

SOIL TREATMENT TECHNOLOGIES, LLC

**DRAFT THERMAL TREATMENT OPERATIONS
PLAN**

ANCHORAGE, ALASKA

March 23, 2026

Prepared by:



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TECHNOLOGIES**

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THERMAL TREATMENT OPERATIONS PLAN

Anchorage, Alaska

March 23, 2026

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March 23, 2026

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March 23, 2026

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TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS	vii
1. INTRODUCTION	1
1.1. Plan Organization.....	1
1.2. Proof of Financial Responsibility.....	2
2. SITE DESCRIPTION AND BACKGROUND	3
2.1. 2025 ASR Site Closure Investigation.....	3
2.2. 2024/25 Annual Groundwater Monitoring.....	4
2.3. ASR Site Closure	4
3. CONTAMINATED SOIL ACCEPTANCE AND TRACKING	5
3.1. Delivery and Waste Disposal Tracking.....	6
4. ENGINEERING PLAN	8
4.1. Facility Configuration.....	8
4.2. Operational Layout.....	8
4.2.1. Contaminated Soil Management.....	9
4.2.2. Screening Oversized Material.....	10
4.3. Detailed Process Description.....	10
4.3.1. Rotary Dryer Drum	10
4.3.2. Baghouse Filter	10
4.3.3. Treated Soil Process Stream.....	11
4.3.4. Air Process Stream.....	11
4.4. Startup and Shutdown Procedure.....	12
4.4.1. Startup	12
4.4.2. Shutdown.....	13
4.5. Maximum Process Flow Rates	13
4.6. Control and Tracking Treated Soil	13
4.7. Nondomestic Water Control, Containment and Processing.....	14
4.7.1. Contaminated Soil Cell Containment.....	14
4.7.2. Treated Soil Storage Area Containment.....	15
4.7.3. Water Handling and Processing.....	16
4.7.4. GAC Replacement.....	17
4.7.5. Treated Water Discharge.....	18
4.8. Inspection and Maintenance Plan.....	18
4.9. Equipment Fuel Storage and Handling.....	19
5. SAMPLING, TESTING AND REPORTING	20
5.1. Post-Treatment Soil Screening, Sampling and Reporting.....	20
5.1.1. Field Screenings.....	20
5.1.2. Analytical Sample Collection.....	21
5.1.3. Reporting	21

6. ANNUAL GROUNDWATER MONITORING AND REPORTING.....	23
6.1. Annual Reporting.....	24
7. FACILITY CLOSURE	25
7.1. Closure Report	25
8. REFERENCES	27
EMBEDDED TABLES	
Table 5-1. Field Screening and Analytical Sample Collection Frequencies	17

FIGURES

- 1: Site Vicinity
- 2: Site Map
- 3: Site Plan
- 4: Thermal Treatment Plant Detail
- 5: Historic Containment Construction As-Built (Dowl Engineers)
- 6: Post Treatment Area - Stockpile Area Overview
- 7: Post Treatment Area - New Construction Overview
- 8: Post Treatment Area – New Construction Dimensions and Gradients
- 9: Post Treatment Area – New Construction Detail
- 10: Drainage Diagram
- 11: Water Treatment System – P&ID

APPENDICES

- A: Financial Responsibility Amount Calculation
- B: Proof of General Liability and Environmental Pollution Liability Insurance
- C: Soil Waste Profile Form
- D: Soil Acceptance Log
- E: GAC Empty Bed Contact Time Calculations

ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
ARRC	Alaska Railroad Corporation
ASR	Alaska Soil Recycling
bgs	below ground surface
BTU	British Thermal Unit
BTU/CF	British Thermal Unit / Cubic Foot
Clean Soils	Clean Soils Incorporated
cy	cubic yards
DC	Direct current
DRO	diesel-range organics
EBCT	Empty bed contact time
EC	Engineering control
EPA	Environmental Protection Agency
GAC	granular activated carbon
gpm	gallons per minute
GRO	gasoline-range organics
gr/scf	grains per standard cubic foot
HCL	hydrochloric acid
HHV	Higher heating value
HP	Horsepower
LNAPL	light nonaqueous phased liquid
LUST	leaking underground storage tank
mL	milliliter
mm	millimeter
MTG	Migration to groundwater
NOAA	National Oceanic and Atmosphere Administration
PAH	polycyclic aromatic hydrocarbons
PID	photoionization detector
PPE	personal protective equipment
PVOCs	petroleum-volatile organic compounds
QEP	Qualified Environmental Professional
RCRA	Resource Conservation Recovery Act
RRO	residual-range organics
SRU	soil remediation unit
STT	Soil Treatment Technologies, LLC
S&W	Shannon & Wilson Inc.,
TCE	trichloroethylene

TDH.....Total dynamic head
UCL.....Upper Confidence Limit
UST.....underground storage tank
VOCs.....Volatile organic compound
YSI.....YSI 556 meter

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1. INTRODUCTION

This Operations Plan has been prepared by Soil Treatment Technologies, LLC., (STT) to detail the operations of a thermal remediation facility for the treatment of petroleum-contaminated soil in Anchorage, Alaska. The thermal soil treatment facility is located at 2301 Spar Avenue in Anchorage, Alaska (Figure 1). STT is requesting Alaska Department of Environmental Conservation (ADEC) approval of this Plan for the operation of a soil remediation unit (SRU) as a Category D Offsite Treatment Facility; capable of receiving petroleum-contaminated soil from multiple projects/facilities for extended (i.e. more than three years) operation.

This plan has been prepared in accordance with ADEC Title 18 Alaska Administrative Code (AAC) 75.365 (18 AAC 75.365), 18 AAC 78.273 and the Operation Requirements for Soil Treatment Facilities (ADEC, 2013). This Operations Plan provides background information on the thermal treatment facility location, describes all components of the facility management including a detail of the site configuration and design, the daily operations and water management processes and the associated environmental monitoring plan to comply with the requirements of 18 AAC 75.365 and ensure that the operation of the facility is protective of human health, safety, and welfare, and of the environment.

1.1. Plan Organization

The major sections of this Operations Plan are presented below.

1. Introduction and Proof of Financial Responsibility
2. Site Description and Background
3. Contaminated Soil Acceptance and Tracking
4. An Engineering Plan, including the following components
 - Facility Layout
 - Contaminated Soil Management
 - Detailed Process Description
 - Startup and Shutdown Procedures and Operating Parameters
 - Nondomestic Water Control, Containment and Processing
 - Inspection and Maintenance Plan
5. Post-treatment Sampling, Testing and Reporting
6. Annual Groundwater Monitoring and Reporting
7. Facility Closure

A Public Soil Treatment Facility Operations Plan Notice will be prepared and submitted for ADEC approval. Once approved, the public notice will be posted to allow at least two weeks for public comments.

This Operations Plan will be updated and submitted to ADEC for review whenever substantive changes to the operation occurs. Substantive changes could include changes to items listed in 18 AAC 75.265(a)(1)(B) including expansion, reconfiguration of equipment or facility layout. Substantive changes could also include changes in federal or state laws, regulation, or policy impacting operations of the facility, or any other changes that could substantively impact operations.

1.2. Proof of Financial Responsibility

STT has an existing financial assurance to stockpile up to 5,200 tons of contaminated soil at its Nikiski facility located at 52520 Kenai Spur Highway. However, in conjunction with the planned initiation of operations at the new facility at 2301 Spar Avenue, STT placed the Nikiski facility in a state of inactive service at the conclusion of 2025 operations. At the time of the ceasing of operations at the Nikiski facility, all remaining soil had been thermally treated and verified, through analytical sampling, to be free of contaminant concentrations. As a result, ADEC approved the transfer of the financial assurance quantity of 5,200 tons from the Nikiski property to the new site at 2301 Spar Avenue in Anchorage. Due to the larger containment area, (and increased storage capacity) of the 2301 Spar Avenue facility, STT increased the maximum storage quantity to 7,500 tons.

In accordance with regulatory requirements, the following documents are provided in the Appendices of this Operations Plan:

1. A copy of the Financial Responsibility Amount Calculation and corporate guarantee by Rescon Alaska and Pioneer Earthworks (Appendix A). The guarantee is based on the cost for treatment of the maximum storage quantity and accounts for trucking the material from Anchorage to the Republic Services thermal treatment facility in North Pole, Alaska.
2. Proof of general liability and environmental pollution liability insurance for the facility (Appendix B).

Prior to the acceptance of soil greater than the initially approved quantity, STT will provide a financial responsibility statement as described in 18 AAC 75.365(a)(2)(A). Current insurance documents or other financial instruments will be provided to ADEC upon renewal.

2. SITE DESCRIPTION AND BACKGROUND

The 2301 Spar Avenue property where the thermal treatment facility will be located is situated in a commercial/industrial area of north Anchorage, bordered by the Reeve Blvd to the east and Wrangell St to the west and developed properties to the north and south (Figure 2).

On 29 September 2025, STT entered a long-term lease agreement with the Alaska Railroad Corporation (ARRC) for operation of the thermal desorption facility at the property. Thermal treatment operations have been conducted at the property since Clean Soils Incorporated (Clean Soils) commenced operations in 1993. In 1998, the lease and thermal treatment unit was transferred to Alaska Soil Recycling (ASR), which continued treatment operations until 2024.

2.1. 2025 ASR Site Closure Investigation

In June 2025, a subsurface soil investigation was conducted on behalf of ASR in accordance with an ADEC-approved Closure Plan for the facility. The closure investigation activity was conducted to confirm that secondary contamination had not occurred at the site as the result of the past storage of impacted material and/or the thermal treatment operations. The closure investigation activity, conducted by ASR's environmental consultant contractor, Shannon & Wilson, Inc., (S&W), consisted of the advancement of 11 soil borings on the property to the depth of groundwater, ranging between 4.5 and 7.5 feet below ground surface (bgs). The soil boring locations were positioned both around the concrete paved contaminated soil containment area and within the treated soil staging area. Laboratory analysis of the soil boring samples detected the presence of low-level naphthalene impacted soil above the ADEC Migration to Groundwater (MTG) cleanup level at two boring locations in the treated soil staging area. The remaining analytical results were all either below laboratory detection limits or reported below the most stringent ADEC regulatory criteria.

Following receipt of the analytical report, ASR excavated approximately 30 yards of soil from the two boring locations with the detected naphthalene contamination. The excavated soil was transferred and stockpiled in the contaminated soil staging area (Figure 3) to be subsequently thermally treated by STT following approval of this Operations Plan.

S&W collected 11 analytical soil samples from the two excavations following the excavation. Laboratory analysis of the samples determined that one sample location at each excavation contained a persistent naphthalene concentration above the respective ADEC cleanup limit. S&W evaluated the naphthalene results from the June and August 2025 sampling events using a 95-percent upper confidence limit (UCL) statistical method. A total of 11 detected results and 10 non-detected results from samples from both the June 2025 soil boring investigation and the August 2025 excavation were used for the UCL statistical analysis. The UCL statistical analysis calculated, with 95% confidence, a remnant naphthalene concentration in the subsurface soil of 0.0238 mg/kg, which was

below the DEC Method Two cleanup level of 0.038 mg/kg listed in 18 AAC 75 (ADEC, 2023).

2.2. 2024/25 Annual Groundwater Monitoring

The analytical data from the subsurface soil investigations for the Closure Plan was also supplemented by the results of groundwater samples collected in the fall of 2024 from four existing monitoring wells at the site. In accordance with the requirements of the former ASR Operations Plan, annual groundwater sampling of the four site wells was required to monitor for evidence of contaminant impacts. Historical groundwater monitoring had previously documented the presence of benzene and gasoline range organics (GRO) contamination at monitoring well MW-6, situated at the northwest corner of the contaminated soil containment cell. The most recent contaminant exceedances at that location were reported in 2010 with the detected concentrations of both contaminants exhibiting declining or stable trends thereafter.

The 2024 sampling activity was conducted in November 2024 following the ceasing of all thermal treatment operations by ASR. The results of the groundwater monitoring activity detected contaminant concentrations of the petroleum compound residual range organics (RRO) and the volatile organic compound (VOC) trichloroethylene (TCE) at MW-5 situated at the upgradient extent of the property (Figure 3). Concentrations of TCE had been detected at this well in five of the seven most recent annual monitoring events and was attributed to an unrelated offsite source. However, the RRO result was not consistent with historical monitoring results at the well. A subsequent groundwater sampling activity of the well was conducted in January 2025 to verify the presence of the contaminant in the groundwater. The analytical results from that event did not report any detectable petroleum concentrations. As a result, the November RRO result was attributed to an anomalous detection.

2.3. ASR Site Closure

Based on the findings of the UCL statistical analysis on the remnant naphthalene concentration in the subsurface soil and the absence of contaminant impact in the area groundwater from onsite operations, S&W recommended ADEC approval of the closure of the facility. ADEC granted ASR the closure determination on September 10, 2025.

In accordance with 18 AAC 75.365(a)(4), prior to startup of operations, an offsite treatment facility must complete a background contamination assessment of the facility property for ADEC review. The ASR closure investigation and remedial activities detailed above were intended to comply with the requirements for the background contamination assessment.

3. CONTAMINATED SOIL ACCEPTANCE AND TRACKING

All soils accepted for thermal treatment must be characterized prior to arrival at the facility. Soils accepted for treatment must be analyzed by a laboratory that is certified through the ADEC Laboratory Certification Program and provide STT with an analytical laboratory report. Generator knowledge can be used for petroleum contaminated waste where the source of the release is known and the waste is not mixed with waste from releases from other sources. The SRU at the STT facility will only accept petroleum-contaminated soil, which includes soil contaminants:

- Gasoline-range organics (GRO)
- Diesel-range organics (DRO)
- Residual-range organics (RRO)
- Petroleum-volatile organic compounds (PVOCs)
- Polyaromatic hydrocarbons (PAH)

STT will also accept and thermally treat spent granular activated carbon (GAC) from contaminated sites provided the following requirements are met.

