Interim Action Phase III Work Plan
for the
Superlon Plastics Site, Tacoma, Washington

Prepared For:

White Birch LLC
2116 Taylor Way
Tacoma, Washington 98401

and

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1 Introduction

1.1 General

This Interim Action (IA) Phase III Work Plan has been prepared on behalf of White Birch, LLC (White Birch) and E. I. duPont de Nemours and Company (DuPont). These companies are hereafter referred to as the Companies. The Companies, or their authorized agent, will complete the work described in this Work Plan in accordance with the State of Washington Model Toxics Control Act (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC) under Agreed Order No. DE 5940.

Under the Agreed Order (AO) the Companies are allowed to implement interim actions to facilitate the collection of samples for the Remedial Investigation (RI) and/or to improve site conditions.

The purpose of the Phase III interim actions is to improve site conditions in a manner protective of human health and the environment.

1.2 Site Location and Description

This Work Plan presents a technical approach for conducting Phase III Interim Actions at the Superlon Plastics Property (Property) generally located at 2116 Taylor Way, Tacoma, Washington. The Property is 3.1 acres in size and is listed as tax parcel number 0321351042. The Site, as defined by the Washington State Department of Ecology (Ecology), boundaries are currently undefined, but includes the Property.

The Property is currently owned by White Birch, LLC and operated by Superlon Plastics Inc., an extruded plastic pipe manufacturer. Taylor Way borders the northeast edge of the property. Beyond Taylor Way is Port of Tacoma property. The Property is bounded to the north by curved rail road right-of-way owned by the City of Tacoma Public Works . Beyond this right-of-way is a triangle shaped parcel of land owned by the Port of Tacoma and leased to Superlon Plastics. To the northwest are Lincoln Avenue and a warehouse operation. To the south and southwest is Port of Tacoma property, which was recently leased and operated by the Haub Log Yard. The property to the southeast is owned by RTH Tacoma, LLC and leased and operated by Garner-Fields Products, a roofing and waterproofing products manufacturing business.

The Property is located in a highly industrialized area of the Tacoma Tidal Flats between the Blair and Hylebos Waterways. Several known toxics cleanup sites are within a quarter mile of the facility, including two chemical manufacturing plants (the Reichold Chemical/SSA Container site and the Atofina (formerly ELF Atochem) site), and the former Murray Pacific Log Yard #1, which is owned by the Port of Tacoma. The Hylebos Waterway NPL site is located to the northeast.

The Tidal Flats were filled and developed in the early 1900's. Fill material in the general area include dredge materials, native soils and various types of waste and debris, including slag and industrial wastewater sludges. The Property contains evidence of historical filling activities; however, origin of most of the fill material is unknown.

1.3 Objective and Summary of the proposed Interim Action

The objective of the work to be completed under this Work Plan is to improve site conditions in a manner protective of human health and the environment. The Companies will accomplish the objectives of the Work Plan by implementing the scope of work described below:

1. Remove and stockpile on-site (for future reuse) the quarry spalls installed over the former Building B footprint. These quarry spalls were installed to act as a barrier to direct contact with the underlying soils and to permit driving access for equipment used to collect soil and groundwater samples during the RI.
2. Remove the geotextile liner that currently separates the quarry spalls from the underlying soils. An attempt will be made to recover the liner for future use, if this can be accomplished safety.
3. Install an aeration/evaporation system to obtain maximum evaporation of waters resident in the work area. This will eliminate or lessen the amount of dewatering necessary for transport of the excavated material.
4. Excavate soils under the geotextile to the lateral extent and depth shown on Figure 3 and listed on Table 1. Approximately 2,300 cubic yards (CY) of soil will be excavated during this phase. The final limit of soil excavation will be to the point where the arsenic concentrations soil meet the target goal of 900 mg/kg.
5. If necessary to further dewater the excavated soils, place the excavated soils in a windrow parallel to the excavation (as shown on Figure 2) to allow for dewatering of the soil. The sub-base will be slanted and a layer of 20-mil plastic will be laid underneath the windrowed soils, so that water recovered during the dewatering process will free-flow back into the excavation. The windrow will be covered with 20-mil plastic to prevent rainwater from coming into contact with the excavated soils (as shown on Figure 4). This dewatering process will be as short as practical, but not less than one calendar month for each phase.
6. Load, haul and dispose of the excavated and dewatered soils at, depending on the soils post-excavation regulatory status, either the Chemical Waste Facility or Waste Management Facility in Arlington, Oregon.

