)
60" (1500 mm)	Circular	0.375" (9.5 mm)	-	2.0 in ² /ft (42 cm ² /m)

Figure 1: AASHTO Class II Perforation Patterns

Note: Actual pattern may vary by region, however all patterns meet the AASHTO and ASTM minimum requirements for the open inlet area.



HDPE Water/Sewer IPS

PRESSURE-RATED HDPE PIPE



ANSI/AWWA C906, ASTM F714, ASTM D3035
ASTM D3350 Cell Class 445574C/E, PPI (TR-4) PE 4710
ANSI/NSF 61/14



DELIVERING GOOD WATER TO YOU

MARKETS



Potable



Reclaim



Sewer



Drainage



Irrigation



Rehabilitation

DESCRIPTION



Standard HDPE



Coiled HDPE

IPS	PIPE SIZES:	ADDITIONAL OPTIONS:
Nominal Laying Length: 40-50 feet (Laying length tolerances are in accordance with AWWA and ASTM standards)	4", 5", 6", 7", 8", 10", 12", 14", 16", 18" 20", 22", 24", 26", 28", 30", 32", 34", 36" 42", 48", 54", 63"	Perforated*: 4", 5", 6", 7", 8" Coil*: 4", 5", 6"
PIPE COLORS:	BLACK W/COLOR STRIPES:	ADDITIONAL COLOR OPTIONS:
Black	Blue Green Purple	Grey*

AWWA C906	
DR 7	335 psi
DR 9	250 psi
DR 11	200 psi
DR 13.5	160 psi
DR 17	125 psi
DR 19	112 psi
DR 21	100 psi
DR 26	80 psi
DR 32.5	63 psi



BENEFITS

INSTALLATION



Lightweight, with long laying length, great for easy transportation and installation.

Pipe applicable for open-trench and slip-lining installation.

FEATURES



Extremely durable, corrosive, gouging and abrasion resistant.

Features 100 years design life per Florida DOT.

Great flexibility, and highly suitable for earthquake-prone areas.

Highest PE pressure rating, resistance to slow crack growth and rapid crack propagation.



*Please call regarding availability.

HDPE Water/Sewer IPS

PRESSURE-RATED HDPE PIPE



DELIVERING GOOD WATER TO YOU

SUBMITTAL AND DATA SHEET

HDPE IRON PIPE SIZE (IPS) PRESSURE PIPE

PIPE SIZE (IN)	AVG.O.D. (IN)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)
DR 7 (335 psi)					DR 9 (250 psi)			DR 11 (200 psi)		
4	4.500	0.643	3.137	3.40	0.500	3.440	2.75	0.409	3.633	2.30
5	5.375	0.795	3.747	4.85	0.618	4.109	3.92	0.506	4.338	3.29
6	6.625	0.946	4.619	7.36	0.736	5.065	5.96	0.602	5.349	4.99
7	7.125	1.018	5.056	8.52	0.792	5.446	6.89	0.648	5.751	5.78
8	8.625	1.232	6.013	12.48	0.958	6.594	10.09	0.784	6.963	8.46
10	10.750	1.536	7.494	19.40	1.194	8.219	15.68	0.977	8.679	13.14
12	12.750	1.821	8.889	27.28	1.417	9.746	22.07	1.159	10.293	18.49
14	14.000	2.000	9.760	32.90	1.556	10.107	26.61	1.273	11.301	22.30
16	16.000	2.286	11.154	42.97	1.778	12.231	34.75	1.455	12.915	29.12
18	18.000	2.571	12.549	54.37	2.000	13.760	43.97	1.636	14.532	36.84
20	20.000	2.857	13.943	67.13	2.222	15.289	54.28	1.818	16.146	45.49
22	22.000	3.143	15.337	81.23	2.444	16.819	65.68	2.000	17.760	55.05
24	24.000	3.429	16.732	96.67	2.667	18.346	78.18	2.182	19.374	65.52
26	26.000	N/A	N/A	N/A	2.889	19.875	91.75	2.364	20.988	76.90
28	28.000	N/A	N/A	N/A	3.111	21.405	106.40	2.545	22.605	89.15
30	30.000	N/A	N/A	N/A	3.333	22.934	122.13	2.727	24.219	102.35
32	32.000	N/A	N/A	N/A	N/A	N/A	N/A	2.909	25.833	116.46
34	34.000	N/A	N/A	N/A	N/A	N/A	N/A	3.091	27.447	131.48
36	36.000	N/A	N/A	N/A	N/A	N/A	N/A	3.273	29.061	147.41

Product Standard:

ANSI/AWWA C906

ASTM F714

ASTM D3035

Pipe Compound:

PPI TR-4 PE 4710, ASTM D3350

Cell Class 445574 C/E

Certification: ANSI/NSF 61,

ANSI/NSF 14*

Additional Option:

Perforated (4" - 8")*

Nominal Laying Length: 40/50 feet

(Laying length tolerances are in accordance with AWWA and ASTM standards)

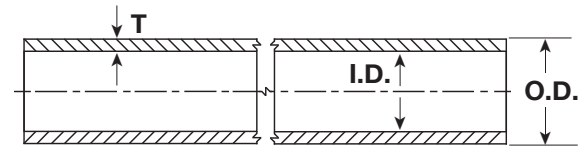
Coil option available upon request for size 6" and below.

Installation: JM Eagle™ HDPE Water/Sewer Installation Guide

Manning Coefficient (n) = 0.009

Hazen-Williams Coefficient (c) = 150

*Supply may vary based on plant location. Please call regarding availability.



T: (Wall Thickness) I.D.: (Inside Diameter) O.D.: (Outside Diameter)

PIPE SIZE (IN)	AVG.O.D. (IN)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	PIPE SIZE (IN)	AVG.O.D. (IN)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)	MIN. T. (IN)	AVG I.D. (IN)	WGT (LBS/FT)
DR 13.5 (160 psi)					DR 17 (125 psi)			DR 19 (111 psi)			DR 21 (100 psi)					DR 26 (80 psi)			DR 32.5 (63 psi)		
4	4.500	0.333	3.794	1.91	0.265	3.938	1.55	0.237	3.998	1.39	4	4.500	0.214	4.046	1.27	0.173	4.133	1.03	0.138	4.207	0.83
5	5.375	0.412	4.531	2.73	0.327	4.705	2.21	0.283	4.775	1.99	5	5.375	0.265	4.832	1.81	0.214	4.936	1.48	0.171	5.025	1.19
6	6.625	0.491	5.584	4.15	0.390	5.798	3.35	0.349	5.885	3.02	6	6.625	0.315	5.957	2.74	0.255	6.084	2.24	0.204	6.193	1.81
7	7.125	0.528	6.006	4.80	0.420	6.237	3.88	0.375	6.330	3.49	7	7.125	0.340	6.406	3.18	0.274	6.544	2.59	0.219	6.661	2.09
8	8.625	0.639	7.270	7.03	0.507	7.550	5.68	0.454	7.663	5.12	8	8.625	0.411	7.754	4.66	0.332	7.921	3.80	0.265	8.063	3.06
10	10.750	0.796	9.062	10.92	0.632	9.410	8.82	0.566	9.550	7.95	10	10.750	0.512	9.665	7.24	0.413	9.874	5.90	0.331	10.048	4.77
12	12.750	0.944	10.749	15.36	0.750	11.160	12.41	0.671	11.327	11.19	12	12.750	0.607	11.463	10.17	0.490	11.711	8.30	0.392	11.919	6.69
14	14.000	1.037	11.802	18.52	0.824	12.253	14.98	0.737	12.438	13.49	14	14.000	0.667	12.586	12.28	0.538	12.895	10.00	0.431	13.086	8.08
16	16.000	1.185	13.488	24.19	0.941	14.005	19.55	0.842	14.215	17.61	16	16.000	0.762	14.385	16.03	0.615	14.696	13.07	0.492	14.957	10.54
18	18.000	1.333	15.174	30.61	1.059	15.755	24.75	0.947	15.992	22.29	18	18.000	0.857	16.183	20.28	0.692	16.533	16.54	0.554	16.826	13.36
20	20.000	1.481	16.860	37.79	1.176	17.507	30.53	1.053	17.768	27.52	20	20.000	0.952	17.982	25.03	0.769	18.370	20.43	0.615	18.696	16.48
22	22.000	1.630	18.544	45.75	1.294	19.257	36.86	1.158	19.545	33.30	22	22.000	1.048	19.778	30.31	0.846	20.206	24.72	0.677	20.565	19.95
24	24.000	1.778	20.231	54.44	1.412	21.007	43.99	1.263	21.322	39.63	24	24.000	1.143	21.577	36.06	0.923	22.043	29.42	0.738	22.435	23.72
26	26.000	1.926	21.917	63.89	1.529	22.759	51.61	1.368	23.100	46.51	26	26.000	1.238	23.375	42.32	1.000	23.880	34.53	0.800	24.304	27.86
28	28.000	2.074	23.603	74.09	1.647	24.508	59.87	1.474	24.875	53.94	28	28.000	1.333	25.174	49.07	1.077	25.717	40.05	0.862	26.173	32.33
30	30.000	2.222	25.289	85.04	1.765	26.258	68.74	1.579	26.653	61.92	30	30.000	1.429	26.971	56.36	1.154	27.554	45.98	0.923	28.043	37.09
32	32.000	2.370	26.967	96.76	1.882	28.010	78.18	1.684	28.430	70.45	32	32.000	1.542	28.730	64.11	1.231	29.390	52.31	0.985	29.912	42.22
34	34.000	2.519	28.660	109.26	2.000	29.760	88.28	1.790	30.205	79.54	34	34.000	1.619	30.568	72.36	1.308	31.227	59.06	1.046	31.782	47.63
36	36.000	2.667	30.346	122.49	2.118	31.510	98.98	1.895	31.983	89.17	36	36.000	1.714	32.366	81.12	1.385	33.064	66.22	1.108	33.651	53.42
42	42.000	3.111	35.404	166.70	2.471	36.761	134.72	2.211	37.314	121.37	42	42.000	2.000	37.760	110.43	1.615	38.576	90.08	1.292	39.261	72.68
48	48.000	3.556	40.462	217.76	2.824	42.013	175.97	2.526	42.644	158.52	48	48.000	2.286	43.154	144.25	1.846	44.086	117.68	1.477	44.869	94.95
54	54.000	N/A	N/A	N/A	3.177	47.265	222.67	2.842	47.975	200.63	54	54.000	2.571	48.549	182.51	2.077	49.597	148.95	1.662	50.477	120.20
63	63.000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	63	63.000	3.000	56.640	248.46	2.423	57.863	202.73	1.938	58.891	163.53

This information may have been updated. Please visit www.jmeagle.com for all updated information and warranty details.