- The analytical results of a representative sample collected from the GAC material meets STT's acceptance criteria, and
- The client provided a signed ADEC Transport Form for the waste.

The ADEC Solid Waste Program of the Division of Environmental Health determined that STT operations will be exempt under 18 AAC 60.005(d), because the GAC intake and treatment rate will remain below 5 tons per day or 10 tons per single batch. As a result, a Solid Waste permit will not be required for GAC acceptance. Received GAC material will be commingled with existing soil stockpiles in the containment area.

Soils with non-petroleum contaminants that can be thermally treated may be accepted on a case-by-case basis through coordination with ADEC. In accordance with the system calculations in the ADEC Division of Air Quality, Air Permit application the SRU will be capable of thermally remediating soil contaminated with chlorinated compounds up to a specific concentration threshold (determined based on the molecular composition of an individual chlorinated compound).

However, prior to commencing any thermal treatment operations of chlorinated soils, STT must conduct a source test (using an unbiased third-party company for developing the testing plan and conducting the source test) to determine the maximum feed rate for effective operation. The results of the source test and the determined feed rate will be reported to ADEC for review and approval.

Additionally, STT will require any client requesting treatment of chlorinated soils at the facility to first analyze the soil for dioxins and furans using EPA test Method 8290A. Due to the potential for dioxins to be formed during thermal processing via precursor synthesis or "de novo" synthesis, the post treated soil will also need to be analyzed for the compounds (in addition to the chlorinated compounds). As a result, STT will first require

verification of the absence of dioxins and furans in the material prior to acceptance. Any material contaminated with chlorinated compounds will be handled and stored in separate stockpiles from the petroleum contaminated soil.

STT will not accept any characteristic or listed Resource Conservation Recovery Act (RCRA) hazardous waste in accordance with 40 CFR Section 261. Soil from industrial sites or other locations where the waste may have metals or contaminants that are not petroleum or petroleum constituents cannot be accepted on Generator Knowledge.

The following information must be provided to STT before acceptance and treatment of soil can begin:

- Copy of Spill Report to ADEC if applicable. Identify if spill is from a regulated underground storage tank (UST), a leaking UST (LUST) number or an ADEC Contaminated Site File number.
- Contaminated soils must have been generated by a known or declared responsible party who accepts responsibility for the contaminated soil.
- Written approval from ADEC to transport and treat soil at the STT site in Anchorage. Contaminated soil must be covered and transported in compliance with 18 AAC 50.0615.
- Estimated quantity of contaminated soil (cubic yards) to be delivered from each responsible party.
- The contaminants associated with the impacted soil and an analytical laboratory report with contaminant concentrations; STT will only accept petroleum-contaminated soils.
- Soil type (i.e. peat, gravel, sand etc.).

STT will not allow any soil to be delivered to the site if the above requirements have not been met. Each potential client will be required to complete a Soil Waste Profile Form prior to soil acceptance (Appendix C). The client is responsible for removing all wood, metal, plastic and other debris from the contaminated soil prior to delivery at the site. Any encountered non-treatable material will be segregated at the facility and be put in a suitable container and disposed of at an approved facility.

3.1. Delivery and Waste Disposal Tracking

All soil delivered to STT must be transported as covered or contained loads. All trucks will be weighed on the State of Alaska certified platform scale at the entrance to the property and a scale ticket will be generated for weight tracking. After the truck has been weighed, the truck will enter the soil containment cell and dump its contents directly onto the concrete containment pad. Upon exiting the contaminated soil cell, the empty trucks will return to the scale for an "empty" or tare weight for calculation of the delivered weight of soil generated for that respective client (or project).

STT will assign unique Job Numbers to each project. This number will be used to track the quantity and source of soil arriving at the facility. The example form used for control and soil tracking is included in Appendix D. Upon completion of delivery for each project

the total tonnage of soil delivered to the facility will be reported to the client via a Certificate of Disposal.

The received contaminated soil will be deposited into commingled stockpiles and managed uniformly throughout the treatment process. As a result, all treated soil will be analyzed for the same suite of compounds, as described in Section 5 detailing the post-treatment soil testing. Additionally, STT will include the ADEC Transport, Treatment, and Disposal Approval (TTDA) forms for all individual soil sources in the post-treatment soil submittals to ADEC until the containment cell is completely empty of contaminated soil. At that point, STT will notify ADEC that the containment cell is empty and the compiled TTDA forms will be archived.

4. ENGINEERING PLAN

In accordance with 18 AAC 75.365(1)(E), an Engineering Plan is required for a Category D facility to demonstrate the adequacy of the soil and water containment constructions in preventing deleterious impacts to the surrounding environment. The following sections of this Engineering Plan details the facility location and layout and the control measures to implemented to comply with the requirements of the ADEC Operation Requirements for Soil Treatment Facilities (ADEC, 2013).

During plant or heavy equipment operations, all onsite personnel, including facility staff, third party QEPs and site visitors will be outfitted in Level D personal protective equipment (PPE), consisting of at minimum; hard hat, hearing protection, eye protection, high visibility vest, work gloves and protective footwear approved for use by the Occupational Safety and Health Administration.

4.1. Facility Configuration

The thermal treatment unit will consist of a direct fired Gencor SRU with a design throughput of 25 tons per hour for remediation of petroleum contaminated soil. The soil will be stored in covered storage piles inside an 56,950 square foot containment area as shown on Figure 3. A plan view image of the SRU configuration including the hopper feeder, rotary kiln drum, baghouse filter unit and thermal oxidizer is depicted on Figure 4. A detailed description of the soil receiving, storage, treatment and sampling procedures is provided below.

4.2. Operational Layout

The facility operational layout plan on Figure 3 shows the staging location for the contaminated and post-treated soil, the non-domestic wastewater management system and the configuration of the thermal treatment unit. A copy of the historic as-built of the property completed by Dowl Engineers, detailing the containment cell construction is provided in Figure 5. The 170 foot by 335-foot contaminated soil containment cell is completed with 12-inch-thick petroleum-resistant concrete pavement above a buried PVC liner. At the request of ADEC, prior to accepting contaminated soil at the facility, STT repaired any degradations or cracks in the concrete pavement to ensure the integrity of the containment. The cell is bordered by watertight curbs and was constructed with drainage contours to route runoff to a centralized subgrade concrete sump on the south side of the cell. A description of the water collection and treatment system is provided below in Section 4.7. Pre-cast concrete blocks are stacked up to 5 feet high along the north side of the contaminated soil cell as shown on Figure 5. Inspection and maintenance of containment cell is discussed below in Section 4.8.

The 270-foot by 150-foot area post treated soil staging area is bordered by pre-cast concrete blocks stacked 10 feet tall for soil containment. During the summer of 2026, STT will install a hard surface liner (asphalt pavement) along the vehicle driveway and the northern half of the post treatment storage area (north of the vehicle driveway, Figure 6).

The hard surface liner will be installed to comply with 18 AAC 75.365(a)(1)(D), which necessitates “provisions for complete containment of the contaminated soil before, during, and after treatment until the contaminated soil meets the applicable ADEC cleanup levels”. It will also be designed to meet the requirements for a Category D facility as detailed in the ADEC Technical Memorandum Operations Requirements for Soil Treatment Facilities (ADEC, 2013).

Until the completion of the hard surface liner in the summer of 2026, all post-treated soil will be staged in the contaminated soil containment area in a segregated stockpile for post-treatment sampling. Upon verification via the sample results that the treated soil meets ADEC criteria for reuse, the soil will be transferred outside the containment cell and stockpiled in the clean soil staging area along the south side of the vehicle driveway as available fill material for use in accordance with ADEC restrictions.

Additional structures or equipment on the property include a trommel screen at the southeast corner of the containment cell for segregating out oversized material, the truck scale at the entrance to the property (southwest corner of the lot), an office trailer and storage containers for housing tools and supplies. To prevent unauthorized visitors and trespassers, chain link fencing encloses the contaminated soil cell, including the SRU, the equipment and supplies trailers and the onsite office.

4.2.1. Contaminated Soil Management

All received soil will be deposited within the bermed containment cell where any free liquids leaching from the soil are allowed to drain and are routed to the subgrade sump and the water treatment system. Once deposited in the containment cell, the contaminated soil will be stockpiled by front end loaders and covered under 6-mil reinforced liners. The liners will be secured with sand bags and/or tires to prevent displacement.

The contaminated soil will remain within the containment cell through all phases of the treatment process until it exits the treatment system. The soil will be comingled to maximize soil storage pre- and post-treatment and soil with elevated moisture content will be aggregated with dryer material to reduce leaching from the pile. Comingled soil will be tracked together from arrival at the facility, during treatment, sampling and removal from the facility.

The stockpiles will remain covered under liner at all times, (except for portions being actively worked), to prevent exposure to wind and precipitation. Only the working portion of a pile will be uncovered to enable access for adding or transferring soil to the SRU or the trommel. As the need to access a specific stockpile is satisfied the cover will be replaced and secured with tires and/or sand bags.

Facility personnel will inspect the condition of the liners daily. Any liners with evidence of damage or degradation will be immediately replaced. Additionally, STT has installed live feed high-definition video cameras throughout the facility for monitoring site conditions during periods of inactivity or winter shutdown.

4.2.2. Screening Oversized Material

Soils delivered to the facility with oversized material will be processed through the trommel screen for pretreatment segregation of material greater than 2-inch in diameter before entering the thermal treatment process. The trommel screen will be situated in the southeast corner contaminated soil cell as shown on Figure 3. Oversized material from the trommel will be inspected to ensure contaminated soils have been removed. The oversized material will be processed additional times, as needed, through the trommel to remove contaminated soil stuck to the material. If the oversized material is too saturated for the trommel plant to knock off the soil, it will be washed using a pressure washer to remove any residual material. The rinse water will be captured in the containment sump and will be treated as described below. The oversized material will then be stored onsite with the treated soils for reuse in accordance with the ADEC Technical Memorandum: Petroleum Hydrocarbon Cleanup for Oversize Material (ADEC, 2005).

4.3. Detailed Process Description

Once soil is ready for treatment it will be transported via front end loaders to the process feed hopper. The front-end loader will transfer the contaminated soil from the stockpiles to the 10-cubic yard (cy) feed hopper via the paved access ramp on the east side of the hopper (Figure 4). The soil will be discharged from the hopper onto a conveyor belt equipped with a scavenger magnet and a weigh belt. The magnet will remove any remnant metallic debris from the soil. Subsequent to the magnet the weigh belt will be used by the plant operator for monitoring the feed rate and calculating the daily treated volume totals. The belt is run by a variable speed direct current (DC) drive so that the feed rate can easily be controlled.

4.3.1. Rotary Dryer Drum

The conveyor belt will deposit the soil into a 4.5-foot diameter rotary dryer drum for thermal desorption treatment. The thermal desorption process will occur as energy is transferred to the soil as it is tumbled by lifting flights in the rotating drum amidst hot combustion gases of the primary natural gas-fired burner. In addition to heating the material, the dryer drum will convey the soil through the drum. A 23.1 million British Thermal Units (BTU) natural gas fired burner supplies the heat for the drying process, and as the heat is transferred progressively between the hot gases and the solid feed, the moisture and other volatiles are evaporated. Heat transfer is further enhanced by the veiling action of the specially designed flights in the dryer. As energy is transferred to the soil matrix the offending contaminants are heated, converted to their gaseous phase and transported from the dryer, away from the soil, by the products of combustion generated by the primary burner. The material output exiting the dryer drum will consist of the treated soil and a vapor quotient containing the gaseous phase compounds and suspended fine particulate matter.

4.3.2. Baghouse Filter

The generated steam, heated gasses and suspended particulates will be processed out of the drum and into the baghouse where finer particles are filtered out by an array of high

efficiency filter bags. The baghouse is equipped with a 20 horsepower (HP) baghouse auger and a TECO AEHE Type, 50 HP induced draft fan to pull in the vapor quotient. The primary air emission control function of the baghouse is the reduction of particulate matter; with a 99.8% particulate extraction efficiency. The 238 filter bags in the baghouse will collect the dust and fine particles on their surface while allowing the remaining exhaust air to pass on through a plenum to the fan. Dust retained on the filter surface builds up a cake and offers more resistance to the air flow. In order to keep flow smooth, the bags are cleaned by dislodging the dust cake by introducing a sequence of highly compressed air pulses (shock waves) at the top of the bags. The frequency and duration of the pulses is controlled by an electronic timer. The dislodged dust from the filters in the baghouse will then be homogenized with the thermally treated soil and transferred to the soil conditioner by a 12-inch auger located under the filter housing. Water mist injection ports are located on the baghouse that is used to inject clean water into the airstream as needed to maintain a minimum relative humidity. The minimum relative humidity level is needed to ensure combustion does not occur in the baghouse.

4.3.3. Treated Soil Process Stream

The treated soil will exit the rotating drum at approximately 600 to 700°F (discharge temperatures may vary depending upon contaminant type, moisture content of the soil and the geotechnical properties of the soil being processed). The soil will exit the dryer drum and be transported to a mixer/cooler via an auger under the filter housing where the coarse and particulate fines are recombined and the soil is hydrated with clean water in the soil conditioner and cooled to approximately 250°F prior to being discharged onto a stacking conveyor. A front-end loader or dump truck will be utilized to transport the treated soil from the soil conditioner outfall to the Treated Soil Storage Area (Figure 3). The loader will be equipped with dedicated buckets for handling clean and contaminated soil to avoid contaminating the post-treated soil.

4.3.4. Air Process Stream

After passing through the baghouse, the filtered gas vapor will then be pulled away by a centrifugal fan and transferred to the thermal oxidizer for volatile contaminant destruction. The oxidizer consists of a refractory lined chamber equipped with a burner that directly fires into the chamber fueled by natural gas. The 23.6 million BTU burner in the thermal oxidizer will maintain an operating temperature of 1,500°F with a higher heating value (HHV) of 1,000 BTUs per cubic foot (BTU/CF) to ensure an emissions destruction rate of 99%. The treated gases are then exhausted to the atmosphere at approximately 800°F.

