THE STATE of ALASKA
GOVERNOR MIKE DUNLEAVY

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION AND RESPONSE
Contaminated Sites Program

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File No.: 2548.38.001

October 8, 2024

Electronic Delivery Only
Lance Raymore
Federal Aviation Administration
222 W 7th Avenue Box 14
Anchorage, Alaska 99513

Subject: **Decision Document: FAA Farewell Station**
No Further Action for Burial Pit 1 (SAN AOC 1)

Dear Mr. Raymore,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with Burial Pit 1, at the FAA Farewell Station approximately 63 Miles east southeast of McGrath and 195 miles northwest of Anchorage. Based on the information provided to date, it has been determined that the contaminant concentrations remaining at Burial Pit 1 Area of Concern (AOC) do not pose an unacceptable risk to human health or the environment and no further remedial action will be required unless information becomes available that indicates residual contaminants may pose an unacceptable risk.

This No Further Action determination is based on the administrative record for the Burial Pit 1, maintained by DEC. This decision letter summarizes the site history, cleanup actions and levels, and site closure conditions that apply. The FAA Farewell site will remain open in the DEC database until all areas of concern meet the regulatory requirements for a cleanup complete determination.

Site Name and Location:
FAA Farewell Station, Burial Pit 1
~63 Miles ESE of McGrath
62°30'21.8" N,153°53'45.2" W

Name and Mailing Address of Responsible Party:
Lance Raymore
222 7th Avenue, #14
Anchorage, Alaska 99513

DEC Site Identifiers
File No.: 2548.38.001
Hazard ID.: 1873

Regulatory Authority for Determination
18 Alaska Administrative Code (AAC) 75

Site Description and Background

The FAA Farewell Station is located north of the Alaska Range, at approximately 63 miles east southeast of McGrath and 195 miles northwest of Anchorage. It is on the southern bank of Sheep Creek, which is midway between the Windy Fork and the South Fork of the Kuskokwim River. FAA Farewell Station is accessible by aircraft during the summer months and by land, via winter trails, when snow is present. The U.S. Army constructed the Farewell airfield and most of the buildings in 1942 to provide defense support during World War II defense. In 1986, the FAA abandoned most of the Farewell facilities, but the airfield continues to be used by hunters and hunting guides and as an emergency landing site.

Burial Pit 1 originated as one of four borrow pits used for road and runway construction in the 1940s; the pits were later repurposed as burial pits. Burial Pit 1 measures approximately 260 feet by 40 feet and 15 feet deep. It is located approximately 9,000 feet south of the former Quarters area, and approximately 5,000 feet southeast of the south end of Runway 35, along a gravel road leading to St. John's Hill. According to a former station caretaker, an FAA contractor removed the antenna and equipment from St. Johns Hill and deposited the debris into Burial Pit 1 (Figure 1, site overview).

Contaminants of Concern

Soil samples were collected during site investigation and cleanup activities at this site; the samples were analyzed for total petroleum hydrocarbon (TPH) as diesel, total recoverable petroleum hydrocarbon (TRPH), gasoline range organics (GRO), volatile organic compounds (VOCs), pesticides, herbicides, polychlorinated biphenyls (PCBs), and metals. Based on these analyses, the following contaminants were detected above the applicable cleanup levels and are considered Contaminants of Concern (COCs) at this site:

- Lead
- Mercury

Cleanup Levels

Soil cleanup levels applicable to the site are the 18 AAC 75 Table B1/B2 Human Health/Maximum Allowable cleanup levels for the under 40-inch precipitation zone. DEC has made a determination that the migration to groundwater pathway is incomplete at FAA Farewell due to the depth of groundwater at the site and the fact that groundwater has never been encountered during mobilizations to FAA Farewell. The applicable soil cleanup levels are listed below in Table 1.