THIS PRODUCT IS MADE IN AMERICA

CUSTOMER SERVICE: 1.800.621.4404

PRINTED JUNE 2018 REV12



Appendix J
Liner QC Testing Records

SUBMITTAL CONTROL FORM



DATE: November 5, 2025
SUBMITTAL NO.: 4
PROJECT NUM.: 243034
PROJECT NAME: Three Kids Mine - Hydro Pit Liner

TO: VT Construction
ATTN: Dna Gilbert
4750 Copper Sage Street
Las Vegas, NV 89115
PHONE: 702-658-7195
FAX:
E-MAIL: Dan@VTConstruction.org

FROM: EC Applications
Ruben Brito
901 E. Orangethorpe Ave.
Anaheim, CA 92801
PHONE: 714-921-9848 X 102
FAX: 866-475-1225
E-MAIL: rbrito@ecapps.com

WE ARE SUBMITTING THE ENCLOSED:

- | | | |
|--|---|----------------------------------|
| ☐ SHOP DRAWINGS | ☐ CERTIFICATES OF COMPLIANCE | ☐ SAMPLES |
| ☐ MATERIAL DATA | ☐ QC INFORMATION | ☐ OTHER |

THESE ARE TRANSMITTED FOR:

- | | | |
|---------------------------------------|--------------------------------------|-----------------------------------|
| ☐ APPROVAL | ☐ INFORMATION | ☐ RESUBMIT |
| ☐ AS REQUESTED | ☐ FOR REVIEW | |

ITEM NO.	SUBMITTAL DESCRIPTION	NO. OF COPIES	CONTRACT REFERENCE / SPECIFICATION SECTION / DRAWING SHEET NUMBER
	Quality Control & As-Built	1	Industry Standard

NOTE:

THE ABOVE SUBMITTED ITEMS HAVE BEEN REVIEWED IN DETAIL AND ARE CORRECT AND IN GENERAL CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS EXCEPT AS OTHERWISE STATED.

Ruben Brito

ECApplications AUTHORIZED SIGNATURE

IF THE ABOVE VARIANCES ARE ACCEPTABLE, PLEASE CONFIRM IN WRITING WITHIN TEN (10) DAYS, OTHERWISE ECA WILL PROCEED PER THE PROPOSED VARIANCES.

ECApplications
Preweld Test Report

Project Name: Lakemoor Remediation

Material Type: 60 Mil HDPE Smooth Liner

Job Description:

Reported By : Froylan Guizar

Job # 243034

Primary ☒ Pond

Secondary ☐ Cell ☒

Pad ☐

Superintendent: Juan Ocampo

Peel Test Extrusion Minimum 78 PPI

Peel Test Fusion Minimum 91 PPI

Shear Test Minimum 120 PPI

Weld Date	Weld Time	Operator Name / ID	Mach No	Mach Speed	Mach Temp	Preheat Temp	Amb Temp	Peel Extrusion					Peel Wedge					Shear					Test Results
								1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	
10/14/25	6:28	Jesse Solomon	618	11	830		58						A 105	106	118	113	112	140	160	180	159	160	Pass
10/14/25	6:50	Gilberto Chaydez	613	11	830		58						B 118	106	121	97	124	174	169	177	175	160	Pass
10/15/25	7:09	Gilberto Chaydez	613	11	830		58						A 131	115	129	117	126	182	169	173	172	179	Pass
10/15/25	7:05	Jesse Solomon	618	11	830		58						B 140	117	127	119	141	157	166	154	173	169	Pass
10/15/25	7:15	Nicolas Calderon	80	11	830		58						A 140	132	141	134	147	159	164	154	149	167	Pass
10/15/25	9:19	Gilberto Chaydez	613	11	830		63						B 138	141	149	128	140	156	167	157	166	151	Pass
10/15/25	8:49	Jesse Solomon	621	11	830		66						A 101	96	133	108	121	158	154	153	160	149	Pass
10/15/25	13:08	Jesse Solomon	621	11	830		70						B 112	123	124	129	122	162	149	161	157	160	Pass
10/15/25	13:16	Gilberto Chaydez	613	11	830		70						A 131	125	129	129	126	179	160	198	192	201	Pass
10/16/25	7:10	Gilberto Chaydez	613	11	830		52						B 138	139	138	127	141	179	160	178	172	177	Pass
10/16/25	7:29	Jesse Solomon	621	11	830		52						A 143	132	123	136	131	168	153	167	160	165	Pass
10/16/25	8:10	Nicolas Calderon	80	11	830		52						B 144	133	141	137	142	149	135	149	134	147	Pass
10/16/25	11:34	Jesse Solomon	618	11	830		66						A 125	117	135	109	123	147	136	150	146	133	Pass
10/16/25	13:10	Gilberto Chaydez	613	11	830		72						B 133	112	126	114	118	146	138	146	137	140	Pass
10/16/25	13:12	Nicolas Calderon	80	11	830		72						A 117	119	106	107	110	159	149	166	154	153	Pass
10/17/25	7:00	Nicolas Calderon	80	11	830		56						B 116	121	120	114	122	145	132	146	139	141	Pass
													A 126	120	137	113	128	121	124	117	92	137	Pass
													B 116	114	112	119	131	140	99	139	125	119	Pass
													A 143	139	153	146	154	128	133	141	121	127	Pass
													B 157	127	146	141	145	130	124	137	119	136	Pass
													A 139	147	140	128	143	141	124	108	130	123	Pass
													B 143	128	128	122	139	137	114	123	121	118	Pass
													A 159	133	159	134	147	142	138	142	128	144	Pass
													B 145	132	146	139	141	98	124	146	128	146	Pass

ECApplications

Preweld Test Report

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Job Description:

Reported By : Froylan Guizar

Primary

X

Pond

Secondary

Cell

Pad

Peel Test Extrusion Minimum	78	PPI
-----------------------------	----	-----

Peel Test Fusion Minimum	91	PPI
--------------------------	----	-----

Shear Test Minimum	120	PPI
--------------------	-----	-----

Weld Date	Weld Time	Operator Name / ID	Mach No	Mach Speed	Mach Temp	Preheat Temp	Amb Temp
10/17/25	6:54	Gilberto Chaydez	613	11	830		56
10/17/25	7:08	Jesse Solomon	621	11	830		56
10/17/25	10:30	Candido Lugo	1240		550	550	69
10/17/25	10:45	Nicolas Calderon	1238		500	490	70
10/20/25	7:10	Candido Lugo	1240		550	550	55
10/20/25	13:19	Candido Lugo	1240		550	550	79
10/21/25	7:16	Candido Lugo	1240		550	550	60
10/23/25	10:30	Gilberto Chaydez	613	11	830		70
10/23/25	10:30	Nicolas Calderon	80	11	830		70
10/23/25	12:54	Nicolas Calderon	80	11	830		75
10/24/25	7:10	Gilberto Chaydez	613	11	830		54
10/24/25	7:20	Jesse Solomon	621	11	830		54
10/24/25	7:16	Nicolas Calderon	80	11	830		54
10/24/25	13:08	Gilberto Chaydez	613	11	830		80
10/24/25	13:08	Nicolas Calderon	80	11	830		80
10/24/25	13:10	Jesse Solomon	621	11	830		80

[illegible]

	Peel Wedge				
	1	2	3	4	5
A	133	124	140	119	134
B	128	123	135	126	132
A	146	122	133	119	135
B	130	121	141	111	135
A					
B					
A					
B					
A					
B					
A					
B					
A					
B					
A	137	137	129	116	140
B	130	116	128	125	130
A	133	127	138	124	136
B	135	114	131	121	134
A	130	111	134	118	131
B	128	113	129	116	124
A	134	138	138	127	137
B	135	130	132	129	137
A	160	127	143	129	155
B	147	134	151	139	146
A	141	137	150	119	162
B	150	134	142	144	150
A	136	125	130	117	139
B	136	114	123	108	135
A	127	115	131	115	132
B	128	108	120	111	126
A	110	115	133	118	109
B	123	97	133	105	110

Shear					Test Results
1	2	3	4	5	
163	149	162	143	161	Pass
163	151	150	170	167	Pass
146	154	161	150	149	Pass
152	140	151	139	149	Pass
174	151	167	150	169	Pass
125	131	129	126	123	Pass
156	148	156	146	155	Pass
150	139	147	134	150	Pass
138	146	134	137	137	Pass
134	126	138	135	135	Pass
164	152	170	148	162	Pass
178	164	167	155	168	Pass
172	158	154	141	173	Pass
148	128	153	134	130	Pass
136	127	133	125	134	Pass
135	129	142	126	138	Pass

EApplications Preweld Test Report

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Job Description:
Reported By : Froylan Guizar

Primary
☒
Pond
Secondary
☐
Cell
Pad
☒
☐
Peel Test Extrusion Minimum 78 **PPI**
Peel Test Fusion Minimum 91 **PPI**
Shear Test Minimum 120 **PPI**

Weld Date	Weld Time	Operator Name / ID	Mach No	Mach Speed	Mach Temp	Preheat Temp	Amb Temp
10/27/25	6:50	Gilberto Chaydez	613	11	830		61
10/27/25	7:00	Nicolas Calderon	80	11	830		61
10/27/25	9:09	Candido Lugo	1240		550	550	67
10/27/25	9:20	Nicolas Calderon	1238		500	490	67
10/27/25	13:06	Gilberto Chaydez	613	11	830		80
10/27/25	13:10	Jesse Solomon	80	11	830		80
10/27/25	13:24	Nicolas Calderon	1238		500	490	80
10/28/25	6:52	Gilberto Chaydez	613	11	830		66
10/28/25	7:00	Jesse Solomon	80	11	830		66
10/28/25	7:10	Nicolas Calderon	1238		500	490	66
10/28/25	13:20	Nicolas Calderon	1238		500	490	76
10/30/25	7:30	Nicolas Calderon	1238		500	490	53

Peel Extrusion				
1	2	3	4	5
147	122	151	120	154
135	104	110	108	133
121	110	119	116	124
123	127	135	120	161
126	117	126	126	125
125	126	146	132	152

Peel Wedge				
1	2	3	4	5
144	148	145	114	137
151	142	139	119	143
145	122	151	139	146
153	130	149	127	156
142	116	126	119	126
124	116	126	111	131
140	138	132	111	123
127	108	128	116	120
141	126	147	124	140
134	123	143	119	140
119	122	123	117	132
135	133	125	123	140

Shear					Test Results
1	2	3	4	5	
168	150	173	149	178	Pass
175	153	169	148	164	Pass
148	134	152	130	150	Pass
141	130	147	129	148	Pass
144	130	145	128	142	Pass
125	127	122	129	230	Pass
134	126	128	125	130	Pass
169	150	168	147	173	Pass
130	131	148	147	150	Pass
165	146	164	146	165	Pass
141	145	137	142	141	Pass
198	199	204	180	186	Pass

Panel Placement Log

Project Name: Lakemoor Remediation
Job # 243034
Superintendent: Juan Ocampo
Material Type: 60 Mil HDPE Smooth Liner
Description:

Primary	X	Cell	X
Secondary		Pond	
		Pad	
Depth & Width of AT			3

						Totals to Date			507,065.25	7,269.00	514,334.25
Panel #	Roll Stock #	Deploy Date	Width 1 (Angle)	Side 1 Length (Angle)	Width 2	Side 2 Length	Circle (Dia)	LF in Trench	Panel Total SF	SF In Trench	Total SF (Pay Area)
1	3111028077	10/14/25	23.50	535.00	23.50	485.00		47.00	11,985.00	141.00	12,126.00
2	3111028104	10/14/25	6.00	25.00				28.00	75.00	84.00	159.00
3	3111028104	10/14/25	23.50	25.00	23.50	62.00		23.50	1,022.25	70.50	1,092.75
4	3111028117	10/14/25	23.50	62.00	23.50	73.00		23.50	1,586.25	70.50	1,656.75
5	3111028081	10/14/25	23.50	73.00	23.50	85.00		23.50	1,856.50	70.50	1,927.00
6	3111028081	10/14/25	23.50	85.00	23.50	97.00		23.50	2,138.50	70.50	2,209.00
7	3111028081	10/14/25	23.50	97.00	23.50	101.00		23.50	2,326.50	70.50	2,397.00
8	3111028081	10/14/25	23.50	101.00	23.50	104.00		23.50	2,408.75	70.50	2,479.25
9	3111028081	10/14/25	23.50	104.00	23.50	110.00		23.50	2,514.50	70.50	2,585.00
10	3111028117	10/14/25	23.50	110.00	23.50	107.00		23.50	2,549.75	70.50	2,620.25
11	3111028117	10/14/25	23.50	107.00	23.50	103.00		23.50	2,467.50	70.50	2,538.00
12	3111028117	10/14/25	23.50	103.00	23.50	102.00		23.50	2,408.75	70.50	2,479.25
13	3111028117	10/14/25	23.50	102.00	23.50	98.00		23.50	2,350.00	70.50	2,420.50
14	3111028073	10/14/25	23.50	98.00	23.50	90.00		23.50	2,209.00	70.50	2,279.50
15	3111028073	10/14/25	23.50	90.00	23.50	81.00		23.50	2,009.25	70.50	2,079.75
16	3111028073	10/14/25	23.50	81.00	23.50	68.00		23.50	1,750.75	70.50	1,821.25
17	3111028073	10/14/25	23.50	68.00	23.50	53.00		23.50	1,421.75	70.50	1,492.25
18	3111028073	10/14/25	23.50	53.00	23.50	43.00		23.50	1,128.00	70.50	1,198.50
19	3111028073	10/14/25	23.50	43.00	23.50	35.00		23.50	916.50	70.50	987.00
20	3111028104	10/15/25	23.50	35.00	23.50	20.00		23.50	646.25	70.50	716.75
21	3111028104	10/15/25	23.50	22.00	23.50	10.00		23.50	376.00	70.50	446.50
22	3111028104	10/15/25	23.50	10.00				25.00	117.50	75.00	192.50
23	3111028108	10/15/25	23.50	112.00	23.50	119.00		23.50	2,714.25	70.50	2,784.75
24	3111028104	10/15/25	23.50	428.00	23.50	437.00		23.50	10,163.75	70.50	10,234.25
25	3111028108	10/15/25	23.50	392.00	23.50	400.00		23.50	9,306.00	70.50	9,376.50
26	3111028086	10/15/25	23.50	164.00	23.50	177.00		23.50	4,006.75	70.50	4,077.25
27	3111028086	10/15/25	23.50	338.00	23.50	346.00		23.50	8,037.00	70.50	8,107.50
28	3111028087	10/15/25	23.50	239.00	23.50	257.00		23.50	5,828.00	70.50	5,898.50
29	3111028087	10/15/25	23.50	261.00	23.50	266.00		23.50	6,192.25	70.50	6,262.75
30	3111028090	10/15/25	23.50	342.00	23.50	354.00		23.50	8,178.00	70.50	8,248.50
31	3111028090	10/15/25	23.50	160.00	23.50	168.00		23.50	3,854.00	70.50	3,924.50
32	3111028082	10/15/25	23.50	460.00	23.50	466.00		23.50	10,880.50	70.50	10,951.00
33	3111028110	10/16/25	23.50	518.00	23.50	528.00		23.50	12,290.50	70.50	12,361.00
34	3111028089	10/16/25	23.50	58.00	23.50	58.00			1,363.00	-	1,363.00
35	3111028082	10/16/25	23.50	58.00	23.50	59.00		23.50	1,374.75	70.50	1,445.25
36	3111028089	10/16/25	23.50	455.00	23.50	464.00		23.50	10,798.25	70.50	10,868.75
37	3111028125	10/16/25	23.50	190.00	23.50	187.00		23.50	4,429.75	70.50	4,500.25
38	3111028125	10/16/25	23.50	334.00	23.50	340.00		23.50	7,919.50	70.50	7,990.00
39	3111028097	10/16/25	23.50	313.00	23.50	317.00		23.50	7,402.50	70.50	7,473.00
40	3111028097	10/16/25	23.50	195.00	23.50	203.00		23.50	4,676.50	70.50	4,747.00
41	3111028101	10/16/25	23.50	458.00	23.50	453.00		23.50	10,704.25	70.50	10,774.75
42	3111028101	10/16/25	23.50	57.00	23.50	64.00		23.50	1,421.75	70.50	1,492.25
43	3111028103	10/16/25	23.50	534.00	23.50	534.00			12,549.00	-	12,549.00
44	3111028098	10/16/25	23.50	63.00	23.50	66.00		23.50	1,515.75	70.50	1,586.25
45	3111028098	10/16/25	23.50	454.00	23.50	456.00		23.50	10,692.50	70.50	10,763.00
46	3111028106	10/16/25	23.50	205.00	23.50	206.00		23.50	4,829.25	70.50	4,899.75
47	3111028106	10/16/25	23.50	315.00	23.50	317.00		23.50	7,426.00	70.50	7,496.50
48	3111028107	10/16/25	23.50	343.00	23.50	347.00		23.50	8,107.50	70.50	8,178.00
49	3111028107	10/17/25	23.50	169.00	23.50	171.00		23.50	3,995.00	70.50	4,065.50
50	3111028092	10/17/25	23.50	491.00	23.50	493.00		23.50	11,562.00	70.50	11,632.50
51	3111028092	10/17/25	23.50	26.00	23.50	28.00		23.50	634.50	70.50	705.00
52	3111028111	10/17/25	23.50	530.00	23.50	530.00			12,455.00	-	12,455.00

53	3111028075	10/17/25	23.50	108.00	23.50	109.00		23.50	2,549.75	70.50	2,620.25
54	3111028075	10/17/25	23.50	415.00	23.50	419.00		23.50	9,799.50	70.50	9,870.00
55	3111028109	10/17/25	23.50	273.00	23.50	253.00		23.50	6,180.50	70.50	6,251.00
56	3111028109	10/17/25	23.50	246.00	23.50	247.00		23.50	5,792.75	70.50	5,863.25
57	3111028105	10/17/25	23.50	246.00	23.50	255.00		23.50	5,886.75	70.50	5,957.25
58	3111028105	10/23/25	23.50	64.00	23.50	64.00		23.50	1,504.00	70.50	1,574.50
59	3111028099	10/23/25	23.50	534.00	23.50	534.00			12,549.00	-	12,549.00
60	3111028091	10/23/25	23.50	104.00	23.50	112.00		23.50	2,538.00	70.50	2,608.50
61	3111028091	10/23/25	23.50	411.00	23.50	412.00		23.50	9,670.25	70.50	9,740.75
62	3111028112	10/23/25	23.50	298.00	23.50	308.00		23.50	7,120.50	70.50	7,191.00
63	3111028112	10/23/25	23.50	214.00	23.50	217.00		23.50	5,064.25	70.50	5,134.75
64	3111028095	10/23/25	23.50	502.00	23.50	504.00		23.50	11,820.50	70.50	11,891.00
65	3111028100	10/24/25	23.50	518.00	23.50	523.00		23.50	12,231.75	70.50	12,302.25
66	3111028079	10/24/25	23.50	188.00	23.50	193.00		23.50	4,476.75	70.50	4,547.25
67	3111028079	10/24/25	23.50	316.00	23.50	328.00		23.50	7,567.00	70.50	7,637.50
68	3111028074	10/24/25	23.50	379.00	23.50	383.00		23.50	8,953.50	70.50	9,024.00
69	3111028074	10/24/25	23.50	119.00	23.50	141.00		23.50	3,055.00	70.50	3,125.50
70	3111028078	10/24/25	23.50	529.00	23.50	529.00			12,431.50	-	12,431.50
71	3111028118	10/24/25	23.50	25.00	23.50	25.00		23.50	587.50	70.50	658.00
72	3111028118	10/24/25	23.50	469.00	23.50	491.00		23.50	11,280.00	70.50	11,350.50
73	3111028088	10/24/25	23.50	182.00	23.50	182.00		23.50	4,277.00	70.50	4,347.50
74	3111028088	10/24/25	23.50	315.00	23.50	340.00		23.50	7,696.25	70.50	7,766.75
75	3111028121	10/24/25	23.50	308.00	23.50	311.00		23.50	7,273.25	70.50	7,343.75
76	3111028121	10/24/25	23.50	178.00	23.50	207.00		23.50	4,523.75	70.50	4,594.25
77	3111028080	10/24/25	23.50	409.00	23.50	415.00		23.50	9,682.00	70.50	9,752.50
78	3111028080	10/24/25	23.50	78.00	23.50	106.00		23.50	2,162.00	70.50	2,232.50
79	3111028119	10/24/25	23.50	477.00	23.50	481.00		23.50	11,256.50	70.50	11,327.00
80	3111028076	10/24/25	23.50	481.00	23.50	509.00		23.50	11,632.50	70.50	11,703.00
81	3111028119	10/24/25	23.50	36.00	23.50	46.00		23.50	963.50	70.50	1,034.00
82	3111028094	10/24/25	23.50	455.00	23.50	517.00		23.50	11,421.00	70.50	11,491.50
83	3111028093	10/24/25	23.50	407.00	23.50	455.00		23.50	10,128.50	70.50	10,199.00
84	3111028114	10/24/25	23.50	306.00	23.50	325.00		23.50	7,414.25	70.50	7,484.75
85	3111028093	10/24/25	23.50	48.00	23.50	82.00		23.50	1,527.50	70.50	1,598.00
86	3111028114	10/27/25	23.50	172.00	23.50	196.00		23.50	4,324.00	70.50	4,394.50
87	3111028113	10/27/25	23.50	146.00	23.50	158.00		23.50	3,572.00	70.50	3,642.50
88	3111028113	10/27/25	23.50	256.00	23.50	318.00		23.50	6,744.50	70.50	6,815.00
89	3111028116	10/27/25	23.50	175.00	23.50	200.00		23.50	4,406.25	70.50	4,476.75
90	3111028113	10/27/25	23.50	16.00	23.50	53.00		23.50	810.75	70.50	881.25
91	3111028116	10/27/25	15.00	36.00				38.00	270.00	114.00	384.00
92	3111028116	10/27/25	15.00	73.00	17.00	75.00		75.00	1,184.00	225.00	1,409.00
93	3111028116	10/28/25	17.00	66.00				66.00	561.00	198.00	759.00
94	3111028116	10/28/25	24.00	217.00				217.00	2,604.00	651.00	3,255.00
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-
					-	-		-	-	-	-

ECApplications

Destructive Sample Information

Project Name:	Lakemoor Remediation	Job #	243034	Superintendent:	Juan Ocampo
Material Type:	60 Mil HDPE Smooth Liner	Primary	X	Pond	
Job Description:		Secondary		Cell	X
Reported By :	Froylan Guizar	Pad		Peel Test Extrusion Minimum	78
				Peel Test Fusion Minimum	91
				Shear Test Minimum	120