In accordance with the ADEC Division of Air Quality Emission Standards, the following operating requirements will be maintained at all times via the constant operation of the baghouse and thermal oxidizer.

- Effluent exhaust shall not reduce visibility by more than 20% averaged over any six consecutive minutes.

- STT shall maintain and comply with its Fugitive Dust Control Plan to control the generation of fugitive dust.
- Particulate matter from effluent exhaust shall not exceed 0.05 grains per standard cubic foot (gr/scf) of exhaust gas corrected to standard conditions and averaged over a period of three hours.
- Sulfur compound emissions, expressed as SO₂, shall not exceed 500 ppm averaged over three hours.

4.4. Startup and Shutdown Procedure

The entire system is controlled by a Genco Genie™ Semi-Automatic Burner Control System. Burner management and process control is accomplished with a solid-state control system. The control is used to control the startup sequence, firing rate and safe operation of the dryer and thermal oxidizer afterburner. The dryer burner control includes a burner management system to prevent startup of the burner unless specific state conditions exist. The dryer drum will be maintained between 600 and 700°F to ensure conditions are sufficient for thermally remediating the contaminated soil. The control will also shut down the burner if specific unsafe conditions exist.

The thermal oxidizer control is interlocked with the exhaust fan, and the temperature control function is proportional action around the preset balance of stack gas temperature and burner position.

4.4.1. Startup

Power to the SRU is provided by electricity from Chugach Electric Association that is hard wired to the property. Initially, the main power switch, the exhaust fan, fuel pump and air compressor are turned on. Power lights will indicate that the main power and exhaust fan are on and ready for operation. Then the dryer burner blower is powered on and after approximately 30 seconds of purge time, a ready light will come on. Once the indicator on the burner position meter is at zero, the discharge conveyor, mixer and baghouse augers, dryer, baghouse dust augers and dryer feed conveyor can all be powered on.

The power is then turned on to the Gen III and AR7. The dryer system will be purged by depressing the burner start button to ignite low fire. A low fire light will come on and a ready light will go off. The baghouse will then be preheated for 15 minutes at 250°F. The thermal oxidizer blower burner is turned on and a blower light will come on. After approximately 30 seconds of purge time, a ready light will come on. Personnel will wait for the indicator on the burner position meter to go to zero before proceeding. The start button on the thermal oxidizer will be depressed to ignite low fire and the low fire light will come on and the ready light will go off. At this time the feed hopper gates will be opened, and the feed belt will be started at minimum speed.

With the complete plant running, the main fire switch will be turned to the “on” position and the main fire light will come on. With the auto/manual switch on dryer control in the “manual” position, the burner will be opened with the manual burner control switch. The burner remains open until the desired material temperature is reached on the meter. Then

the auto/manual switch is turned to the “auto” position and the automatic control burner is operational. These steps will be repeated on the thermal oxidizer (afterburner) control to complete the startup process.

4.4.2. Shutdown

Shutdown of the system is initiated by stopping the feeder. The main fire switch is turned off on the dryer burner and the main fire light will go out while the low fire light comes on. When the stop button is depressed, the low fire will go off and, after a purge period, the ready light comes on indicating that the system is ready for re-ignition. The plant will be allowed to run for 10 minutes. Then the thermal oxidizer main fire switch will be turned off at the burner. The exhaust fan, dryer and discharge system will run for at least 30 minutes to allow for plant cooling.

After the drum has emptied and cooled down, the discharge system will be stopped as well as the drum, exhaust fan and compressor. The final step in shutdown is to turn the main power off. Any soil that exits the SRU after the shutdown process has begun will be returned to the contaminated soil stockpile area.

4.5. Maximum Process Flow Rates

Maximum production throughput is 25 tons per hour, but throughput can vary based on contaminant type and concentration, soil characteristics and soil moisture level. Soil with higher moisture content will be treated with a longer residence time in the dryer to ensure it is remediated at the optimal soil temperature for complete treatment of contaminants. The effective retention time in the rotary drum for thermal desorption of contaminants ranges between approximately 7 to 12 minutes depending on varying material characteristics, including; moisture content, soil type and contaminants and concentrations.

4.6. Control and Tracking Treated Soil

As treated soil exits the processor, the material will be transferred via a loader to the 1/2 acre Treated Soil Storage Area (Figure 3). The Treated Soil Storage Area is bordered by a 10-foot-tall concrete block wall. The treated soil will be deposited into linear “windrow style” stockpiles of approximately 1,000 cubic yards (or 1,300 tons) in this area for post treatment screening and sampling. The individual stockpile rows will be segregated to enable discrete pile marking, sampling and tracking. The storage area configuration allows for stockpile rows up to 150 ft long on the north side of the driveway. The stockpiles will be consistently wetted via diffusion water sprayers with treated water (or potable city water) to prevent dust accumulation on site as described below in Section 4.8.

When completed, each stockpile row will be marked with red cones and tracked with the following information listed below.

- Location (Row Number Identifier)
- Generation Date
- Stockpile Quantity

- Corresponding Number of Required Field Screenings and Analytical Samples (per Table 2A of ADEC Field Sampling Guidance (ADEC, 2024)).
- Sample Collection Date

The stockpile sample locations will be marked with pin flags that will remain in place until receipt of the analytical sample results. In the event that a sample result indicates that the soil does not meet the most stringent ADEC Method 2 soil cleanup criteria for unrestricted use, the soil from that location will be removed and reprocessed through the SRU for further treatment.

A post-treatment log will be maintained documenting the stockpile location, the soil quantity, the material input source(s), the analytical results, as well as the date of receipt of the ADEC approval authorizing reuse of the treated material. Upon receipt of the ADEC notification that the soil is available for reuse, facility staff will replace the red cones bordering the stockpile with green cones enabling clear identification that the soil is available for removal and reuse in accordance with ADEC restrictions.

4.7. Nondomestic Water Control, Containment and Processing

The onsite storage of soil impacted with petroleum hydrocarbons necessitates implementation of engineering controls (ECs) to prevent contaminant releases to the surrounding environment. The primary contaminant mobilization mechanism is surface runoff. To safeguard against this mobilization concern, STT has developed multiple ECs pertaining to water containment, soil exposure mitigation, and water collection and treatment.

4.7.1. Contaminated Soil Cell Containment

As noted above in Section 4.2, the 170 foot by 335-foot contaminated soil cell is completed with 12-inch-thick petroleum-resistant concrete pavement and bordered by watertight walls and curbs for water containment. At the entrance to the cell along the northern portion of the west side the elevated topography of the driveway relative to the containment cell will impede runoff migration in that direction.

The contaminated soil containment cell is contoured to route surface runoff towards a single subgrade collection sump positioned near the midpoint of the southern extent of the cell (Figure 5). With the contour design, any liquids draining from imported material, washed off of oversized material or via precipitation runoff will be routed to the subgrade catch basin sump. Any precipitation that falls on the plant or loading ramp will also be routed via the cell contours to the containment cell and to the containment sump.

4.7.1.1. Containment Soil Cell Water Storage Capacity

According to the National Oceanic and Atmosphere Administration's (NOAA) National Weather Service, Hydrometeorological Design Studies Center, Precipitation Frequency Data Server database for Alaska, a 10-year storm event in the region would generate 1.05 inches of precipitation over a 6-hour period (NOAA Atlas 14, Vol. 7, Ver.2). Under those

conditions, the potential quantity of water that could be generated within the 56,950 sq ft containment cell area, over a 6-hour period is calculated below.

- 56,950 sq ft x 1.05 inches of precipitation in a 6-hour period = 4,983 cubic feet of water
- 4,983 cubic feet of water = 37,276 gallons of water per 6-hour rainfall event.

The holding capacity of the south side of the curbed and sloped containment cell, that surrounds the drainage sump, is 39,022 gallons. This is the amount of water that the containment cell can hold before the water level rises above the elevation of the curb on the south side of the containment area (109.63' AMSL). Therefore, the holding capacity of the concrete containment cell can contain the runoff generated during a 10-year storm event, with a 6-hour duration.

4.7.2. Treated Soil Storage Area Containment

As noted above in Section 4.2, in the summer of 2026, STT will contour and pave the vehicle driveway and the Treated Soil Storage Area to the north of the vehicle driveway.

A detail of the installation and drainage design of the hard surface liner is presented on Figures 7,8, and 9. Prior to paving the area, the ground surface will be graded and contoured to route nondomestic water drainage to a collection sump at the northwest corner of the property, which will be pumped into the water treatment system (described below).

The hard surface liner will consist of 2-inch-thick petroleum resistant asphalt bordered by 12-inch tall curbs along the concrete block walls to the north and west for water containment. Along the southern edge, the paved vehicle driveway which will maintain an elevation above the soil storage area throughout the entire grade that will provide runoff to the North into the containment area.

The grade design of the containment area is shown on Figure 8. The collection sump receiving the runoff will be a low point on the Northwest corner of the containment area, with a holding capacity of 3,900 gallons. An asphalt curb will be constructed around the North and West walls of the sump area extending 16-inches above the grade to ensure water containment (Figure 9). An aerial image of the drainage contours of both the containment cell and the treated soil storage area is displayed on Figure 10.

4.7.2.1. Post-Treated Soil Storage Area Water Storage Capacity

Utilizing the (NOAA) Precipitation Frequency Data Server for a 10-year storm event, the potential quantity of water that could be generated within the 20,560 sq ft containment cell area, over a 6-hour period is calculated below.

- 20,560 sq ft x 1.05 inches of precipitation in a 6-hour period = 1,800 cubic feet of water
- 1,800 cubic feet of water = 13,457 gallons of water per 6-hour rainfall event.

The total holding capacity of the Treated Soil Storage Area following the hard surface upgrades will be 3,900 gallons before the water level rises above the elevation of the curb

on the north and west sides of the storage area. Therefore, the holding capacity of the asphalt concrete containment cell can contain the runoff generated during a 10-year storm event, with a 6-hour duration.

4.7.3. Water Handling and Processing

Submersible pumps, with automatic float controls, will be installed in both drainage sumps for active dewatering. Additionally, the pumps and water containment are monitored by remote cameras and pumps can be activated remotely by the plant operator. The sump pumps will be a Site Drainer SD750 submersible pump, or equivalent, capable of pumping 60 gallons per minute (gpm) at 10-foot total dynamic head (TDH). A filter trap will be connected to the pump to remove any suspended sediments prior to treatment. The pumps from the contaminated soil area and the treated soil area will be connected via 2" Tigerflex hose to a 5,000-gallon settling tank for separation of suspended solids prior to treatment.

The accumulated water in the settling tank will be pumped, using an in-line 60 GPM pump, through a multi-stage pre-filtration assembly prior to flowing into a GAC filter. The filter assembly consists of a 50-micron and a 10-micron filter, in series, to remove any remnant suspended solids and protect the downstream GAC media from sediment loading and maintain maximum hydraulic performance and adsorptive efficiency of the GAC media for the removal of contaminants. Treated water is pumped from the GAC vessel, through an in-line flow totalizer, then into a 10,000-gallon holding tank for plant use or disposal as described in Section 4.7.4 below. A diagram of the water treatment system is displayed on Figure 11.

In order to balance treatment rates with pump flow rates, a 1,000-gallon treatment vessel will be charged with approximately 3,369 pounds of GAC corresponding to an effective media volume of roughly 120 cubic feet based on typical bulk density values. Water will be conveyed through the system at a controlled flowrate of 60 gpm (equivalent to approximately 8.0 cubic feet per minute). At the design flowrate of 60 gpm, the system will provide an Empty Bed Contact Time (EBCT) of approximately 15.0 minutes, consistent with industry best practices for achieving effective removal of VOC and petroleum fuel contaminant constituents where an EBCT of 10-20 minutes is prescribed. A copy of the EBCT calculation is provided in Appendix E.

Field staff will conduct weekly inspections of the settling tank to quantify sediment accumulation. When sediment accumulation, exceeds 25% in the settling tank, STT will flush the sediment out through a clean-out port directly onto the containment pad. The sediments will then be transferred to a pre-treated soil stockpile in the containment area for thermal treatment. No sheen or free product should be filtered through the GAC canisters as this will rapidly exhaust their treatment capacity. If sheen or free product is observed prior to treatment in the contained water on the pad or in the settling tank, sorbent pads shall be used to remove the product so that only water with dissolved-phase hydrocarbons pass through the filter. The used sorbent materials will be bagged and

transported to Republic Services or Environmental Compliance Consultants for manifesting and disposal at Waste Management's landfill in Arlington, Oregon.

4.7.4. GAC Replacement

For fuel hydrocarbons, contamination breakthrough in the GAC effluent (the point when measurable contaminants are first detected in the effluent) typically occurs when the weight of the contaminants in the influent is equal to approximately 10 percent of the weight of the activated carbon (for example, 3 pounds of hydrocarbons for 30 pounds of activated carbon). Assuming the influent concentration is less than the solubility of diesel fuel (about 5 milligrams per liter [mg/L]), the quantity of water that can be filtered with a 1,000-gallon GAC vessel, with 3,369 pounds of activated carbon, is approximately 8,000,000 gallons.

Calculation:

- $5 \text{ mg/L DRO} \times 2.205 \times 10^{-6} \text{ pounds/mg} \times 3.785 \text{ L/gallon} = 4.173 \times 10^{-5} \text{ pounds of DRO/gallon};$
- $3,369 \text{ pounds of GAC} \times 10\% = 337 \text{ pounds capacity before breakthrough.}$
- $337\text{-pound capacity} / (4.173 \times 10^{-5} \text{ pounds DRO/gallon of water}) = 8,075,742 \text{ gallons of water.}$

However, due to the need to account for other potential POL constituents with different solubilities, STT will employ a conservative GAC retention system to eliminate breakthrough risk. This system will consist of replacement of the GAC following the treatment of every 4,000,000 gallons of water (50% of calculated capacity). Spent GAC will be thermally treated onsite.

A treatment log will be maintained onsite that records weekly, the volume of water that has been treated, recorded from the flow totalizer meter, to determine when the GAC has treated 4,000,000 gallons of water and ensure that the capacity of GAC is not exceeded.