Table 1. – 18 AAC 75 Table B1 Soil Cleanup Levels

Contaminant	Migration to Groundwater (mg/kg)[1]	Under 40 Inch Zone Human Health (mg/kg)
Lead	n/a	400
Mercury (elemental)	0.36	3.1 (19)[2]

Notes:

1. mg/kg = milligrams per kilograms
2. This level is based on a soil saturation concentration (Csat) using the equations set out in *Procedures for Calculating Cleanup Levels.* The Csat value is listed first, followed by the human health risk-based cleanup level in parentheses.
3. n/a = not applicable

Characterization and Cleanup Activities

In 1992, a background soil sample was collected to evaluate the levels of naturally occurring metals. The analytical results indicated the following concentrations: arsenic (8.9 mg/kg), cadmium (6.6 mg/kg), chromium (22 mg/kg), copper (44 mg/kg), lead (24 mg/kg), nickel (34 mg/kg), and zinc (75 mg/kg). It is noted that only arsenic and chromium exceed the current migration to groundwater cleanup levels. However, these concentrations are consistent with levels seen throughout Alaska and there are no known anthropogenic sources of arsenic at FAA Farewell.

In 1994, three soil samples were collected near debris in Burial Pit 1. Samples were analyzed for TPH as diesel, TRPH, GRO, VOCs, pesticides, herbicides, PCBs, and metals. Lead was detected at a concentration of 859 mg/kg and mercury was detected at a concentration of 38.5 mg/kg, exceeding the most stringent ADEC Method Two cleanup levels of 400 mg/kg and 0.36 mg/kg, respectively. Results for other metals were consistent with background concentrations. All GRO, VOC, pesticides, and herbicides results were either non-detect or attributable to potential laboratory contaminants. PCBs, TPH as diesel, and TRPH were detected, but at concentrations less than the most stringent ADEC Method Two, Under 40 Inch Zone, Migration to Groundwater cleanup levels.

In 1997, the length and width of Burial Pit 1 was measured, the contents were observed and noted, and a vertical magnetic gradient (VMG) survey was performed to detect buried metallic material. The only waste observed in Burial Pit 1 was an antenna tower, electronic equipment, and wire cable at the southern end of the pit, which corresponded to the information provided by the site caretaker.

In 1998, all surface and subsurface debris (approximately 100 cubic yards [cy] of scrap metal and electronic equipment) was removed from Burial Pit 1 and disposed of in the Burial Pit 2 monofill. The excavation was backfilled with clean granular fill and compacted. Soil samples were not collected from native soils after the surface and subsurface debris were removed.

In 2010, a visual survey of Burial Pit 1 concluded that the burial pit was properly contoured to allow for rain and snow to flow off and there did not appear to be any evidence of settling, ponding, erosion, or animal burrowing. Vegetation observed at Burial Pit 1 consisted of balsam poplar, white spruce, rose, Labrador tea, fireweed, yarrow, dwarf dogwood, western columbine, ferns, grasses, fungi, and many other species of plants. Although less vegetation was present along the eastern edge of the Burial Pit, indications of distressed vegetation or surface staining were not observed in this area.

Burial Pit 1 was further evaluated in the 2016 *Decision Document for Six Burial Pits at the Federal Aviation Administration Station, Farewell, Alaska*. The Decision Document (DD) concluded that the substantive post-closure requirements of 18 AAC 60 had been met and that further investigation should be conducted to determine if soil and groundwater were impacted by lead and mercury.

In 2018, six soil borings were advanced to 12 feet bgs, and 26 soil samples were collected and analyzed for total lead and mercury. A surface sample contained mercury concentrations at 0.511 mg/kg, greater than the migration to groundwater cleanup level of 0.36 mg/kg. A deeper sample from the same boring marginally exceeded the cleanup level with a concentration of 0.0368 mg/kg. Lead did not exceed the applicable Table B1 cleanup level.

In 2021, excavation activities began at surface level and extended to 2 feet bgs; approximately 7.7 tons of mercury-contaminated soil was removed. Discrete confirmation samples were collected from the

excavation limits. Analytical results for all samples were below the ADEC cleanup level for mercury (0.36 mg/kg). Table 2 lists the maximum remaining concentrations for lead and mercury at the site.