DS No	Seam Number	Weld Date	Operator Name / ID	Mach No	Mach Speed	Mach Temp	Preheat Temp	Amb Temp	Peel Extrusion						Peel Wedge					Shear				
									1	2	3	4	5		1	2	3	4	5	1	2	3	4	5
1	1	17	Gilberto Chaydez	613	11	830		60						A	105	123	138	111	142	155	172	188	161	202
2	2	12	Gilberto Chaydez	613	11	830		60						B	130	117	144	102	128	145	180	153	168	190
3	3	6	Gilberto Chaydez	613	11	830		60						A	135	119	131	107	138	139	136	145	153	160
4	1	24	Gilberto Chaydez	613	11	830		60						B	110	113	143	104	131	164	141	159	162	149
5	24	26	Nicolas Calderon	80	11	830		69						A	142	147	108	134	122	145	161	144	163	140
6	25	28	Gilberto Chaydez	613	11	830		69						B	136	132	123	143	145	136	145	141	143	160
7	27	30	Gilberto Chaydez	613	11	830		69						A	118	145	134	127	139	147	151	157	148	153
8	30	32	Nicolas Calderon	80	11	830		69						B	142	112	124	138	116	157	149	147	153	160
9	29	32	Gilberto Chaydez	613	11	830		69						A	123	137	110	141	109	153	147	154	160	140
10	32	33	Jesse Solomon	621	11	830		69						B	134	114	143	125	132	143	141	143	160	140
11	33	37	Nicolas Calderon	80	11	830		69						A	118	140	125	129	117	150	156	148	151	157
12	37	39	Gilberto Chaydez	613	11	830		69						B	134	114	145	134	126	150	155	161	153	165
13	44	46	Nicolas Calderon	80	11	830		66						A	116	144	107	132	119	146	157	149	147	153
14	46	48	Nicolas Calderon	80	11	830		66						B	146	127	137	115	140	150	156	148	151	157
15	39	41	Jesse Solomon	621	11	830		66						A	108	121	137	119	143	150	156	148	151	157
16	48	50	Nicolas Calderon	80	11	830		66						B	137	116	143	127	139	150	156	148	151	157
17	41	43	Gilberto Chaydez	613	11	830		66						A	144	146	130	111	142	150	156	148	151	157
														B	120	136	121	141	128	150	156	148	151	157
														A	145	126	138	116	144	150	156	148	151	157
														B	109	132	119	127	137	150	156	148	151	157
														A	115	145	109	122	138	150	156	148	151	157
														B	112	143	129	135	116	150	156	148	151	157
														A	143	127	139	114	146	150	156	148	151	157
														B	105	139	142	133	131	150	156	148	151	157
														A	112	110	131	118	105	150	156	148	151	157
														B	115	123	131	142	110	150	156	148	151	157
														A	132	118	141	127	133	146	155	161	153	165
														B	110	140	125	133	116	146	155	161	153	165
														A	117	124	135	141	112	146	157	164	151	158
														B	129	130	143	119	137	146	157	164	151	158
														A	134	146	115	123	137	152	144	155	161	138
														B	110	131	141	126	128	152	144	155	161	138
														A	144	122	133	139	127	151	164	146	159	166
														B	140	128	133	124	137	151	164	146	159	166

EApplications

Destructive Sample Information

Project Name:	Lakemoor Remediation	Job #	243034	Superintendent:	Juan Ocampo
Material Type:	60 Mil HDPE Smooth Liner	Primary	X	Pond	
Job Description:		Secondary		Cell	X
Reported By :	Froylan Guizar	Pad		Peel Test Extrusion Minimum	78
				Peel Test Fusion Minimum	91
				Shear Test Minimum	120

DS No	Seam Number		Weld Date	Operator Name / ID	Mach No	Mach Speed	Mach Temp	Preheat Temp	Amb Temp	Peel Extrusion						Peel Wedge					Shear					
										1	2	3	4	5		1	2	3	4	5	1	2	3	4	5	
18	43	45	10/16/25	Gilberto Chaydez	613	11	830		66						A	116	131	145	133	118		143	155	158	149	166
19	52	54	10/17/25	Jesse Solomon	621	11	830		66						B	125	133	118	129	125		152	156	147	155	161
20	50	52	10/17/25	Gilberto Chaydez	613	11	830		66						A	137	110	131	144	127		148	160	150	159	151
21	54	57	10/17/25	Gilberto Chaydez	613	11	830		66						B	132	142	119	122	132		159	163	149	144	165
22	50	53	10/17/25	Gilberto Chaydez	613	11	830		66						A	119	128	149	118	132		157	142	163	150	153
23	56	59	10/23/25	Gilberto Chaydez	613	11	830		69						B	121	139	119	140	125		145	152	133	148	154
24	59	62	10/23/25	Nicolas Calderon	80	11	830		69						A	133	128	141	137	142		139	151	132	151	142
25	60	62	10/23/25	Nicolas Calderon	80	11	830		69						B	118	123	136	117	131		137	144	144	156	147
26	61	64	10/23/25	Gilberto Chaydez	613	11	830		69						A	144	126	118	132	145		134	155	137	148	156
27	64	66	10/24/25	Jesse Solomon	621	11	830		69						B	121	135	117	140	132		131	143	156	137	147
28	65	68	10/24/25	Nicolas Calderon	80	11	830		69						A	127	110	135	119	122		157	137	150	138	155
29	68	70	10/24/25	Gilberto Chaydez	613	11	830		69						B	131	104	129	114	125		142	158	133	152	149
30	67	70	10/24/25	Gilberto Chaydez	613	11	830		69						A	133	109	120	126	134		156	137	154	143	156
31	70	73	10/24/25	Jesse Solomon	621	11	830		69						B	124	137	114	138	106		131	145	157	137	148
32	72	75	10/24/25	Nicolas Calderon	80	11	830		69						A	136	108	121	132	121		151	132	147	150	135
33	74	77	10/24/25	Gilberto Chaydez	613	11	830		69						B	124	137	114	138	106		147	159	135	142	150
34	76	79	10/24/25	Nicolas Calderon	80	11	830		69						A	133	109	120	127	134		138	147	155	135	141
															B	121	107	133	130	111						
															A	123	128	112	136	136						
															B	115	128	132	110	124						
															A	136	107	130	119	126						
															B	134	134	107	122	131						
															A	127	148	108	125	133						
															B	112	131	136	117	108						
															A	122	131	114	123	130						
															B	131	126	129	115	125						
															A	133	120	126	134	107						
															B	108	130	111	128	136						
															A	112	124	136	123	105						
															B	129	117	140	105	133						
															A	120	107	136	114	131						
															B	125	112	128	139	109						
															A	134	122	117	136	124						
															B	118	135	116	132	114						

ECApplications

Destructive Sample Information

Project Name:	Lakemoor Remediation
Material Type:	60 Mil HDPE Smooth Liner
Job Description:	
Reported By :	Froylan Guizar

Job #	243034	
Primary	X	Pond
Secondary		Cell
		Pad

Superintendent:	Juan Ocampo	
Peel Test Extrusion Minimum		78
Peel Test Fusion Minimum		91
Shear Test Minimum		120

[illegible]

ECApplications
Seam Control Form

Project Name: Lakemoor Remediation

Material Type: 60 Mil HDPE Smooth Liner

Job Description:

Reported By: Froylan Guizar

Job # 243034

Primary

X

 Pond -

Secondary Cell X

Pad -

Superintendent: Juan Ocampo

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 2 PSI

23,019 Total LF of Welding to Date Combined

Extrusion LF Weld To Date -

Fusion LF Weld To Date 23,019

Weld Date	Seam Number		Seam Length	Weld Time	Operator Name / ID	Mach Number	Mach Speed	Mach Temp	Preheat Temp	Ambient Temp	Test Date	Test Type	PSI IN	Time (Mins)	PSI OUT	PSI Loss	Test Results
10/14/25	2	3	25	10:45	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	3	4	62	10:23	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	4	5	73	10:09	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	5	6	85	10:31	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	6	7	97	9:54	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	7	8	101	9:17	Jesse Solomon	618	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	8	9	104	9:36	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	9	10	110	9:30	Jesse Solomon	618	11	830			10/15/25	Air Test	30	5	29	1	Pass
10/14/25	10	11	107	9:12	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	11	12	103	9:07	Jesse Solomon	618	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	12	13	102	8:53	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	13	14	98	8:48	Jesse Solomon	618	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	14	15	90	8:28	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	15	16	81	8:23	Jesse Solomon	618	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	16	17	68	8:15	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	17	18	53	8:12	Jesse Solomon	618	11	830			10/15/25	Air Test	30	5	30		Pass

ECApplications Seam Control Form

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Primary	X	Pond	-
Secondary		Cell	X
		Pad	-

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 2 PSI

Job Description:
Reported By Froylan Guizar

23,019	Total LF of Welding to Date Combined	Extrusion LF Weld To Date	-	Fusion LF Weld To Date	23,019
--------	---	----------------------------------	---	-------------------------------	--------

Weld Date	Seam Number	Seam Length	Weld Time	Operator Name / ID	Mach Number	Mach Speed	Mach Temp	Preheat Temp	Ambient Temp	Test Date	Test Type	PSI IN	Time (Mins)	PSI OUT	PSI Loss	Test Results
10/14/25	18	19	43	Jesse Solomon	618	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	19	20	35	Jesse Solomon	618	11	830			10/15/25	Air Test	30	5	29	1	Pass
10/15/25	20	21	20	Jesse Solomon	618	11	830			10/15/25	Air Test	30	5	30		Pass
10/15/25	21	22	10	Jesse Solomon	618	11	830			10/15/25	Air Test	30	5	30		Pass
10/15/25	1	22	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/15/25	1	21	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/15/25	1	20	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	1	19	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	1	18	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	1	17	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	1	16	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	29	1	Pass
10/14/25	1	15	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	1	14	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	1	13	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	1	12	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass
10/14/25	1	11	23.5	Gilberto Chaydez	613	11	830			10/15/25	Air Test	30	5	30		Pass

ECApplications Seam Control Form

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Primary X
Pond -
Air Pressure Test 30 **PSI**
Job Description:
Secondary
Cell X
Air Pressure Hold Time 5 **Minutes**
Reported By Froylan Guizar

Pad -
Allowable Air Pressure Loss 2 **PSI**

23,019	Total LF of Welding to Date Combined	Extrusion LF Weld To Date	-	Fusion LF Weld To Date	23,019
--------	---	----------------------------------	---	-------------------------------	--------

Weld Date	Seam Number	Seam Length	Weld Time	Operator Name / ID	Mach Number	Mach Speed	Mach Temp	Preheat Temp	Ambient Temp	Test Date	Test Type	PSI IN	Time (Mins)	PSI OUT	PSI Loss	Test Results
10/14/25	1	10	23.5	8:13	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/14/25	1	9	23.5	8:15	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/14/25	1	8	23.5	8:17	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/14/25	1	7	23.5	8:22	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/14/25	1	6	23.5	8:24	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/14/25	1	5	23.5	8:26	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/14/25	1	4	23.5	8:28	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/14/25	1	3	23.5	8:30	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	29	1	Pass
10/14/25	1	2	6	8:31	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/14/25	1	23	112	13:53	Jesse Solomon	618	11	830		10/15/25	Air Test	30	5	30		Pass
10/14/25	1	24	428	9:47	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	23	24	23.5	10:04	Jesse Solomon	621	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	23	25	119	10:43	Jesse Solomon	621	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	24	25	273	10:53	Jesse Solomon	621	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	24	26	33	11:40	Jesse Solomon	621	11	830		10/15/25	Air Test	30	5	30		Pass
10/16/25	24	26	131	10:38	Nicolas Calderon	80	11	830		10/15/25	Air Test	30	5	30		Pass