STT will implement a testing method for monitoring the GAC effectiveness. Upon startup of the treatment system following replacement of the GAC, one sample will be collected from the effluent for the full suite of the approved list of contaminants that STT can remediate. Upon verification that the treatment system is effective in removing contaminant concentrations, water treatment activities will commence. This sample will serve as a one off "proof of concept" sample to show that the GAC can effectively remediate contaminants in the accumulated nondomestic water. In addition, subsequent post-treatment samples will also be collected following the treatment of each 1,000,000 gallons of water to ensure continued successful operation up to the 4,000,000-gallon limit for GAC change out.

After the replacement of the GAC upon reaching the 4,000,000 gallon limit or earlier if performed at the start of a season, the totalizer will be reset and subsequent sampling will continue at 1,000,000 gallon intervals.

4.7.5. Treated Water Discharge

The treated water will be utilized for fugitive dust mitigation in the SRU soil conditioner, in the vehicle traffic areas and on the treated soil stockpiles. The water will be sprayed over the treated soil stockpiles and driveways via diffuser water sprayers to keep the soil and areas adequately wetted and reduce potential for dust generation. The treated water will also be regularly used to supply auxiliary cooling in the baghouse or discharged to ground at a designated location on the property at least 100 feet away from any known drinking water wells or surface water bodies as shown on Figure 3. The discharged water will be released in such a manner that it will infiltrate into the ground, will not create erosion or runoff, and will remain within the property boundaries.

4.8. Inspection and Maintenance Plan

Daily plant checks will include monitoring for dust generation at the facility. STT will implement fugitive dust controls, including enforcing a 5 mile per hour maximum speed limit on the property for all vehicles and use of water dispersion spraying as specified above. However, if due to adverse weather conditions (i.e. high winds), the facility controls are deemed not sufficiently effective to suppress dust generation, plant operations will shut down and cover liners will be secured until site and weather conditions improve. Any unplanned shut downs due to emissions, noise or dust will be noted in the daily logs, along with the corrective actions taken and date and time of resumption.

STT personnel are responsible for continual monitoring and housekeeping around the contaminated soil secondary containment storage cell and under the feed system, trommel screen and processor. Any contaminated soil that falls on the ground around the feed system will be cleaned up and placed back in the contaminated soil cell or in the feed hopper for treatment.

STT will maintain Inspection and Maintenance Logs for all equipment and areas of the property. In addition to general housekeeping responsibilities, the weekly inspections to be conducted during active operations will include at minimum the following:

- Concrete and asphalt condition (cracking, gouging, damage, etc.)
- Sediment accumulation in swales
- Catch basin water accumulation
 - Applicable for heavy rainfall overnight or processing of saturated loads the previous day
- Catch basin and joint sealant condition
- Catch basin curb condition
- Stockpile liner conditions
- Flow gauge and totalizer readings on the water treatment system

Potential required maintenance activities (not including scheduled equipment maintenance or repairs are also listed below.

- Repairing degraded areas (e.g. cracks, holes, gouges, etc.) of the concrete slab, asphalt slab, or curbs in the containment areas.
- Replacement of degraded contaminated soil stockpile liners.
- Operability testing of settling tank high level shutoff.
- Sediment control measures
 - Emptying accumulated sediment from subgrade sump and/or the settling tank
 - Periodic replacement of sediment filters on water treatment system as needed to maintain flow.
- GAC Replacement after 4 million gallons of water has been treated through the system.

4.9. Equipment Fuel Storage and Handling

Due to the close proximity to refueling stations in Anchorage, there will be no bulk fuel storage on this facility. On occasion temporary small fuel containers (5-gallons or less) may be stored on-site. All small fuel containers will be stored within secondary containment large enough to hold the volume of any spills.

Duck ponds and absorbent material will also be used during equipment fueling. If a fuel spill occurs outside the containment cell, the impacted soil will be immediately cleaned up until no further fuel odor is detectable. The soil will be thermally treated.

Spills less than 10 gallons will be reported to the plant operator on shift at the time and recorded into the daily log. The time of spill, location, quantity and cleanup actions taken will be documented and reported to ADEC in a monthly report. Spills larger than 10 gallons will immediately be reported to the ADEC and assessed by a Third-Party Qualified Environmental Professional (QEP) in accordance with ADEC 18 AAC 75 regulations (ADEC, 2023). Spill remediation will be conducted by a Third-Party contractor and excavated until confirmation soil samples are below ADEC cleanup levels.

5. SAMPLING, TESTING AND REPORTING

Once the contaminated soil has been thermally treated in the SRU and stockpiled as described above, post-treatment stockpile soils will be sampled to verify that the applicable cleanup levels have been met.

The post-treatment sampling activities will be conducted by a Third-Party QEP or a Qualified Environmental Sampler under direction of a QEP as defined in ADEC 18 AAC 75.333 (ADEC, 2023) and in accordance with the collection and preservation requirements outlined in the ADEC Field Sampling Guidance (ADEC, 2024) and the UST Procedures Manual (ADEC, 2017) to ensure all chemistry data quality objectives are met, and that all data is defensible and usable for the project.

5.1. Post-Treatment Soil Screening and Sampling

The number of field screenings and soil samples collected will be based on the volume and sample frequencies listed in Table 2A of the ADEC Field Sampling Guidance as shown below in Table 5-1.

Table 5-1. Field Screening and Analytical Sample Collection Frequencies

Cubic Yards of Soil	Quantity (in tons)	Required Number of Screenings	Required Number of Analytical Samples
0-10	15	5	1
11-50	75	5	2
51-100	150	1 per 10 cy	3
Over 100	Up to 400	1 per 10 cy, or as the CSP determines necessary	3, plus 1 per each additional 200 cubic yards, or portion thereof, or as the CSP determines necessary

Source: ADEC Field Sampling Guidance, Table 2A. (ADEC, 2024)

5.1.1. Field Screenings

The field screening collection locations will be distributed evenly throughout the stockpiles for comprehensive investigation coverage. The soil will be field screened for the presence of volatile concentrations using a photoionization detector (PID). Soil for field screening samples will be collected from beneath the exposed surface of the soil at various depths throughout the pile, including near the base, with a minimum depth of 18 inches and placed into Quart-sized Ziploc® bags with double lock seals. Each bag will be partially filled with soil and immediately sealed to trap the volatile vapors. The headspace samples will then be warmed to at least 40 °F for a period of at least 10 minutes, but not longer than one hour, to permit headspace vapors to develop in the bag. The screening samples will be agitated for 15 seconds at the beginning and end of the headspace development to promote volatilization prior to screening with the PID. After sufficient time has passed for the development of vapors, the PID sampling probe will be inserted into the bag to

measure the volatile organics. Field screening results for each stockpile will be recorded in a site logbook.

5.1.2. Analytical Sample Collection

After the soil has been screened, grab soil samples will be collected using disposable sampling spoons. The number of samples collected will be determined by the size of the treated soil stockpile in accordance with the sample quantities listed in Table 2A of the ADEC Field Sampling Guidance and specified above in Table 5-1. Soil samples will be collected from the areas with the highest PID screening results. Soil samples for volatile analyses will be collected first, to minimize the loss of volatile compounds. For volatile samples, a minimum of 50 grams of soil will be placed directly into tared 4-ounce jars with a Teflon®-lined septum fused to the lid. Immediately following collection, 25 milliliters (mL) of methanol preservative will be added to the jar to completely submerge (and preserve) the volatile soil sample. Soil will then be collected for the remaining analyses and placed into laboratory-provided sample jars without preservative. A minimum of one field duplicate sample will be collected per every 10 field samples for each matrix sampled for each target analyte. Following sample collection, each jar will be appropriately labeled and immediately placed into a cooler with sufficient gel ice to maintain sample temperatures of 0 to 6 degrees Celsius (°C) during transport to an ADEC approved laboratory.

5.1.2.1. Petroleum Contaminated Soil

Comingled petroleum-contaminated stockpiles will be sampled for all COCs associated with each individual project, including: DRO, RRO, GRO, Petroleum VOCs, and PAHs. Material accepted based on Generator Knowledge will also be analyzed for DRO, RRO, GRO, Petroleum VOCs, and PAHs. The treated soil analytical results will be compared to the most conservative ADEC cleanup criteria for the Under 40-inch Zone listed in 18 AAC 75.341.

5.1.2.2. Chlorinated Compound Contaminated Soil

The treated chlorinated contaminated soil stockpiles will be sampled for the compounds of concern identified on the Waste Profile form and the signed ADEC Transport Form. Additionally, the soil will also be analyzed for dioxins and furans using EPA test Method 8290A to verify that the thermal treatment processes did not produce dioxins in the treated soil. The analytical results for the chlorinated compounds and the dioxin compound 2,3,7,8-tetrachlorodibenzodioxin will be compared to the most conservative ADEC cleanup criteria for the Under 40-inch Zone listed in 18 AAC 75.341. The analytical results for all remaining dioxins and furans compounds will be evaluated using the World Health Organizations (WHO's) Toxic Equivalent (TEQ) methodology.

5.2. Reporting

A record of the individual stockpile identifier, the date/time of thermal processing, post-treatment sampling date/time and final analytical results will be maintained on-site at the STT facility. Upon receipt of the laboratory analytical report, STT will submit the complete

analytical laboratory report, the analytical data in a tabulated format with respective cleanup limits for ADEC approval. In addition, with every post treatment sample report, STT will append copies of all signed ADEC TTDA Forms for the treated soil, the field screening results from the sampling event and a completed ADEC Laboratory Data Quality Checklist.

6. ANNUAL GROUNDWATER MONITORING AND REPORTING

Four monitoring wells are situated along the edge of the contaminated soil containment cell. The wells were sampled annually through 2025 in conjunction with ASR's former Operations Plan. STT will resume the monitoring program in 2026 following ADEC approval of this Operations Plan. Ongoing groundwater sampling of the wells will enable an assessment of the groundwater condition and any impacts, if any, from the operation of the facility.

STT will contract with an unbiased third party QEP to conduct the annual groundwater sampling to provide an ongoing monitoring of the groundwater condition up- and down-gradient of the facility.

Prior to purging the monitoring wells, the QEP will check for the presence and thickness of a free product light non-aqueous phase liquid (LNAPL) using a Solinst® Oil/Water Interface Meter, or similar. Measurements will be collected from a marked location on the north side of top of casing for each well.

The QEP will purge and sample the monitoring wells in accordance with the methods prescribed in the ADEC Monitoring Well Guidance and Field Sampling Guidance. The monitoring wells will be purged and sampled in accordance with the low-flow techniques outlined in the U.S. Environmental Protection Agency (EPA) guidance: Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells (EPA, 2017) and the ADEC Field Sampling Guidance (ADEC, 2024).

An ADEC approved submersible pump will be deployed to within one foot of the top of the water column in the monitoring wells to ensure the samples are most representative of the existing conditions. The groundwater will be pumped through a flow-through cell connected to a YSI 556 meter (YSI) for measuring stabilization of the water quality parameters. In accordance with low-flow sampling requirements, water quality parameters are considered stable when three successive readings, collected three to five minutes apart, are within:

- $\pm 3\%$ for temperature (minimum of $\pm 0.2^{\circ}\text{C}$),
- ± 0.1 for pH,
- $\pm 3\%$ for conductivity,
- ± 10 mv for redox potential, and
- $\pm 10\%$ for dissolved oxygen

A minimum of three (or four if temperature is monitored as an indicator) successive parameter readings within the above listed criteria are required to meet water quality stabilization requirements. While purging, the QEP will monitor the depth to water to avoid water level drawdown greater than 0.3 feet. In the event that minimal drawdown cannot be achieved, three well volumes will be purged prior to sampling. In the event that a low yield well is purged dry before stabilization is achieved, the well will be allowed to recover

until approximately 80% of the initial well volume has recharged prior to the collection of groundwater samples.

Following stabilization of the groundwater parameters, the wells will be sampled for the full suite of contaminant analytes that the facility is approved to treat. Additionally, consistent with the historical monitoring program at the site, the analytical samples will also be submitted for analysis of full list VOCs.

The groundwater will be pumped directly into clean, laboratory-supplied bottles, appropriately labeled, and immediately placed into a cooler with gel ice. Samples submitted for volatile analysis (i.e. GRO and VOCs) will be collected into 40-mL VOA vials preserved with hydrochloric acid (HCl). The vials will be filled completely to prevent volatilization. The containers will be capped, turned over and tapped to verify no air bubbles are present. The remaining sample containers will be filled to the neck of the bottle to ensure an adequate sample volume is provided to the laboratory. The samples will be collected in order of the most volatile to least volatile analytes to ensure a minimal loss of volatile concentrations. Duplicate water samples will be collected at a frequency of 10% for each analysis and/or collected for each sampling day and submitted blind to the laboratory. The purge water will be discharged in the contaminated soil containment cell for processing through the facility treatment system.

6.1. Annual Reporting

STT will provide an annual report documenting inspections and maintenance of the pad and water treatment discharge results. The report will document the results and findings of the annual groundwater sampling collected from the wells on the property. The annual reports will be submitted no later than the end of February of the following year.

7. FACILITY CLOSURE

Upon terminating operation of the treatment facility, STT will submit a closure assessment to ADEC within 90 days after termination. A closure sampling work plan for the property will be prepared for ADEC approval. The closure plan will be developed by an unbiased third party QEP. Sampling procedures will be based on current regulations at the time of closure. The closure assessment will be conducted to assess if secondary contaminant impact occurred at the facility. Analytical samples will be analyzed for GRO, DRO, RRO, petroleum-VOCs, and PAHS.

If secondary contamination did occur at the facility, STT will perform a cleanup of the contamination by in-situ or ex-situ treatment within two years after terminating operations. Contaminated soil detected in or under the contaminated soil storage cell or post-treated stockpile cells will be remediated and treated through the processor, sampled and analyzed as if it were soil from any other project.