Table 2. - Maximum Remaining Concentration in Soil at Burial Pit 1

Contaminant	Sample Location	Sample ID	Date Sampled	Soil (mg/kg)
Mercury (elemental)	Base	FWL21SS-0019-BP1(2)	06/05/2021	0.299
Lead (total)	0-2 ft	FWL18SS-B104-BP1(0-2)	07/01/2018	38.1

mg/kg = milligrams per kilogram

Cumulative Risk Assessment

Pursuant to 18 AAC 75.325(g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be made that the risk from hazardous substances does not exceed a cumulative carcinogenic risk standard of 1 in 100,000 across all exposure pathways and does not exceed a cumulative noncarcinogenic risk standard at a hazard index (HI) of 1 across all exposure pathways.

Based on a review of the environmental record, DEC has determined that residual contaminant concentrations meet the human health cumulative risk criteria for residential land use.

Exposure Pathway Evaluation

Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using DEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De Minimis or Pathway Incomplete. A summary of this pathway evaluation is included in Table 3.

Table 3. – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	De Minimis	Residual contamination in surface soil is well below the most stringent 18 AAC 75 Table B1 cleanup levels.
Subsurface Soil Contact	De Minimis	Residual contamination in subsurface soil is well below the most stringent 18 AAC 75 Table B1 cleanup levels.
Inhalation – Outdoor Air	De Minimis	Residual contamination is well below the most stringent 18 AAC 75 Table B1 cleanup levels and is not expected to impact outdoor air.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	There are no structures at Burial Pit 1, and none are expected to be placed in this location in the future. Residual concentrations are well below the most stringent 18 AAC 75 Table B1 cleanup level.

Pathway	Result	Explanation
Groundwater Ingestion	Pathway Incomplete	DEC has made a determination that the migration to groundwater pathway is incomplete at FAA Farewell.
Surface Water Ingestion	Pathway Incomplete	Surface water is not present in the vicinity of this site.
Wild and Farmed Foods Ingestion	De Minimis	Residual concentrations are well below the most stringent cleanup levels and are not expected to impact wild or farmed foods.
Exposure to Ecological Receptors	Pathway Incomplete	There are no concerns about ecological receptors.

Notes:
1. "De Minimis Exposure" means that, in DEC's judgment, the receptors are unlikely to be adversely affected by the minimal volume or concentration of remaining contamination.
2. "Pathway Incomplete" means that, in DEC's judgment, the contamination has no potential to contact receptors.

DEC Decision

Soil contamination at the Burial Pit 1 AOC has been cleaned up to concentrations below the approved cleanup levels suitable for residential land use. DEC approval is required for movement and disposal of soil and/or groundwater subject to the Site Cleanup Rules, in accordance with 18 AAC 75.325(i). Since the cleanup at this AOC met the most stringent cleanup levels of 18 AAC 75.341, Tables B1 and B2, this letter will serve as your approval for future movement and disposal of soil associated with this release.

Movement or use of contaminated material in an ecologically sensitive area or in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited. Furthermore, groundwater throughout Alaska is protected for use as a water supply for drinking, culinary and food processing, agriculture including irrigation and stock watering, aquaculture, and industrial use. Contaminated site cleanup complete determinations are based on groundwater being considered a potential drinking water source. If, in the future, groundwater from this site is to be used for other purposes, additional testing and treatment may be required to ensure the water is suitable for its intended use.

This determination is in accordance with 18 AAC 75.380 and does not preclude DEC from requiring additional assessment and/or cleanup action if information indicates that contaminants at this site may pose an unacceptable risk to human health, safety, or welfare or to the environment.

Informal Reviews and Adjudicatory Hearings

A person authorized under a provision of 18 AAC 15 may request an informal review of a contested decision by the Division Director in accordance with 18 AAC 15.185 and/or an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340. See DEC's "Appeal a DEC Decision" web page https://dec.alaska.gov/commish/review-guidance/ for access to the required forms and guidance on the appeal process. Please provide a courtesy copy of the adjudicatory hearing request in an electronic format to the parties required to be served under 18 AAC 15.200. Requests must be submitted no later than the deadline specified in 18 AAC 15.

If you have questions about this closure decision, please feel free to contact Sophia Bracio at (907) 451-1682, or email at sophia.bracio@alaska.gov.

Sincerely,

DocuSigned by:
Jennifer McGrath
1FD2E8EBBD404D0...