ECApplications Seam Control Form

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Primary X
Pond -
Air Pressure Test 30 **PSI**
Job Description:
Secondary
Cell X
Air Pressure Hold Time 5 **Minutes**
Reported By Froylan Guizar

Pad -
Allowable Air Pressure Loss 2 **PSI**

23,019	Total LF of Welding to Date Combined	Extrusion LF Weld To Date	-	Fusion LF Weld To Date	23,019
--------	---	----------------------------------	---	-------------------------------	--------

Weld Date	Seam Number	Seam Length	Weld Time	Operator Name / ID	Mach Number	Mach Speed	Mach Temp	Preheat Temp	Ambient Temp	Test Date	Test Type	PSI IN	Time (Mins)	PSI OUT	PSI Loss	Test Results
10/15/25	25	26	23.5	11:24	Jesse Solomon	621	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	25	27	338	11:13	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	25	28	62	11:43	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	29	1	Pass
10/15/25	26	28	177	11:49	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	29	1	Pass
10/15/25	27	28	23.5	11:32	Jesse Solomon	621	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	27	29	261	13:35	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	27	30	85	14:10	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	28	30	257	14:19	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	29	30	23.5	14:06	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	29	31	160	14:42	Jesse Solomon	621	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	29	32	106	14:43	Gilberto Chaydez	613	11	830		10/15/25	Air Test	30	5	30		Pass
10/15/25	30	32	354	11:03	Nicolas Calderon	80	11	830		10/16/25	Air Test	30	5	30		Pass
10/15/25	31	32	23.5	14:27	Jesse Solomon	621	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	31	33	168	8:22	Jesse Solomon	621	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	32	33	350	8:40	Jesse Solomon	621	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	32	34	61	9:12	Jesse Solomon	621	11	830		10/16/25	Air Test	30	5	30		Pass

ECApplications Seam Control Form

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Primary X **Pond** -

Air Pressure Test 30 **PSI**

Job Description:

Secondary **Cell** X

Air Pressure Hold Time 5 **Minutes**

Reported By Froylan Guizar

Pad -

Allowable Air Pressure Loss 2 **PSI**

23,019	Total LF of Welding to Date Combined	Extrusion LF Weld To Date	-	Fusion LF Weld To Date	23,019
--------	---	----------------------------------	---	-------------------------------	--------

Weld Date	Seam Number	Seam Length	Weld Time	Operator Name / ID	Mach Number	Mach Speed	Mach Temp	Preheat Temp	Ambient Temp	Test Date	Test Type	PSI IN	Time (Mins)	PSI OUT	PSI Loss	Test Results
10/16/25	32	35	58	9:20	Jesse Solomon	621	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	33	34	23.5	8:38	Gilberto Chaydez	613	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	34	35	23.5	8:50	Gilberto Chaydez	613	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	33	36	455	9:04	Nicolas Calderon	80	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	33	37	72	9:48	Nicolas Calderon	80	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	34	37	61	9:54	Nicolas Calderon	80	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	35	37	58	10:00	Nicolas Calderon	80	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	36	37	23.5	9:16	Gilberto Chaydez	613	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	36	38	344	9:31	Gilberto Chaydez	613	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	36	39	128	10:02	Gilberto Chaydez	613	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	37	39	189	10:16	Gilberto Chaydez	613	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	38	39	23.5	9:44	Jesse Solomon	621	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	38	40	195	10:02	Jesse Solomon	621	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	38	41	147	10:44	Jesse Solomon	621	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	39	41	311	10:55	Jesse Solomon	621	11	830		10/16/25	Air Test	30	5	30		Pass
10/16/25	40	41	23.5	10:33	Jesse Solomon	621	11	830		10/16/25	Air Test	30	5	30		Pass

ECApplications Seam Control Form

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Primary X
Pond -
Air Pressure Test 30 **PSI**
Job Description:
Secondary
Cell X
Air Pressure Hold Time 5 **Minutes**
Reported By Froylan Guizar

Pad -
Allowable Air Pressure Loss 2 **PSI**

23,019	Total LF of Welding to Date Combined	Extrusion LF Weld To Date	-	Fusion LF Weld To Date	23,019
--------	---	----------------------------------	---	-------------------------------	--------

Weld Date	Seam Number		Seam Length	Weld Time	Operator Name / ID	Mach Number	Mach Speed	Mach Temp	Preheat Temp	Ambient Temp	Test Date	Test Type	PSI IN	Time (Mins)	PSI OUT	PSI Loss	Test Results
10/16/25	40	42	57	14:06	Gilberto Chaydez	613	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	40	43	146	11:12	Gilberto Chaydez	613	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	41	43	387	11:27	Gilberto Chaydez	613	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	41	44	67	11:56	Gilberto Chaydez	613	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	42	43	23.5	11:00	Gilberto Chaydez	613	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	43	44	23.5	11:44	Nicolas Calderon	80	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	42	45	63	13:22	Gilberto Chaydez	613	11	830			10/16/25	Air Test	30	5	29	1	Pass
10/16/25	43	45	391	13:30	Gilberto Chaydez	613	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	43	46	142	13:40	Nicolas Calderon	80	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	44	46	63	13:46	Nicolas Calderon	80	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	45	46	23.5	13:30	Nicolas Calderon	80	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	45	47	315	14:16	Gilberto Chaydez	613	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	45	48	146	14:18	Nicolas Calderon	80	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	46	48	201	14:33	Nicolas Calderon	80	11	830			10/16/25	Air Test	30	5	30		Pass
10/16/25	47	48	23.5	14:04	Nicolas Calderon	80	11	830			10/16/25	Air Test	30	5	30		Pass
10/17/25	47	49	171	7:29	Nicolas Calderon	80	11	830			10/17/25	Air Test	30	5	30		Pass

ECApplications
Seam Control Form

Project Name: Lakemoor Remediation

Material Type: 60 Mil HDPE Smooth Liner

Job Description:

Reported By: Froylan Guizar

Job # 243034

Primary

X

 Pond -

Secondary Cell X

Pad -

Superintendent: Juan Ocampo

Air Pressure Test 30 PSI

Air Pressure Hold Time 5 Minutes

Allowable Air Pressure Loss 2 PSI

23,019 Total LF of Welding to Date Combined

Extrusion LF Weld To Date -

Fusion LF Weld To Date 23,019

Weld Date	Seam Number		Seam Length	Weld Time	Operator Name / ID	Mach Number	Mach Speed	Mach Temp	Preheat Temp	Ambient Temp	Test Date	Test Type	PSI IN	Time (Mins)	PSI OUT	PSI Loss	Test Results
10/17/25	47	50	147	7:45	Nicolas Calderon	80	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	48	50	342	7:59	Nicolas Calderon	80	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	49	50	23.5	7:29	Gilberto Chaydez	613	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	49	51	26	7:56	Gilberto Chaydez	613	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	49	52	150	8:00	Gilberto Chaydez	613	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	50	52	380	8:13	Gilberto Chaydez	613	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	50	53	108	8:40	Gilberto Chaydez	613	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	51	52	23.5	7:46	Gilberto Chaydez	613	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	52	53	23.5	8:03	Jesse Solomon	621	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	51	54	28	8:35	Jesse Solomon	621	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	52	54	387	8:39	Jesse Solomon	621	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	52	55	143	9:04	Gilberto Chaydez	613	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	53	55	109	9:22	Gilberto Chaydez	613	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	54	55	23.5	9:05	Nicolas Calderon	80	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	54	56	246	9:33	Nicolas Calderon	80	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	54	57	173	10:45	Gilberto Chaydez	613	11	830			10/17/25	Air Test	30	5	30		Pass

ECApplications Seam Control Form

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Primary X **Pond** -

Air Pressure Test 30 **PSI**

Job Description:

Secondary **Cell** X

Air Pressure Hold Time 5 **Minutes**

Reported By Froylan Guizar

Pad -

Allowable Air Pressure Loss 2 **PSI**

23,019	Total LF of Welding to Date Combined	Extrusion LF Weld To Date	-	Fusion LF Weld To Date	23,019
--------	---	----------------------------------	---	-------------------------------	--------

Weld Date	Seam Number		Seam Length	Weld Time	Operator Name / ID	Mach Number	Mach Speed	Mach Temp	Preheat Temp	Ambient Temp	Test Date	Test Type	PSI IN	Time (Mins)	PSI OUT	PSI Loss	Test Results
10/17/25	55	57	273	10:49	Gilberto Chaydez	613	11	830			10/17/25	Air Test	30	5	30		Pass
10/17/25	56	57	23.5	9:18	Nicolas Calderon	80	11	830			10/17/25	Air Test	30	5	30		Pass
10/23/25	56	58	64	10:52	Gilberto Chaydez	613	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	56	59	183	10:57	Gilberto Chaydez	613	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	57	59	351	11:01	Gilberto Chaydez	613	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	57	60	104	11:06	Nicolas Calderon	80	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	58	59	23.5	10:46	Gilberto Chaydez	613	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	59	60	23.5	11:00	Nicolas Calderon	80	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	58	61	64	12:36	Nicolas Calderon	80	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	59	61	348	12:48	Nicolas Calderon	80	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	59	62	186	13:16	Nicolas Calderon	80	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	60	62	112	13:32	Nicolas Calderon	80	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	61	62	23.5	13:07	Gilberto Chaydez	613	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	61	63	217	13:26	Gilberto Chaydez	613	11	830			10/23/25	Air Test	30	5	29	1	Pass
10/23/25	61	64	194	13:45	Gilberto Chaydez	613	11	830			10/23/25	Air Test	30	5	30		Pass
10/23/25	62	64	308	13:50	Nicolas Calderon	80	11	830			10/23/25	Air Test	30	5	30		Pass

ECApplications Seam Control Form

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Primary X
Pond -
Air Pressure Test 30 **PSI**
Job Description:
Secondary
Cell X
Air Pressure Hold Time 5 **Minutes**
Reported By Froylan Guizar

Pad -
Allowable Air Pressure Loss 2 **PSI**

23,019	Total LF of Welding to Date Combined	Extrusion LF Weld To Date	-	Fusion LF Weld To Date	23,019
--------	---	----------------------------------	---	-------------------------------	--------