7.1. Closure Report

When all areas of the treatment facility have been remediated, assessed and sampled, the Third-Party QEP will provide a Closure Report documenting field screening activities and analytical laboratory data to the ADEC. The report will be submitted within 90 days of facility closure and prepared in accordance with the most current guidance at the time of site closure.

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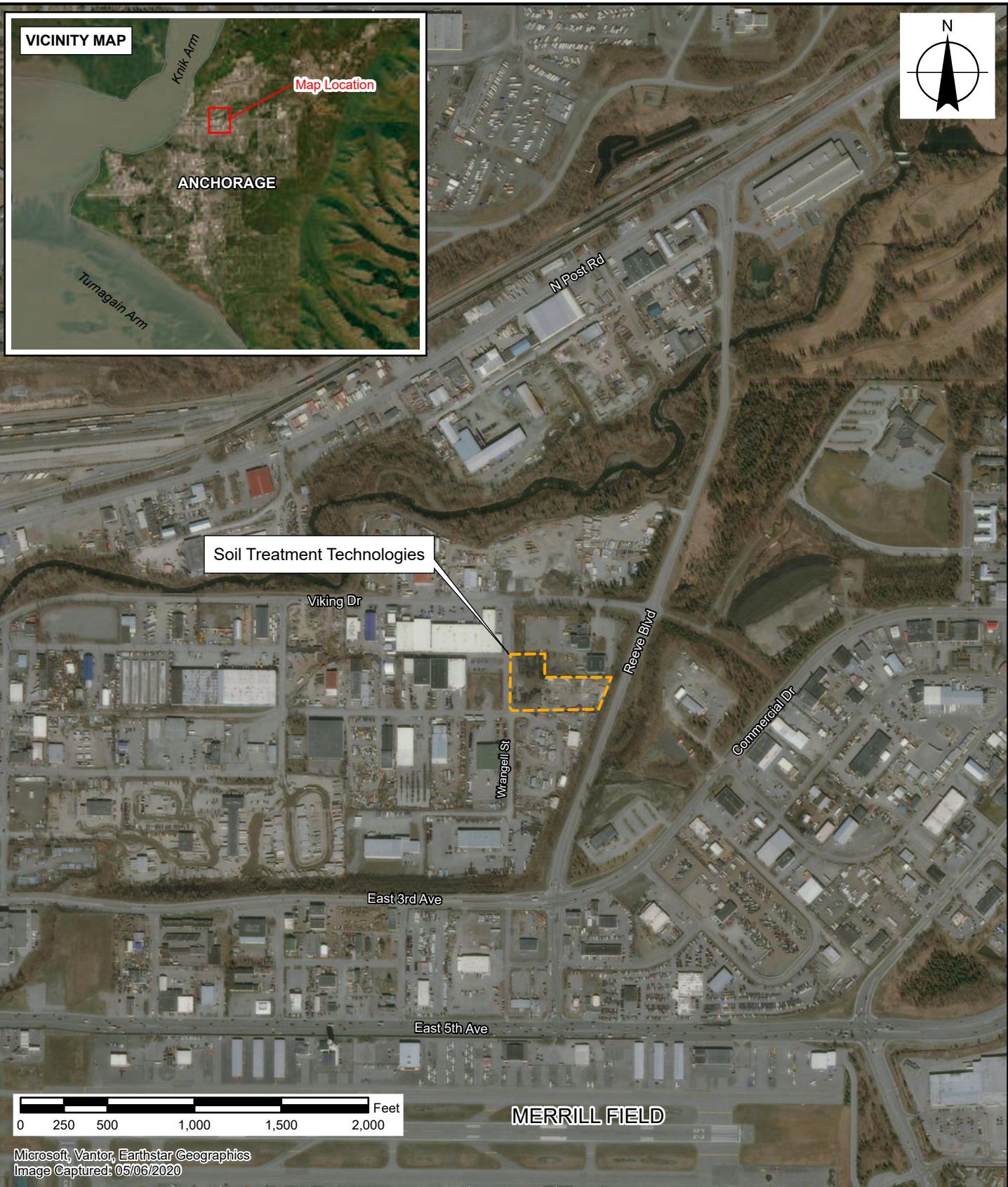
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https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_ak.html, Location: Latitude: 60.7319°, Longitude: -151.2748°.

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FIGURES

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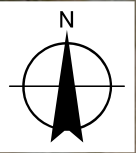

SOIL TREATMENT TECHNOLOGIES
 8361 Petersburg Street
 Anchorage, Alaska 99507
 907-677-7423

SITE VICINITY

 Soil Treatment Technologies
 Anchorage, Alaska

FIGURE

1



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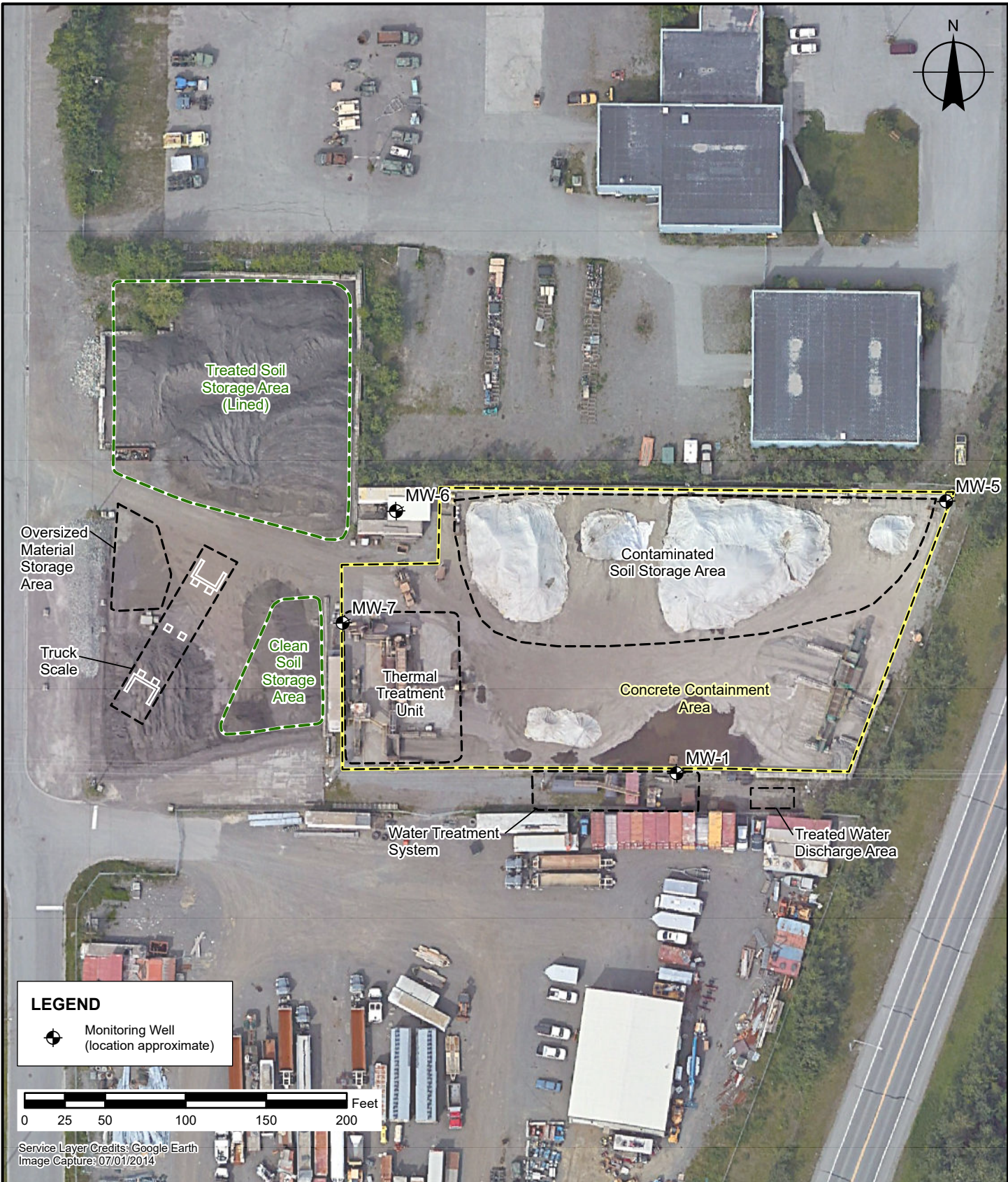
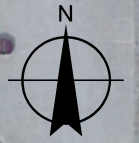

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SITE MAP


Soil Treatment Technologies
Anchorage, Alaska

FIGURE

2



LEGEND

 Monitoring Well
(location approximate)

0 25 50 100 150 200 Feet

Service Layer Credits: Google Earth
Image Capture: 07/01/2014

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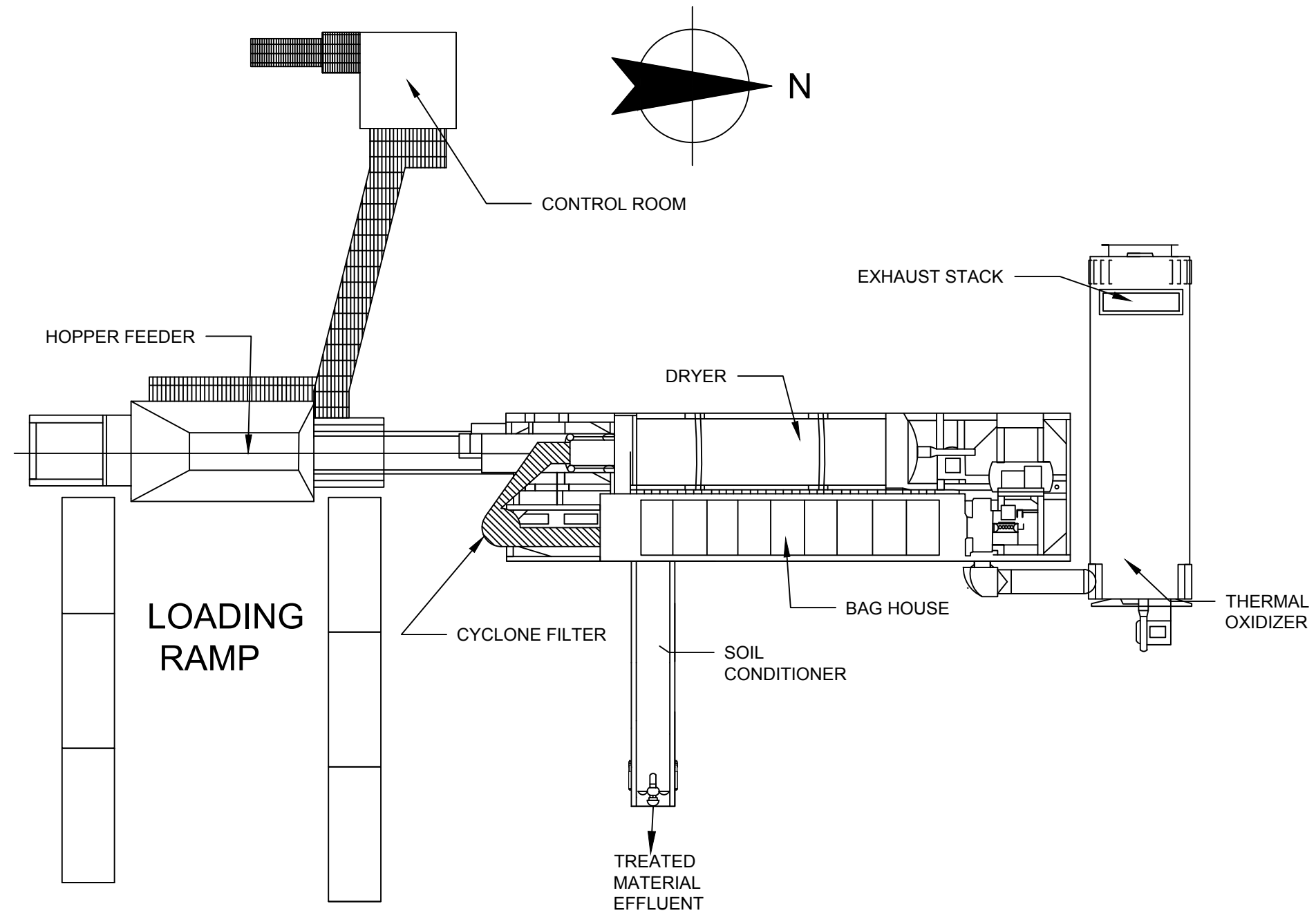

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 Anchorage, Alaska 99507
 907-677-7423