   NOTE: If necessary, Steps 5 through 6 will be completed in multiple phases as, due to space limitations, only approximately 900 CY of soils can be dewatered in each phase.
7. Apply a geotextile liner to cover the surface of the excavation. This will provide a barrier between the residual soil in the excavation and the backfill material.
8. Backfill the excavation and surrounding areas with the recovered quarry spalls and other backfill soils purchased from an off-site source to the elevations required by the Site's stormwater permit. In addition to the geotextile liner, the backfill material will act as a barrier to direct contact to the remaining affected soils, and will permit driving access for equipment used to collect additional soil and/or groundwater samples, if necessary. The final remedy for this area of the site will be determined through the FS/CAP process.

1.4 Required Permits and Approvals

The following permits and approvals must be obtained prior to the initiation of work:

- Ecology's approval of this Work Plan; and,
- A State Environmental Policy Act (SEPA) declaration of non-significance.

2 Interim Action Phase III – Proposed Scope of Work

2.1 Overview

This section presents the approach and methods that will be used to meet the objectives outlined in Section 1.3. Following the completion of this interim action the Companies will submit a technical memorandum to Ecology documenting the work performed. Figure 3 shows the location where the interim action activity will occur.

If Ecology, upon their review the Interim Action Report, determines that additional interim actions are necessary, the Companies will develop a supplemental interim action work plan which will be submitted for Ecology's approval.

2.2 Removal of the Quarry Spalls

2.2.1 Current Conditions

A minimum of a two-foot thick layer of quarry spalls was installed in the footprint of former Building B after demolition. This was done for two purposes:

1. To act as a barrier to direct contact with the impacted soils and standing water; and,
2. To permit driving access for equipment used to collect soil and groundwater samples during the RI.

Removal of these quarry spalls will be necessary to gain access to the underlying soils to be excavated.

3.2.2 Removal and Stockpiling

The quarry spalls will be excavated and stockpiled onsite on 20-mil plastic and covered with 20-mil plastic until reused as backfill during the backfilling of the excavation.

2.3 Removal of the Geotextile Liner

2.3.1 Current Conditions

A geotextile membrane was placed between the quarry spalls and the underlying soils present in the Building B footprint to segregate the quarry spalls from the underlying soils and to help to strengthen the backfill surface. Strengthening of the backfill was necessary to develop a safe working surface for the drill rigs used to collect soil and groundwater samples during the RI.

2.3.2 Removal of the Geotextile Liner

An effort will be made to recover the geotextile liner for re-use if this can be accomplished safety. Any damaged geotextile that cannot be re-used will be disposed of at the proper disposal site.

2.4 Installation of the Evaporation System

Once the quarry spalls and liners are removed, a series of up to six pond aerators will be installed within the footprint of the former Building B basement as shown on Figure 2. The aerators will spray the resident water in a 15 foot diameter pattern to a height of no more than four feet to ensure maximum exposure to the sun and the greatest potential for evaporation. The aerators will not be operational during days of rainfall or high winds.

2.5 Excavation of Soils

2.5.1 Current Conditions

Analytical results of soils obtained from the footprint of the former Building B during the RI show elevated concentrations of lead and arsenic that require excavation and disposal. Since these same analytical results generally indicate a collocation of the two constituents, and since the vertical extent of arsenic contamination is greater than that of lead, arsenic will be used as the indicator constituents defining the extent of excavation for this interim action. Excavation is currently planned for those soils that exceed total arsenic concentration of 900 mg/kg Soils containing concentrations of cadmium, lead, arsenic, mercury, gasoline and/or pentachlorophenol greater than the MTCA cleanup standards for industrial sites may remain following excavation.

2.5.2 Excavation Limits

The approximate excavation limits are shown in Figure 3 and the estimated volume of soils to be excavated is 2,306 CY.

The anticipated duration for the excavation work is 10 to 15 days, if soils can be direct loaded into trucks/roll-off boxes for transport to the landfill, or three 5 to 10 day periods if dewatering is required.

2.5.3 Confirmation Sampling

Since COPC concentrations in the soils to remain in-place following excavation have been determined during the RI, no additional confirmatory sampling is proposed as part of this interim action.