Weld Date	Seam Number	Seam Length	Weld Time	Operator Name / ID	Mach Number	Mach Speed	Mach Temp	Preheat Temp	Ambient Temp	Test Date	Test Type	PSI IN	Time (Mins)	PSI OUT	PSI Loss	Test Results
10/23/25	63	64	23.5	13:16	Gilberto Chaydez	613	11	830		10/23/25	Air Test	30	5	29	1	Pass
10/24/25	63	65	214	7:38	Gilberto Chaydez	613	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	64	65	308	7:59	Gilberto Chaydez	613	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	64	66	188	8:05	Jesse Solomon	621	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	65	66	23.5	7:53	Jesse Solomon	621	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	65	67	328	8:09	Nicolas Calderon	80	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	65	68	190	8:43	Nicolas Calderon	80	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	66	68	193	9:01	Nicolas Calderon	80	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	67	68	23.5	8:33	Gilberto Chaydez	613	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	67	69	141	8:50	Gilberto Chaydez	613	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	67	70	175	9:04	Gilberto Chaydez	613	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	68	70	354	9:21	Gilberto Chaydez	613	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	68	71	25	9:51	Gilberto Chaydez	613	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	69	70	23.5	8:46	Jesse Solomon	621	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	70	71	23.5	9:30	Nicolas Calderon	80	11	830		10/24/25	Air Test	30	5	30		Pass
10/24/25	69	72	119	9:06	Jesse Solomon	621	11	830		10/24/25	Air Test	30	5	30		Pass

ECApplications Seam Control Form

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Primary	X	Pond	-
Secondary		Cell	X
		Pad	-

Air Pressure Test 30 **PSI**
Air Pressure Hold Time 5 **Minutes**
Allowable Air Pressure Loss 2 **PSI**
Job Description:
Reported By Froylan Guizar

23,019	Total LF of Welding to Date Combined	Extrusion LF Weld To Date	-	Fusion LF Weld To Date	23,019
--------	---	----------------------------------	---	-------------------------------	--------

Weld Date	Seam Number	Seam Length	Weld Time	Operator Name / ID	Mach Number	Mach Speed	Mach Temp	Preheat Temp	Ambient Temp	Test Date	Test Type	PSI IN	Time (Mins)	PSI OUT	PSI Loss	Test Results
10/24/25	70	72	372	Jesse Solomon	621	11	830			10/24/25	Air Test	30	5	30		Pass
10/24/25	70	73	157	Jesse Solomon	621	11	830			10/24/25	Air Test	30	5	30		Pass
10/24/25	71	73	25	Jesse Solomon	621	11	830			10/24/25	Air Test	30	5	30		Pass
10/24/25	72	73	23.5	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	72	74	340	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	72	75	129	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	73	75	182	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	74	75	23.5	Gilberto Chaydez	613	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	74	76	207	Gilberto Chaydez	613	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	74	77	108	Gilberto Chaydez	613	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	75	77	308	Jesse Solomon	621	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	76	77	23.5	Gilberto Chaydez	613	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	76	78	106	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	76	79	72	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	77	79	409	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	78	79	23.5	Gilberto Chaydez	613	11	830			10/27/25	Air Test	30	5	30		Pass

ECApplications Seam Control Form

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Primary X
Pond -
Air Pressure Test 30 **PSI**
Job Description:
Secondary
Cell X
Air Pressure Hold Time 5 **Minutes**
Reported By Froylan Guizar

Pad -
Allowable Air Pressure Loss 2 **PSI**

23,019	Total LF of Welding to Date Combined	Extrusion LF Weld To Date	-	Fusion LF Weld To Date	23,019
--------	---	----------------------------------	---	-------------------------------	--------

Weld Date	Seam Number		Seam Length	Weld Time	Operator Name / ID	Mach Number	Mach Speed	Mach Temp	Preheat Temp	Ambient Temp	Test Date	Test Type	PSI IN	Time (Mins)	PSI OUT	PSI Loss	Test Results
10/24/25	78	80	78	13:07	Gilberto Chaydez	613	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	79	80	477	13:13	Gilberto Chaydez	613	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	79	81	46	13:35	Gilberto Chaydez	613	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	80	81	23.5	11:40	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	80	82	481	13:28	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	81	82	36	14:03	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	82	83	445	13:49	Jesse Solomon	621	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	83	84	325	14:19	Gilberto Chaydez	613	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	83	85	63	14:17	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/24/25	84	85	23.5	14:37	Nicolas Calderon	80	11	830			10/27/25	Air Test	30	5	30		Pass
10/27/25	84	86	196	7:35	Gilberto Chaydez	613	11	830			10/28/25	Air Test	30	5	30		Pass
10/27/25	84	87	110	13:28	Gilberto Chaydez	613	11	830			10/28/25	Air Test	30	5	30		Pass
10/27/25	85	87	48	13:39	Gilberto Chaydez	613	11	830			10/28/25	Air Test	30	5	30		Pass
10/27/25	86	87	23.5	13:09	Gilberto Chaydez	613	11	830			10/28/25	Air Test	30	5	30		Pass
10/27/25	86	88	172	13:33	Jesse Solomon	80	11	830			10/28/25	Air Test	30	5	30		Pass
10/27/25	87	88	146	13:50	Jesse Solomon	80	11	830			10/28/25	Air Test	30	5	30		Pass

ECApplications Seam Control Form

Project Name: Lakemoor Remediation

Job # 243034

Superintendent: Juan Ocampo

Material Type: 60 Mil HDPE Smooth Liner

Primary	X	Pond	-
Secondary		Cell	X
		Pad	-

Air Pressure Test	30	PSI
--------------------------	-----------	------------

Air Pressure Hold Time	5	Minutes
-------------------------------	----------	----------------

Allowable Air Pressure Loss	2	PSI
------------------------------------	----------	------------

Reported By Froylan Guizar

23,019	Total LF of Welding to Date Combined
--------	--------------------------------------

Extrusion LF Weld To Date	-
----------------------------------	---

Fusion LF Weld To Date	23,019
-------------------------------	---------------

[illegible]

EApplications Repair Report

Project Name Lakemoor Remediation				Job # : 243034				Superintendent: Juan Ocampo							
Material Type: 60 Mil HDPE Smooth Liner				Primary X				Pond							
Job Description:				Secondary				Cell X							
Reported by : Froylan Guizar				Pad				Location Abbreviations							
Damage Codes CR --Crease FS --Failed Seam MatD --Material Defect LL --Lost Lap CF --Custom Fit DS --Destruct Sample WR --Wrinkle WS --Welder Restart MD --Mechanical Damage PB --Pipe Boot SI --Subgrade Irregularity AV --Airvent RW --Roller Wrinkle DO --Damage By Others BO --Burn Out SJ --Seam Joint AO --Add On CS --Concrete Structure AT --Air Test								BOS - Beginning of Seam EOS - End of Seam TOS - Toe of Seam SJ - Seam Joint ANT - Anchor Trench		Test Type Vacuum Air Test Spark Air Lance		Abbrv. *S=South *N=North *W=West *E=East		Repair Types C--Cap Strip P--Patch B--Extrusion Bead	
Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete		
1	AO	1-23		1' W to E	P	13 x 5		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
2	AO	1-22		1' W to E	P	5 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
3	SJ			1-21-22	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
4	SJ			1-20-21	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
5	SJ			1-19-20	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
6	SJ			1-18-19	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
7	SJ			1-18-17	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
8	DS-1			1-17-16	P	2 x 6		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
9	SJ			1-16-15	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
10	SJ			1-15-14	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
11	SJ			1-14-13	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
12	SJ			1-13-12	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25		
13	DS-2			1-12-11	P	2 x 6		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25		
14	SJ			1-11-10	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25		
15	SJ			1-10-9	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25		
16	SJ			1-9-8	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25		
17	BO	8-9		72' S to N	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25		
18	BO	7-8		50' N to S	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25		
19	SJ			1-7-8	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25		
20	DS-3			1-7-6	P	2 x 6		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25		
21	SJ			1-6-5	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25		
22	SJ			1-5-4	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25		
23	SJ			1-4-3	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25		

SF Patch Material

1049

LF Welded

1626.00

EApplications Repair Report

Project Name Lakemoor Remediation				Job # : 243034				Superintendent: Juan Ocampo			
Material Type: 60 Mil HDPE Smooth Liner				Primary X				Pond			
Job Description:				Secondary				Cell X			
Reported by : Froylan Guizar				Pad				SF Patch Material 1049			
								LF Welded 1626.00			

Damage Codes					Location Abbreviations					Test Type	Abbrv.	Repair Types
CR --Crease	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	CF --Custom Fit	BOS - Beginning of Seam	Vacuum	*S=South	C--Cap Strip				
DS --Destruct Sample	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	PB --Pipe Boot	EOS - End of Seam	Air Test	*N=North	P--Patch				
SI --Subgrade Irregularity	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	BO --Burn Out	TOS - Toe of Seam	Spark	*W=West	B--Extrusion Bead				
SJ --Seam Joint	AO --Add On	CS --Concrete Structure	AT -Air Test	ANT - Anchor Trench	SJ - Seam Joint	Air Lance	*E=East					

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
24	SJ			1-3-2	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
25	DS-4	1-24		3' E to W	P	2 x 6		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
26	BO	24-26		32' W to E	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
27	DS-5			24-25-26	P	2 x 6		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
28	SJ			25-26-28	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
29	DS-6			25-27-28	P	2 x 6		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25
30	SJ			27-28-30	P	2 x 6		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25
31	DS-7			27-29-30	P	2 x 6		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25
32	DS-8			29-30-32	P	2 x 6		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25
33	DO		29	25' E to W - 8' N to S	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25
34	BO	27-29		15' E to W	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25
35	DS-9			29-31-32	P	2 x 6		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25
36	DS-10			31-32-33	P	2 x 6		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25
37	SJ			23-24-25	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25
38	SJ			1-23-24	P	2 x 2		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25
39	BO	23-25		25' W to E	P	2 x 5		10/17/25	Candido Lugo	1240	Vacuum	Pass	10/17/25
40	DS-11			33-36-37	P	2 x 6		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
41	DS-12			36-37-39	P	2 x 6		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
42	SJ			33-34-37	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
43	SJ			32-33-34	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
44	SJ			32-34-35	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
45	SJ			34-35-37	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
46	Bo	30-32		54' E to W	P	2 x 2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25

EApplications Repair Report

Project Name Lakemoor Remediation				Job # : 243034				Superintendent: Juan Ocampo			
Material Type: 60 Mil HDPE Smooth Liner				Primary X				Pond			
Job Description:				Secondary				Cell X			
Reported by : Froylan Guizar				Pad				SF Patch Material 1049			
								LF Welded 1626.00			

Damage Codes										Location Abbreviations		Test Type	Abbrv.	Repair Types
CR --Crease	FS --Failed Seam	MatD --Material Defect	LL --Lost Lap	CF --Custom Fit	BOS - Beginning of Seam					Vacuum	*S=South	C--Cap Strip		
DS --Destruct Sample	WR --Wrinkle	WS --Welder Restart	MD --Mechanical Damage	PB --Pipe Boot	EOS - End of Seam					Air Test	*N=North	P--Patch		
SI --Subgrade Irregularity	AV --Airvent	RW --Roller Wrinkle	DO --Damage By Others	BO --Burn Out	TOS - Toe of Seam					Spark	*W=West	B--Extrusion Bead		
SJ --Seam Joint	AO --Add On	CS --Concrete Structure	AT --Air Test	ANT - Anchor Trench					Air Lance	*E=East				