SITE PLAN

Soil Treatment Technologies
 Anchorage, Alaska

FIGURE

3



03/03/2026	REV A
DATE	REVISION

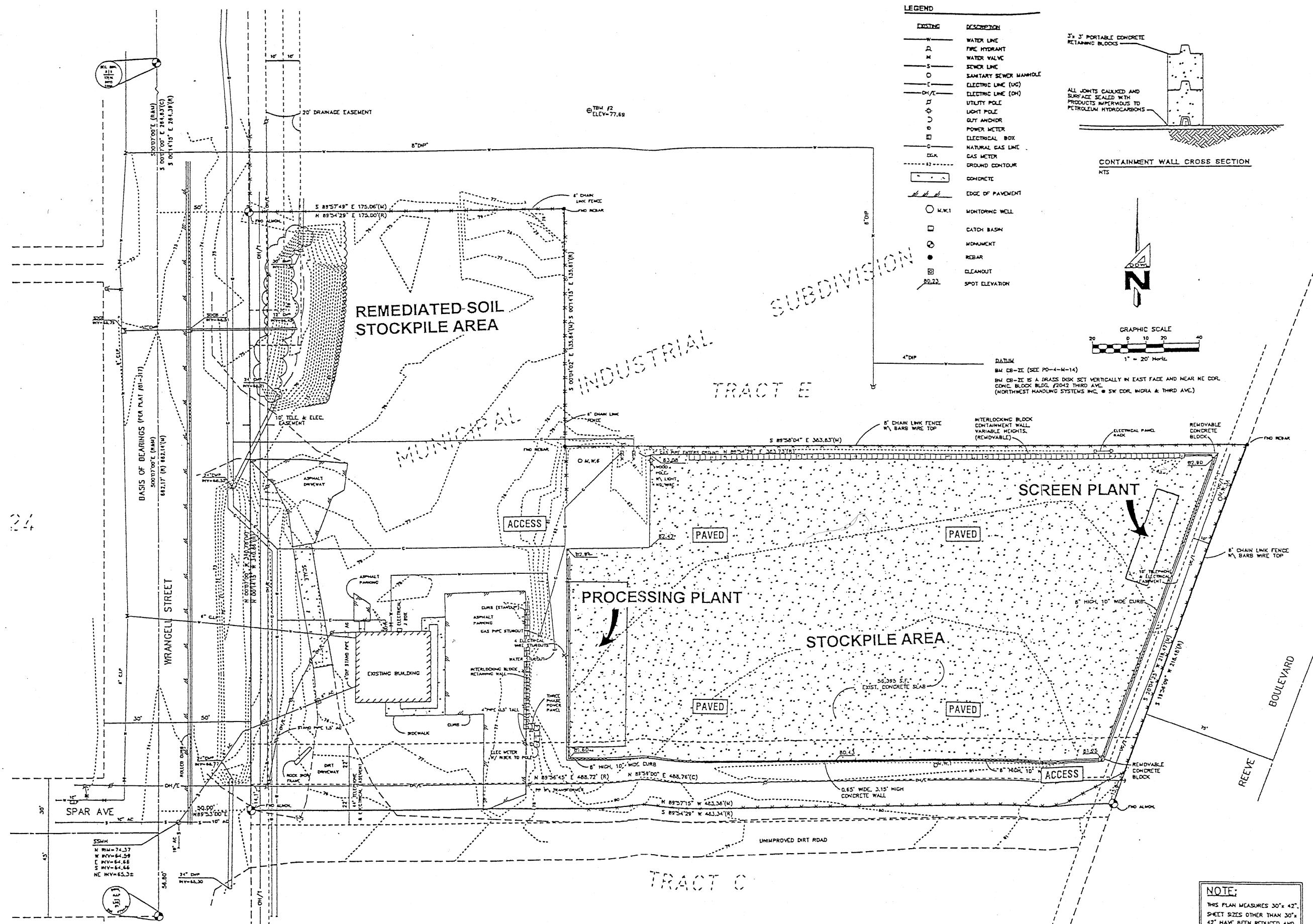


SOIL TREATMENT
TECHNOLOGIES
8361 PETERSBERG ST
ANCHORAGE, AK
99507

REIC:	
PROJECT LEAD:	
PROJECT LEAD: NATE OBERLEE	3/12/26
DRAWN BY: GRANT DAAVETILA	3/12/26
ROLE	CHECK DONE

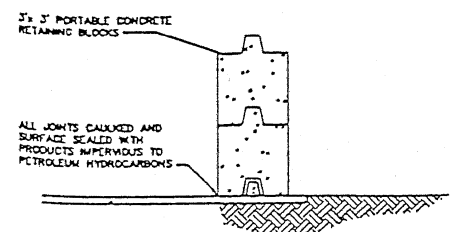
THERMAL TREATMENT PLANT DETAIL

FIGURE NO.:
4

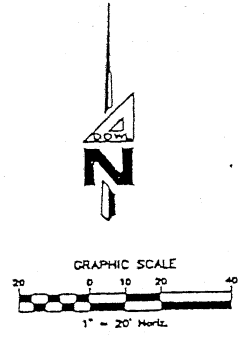


LEGEND

EXISTING	DESCRIPTION
— W —	WATER LINE
— F —	FIRE HYDRANT
— V —	WATER VALVE
— S —	SEWER LINE
— O —	SANITARY SEWER MANHOLE
— E —	ELECTRIC LINE (UG)
— CH —	ELECTRIC LINE (OH)
— U —	UTILITY POLE
— L —	LIGHT POLE
— G —	GUT ANCHOR
— P —	POWER METER
— B —	ELECTRICAL BOX
— N —	NATURAL GAS LINE
— G —	GAS METER
— D —	GROUND CONTOUR
— C —	CONCRETE
— P —	EDGE OF PAVEMENT
○	M.W.V.
□	CATCH BASIN
⊙	MONUMENT
●	REBAR
⊞	CLEANOUT
80.72	SPOT ELEVATION

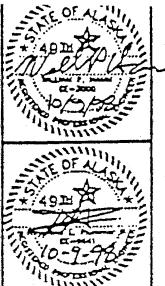


CONTAINMENT WALL CROSS SECTION
NTS



DATUM
BM CB-22 (SEE PD-4-N-14)
BM CB-22 IS A BRASS DISK SET VERTICALLY IN EAST FACE AND NEAR NE COR. CONCRETE BLOCK BLDG. 2704 1/2 THIRD AVE. (NORTHWEST HANDLING SYSTEMS INC. @ SW COR. MORA & THIRD AVE.)

NOTE:
THIS PLAN MEASURES 30' x 42'.
SHEET SIZES OTHER THAN 30" x 42" HAVE BEEN REDUCED AND ARE NOT TO SCALE.



DATE	BY	DESCRIPTION
10/9/98	REP	REVISION
10/9/98	REP	REVISION
10/9/98	REP	REVISION
10/9/98	REP	REVISION
10/9/98	REP	REVISION
10/9/98	REP	REVISION
10/9/98	REP	REVISION
10/9/98	REP	REVISION
10/9/98	REP	REVISION
10/9/98	REP	REVISION

DOWL ENGINEERS
4040 8th Street
Anchorage, Alaska 99503
Phone (907) 441-2000
Fax (907) 441-3133

ALASKA SOIL RECYCLING FACILITY
ANCHORAGE SAND AND GRAVEL
SOUTH PORTION TRACT E, MUNICIPAL INDUSTRIAL SUBDIVISION

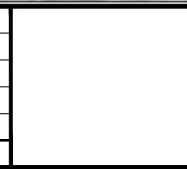
CHECKED BY	WPH
DESIGNED BY	REP
DRAWN BY	NAT
DATE	10/9/98
W.D. NO.	D56420
F.B. NO.	1295
REF. DWG	
LOCATION	ANCHORAGE
DWG NO.	1234

SCALE
HORIZ. 1" = 20'
VERT. 1" = 20'
SHEET
C-1
FILE NO. 260-90

Figure 5 - Historic Containment Construction As-Built (DOWL Engineers)



03/03/2026	REV A
DATE	REVISION



SOIL TREATMENT TECHNOLOGIES
8361 PETERSBERG ST
 ANCHORAGE, AK
 99507

REIC:
 PROJECT LEAD:
 PROJECT LEAD: NATE OBERLEE
 DRAWN BY: GRANT DAAVETTILA

	3/12/26
	3/12/26
ROLE	CHECK DONE

POST TREATMENT STOCKPILE AREA
 OVERVIEW

FIGURE NO.:
6



03/12/26	REV A
DATE	REVISION

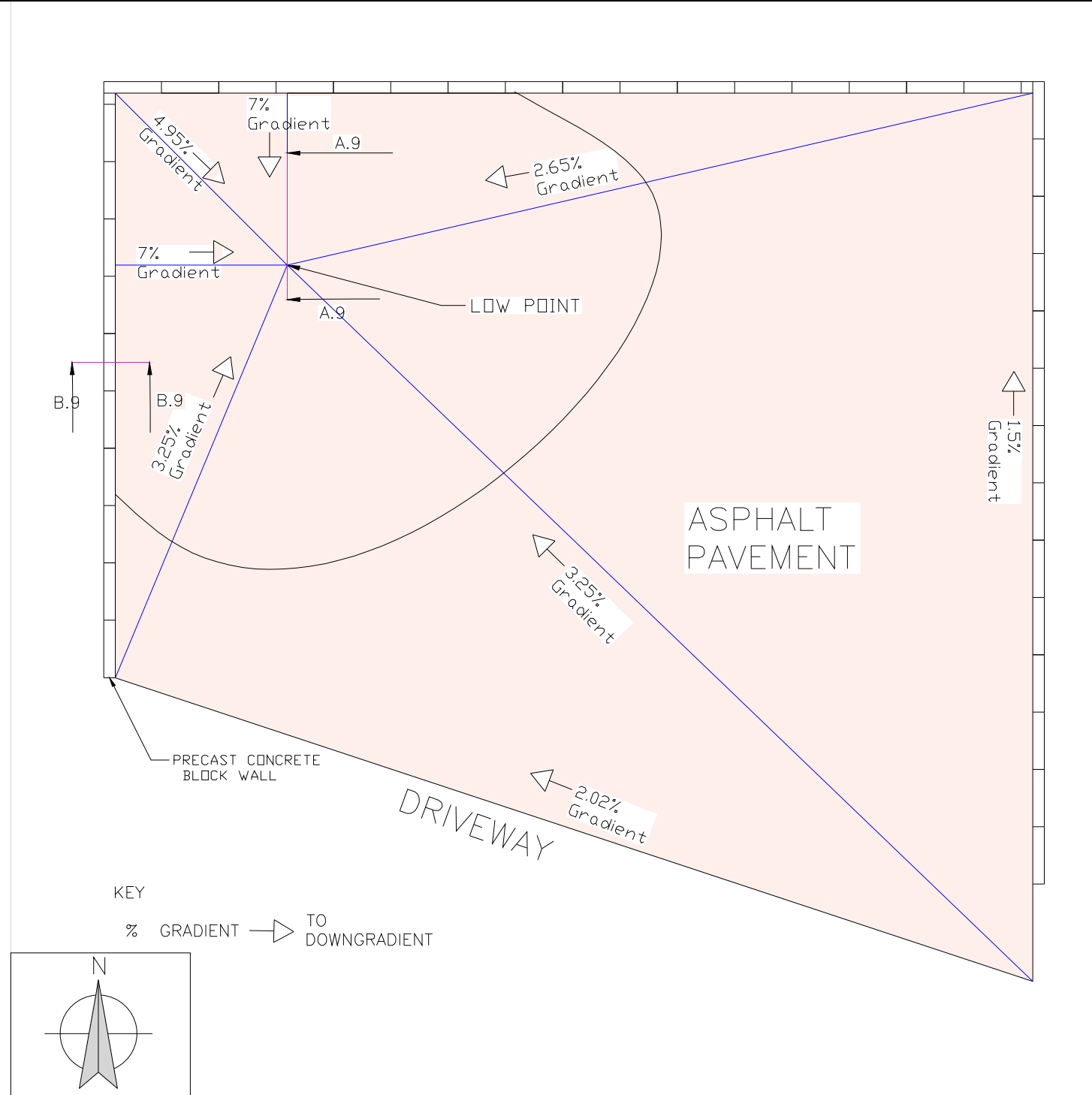
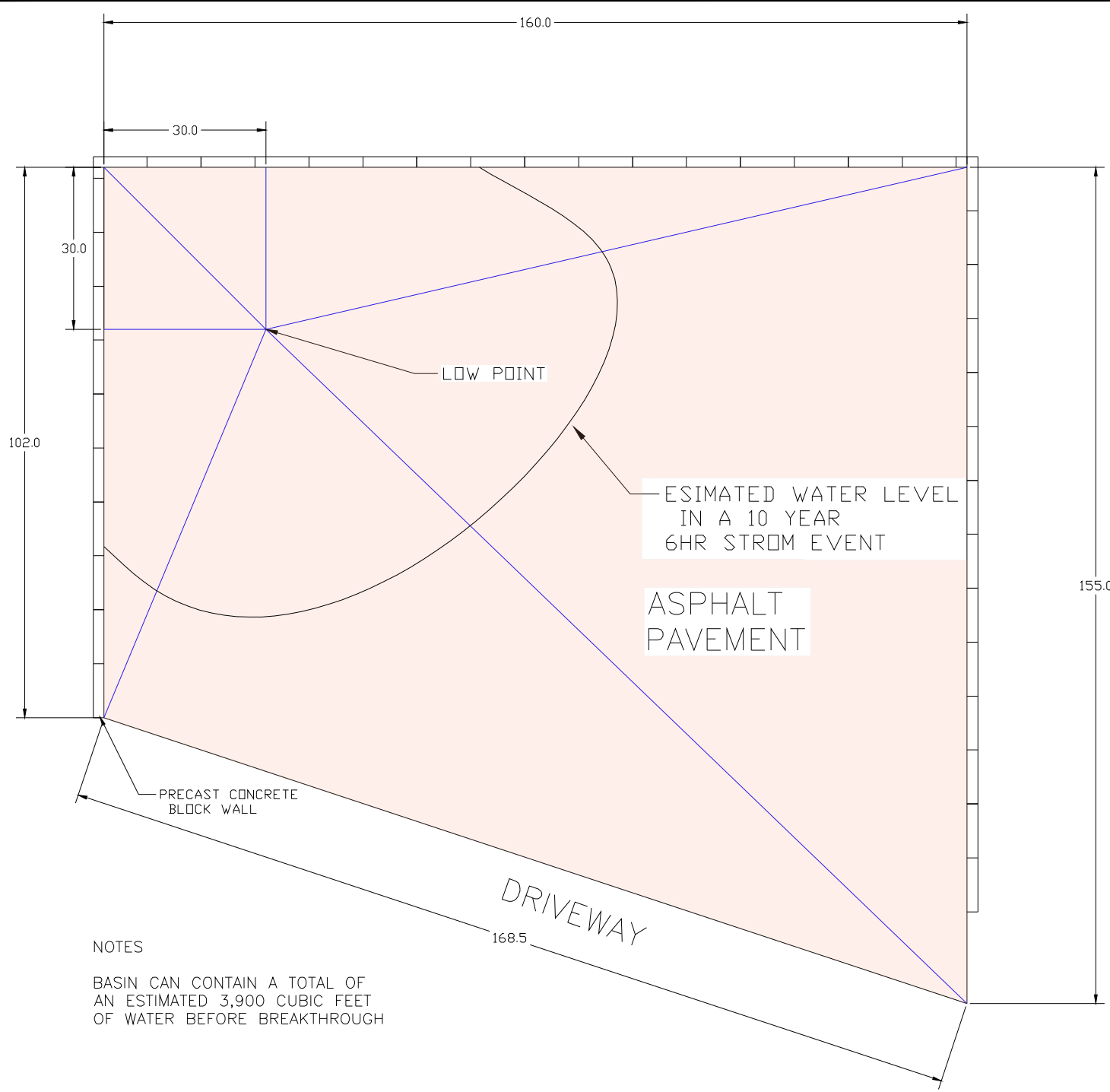