2.6 Dewatering of Excavated Soils

2.6.1 Dewatering Process

If necessary for transportation additional dewatering of the soils will be done as follows:

- Following excavation, the soils will be placed on a prepared surface located directly adjacent to the excavation (see Figure 4). The surface will be graded to a minimum of a 3% slope, angled downward toward the excavation area, and lined with 20-mil plastic. This will ensure that the water present in the stockpiled soils will collect on the plastic and drain directly into the excavation.
- Once each phase of excavation is complete, the soils will form a windrow approximately 120-feet long, 30-feet wide and 6 feet tall running parallel the to the excavation. The windrow will be covered with 20-mil plastic to prevent rainwater from contacting the excavated soils.

- This dewatering process, as illustrated on Figure 4, will continue until to soils are de-watered enough to be safely loaded into trucks or roll-off boxes for hauling and disposal.
- Dewatering of the soils, if necessary, will occur in at least two phases, since there is limited space that can be used for dewatering.
- It is estimated that the dewatering process, if necessary, may require up to 60 days for each phase.

2.7 Disposal of De-watered Soils

2.7.1 Loading, Transport and Disposal Process

Loading and disposal of the excavated soils will begin once they are dry enough to be safely transported to the disposal facility. Soils will be loaded either directly from the windrow into trucks or roll-off boxes and hauled to either the Chemical Waste or Waste Management Facility in Arlington, Oregon. Sections of the windrow not actively being loaded into trucks or roll-off boxes will remain covered with plastic to avoid rainwater.

2.8 Lining and Backfilling of the Excavation

2.8.1 Post-Excavation Conditions

Soils possibly containing concentrations of cadmium, lead, arsenic, mercury, and/or pentachlorophenol greater than the MTCA cleanup standards for industrial sites may remain following excavation. Exposure to these soils will need to be managed. The backfilling of the excavation will act as a barrier to direct contact with these soils.

2.8.2 Placement of a Geotextile Liner

Prior to the introduction of backfill, a geotextile liner will be placed along the bottom and sides of the excavation to separate residual soils and the backfill. This liner will also strengthen the backfill in the event that vehicle access is needed in this area.

2.8.3 Backfilling of the Excavation

Following installation of the geotextile liner, the excavation will be backfilled to the elevation stipulated in the Site's Stormwater Permit. Backfill will consist of the recovered quarry spalls and soils obtained commercially offsite.

2.9 Decontamination of Equipment and Personnel

Decontamination of personnel and equipment will follow the procedures identified in the Interim Action Phase I Program and in the Project HASP.

3 Documentation and Reporting

The Companies or their authorized agents will document interim action activities using daily reports and additional forms, as appropriate. These daily reports will provide the documentation used to create the Phase III Interim Action Technical Memorandum.

3.1 Draft IA Report

The Companies, or their authorized representatives, will prepare a Draft Interim Action Technical Memorandum describing the actions taken during the Phase III Interim Action Program. The report will be prepared in accordance with the schedule set forth in Section 4, and will be submitted to Ecology.

The Draft IA Phase III Technical Memorandum will include:

- A description of the work completed in the Phase III Interim Action, noting any exceptions to the methodology described in this work plan;
- A list of disposal/recycling locations and associated records for each material collected during the described actions;
- A photographic record of the processes used and facility conditions prior to, and following the work; and,
- A figure showing post-work facility features.

4 Schedule

Assuming approval of this work plan by Ecology no later than late May 2012, the estimated schedule to execute the Phase III IA is summarized as follows:

- Mobilization and initiation of the field work will commence in early June 2012 with the removal of the quarry spalls and the installation of the aeration/evaporation system.
- The aeration/evaporation system will be operated until late August 2012 when an evaluation will be done to determine if the soils to be excavated will be dry enough for transport. Ecology will be consulted during this evaluation. Excavation and disposal work will either progress within 30 days of this consultation, or if additional dewatering is needed, an alternate schedule will be developed.
- If no revisions to the schedule are necessary following consultation with Ecology all activities described in this Work Plan will be completed within 200 days of mobilization, weather permitting.
- The Draft IA Phase III Technical Memorandum will be issued to Ecology within 120 days of the receipt of the final disposal/recycling records/manifests.