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)			Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
47	DO		28	15' E to W - 7' S to N	P	2	x	2		10/17/25	Nicolas Calderon	1238	Vacuum	Pass	10/17/25
48	BO	39-41		9' E to W	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
49	BO	41-44		1' E to W	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
50	SJ			41-43-44	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
51	DS-13			43-44-46	P	2	x	6		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
52	BO	39-41		155' E to W	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
53	BO	41-43		110' E to W	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
54	BO		32	192' E to W - 7' S to N	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
55	SJ			43-45-46	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
56	DS-14			45-46-48	P	2	x	6		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
57	BO	39-41		91' W to E	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
58	BO	39-41		69' W to E	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
59	BO	43-45		27' E to W	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
60	BO	43-45		56' E to W	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
61	DS-15			38-39-41	P	2	X	6		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
62	SJ			36-38-39	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
63	BO	38-41		23' E to W	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
64	SJ			45-47-48	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
65	DS-16			47-48-50	P	2	x	6		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
66	BO	41-43		93' W to E	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
67	BO	41-43		80' W to E	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
68	BO	45-47		46' E to W	P	2	x	2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25
69	DS-17			40-41-43	P	2	x	6		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25

ECApplications
Repair Report

Project Name		Lakemoor Remediation			Job # :		243034			Superintendent:		Juan Ocampo					
Material Type:		60 Mil HDPE Smooth Liner			Primary		X		Pond				SF Patch Material		1049		
Job Description:					Secondary				Cell		X		LF Welded		1626.00		
Reported by :		Froylan Guizar							Pad				Location Abbreviations				
Damage Codes										BOS - Beginning of Seam		Test Type		Abbrv.		Repair Types	
CR --Crease		FS --Failed Seam		MatD --Material Defect		LL --Lost Lap		CF --Custom Fit		EOS - End of Seam		Vacuum		*S=South		C--Cap Strip	
DS --Destruct Sample		WR --Wrinkle		WS --Welder Restart		MD --Mechanical Damage		PB --Pipe Boot		TOS - Toe of Seam		Air Test		*N=North		P--Patch	
SI --Subgrade Irregularity		AV --Airvent		RW --Roller Wrinkle		DO --Damage By Others		BO --Burn Out		SJ - Seam Joint		Spark		*W=West		B--Extrusion Bead	
SJ --Seam Joint		AO --Add On		CS --Concrete Structure		AT -Air Test				ANT - Anchor Trench		Air Lance		*E=East			
Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)		Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete			
70	SJ			38-40-41	P	2	x 2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25			
71	SJ			40-42-43	P	2	x 2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25			
72	DO		43	2' W to E - 8' S to N	P	2	x 2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25			
73	DS-18			42-43-45	P	2	x 6		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25			
74	SJ			49-51-52	P	2	x 2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25			
75	DS-19			51-52-54	P	2	x 6		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25			
76	DS-20			49-50-52	P	2	x 6		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25			
77	SJ			47-49-50	P	2	x 2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25			
78	DS-21			54-56-57	P	2	x 6		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25			
79	BO	54-57		34' W to E	P	2	x 2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25			
80	BO	52-54		38' E to W	P	2	x 2		10/20/25	Candido Lugo	1240	Vacuum	Pass	10/20/25			
81	SJ			52-54-55	P	2	x 2		10/21/25	Candido Lugo	1240	Vacuum	Pass	10/21/25			
82	SJ			54-55-57	P	2	x 2		10/21/25	Candido Lugo	1240	Vacuum	Pass	10/21/25			
83	SJ			52-53-55	P	2	x 2		10/21/25	Candido Lugo	1240	Vacuum	Pass	10/21/25			
84	DS-22			50-52-53	P	2	x 6		10/21/25	Candido Lugo	1240	Vacuum	Pass	10/21/25			
85	BO	53-55		14' E to W	P	2	x 4		10/21/25	Candido Lugo	1240	Vacuum	Pass	10/21/25			
85A	BO	55-57		1' E to W	P	2	x 2		10/21/25	Candido Lugo	1240	Vacuum	Pass	10/21/25			
86	BO	55-57		31' E to W	P	2	x 3		10/21/25	Candido Lugo	1240	Vacuum	Pass	10/21/25			
87	BO	55-57		62' E to W	P	2	x 2		10/21/25	Candido Lugo	1240	Vacuum	Pass	10/21/25			
88	BO	57-60		1' E to W	P	4	x 6		10/27/25	Candido Lugo	1240	Vacuum	Pass	10/27/25			
89	BO	62-64		16' E to W	P	2	x 2		10/27/25	Candido Lugo	1240	Vacuum	Pass	10/27/25			
90	BO	60-62		23' W to E	P	2	x 2		10/27/25	Candido Lugo	1240	Vacuum	Pass	10/27/25			
91	SJ			57-59-60	P	2	x 2		10/27/25	Candido Lugo	1240	Vacuum	Pass	10/27/25			

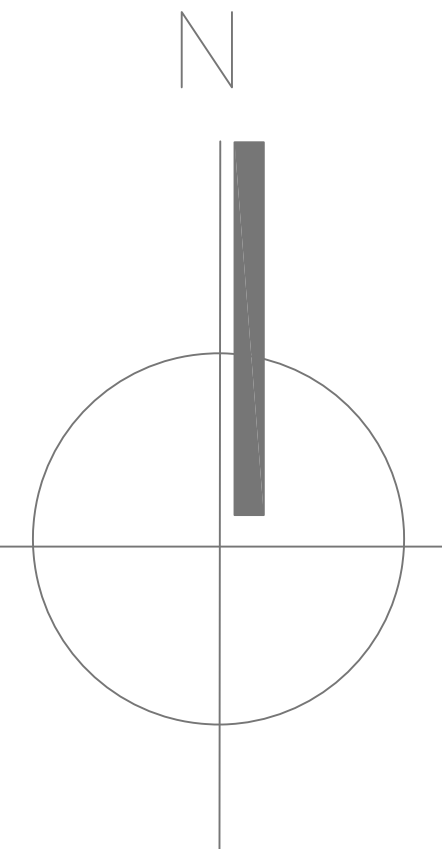
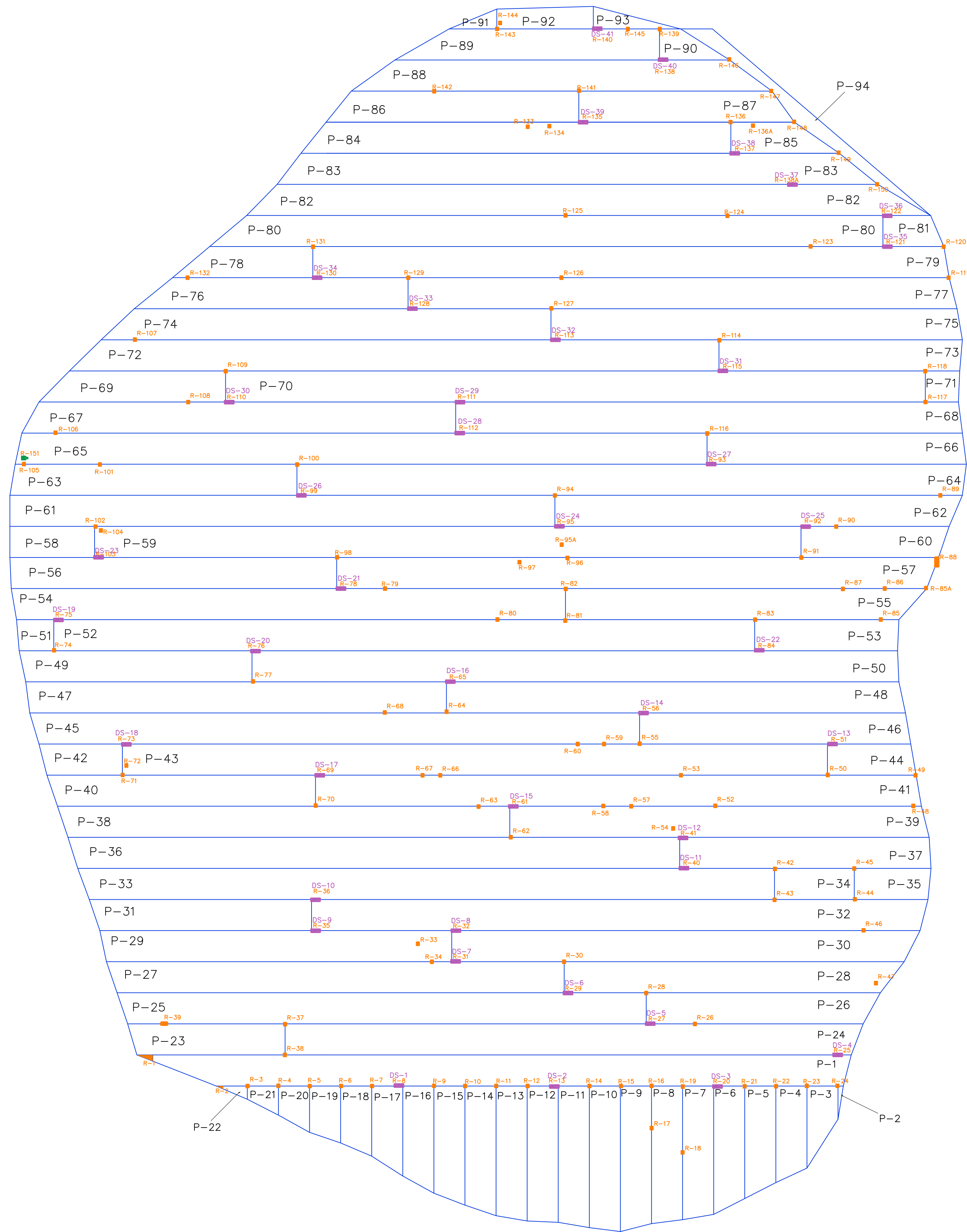
EApplications Repair Report

Project Name Lakemoor Remediation				Job # : 243034				Superintendent: Juan Ocampo							
Material Type: 60 Mil HDPE Smooth Liner				Primary X				Pond							
Job Description:				Secondary				Cell X							
Reported by : Froylan Guizar				Pad				Location Abbreviations							
Damage Codes CR --Crease FS --Failed Seam MatD --Material Defect LL --Lost Lap CF --Custom Fit DS --Destruct Sample WR --Wrinkle WS --Welder Restart MD --Mechanical Damage PB --Pipe Boot SI --Subgrade Irregularity AV --Airvent RW --Roller Wrinkle DO --Damage By Others BO --Burn Out SJ --Seam Joint AO --Add On CS --Concrete Structure AT --Air Test								BOS - Beginning of Seam EOS - End of Seam TOS - Toe of Seam SJ - Seam Joint ANT - Anchor Trench		Test Type Vacuum Air Test Spark Air Lance		Abbrv. *S=South *N=North *W=West *E=East		Repair Types C--Cap Strip P--Patch B--Extrusion Bead	

Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)	Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete
92	DS-25			59-60-62	P	2 x 6		10/27/25	Candido Lugo	1240	Vacuum	Pass	10/27/25
93	DS-27			64-65-66	P	2 x 6		10/27/25	Candido Lugo	1240	Vacuum	Pass	10/27/25
94	SJ			61-62-64	P	2 x 2		10/27/25	Candido Lugo	1240	Vacuum	Pass	10/27/25
95	DS-24			59-61-62	P	2 x 6		10/27/25	Candido Lugo	1240	Vacuum	Pass	10/27/25
95A	DO		59	179' E to W - 7' S to N	P	2 x 2		10/27/25	Candido Lugo	1240	Vacuum	Pass	10/27/25
96	BO	57-59		177' W to E	P	2 x 2		10/27/25	Candido Lugo	1240	Vacuum	Pass	10/27/25
97	DO		57	313' E to W - 3' N to S	P	2 x 2		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
98	SJ			56-57-59	P	2 x 2		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
99	DS-26			61-63-64	P	2 x 6		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
100	SJ			63-64-65	P	2 x 2		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
101	BO	63-65		64' W to E	P	2 x 2		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
102	SJ			58-59-61	P	2 x 2		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
103	DS-23			56-58-59	P	2 x 6		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
104	DO		59	2' W to E - 2' N to S	P	2 x 2		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
105	BO	63-65		6' W to E	P	2 x 2		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
106	BO	65-67		24' W to E	P	2 x 2		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
107	BO	72-74		26' W to E	P	2 x 2		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
108	BO	67-69		28' E to W	P	2 x 2		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
109	SJ			69-70-72	P	2 x 2		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
110	DS-30			67-69-70	P	2 x 6		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
111	DS-29			67-68-70	P	2 x 6		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
112	DS-28			65-67-68	P	2 x 6		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25
113	DS-32			72-74-75	P	2 x 6		10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25

ECApplications
Repair Report

Project Name		Lakemoor Remediation			Job # :		243034			Superintendent:		Juan Ocampo					
Material Type:		60 Mil HDPE Smooth Liner			Primary		X		Pond				SF Patch Material		1049		
Job Description:					Secondary				Cell		X		LF Welded		1626.00		
Reported by :		Froylan Guizar							Pad				Location Abbreviations				
Damage Codes										BOS - Beginning of Seam		Test Type		Abbrv.		Repair Types	
CR --Crease		FS --Failed Seam		MatD --Material Defect		LL --Lost Lap		CF --Custom Fit		EOS - End of Seam		Vacuum		*S=South		C--Cap Strip	
DS --Destruct Sample		WR --Wrinkle		WS --Welder Restart		MD --Mechanical Damage		PB --Pipe Boot		TOS - Toe of Seam		Air Test		*N=North		P--Patch	
SI --Subgrade Irregularity		AV --Airvent		RW --Roller Wrinkle		DO --Damage By Others		BO --Burn Out		SJ - Seam Joint		Spark		*W=West		B--Extrusion Bead	
SJ --Seam Joint		AO --Add On		CS --Concrete Structure				AT -Air Test		ANT - Anchor Trench		Air Lance		*E=East			
Repair Number	Damage Code	Seam Number	Panel Number	Location	Repair Type	Patch (Feet)		Bead (Inches)	Date Welded	Operator Name	Machine Number	Test Type	Test Results	Date Complete			
114	SJ			72-73-75	P	2	x	2	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25			
115	DS-31			70-72-73	P	2	x	6	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25			
116	SJ			65-66-68	P	2	x	2	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25			
117	SJ			68-70-71	P	2	x	2	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25			
118	SJ			70-71-73	P	2	x	2	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25			
119	BO	77-79		1' E to W	P	2	x	2	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/27/25			
120	BO	79-81		1' E to W	P	2	x	2	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
121	DS-35			79-80-81	P	2	x	6	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
122	DS-36			80-81-82	P	2	x	6	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
123	BO	79-80		53' E to W	P	2	x	2	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
124	BO	80-82		117' E to W	P	2	x	2	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
125	BO	80-82		240' E to W	P	2	x	3	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
126	BO	77-79		293' E to W	P	2	x	2	10/27/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
127	SJ			74-75-77	P	2	x	2	10/28/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
128	DS-33			74-76-77	P	2	x	6	10/28/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
129	SJ			76-77-79	P	2	x	2	10/28/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
130	DS-34			76-78-79	P	2	x	6	10/28/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
131	SJ			78-79-80	P	2	x	2	10/28/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
132	BO	76-78		11' W to E	P	2	x	2	10/28/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
133	DO			137' E to W - 2' N to S	P	2	x	2	10/28/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
134	DO			152' E to W - 2' N to S	P	2	x	2	10/28/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
135	DS-39			84-86-87	P	2	x	2	10/28/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			
136	SJ			84-85-87	P	2	x	2	10/28/25	Nicolas Calderon	1238	Vacuum	Pass	10/28/25			



	DESCRIPTION	PROJECT NAME LAKE MOOR	SHEET TITLE 60 MIL, AS-BUILT	 ECApplications	901 E. Orangethorpe Ave Anaheim, CA 92801 Tel: (714) 921 - 9848 Fax: (866) 475 - 1225 www.ecapplications.com		
—	Liner				DRAW BY: CR	CHKD BY: CG	DWG. No.: 1
P-OR-S	Panel Number				DATE:	APPRV BY: CG	
	Repair				SCALE:	WESTSIDE SUBWAY	
	DS				PROJECT NO.:	EXTENSION SECTION 3	
	DX						

Appendix K
Zone 1 and Zone 3 Material Testing Results



Memorandum

To: Nevada Division of Environmental Protection

From: Lonnie C. Roy, Principal

Date: November 25, 2025

RE: Three Kids Mine Remedial Design, Zone 1 and Zone 3 Materials

- 1. Approval of material for Zone 1:** This material is to be placed adjacent to the HDPE liner. The original specifications call for 100% passing the 3/4-inch sieve and a uniformity coefficient of between 1.9 and 2.4. The material submitted by the Contractor (See attached gradation report) shows that the material meets the uniformity coefficient specification (2.3). The report shows that only 98% of the material passes the 3/4-inch sieve. The material retained on the 3/4-inch sieve passes the 1-inch sieve. The small portion of the material slightly larger than the specification will not have an effect on the design intent of the material and is acceptable to Broadbent & Associates.
- 2. Approval of material for Zone 3:** This material serves as a drainage rock to allow water that is collected on the HDPE liner to drain to the collection point and leave the system. The original specifications call for 100% passing the 3/8-inch sieve, 100% retained on the 1/8-inch sieve, a uniformity coefficient of between 1.9 and 2.4, and the material to be sub-angular to rounded. The material submitted by the Contractor (See attached gradation report) meets the uniformity coefficient (2.24) and was inspected by Broadbent field personnel and found to be subangular. Again, this material is slightly more coarse than that specified. The coarse fraction has 13% retained on the 3/8-inch sieve. This small fraction passes the 1/2-inch sieve. We do not believe that this small fraction of slightly larger material will affect its performance. On the fine end of the gradation, 5% of the material passes the number 8 sieve (0.0937 inch). Again, this small deviation from the design specification will not affect the performance of this material as a drainage medium and will allow any captured water to leave the system. This material is acceptable to Broadbent and Associates.



4480 West Hacienda Ave, Suite 104
Las Vegas, NV 89118
(702) 873-3478

SUMMARY OF SOIL AND AGGREGATE TEST RESULTS

CLIENT: IQC Southwest/Centurion
6280 S. Valley View, Suite 216
Las Vegas, NV 89118
ATTN: Centurion-Negassi G.

REPORT DATE: 11/5/2025
PROJECT: Lakemoor - Environmentally Impacted Site
PROJECT NO.: M-15-163

SAMPLE INFORMATION

Sample No.: IQC-25-0743 Client Project No.:
Sampled By: E. Yates Sample Date: 10/30/2025 Source: On-Site - Screened
Tested By: C. Herrera, D. Gewerth Material Use: Zone 1
Sample Loc.: North of Hydropit
Sample Description: Well Graded Sand W/Silt & Gravel (SW-SM)

TEST RESULTS

Sieve Analysis

AASHTO T11, T27

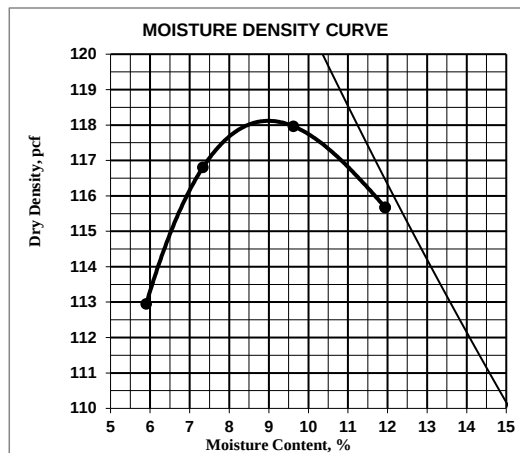
Sieve Size	% Passing	Specifications		Pass/Fail
		min.	max.	
6-inch	100			
4-inch	100			
3 1/2-inch	100			
3-inch	100			
2 1/2-inch	100			
2-inch	100			
1 1/2-inch	100			
1-inch	100			
3/4-inch	98			
1/2-inch	96			
3/8-inch	93			
No. 4	80			
No. 8	64			
No. 10	60			
No. 16	48			
No. 30	36			
No. 40	30			
No. 50	25			
No. 100	17			
No. 200	11			

Laboratory Test

Liquid Limit, AASHTO T89
Plasticity Index, AASHTO T90
Standard 60 psf Swell Test, %
Coefficient of Uniformity $C_u = D_{60}/D_{10}$ Pass

Results	Spec's.	Pass/Fail
NV		Pass
NP		Pass
0.0		Pass
2.3	1.9 - 2.4	Pass

Comments:



TEST METHOD: AASHTO T180 TEST PROCEDURE: D
MAXIMUM DRY DENSITY: 118.2 lb/ft³
OPTIMUM MOISTURE: 9.0 %
Specific Gravity Used For Zero Air Voids Curve: 2.40

Reviewed By:
For

John Sloan
Sam Palmer, P.E.
Project Engineer



4480 West Hacienda Ave, Suite 104
Las Vegas, NV 89118
(702) 873-3478

SUMMARY OF SOIL AND AGGREGATE TEST RESULTS

CLIENT: IQC Southwest/Centurion
6280 S. Valley View, Suite 216
Las Vegas, NV 89118
ATTN: Centurion-Negassi G.

REPORT DATE: 11/5/2025
PROJECT: Lakemoor
PROJECT NO.: M-15-163

SAMPLE INFORMATION

Sample No.: IQC-25-0734
Sampled By: Negasi G.
Tested By: C. Herrera
Sample Loc.: Stockpile (Import)
Sample Description: 3/8 Pea Gravel
Client Project No.:
Source: Import
Material Use: Zone 3
Sample Date: 10/29/2025

TEST RESULTS

Sieve Analysis

AASHTO T11, T27

Sieve Size	% Passing	Specifications		Pass/Fail
		min.	max.	
6-inch	100			
4-inch	100			
3 1/2-inch	100			
3-inch	100			
2 1/2-inch	100			
2-inch	100			
1 1/2-inch	100			
1-inch	100			
3/4-inch	100			
1/2-inch	100			
3/8-inch	87	100	100	
No. 4	17			
No. 8	5			
No. 10	5	0	0	
No. 16	3			
No. 30	3			
No. 40	3			
No. 50	3			
No. 100	3			
No. 200	2.2			

Laboratory Test

Coefficient of Uniformity $C_u = D_{60}/D_{10}$

Results	Spec's.	Pass/Fail
2.24	1.9 - 2.4	

Flat & Elongated Particles, 5:1 Ratio, ASTM D4791, %

0.0

Comments:

Reviewed By: John Sloan
For Sam Palmer, P.E.
Project Engineer

Appendix L
Hydro Pit Cover Verification Model