SOIL TREATMENT
TECHNOLOGIES
8361 PETERSBERG STREET
ANCHORAGE, AK 99507

REIC:	
PROJECT LEAD:	
PROJECT LEAD: NATE OBERLEE	3/12/26
DRAWN BY: GRANT DAAVETTILA	3/12/26
ROLE	CHECK DONE

POST TREATMENT STOCKPILE AREA
NEW CONSTRUCTION OVERVIEW

FIGURE NO.:
7



03/12/26	REV A
DATE	REVISION

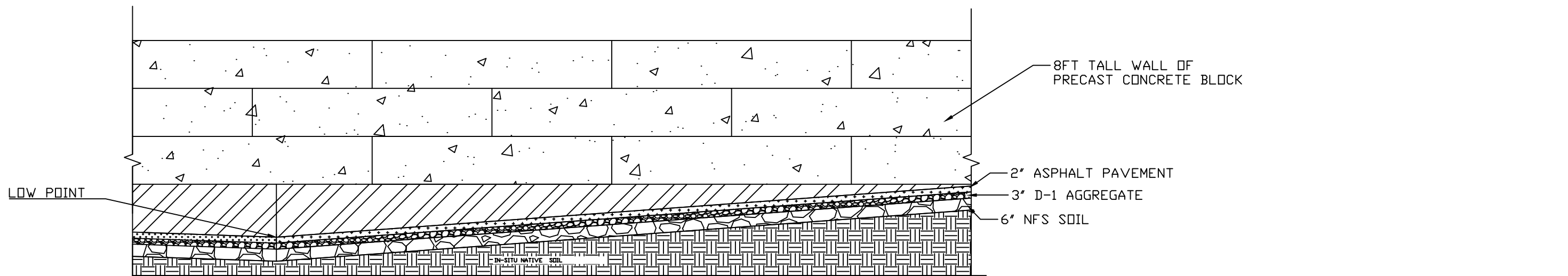


SOIL TREATMENT TECHNOLOGIES
 8361 PETERSBERG STREET
 ANCHORAGE, AK 99507

REIC:	
PROJECT LEAD:	
PROJECT LEAD: NATE OBERLEE	3/12/26
DRAWN BY: GRANT DAAVETILA	3/12/26
ROLE	CHECK DONE







POST TREATMENT STOCKPILE AREA
 NEW CONSTRUCTION DIMENSION AND GRADIENTS

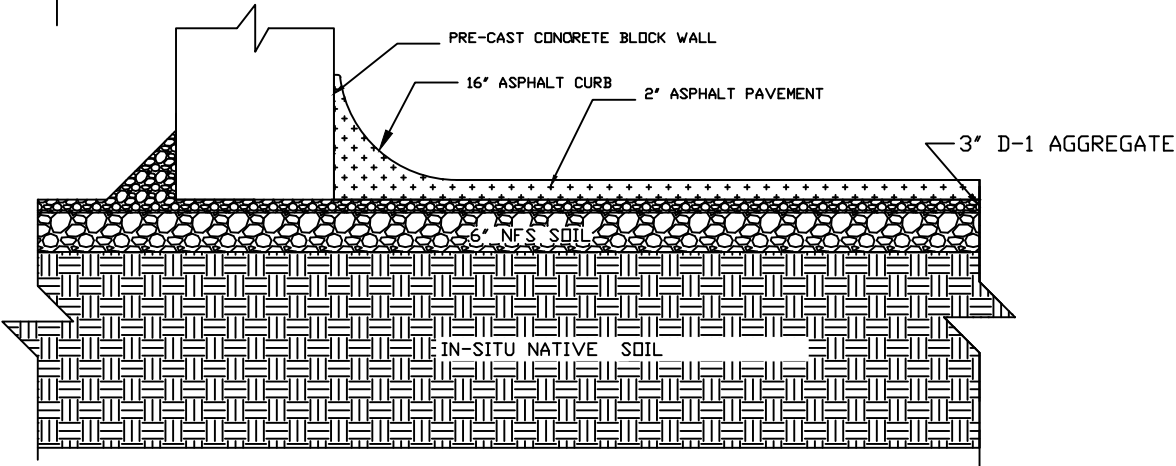
FIGURE NO.:
 8




SECTION A:A

LEGEND

-  IN-SITU NATIVE SOIL
-  NFS SOIL
-  D-1 AGGREGATE
-  ASPHALT CUT SECTION
-  ASPHALT SURFACE
-  CONCRETE

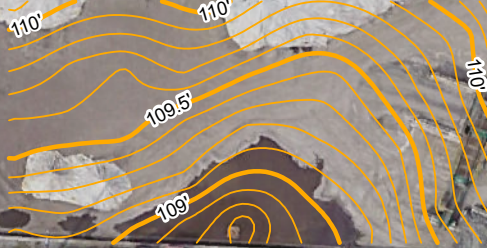
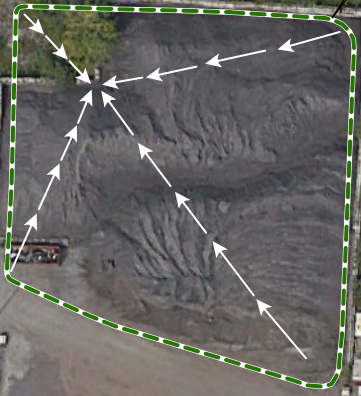


SECTION B:B

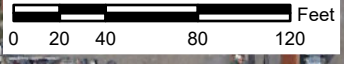
03/12/26		REV A		SOIL TREATMENT TECHNOLOGIES 8361 PETERSBERG STREET ANCHORAGE, AK 99507	REIC:		POST TREATMENT STOCKPILE AREA NEW CONSTRUCTION DETAIL SHEET	FIGURE NO.:	
DATE	REVISION	PROJECT LEAD:				PROJECT LEAD: NATE OBERLEE		3/12/26	9
		DRAWN BY: GRANT DAAVETTILA				DRAWN BY: GRANT DAAVETTILA		3/12/26	
				ROLE	CHECK DONE				



Treated Soil Storage Area



Reese Blvd



- Surface Contour Interval 0.1 ft AMSL
- Surface Contour - Minor
- Surface Contour - Major
- Proposed Drainage Pattern

Service Layer Credits: Google Earth Image Capture: 07/01/2014

Date: 13 Mar 2026 C:\LAT6\GEO\Projects\STT\STT-Anchorage\STT-Anchorage.aprx

DATE: 13 MAR 2026

REV: 0

PM: NO

DRAWN: SJ

PROJ. NO.: 03-002



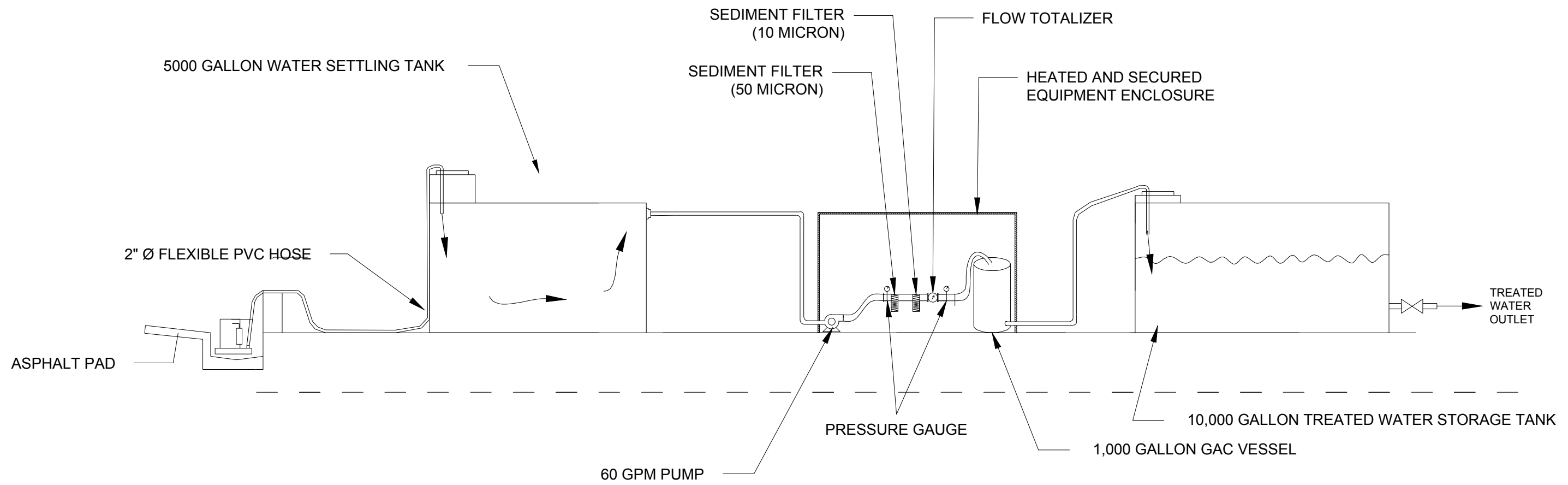
SOIL TREATMENT TECHNOLOGIES
 8361 Petersburg Street
 Anchorage, Alaska 99507
 907-677-7423

DRAINAGE DIAGRAM

Soil Treatment Technologies
Anchorage, Alaska

FIGURE

10



03/03/2026	REV A
DATE	REVISION



SOIL TREATMENT
TECHNOLOGIES
8361 PETERSBERG ST
ANCHORAGE, AK
99507

REIC:	
PROJECT LEAD:	
PROJECT LEAD: NATE OBERLEE	3/12/26
DRAWN BY: GRANT DAAVETILA	3/12/26
ROLE	CHECK DONE

WATER TREATMENT SYSTEM

P&ID

FIGURE NO.:
11

APPENDIX A

FINANCIAL RESPONSIBILITY AMOUNT CALCULATION

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STATE OF ALASKA
Department of Environmental Conservation
 Division of Spill Prevention & Response
 555 Cordova St.
 Anchorage, Alaska 99501



FINANCIAL RESPONSIBILITY GUARANTY - FORM

Guaranty Number _____

- Financial responsibility **applicant's company name:** Soil Treatment Technologies, LLC
 is the owner or operator of the **offsite or portable treatment facility name:** Soil Treatment Technologies, LLC
 and desires to establish proof of financial responsibility in accordance with Title 18, Alaska Administrative Code, Chapters 75.365 and 78.273. The undersigned Guarantor guarantees, subject to the provisions of clause 5 of this guaranty, to discharge the applicant's legal liability with respect to cleaning up contaminated soils that have been received for treatment if the applicant fails to treat the contaminated soils in accordance with Title 18, Alaska Administrative Code, Chapters 75.365 and 78.273, if said legal liability has not been discharged by the applicant within 21 days after the claimant has obtained a final judgement against the applicant from a court of competent jurisdiction, or the claimant has become entitled to payment of a specified sum by virtue of a compromise settlement agreement made with the applicant, with the approval of the Guarantor, by which, upon payment of the agreed sum, the applicant is to be fully, irrevocably, and unconditionally discharged from all further liability of the claimant with respect to that claim.
- The **Guarantor's company name:** Rescon Alaska, LLC / Pioneer Earthworks and Restoration, LLC / L2J Properties, LLC
- The **Guarantor's liability** under this guaranty does not exceed \$ \$2,166,900 for any incident or incidents.
- The Guarantor's liability under this guaranty attaches to soil received by the facility named above to be treated under 18 AAC 75.365 and 18 AAC 78.273 during the term of this guaranty. Guarantor may terminate this guaranty with 30 days written notice delivered to the Alaska Department of Environmental Conservation and the applicant by certified mail.
- Any claim for damages for which the applicant may be liable as a result of failure to clean up contaminated soil accepted for treatment may be brought directly against the Guarantor; however if such direct claim is made, the Guarantor is entitled to invoke the rights and defenses permitted by the Alaska Statutes.
- Effective date of Guaranty:** December 15, 2025

Typed company name and address of Guarantor Rescon Alaska - 8361 Petersburg St., Anchorage, AK 99507
Pioneer Earthworks and Restoration - 8361 Petersburg St., Anchorage, AK 99507
L2J Properties, LLC - 8361 Petersburg St., Anchorage, AK 99507

Signature of Guarantor	Date	Business Address	Typed name and title of person signing for Guarantor
	<u>12/15/25</u>	8361 Petersburg St. Anchorage, AK 99507	Zachary Kirk - Partner
	<u>12/15/25</u>	8361 Petersburg St. Anchorage, AK 99507	Elliot Wilson - Partner
	<u>12/15/25</u>	8361 Petersburg St. Anchorage, AK 99507	Nathan Oberlee - Partner
Corporate Principal		Business Address	

Signature/Corporate Principal _____ Date _____ Typed Name and Title of Person Signing for Principal _____

PLEASE COMPLETE REVERSE SIDE

FINANCIAL RESPONSIBILITY GUARANTY - FORM (CONTINUED)

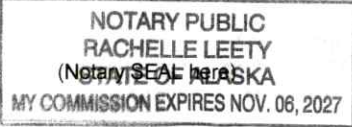
State of Alaska, County or Judicial District Anchorage

On this day (name of person signing for Guarantor) Zachary Kirk, Nathan Oberler, Elliot Wilson, known to me to be the person and officer

whose name is subscribed to this instrument, appeared before me and acknowledged to me that he/she executed this instrument as Guarantor, as the act of
(Guarantor's company name) Soil Treatment Technologies, LLC, Incorporated,

for the purposes and consideration expressed in it and in the capacity stated in it.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, on this 15 day of December, 2025.