5 References

Ecology and Environment, Inc. 1991. *Technical Assistance Team Report on Taylor Way Drums.* February 28, 1991.

Landau and Associates. 2008. *Phase I Environmental Site Assessment, 2116 Taylor Way, Tacoma, Washington.* February 26, 2008.

Landau and Associates. 2008. *Soil and Groundwater Investigation, Superlon Pipe Property, 2116 Taylor Way, Tacoma, Washington.* February 29, 2008.

PERC and PTC. 2010. *Interim Action Work Plan for the Superlon Plastics Site, Tacoma, Washington*. January 12, 2010.

FIGURES

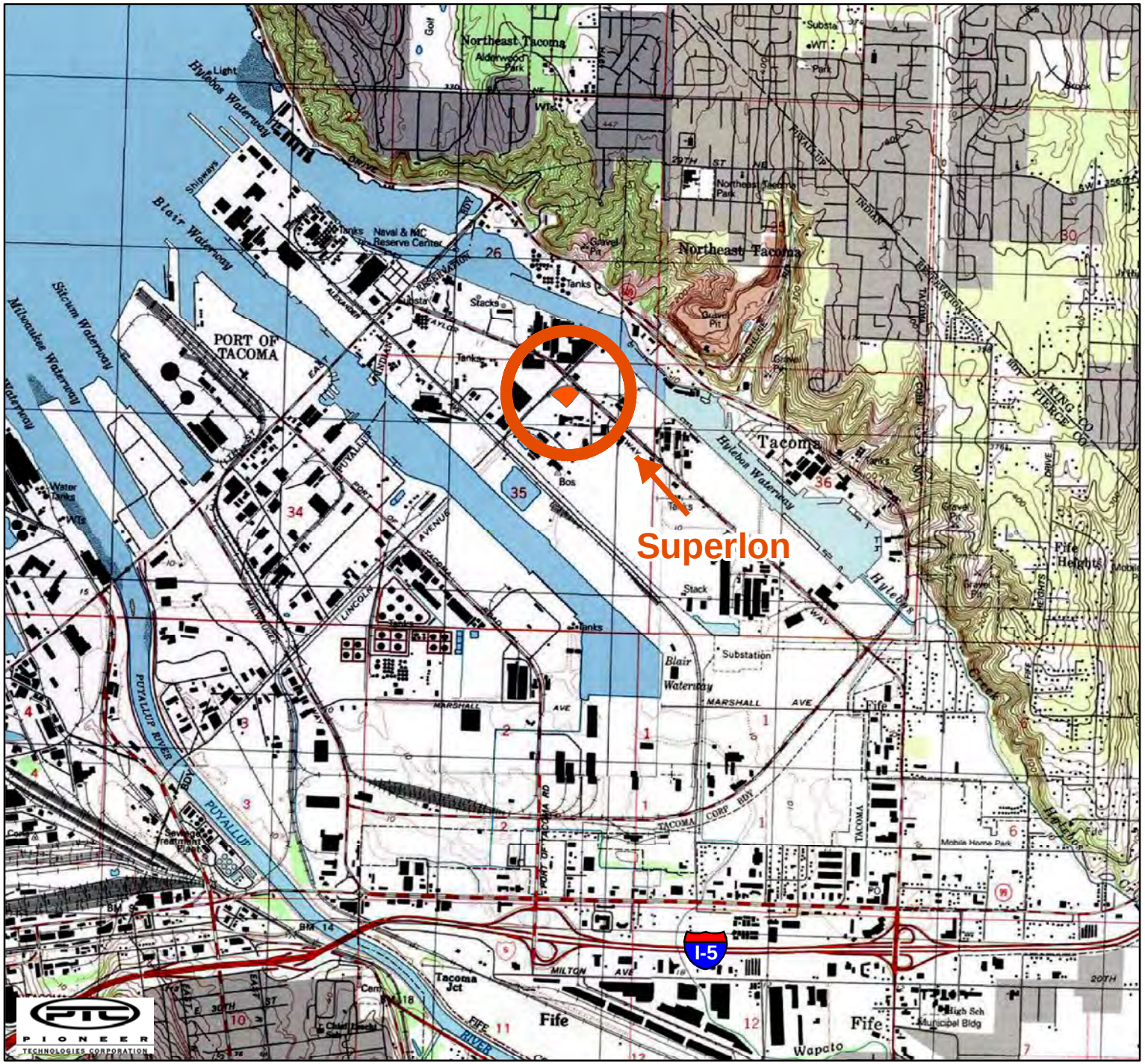

Figure 1

Site Location
Interim Action
Phase III

Superlon December 2011