Jennifer McGrath
Environmental Program Specialist

Enclosure(s): Figure 1 – Site Vicinity
Figure 2 – 2021 Sample Locations and Mercury Results

cc, via email: Jamie McKellar, DEC
Sophia Bracio, DEC
Tim Sharp, DEC

Figure 1

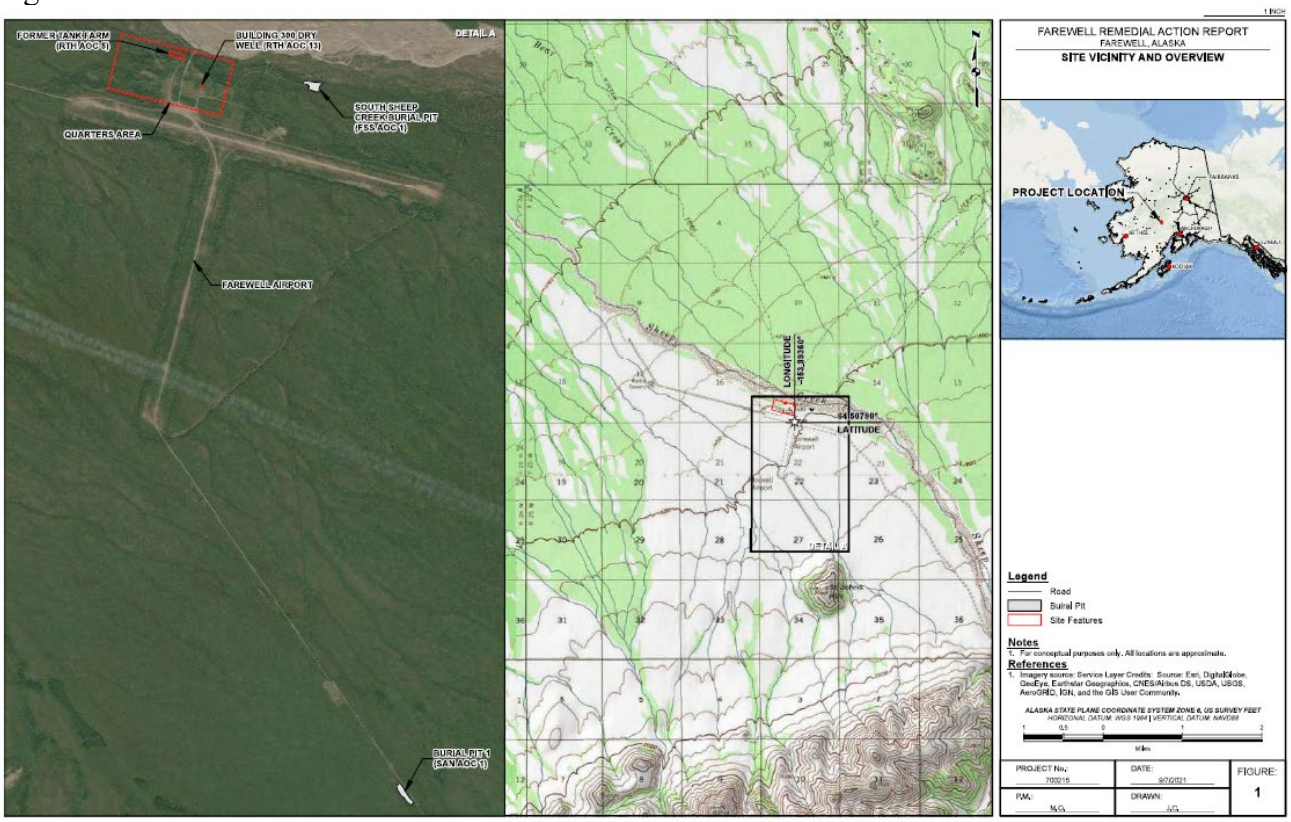
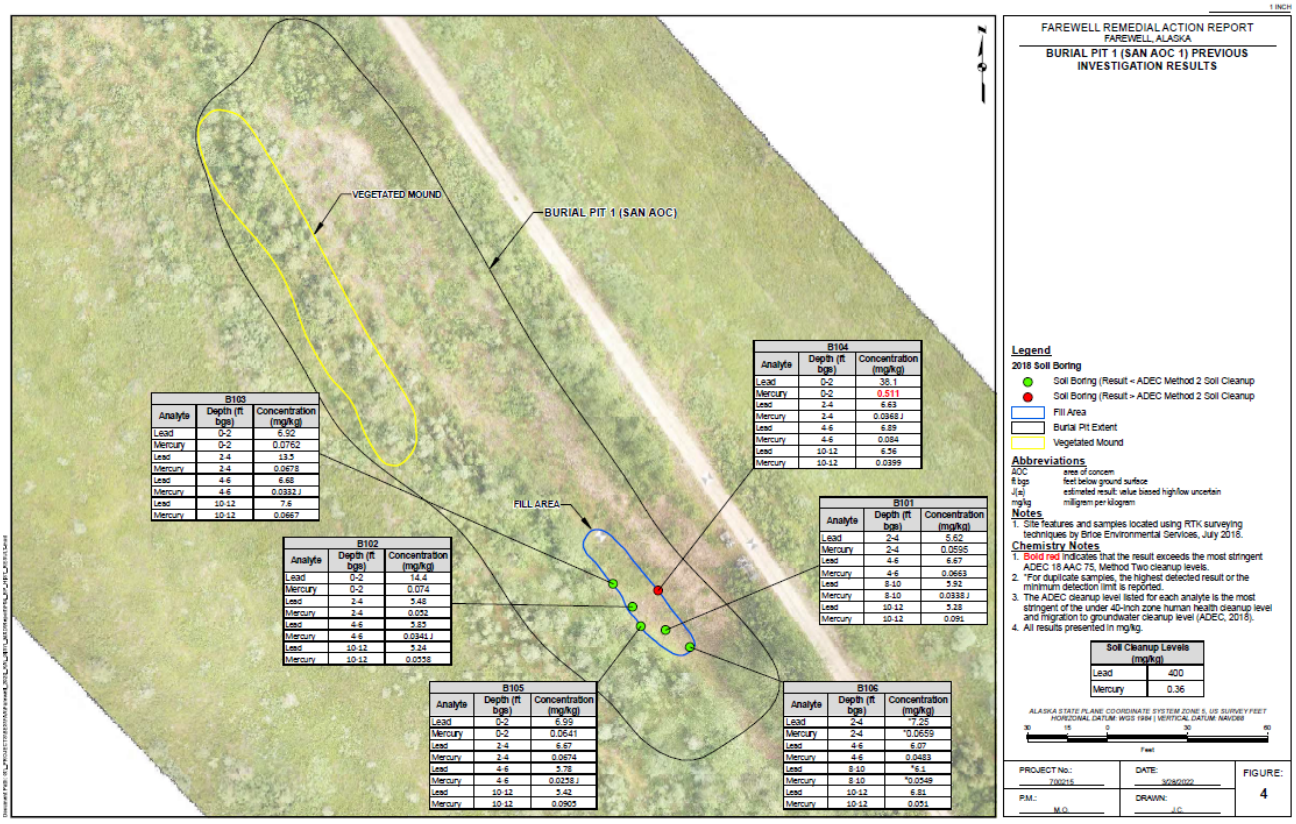