Rachelle Leety
Notary Public in and for the

State of Alaska

My Commission Expires: Nov 6, 2027

(or _____
County or Judicial
District)

Schneiter & Moad, PC

Certified Public Accountants

235 E. 8th Avenue, Suite 3B

Anchorage, Alaska 99501

907-562-4242

Fax 907-562-6225

December 12, 2025

Laura Jacobs
Contaminated Sites Program
Alaska Department of Environmental Conservation
555 Cordova St.
Anchorage, AK 99501

Ms. Jacobs

I am writing to you at the request of Nathan Oberlee, Zachary Kirk and Elliot Wilson of Rescon Alaska LLC (Rescon) and Pioneer Earthworks and Restoration LLC (Pioneer) and L2J LLC on behalf of Soil Treatment Technologies (STT), a related entity.

The purpose of this letter is to confirm to you that I have prepared the federal income tax returns for these entities from 2018 through 2024. I have also assisted in the preparation of the unaudited and unreviewed interim financial statements as of November 30, 2025 prepared for management for all entities. I will also prepare the 2025 tax returns early next year.

The returns were prepared from information furnished to me by the client. This information was neither audited nor verified by me, and I make no representation, nor do I provide any assurance regarding the accuracy of this information or the sufficiency of these tax returns for your credit decision-making purposes.

I prepared the tax returns in accordance with the applicable IRS rules and regulations solely for filing with the IRS. As a result, the tax return does not represent any assessment on my part as to creditworthiness and does not include any statement of their financial position or income and expense for these years in accordance with generally accepted accounting principles and should not be construed to do so.

As you know, a credit decision should be based on the exercise of due diligence in obtaining and considering multiple factors and information. Any use by you of the above referenced federal income tax returns and this letter is solely a matter of your responsibility and judgment. This letter is not intended to establish a client relationship with you, nor is it intended to establish any obligation on my part to provide any future information to you regarding these clients.

The information provided to me for the preparation of the prior year's tax returns and the financial statements as of November 30, 2025 prepared for management purposes indicate that, as of November 30, 2025, there is sufficient equity in these entities necessary to fund a \$2,170,000 liability if this became necessary.

If you have any questions, please contact my office.

Sincerely,



Mark E. Schneiter, CPA

Cc: Nathan Oberlee, Elliot Wilson

Appendix A
Financial Responsibility Calculations
Soil Treatment Technologies, LLC
Anchorage, Alaska

SOIL STORAGE		
<u>Item</u>	<u>Qty.</u>	<u>Units</u>
Contaminated Soil Storage	7500	Tons
Total Soil Storage	7500	Tons

TRUCKING		
<u>Item</u>	<u>Qty.</u>	<u>Units</u>
Double Side Dumps	\$150	Per Hour
	14	Hr - Round Trip
	\$2,100	Per Trip
	40	Tons/Truck
	188	Trips
Trucking Total	\$ 394,800.00	

SOIL TREATMENT		
<u>Item</u>	<u>Qty.</u>	<u>Units</u>
Republic Services - Moose Creek	\$236.28	Per Ton
	7500	Tons
Soil Treatment Total	\$ 1,772,100.00	

Total Financial Responsibility	\$ 2,166,900.00
---------------------------------------	------------------------



Sustainability in Action

Preliminary Proposal

PROPOSAL #: 27479

COMPANY: Soil Treatment Technologies

ADDRESS: 8361 Petersburg Street
Anchorage, AK 99507

CONTACT: Nate Oberlee

PHONE: 907-317-2473

EMAIL: N.Oberlee@STTalaska.com

12/15/2025

Dear Nate:

Republic Services appreciates this opportunity to provide you with environmental solutions. Following up on our earlier discussion, we are pleased to present this preliminary proposal.

Republic Services now offers comprehensive environmental solutions, including waste treatment, field and industrial services and 24/7 emergency response services. With a network of 40,000 employees and more than 175 dedicated Environmental Solutions locations, our customers benefit from working with an industry leader that can provide innovative solutions for hazardous and regulated waste, in addition to our recycling and waste services you have relied on for years.

Republic Services' Field and Industrial Services is one of the nation's largest industrial services operations, employing state-of-the-art technology that offers innovative environmental solutions. We take pride in managing the most demanding environmental problems for our customers in the steel, petrochemical, municipal, automotive, manufacturing, and other industry sectors. Specialized services include tank and oil processing, ultra-high-pressure water blasting and industrial cleaning. These services are supported by an extensive fleet of vacuum trucks, roll-off and vacuum containers, frac tanks, bulk liquid tankers, rail assets and a nationwide fleet of box and van trucks to manage the transportation of hazardous, non-hazardous and DEA wastes. We also own and operate the nation's largest network of TSDF Part B facilities for managing waste throughout North America. Combining our field and industrial services with our unique disposal assets is a key advantage over our competitors.

We understand you need a professional, integrated solution, and we have designed this proposal to meet those needs. Our best-in-class customer service leverages our industry-leading capabilities and will allow us to deliver the strongest solution available in the market today. We look forward to supporting you on this project!

Scope of Work:

Be In receipt and Thermal Remediation of 7,500 tons of POL Contaminated Soil



Sustainability in Action

Preliminary Proposal

Facility:

Moose Creek Facility

Rates:

DISPOSAL	QTY	UOM	RATE	TOTAL
POL Contaminated Soil	7,500	Ton	\$201.00	\$1,507,500.00
DISPOSAL TOTAL:				\$1,507,500.00

PROJECT SUMMARY:

DISPOSAL	\$1,507,500.00
EEC FEE 17.550% OF TOTAL INVOICE	\$264,566.25
ESTIMATED PROJECT TOTAL:	\$1,772,066.25

TERMS & CONDITIONS

THE ADDRESSEE OF THIS PROPOSAL IS THE "CUSTOMER". "REPUBLIC SERVICES" IS THE DIVISION ENTITY IDENTIFIED BELOW THAT IS OFFERING TO PERFORM THE SERVICES. ALL SERVICES PROVIDED UNDER THIS PROPOSAL ARE SUBJECT TO REPUBLIC SERVICE'S ENVIRONMENTAL SERVICES TERMS AND CONDITIONS ("SERVICE TERMS") INCORPORATED HEREIN BY THIS REFERENCE AND LOCATED AT: www.RepublicServices.com/ServiceTermsES. A HARD COPY OF THE SERVICE TERMS WILL BE PROVIDED UPON REQUEST. BY EXECUTING THIS PROPOSAL OR RECEIVING THE SERVICES, CUSTOMER ACKNOWLEDGES THAT IT HAS AUTHORIZED THE SERVICES AND HAS READ AND AGREES TO BE BOUND BY THE SERVICE TERMS. IF CUSTOMER HAS A VALID CONTRACT WITH CONTRACTOR THAT INCLUDES THE SCOPE OF SERVICES HEREIN, THE TERMS OF SUCH CONTRACT SHALL PREVAIL IN THE EVENT OF ANY CONFLICTS WITH THE SERVICE TERMS. NO TERMS OR CONDITIONS ON ANY CUSTOMER-PROVIDED DOCUMENT OR RELATED TO CUSTOMER'S VENDOR SET UP PROCESS SHALL APPLY. THIS PROPOSAL AND THE SERVICE TERMS OR CONTRACT, AS APPLICABLE, CONTAIN THE ENTIRE AGREEMENT OF THE PARTIES RELATED TO THE SERVICES LISTED HEREIN. CUSTOMER'S UNDERSIGNED REPRESENTATIVE WARRANTS THAT HE/SHE HAS AUTHORITY TO BIND CUSTOMER TO THIS PROPOSAL.

This preliminary proposal is valid for **30** days. After expiration of this proposal, the offer to perform services, and the prices, are subject to change or withdrawal. When waste approval is granted, we will provide written confirmation of pricing and billing unit. Payment terms are Net 30 days. Final pricing is subject to credit approval and standard credit terms.

GENERAL PROPOSAL CONDITIONS:

- An EEC fee will be added to your services. EEC is an environmental, energy & compliance fee. The EEC fluctuates monthly and will be charged as a percentage of all invoiced



Sustainability in Action

Preliminary Proposal

charges, excluding taxes. For more information about this fee, please visit www.republicservices.com/customer-support/fee-disclosures.

- Fees will be charged for waste approvals. A Profile Submission Fee of \$125 will be charged for each initial profile approval, and a Profile Renewal Fee of \$40 will be charged for each profile renewal.
- Equipment, personnel, and disposable materials which are not detailed in this quote but become necessary to perform the work, will be charged at quoted rates or at cost plus 15% if not quoted.
- In the event that the scope of work changes from that specified above, extra work shall be billed at mutually agreed upon rates and shall be in addition to the base quotation. Rates shall be agreed upon before changes are performed.
- Straight time hours are Monday-Friday from 8 a.m. to 4 p.m.; Overtime hours [1½] are over 8 hours weekdays and Saturday; Sundays and Holidays are double time.
- Expenses related to waiting time at the work site or work stoppage outside of Republic Services' will be the responsibility of the customer and will be billed at quoted rates, or at cost plus 15% if not quoted.
- Washout/clean-out charges for tankers and/or containers shall be billed at quoted rates, or at cost plus 15% if not quoted.
- Due to the US EPA's e-manifest regulations, a fee will be assessed to all customers for shipments utilizing a hazardous waste manifest.
- Standard non-hazardous disposal pricing does not include PFOS/PFAS contaminants.
- Republic Services reserves the right to modify pricing if the scope changes in any manner.

Thank you for this opportunity – we appreciate your interest in our services. I believe this preliminary proposal meets your specifications, but please contact me if you have any questions.

Division Entity: US Ecology Alaska, LLC
Republic Services Sales Representative: Scott N. Lines
Phone: 907-488-4899
Email: snlines@gmail.com

A handwritten signature in black ink, appearing to read "Scott N. Lines".

Customer hereby accepts this Preliminary Proposal.

Customer Representative:

Name:
Title:
Date:
Phone:
Email:

APPENDIX B

PROOF OF GENERAL LIABILITY AND ENVIRONMENTAL POLLUTION LIABILITY INSURANCE

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APPENDIX C

SOIL WASTE PROFILE FORM

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SOIL WASTE PROFILE

GENERATOR INFORMATION

CLIENT NAME:	
POINT OF CONTACT:	
PHONE # / EMAIL:	/
GENERATOR INFORMATION	
CONTACT INFO.:	

WASTE INFORMATION

EST. QTY (TONS) / GEN. DATE	/				
TRANSPORT RECEPTACLE	_____ CY SACKS	_____ DRUMS	_____ CONTAINERS	_____ DUMP TRUCKS	_____ OTHER
SOURCE INFO: (Site Name, Spill Rpt, etc.)					
ADEC CSD SITE # / SPILL RPT #	/				
TYPE / PERCENT DEBRIS	_____ DEBRIS TYPE (If Present)	_____ PERCENT OF TOTAL	_____ TONNAGE EST.		
CONTAMINANTS	<input type="checkbox"/> DRO/RRO <input type="checkbox"/> GRO <input type="checkbox"/> BTEX <input type="checkbox"/> PVOCs <input type="checkbox"/> PAHs <input type="checkbox"/> PCBs <input type="checkbox"/> VOCs <input type="checkbox"/> Other				
LABORATORY REPORT(S) INCLUDED:	<input type="checkbox"/> YES				
SIGNED ADEC TT&D FORM(S) INCLUDED:	<input type="checkbox"/> YES				

GENERATOR ACKNOWLEDGEMENT

The Generator (or Generator's Representative) listed above, by either generator knowledge or laboratory analysis, confirms that the subject waste material listed below is not a hazardous waste by Alaska Department of Environmental Conservation (ADEC) or US Environmental Protection Agency (EPA) criteria (ref.: OAR 340-101 and 40 CFR Subparts B-D, Part 261). The Generator also determined that the above-listed waste material is not "Flammable," "Corrosive," "Reactive," "Toxic" or "EPA-Listed" as defined in the above-referenced regulations. The Generator assumes all environmental liabilities if this waste is later determined to be an EPA or ADEC listed hazardous waste.

I hereby certify that all information submitted in this form and all attached documents contain true and accurate descriptions of the waste stream.

Authorized Signature:

Name / Title: _____ / _____

ACCEPTANCE AUTHORIZATION

Authorization Signature:

Name: _____

Expiration Date:

No waste authorized under this profile will be accepted after the expiration date stated above without prior authorization.

APPENDIX D

SOIL ACCEPTANCE LOG

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APPENDIX E

GAC EMPTY BED CONTACT TIME CALCULATIONS

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Appendix E
EBCT – GAC Calculations
Soil Treatment Technologies
Anchorage, Alaska

Empty Bed Contact Time (EBCT) – Activated Carbon

Typical EBCT Ranges (Water Treatment) - Coal or Coconut Shell based GAC

<u>Application</u>	<u>Typical EBCT (minutes)</u>
Taste and odor control	5-10
Chlorine / chloramine removal	2-5
VOCs / petroleum hydrocarbons	10-20
PFAS treatment	10-20+

EBCT Formula

EBCT (minutes) = Carbon Bed Volume ÷ Flow Rate

Where:

- Carbon Bed Volume is the volume of activated carbon media (gallons or cubic feet)
- Flow Rate is the system flow (gallons per minute or cubic feet per minute)

EBCT Calculation

System Parameters:

- Total GAC vessel volume: 1,000 gallons
- Usable GAC media volume: 900 gallons
- Flow rate: 60 gallons per minute (gpm)

Calculation:

EBCT = 900 gallons ÷ 60 gpm = 15.0 minutes

Result:

The Empty Bed Contact Time (EBCT) for this system is 15 minutes.

Design Note

This calculation accounts for non-media volume within the vessel, such as freeboard, underdrain space, and headspace. For design and regulatory purposes, EBCT should always be calculated using only the installed and usable GAC media volume.