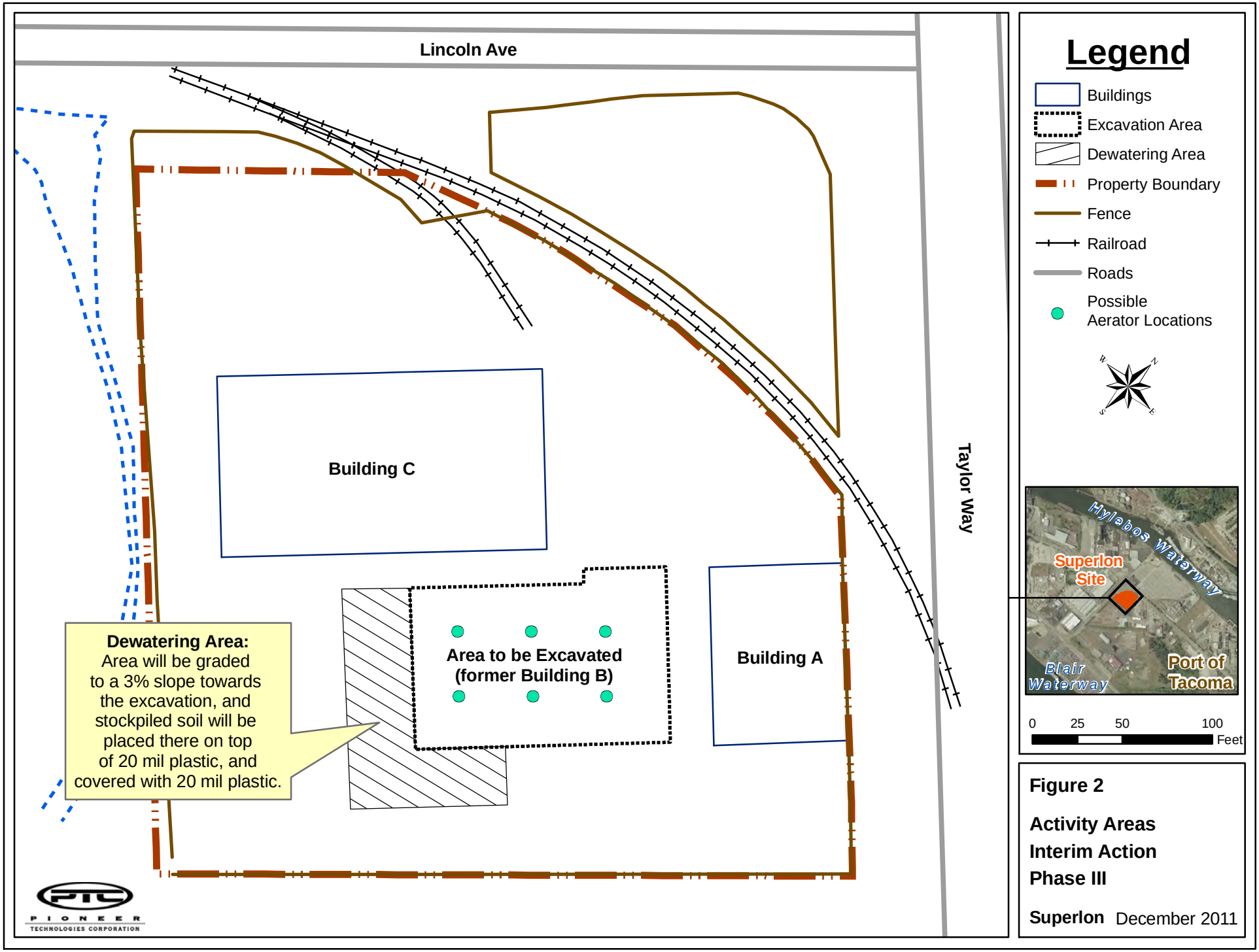

Figure 2

Activity Areas
Interim Action
Phase III

Superlon December 2011

Building C

SUP_SL_27
Excavate to 2 ft

SUP_SL_26
Excavate to 9 ft

SUP_SL_25
Excavate to 7 ft

SUP_SL_24
Excavate to 2 ft

Excavate to 1 ft
SUP_SL_16

Excavate to 7 ft
SUP_SL_17

Excavate to 9 ft
SUP_SL_18

Excavate to 3 ft
SUP_SL_19

Excavate to 3 ft
SUP_SL_13

Excavate to 5 ft
SUP_SL_12

Excavate to 5 ft
SUP_SL_11

Excavate to 5 ft
SUP_SL_10

Legend

- Excavation Area
- Excavation Units
- Other Buildings
- Sample Locations

0 5 10 20
Feet

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Figure 3

Excavation Plan