FORMER TANK FARM (RTH AOC 5)
BUILDING 300 DRY WELL (RTH AOC 13)
DETAIL A
SOUTH SHEEP CREEK BURIAL PIT (FSS AOC 1)
QUARTERS AREA
FAREWELL AIRPORT
BURIAL PIT 1 (SAN AOC 1)
LONGITUDE
-163.39340°
64.00780°
LATITUDE
FAREWELL REMEDIAL ACTION REPORT
FAREWELL, ALASKA
SITE VICINITY AND OVERVIEW
PROJECT LOCATION
Legend
Road
Burial Pit
Site Features
Notes
1. For conceptual purposes only. All locations are approximate.
References
1. Imagery source: Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.
ALASKA STATE PLANE COORDINATE SYSTEM ZONE 6, US SURVEY FEET
HORIZONTAL DATUM: WGS 1984 | VERTICAL DATUM: NAVD88
Miles
PROJECT No.
703215
DATE:
9/7/2021
FIGURE:
1
P.M.:
DRAWN:

Figure 2


VEGETATED MOUND
BURIAL PIT 1 (SAN AOC)
FILL AREA
B103
Analyte | Depth (ft bgs) | Concentration (mg/kg)
Lead | 0-2 | 6.92
Mercury | 0-2 | 0.0762
Lead | 2-4 | 13.5
Mercury | 2-4 | 0.0678
Lead | 4-6 | 6.68
Mercury | 4-6 | 0.0332 J
Lead | 10-12 | 7.6
Mercury | 10-12 | 0.0667
B104
Analyte | Depth (ft bgs) | Concentration (mg/kg)
Lead | 0-2 | 38.1
Mercury | 0-2 | 0.511
Lead | 2-4 | 6.63
Mercury | 2-4 | 0.0368 J
Lead | 4-6 | 6.89
Mercury | 4-6 | 0.084
Lead | 10-12 | 6.56
Mercury | 10-12 | 0.0399
B101
Analyte | Depth (ft bgs) | Concentration (mg/kg)
Lead | 2-4 | 5.62
Mercury | 2-4 | 0.0595
Lead | 4-6 | 6.67
Mercury | 4-6 | 0.0663
Lead | 8-10 | 5.92
Mercury | 8-10 | 0.0338 J
Lead | 10-12 | 5.28
Mercury | 10-12 | 0.091
B102
Analyte | Depth (ft bgs) | Concentration (mg/kg)
Lead | 0-2 | 14.4
Mercury | 0-2 | 0.074
Lead | 2-4 | 5.48
Mercury | 2-4 | 0.052
Lead | 4-6 | 5.85
Mercury | 4-6 | 0.0341 J
Lead | 10-12 | 5.24
Mercury | 10-12 | 0.0538
B105
Analyte | Depth (ft bgs) | Concentration (mg/kg)
Lead | 0-2 | 6.99
Mercury | 0-2 | 0.0641
Lead | 2-4 | 6.67
Mercury | 2-4 | 0.0674
Lead | 4-6 | 5.78
Mercury | 4-6 | 0.0258 J
Lead | 10-12 | 5.42
Mercury | 10-12 | 0.0905
B106
Analyte | Depth (ft bgs) | Concentration (mg/kg)
Lead | 2-4 | *7.56
Mercury | 2-4 | *0.0659
Lead | 4-6 | 6.07
Mercury | 4-6 | 0.0483
Lead | 8-10 | *6.1
Mercury | 8-10 | *0.0549
Lead | 10-12 | 6.81
Mercury | 10-12 | 0.051
FAREWELL REMEDIAL ACTION REPORT
FAREWELL, ALASKA
BURIAL PIT 1 (SAN AOC 1) PREVIOUS INVESTIGATION RESULTS
Legend
2018 Soil Boring
Soil Boring (Result < ADEC Method 2 Soil Cleanup
Soil Boring (Result > ADEC Method 2 Soil Cleanup
Fill Area
Burial Pit Extent
Vegetated Mound
Abbreviations
AOC area of concern
ft bgs feet below ground surface
J(a) estimated result: value biased high/low uncertain
mg/kg milligram per kilogram
Notes
1. Site features and samples located using RTK surveying techniques by Brice Environmental Services, July 2018.
Chemistry Notes
1. Bold red indicates that the result exceeds the most stringent ADEC 18 AAC 75, Method Two cleanup levels.
2. *For duplicate samples, the highest detected result or the minimum detection limit is reported.
3. The ADEC cleanup level listed for each analyte is the most stringent of the under 40-inch zone human health cleanup level and migration to groundwater cleanup level (ADEC, 2018).
4. All results presented in mg/kg.
Soil Cleanup Levels (mg/kg)
Lead 400
Mercury 0.36
ALASKA STATE PLANE COORDINATE SYSTEM ZONE 5, US SURVEY FEET
HORIZONTAL DATUM: WGS 1984 | VERTICAL DATUM: NAVD88
30 15 0 30 60
Feet
PROJECT No.: 709218
DATE: 3/28/2022
P.M.: M.O.
DRAWN: J.C.
FIGURE: 4