Interim Action
Phase III

Superlon December 2011

Dewatering System Cross Section

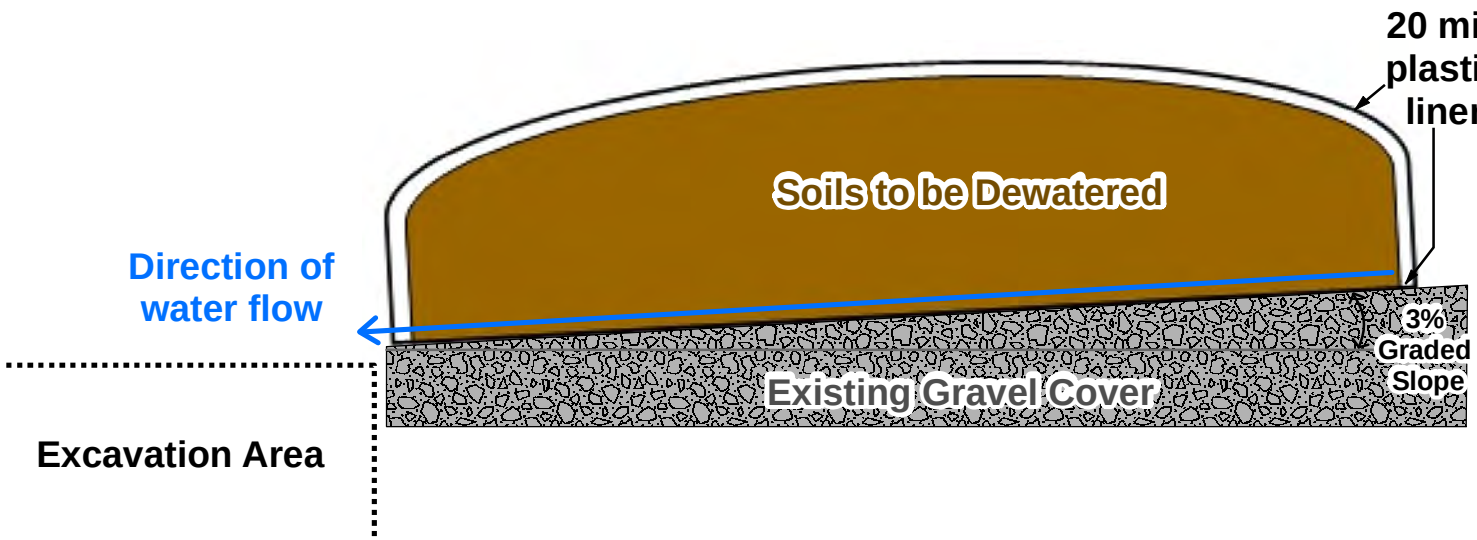

Figure 4

Dewatering System
Interim Action
Phase III

Superlon December 2011

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TABLES

TABLE 1: Excavation volumes

BOREHOLE	SURFACE (SQFT.)	DEPTH (IN FEET)	VOLUME (CUBIC YARDS)
SUP-SL-10	1,035	5	192
SUP-SL-11	1,035	5	192
SUP-SL-12	1,037	5	192
SUP-SL-13	1,026	3	114
SUP-SL-16	1,247	1	46
SUP-SL-17	1,252	7	325
SUP-SL-18	1,252	9	417
SUP-SL-19	1,252	3	139
SUP-SL-24	1,160	2	86
SUP-SL-25	951	7	247
SUP-SL-26	875	9	292
SUP-SL-27	879	2	65
TOTAL VOLUME TO BE EXCAVATED			2,306