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

Prepared For:

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2116 Taylor Way
Tacoma, Washington 98401

and

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January 12, 2010

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Table of Contents

1 Introduction 1
1.1 General 1
1.2 Site Location and Description 1
1.3 Objective and Scope of the Interim Action 2
1.4 Required Permits and Approvals 2
2 Background 3
2.1 Site History 3
2.2 Prior Environmental Assessment Studies 3
2.3 Summary of Past Interim Actions 5
2.3.1 Asbestos Abatement 5
2.3.2 Floor Encapsulation Program – Building B 5
2.3.3 Floor Cleaning – Building C 5
2.3.4 Berm Soil and Bunker C Interim Action 5
3 Interim Action – Scope of Work 6
3.1 Overview 6
3.2 Phase I - Installation of the Gravel Cap in Open Areas 6
3.2.1 Current Conditions 6
3.2.2 Grading and Installation of the Gravel Cap 6
3.3 Phase II - Debris Removal in the Basement of Building B 6
3.3.1 Current Conditions 6
3.3.2 Removal, Testing and Disposal Process 7
3.4 Phase III - Building Demolition 8
3.4.1 Current Conditions 8
3.4.2 Analysis of Demolition Materials and Building Preparation 8
3.4.3 Demolition Process 8
3.5 Phase IV - Removal of Surface Water from the Building B Basement Area 9
3.5.1 Current Conditions 9
3.5.2 Removal of the Surface Water 9
3.6 Phase V - Installation of the Gravel Cap in Building B 9
3.6.1 Current Conditions 9
3.6.2 Installation of a Gravel Cap: 9
3.7 Decontamination of Equipment and Personnel 10
4 Documentation and Reporting 11
4.1 Draft IA Report 11
5 Schedule 12
6 References 13

Figures

Figure 1 Site Location
Figure 2 Site Features
Figure 3 Tax Parcel Map
Figure 4 Interim Activity Areas

Appendices

Appendix A: Responses to Ecology Comments on Draft Interim Action Work Plan

1 Introduction

1.1 General

This Interim Action (IA) 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 the Companies are required to, along with other tasks, plan and complete a Remedial Investigation (RI) for the Site. This RI will focus on determining the lateral and vertical extent of Site constituents of potential concern (COPCs). For the Superlon site the known COPCs are arsenic, cadmium, lead, mercury, gasoline and oil range petroleum hydrocarbons, pentachlorophenol, tetrachloroethylene, trichloroethylene, cis-1,2-dichloroethylene, vinyl chloride, and chloromethane.

The purpose of the described actions is to improve site conditions to enable execution of the planned RI 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 interim actions at the Superlon Plastics Property (Property) generally located at 2116 Taylor Way, Tacoma, Washington. The Property (also known as Parcel A) covers 3.1 acres 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 (Figure 3).

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 (Parcel D). Beyond this right-of-way is a vacant triangle shaped parcel of land owned by the Port of Tacoma (Parcel C). To the northwest are Lincoln Avenue and a warehouse operation. To the south and southwest is Port of Tacoma property, which is leased and operated as the Haub Log Yard. The property to the southeast (Parcel B) is owned by RTH Tacoma, LLC and leased and operated by Fields Products, a roofing and waterproofing products manufacturing business.

The Property is located in a highly industrial 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 materials in the general area include dredge materials, native soils and various types of waste and debris, including slag. The Property shows evidence of historical filling activities; however, the nature and origin of the fill material is unknown.

1.3 Objective and Scope of the Interim Action

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

1. Install a layer of gravel or quarry spalls (a minimum of four inches thick) over the soil in the open area shown on Figure 4. This action will prevent potential exposure to soils in this area, some of which contain concentrations of lead and arsenic greater than the MTCA Method A cleanup standards for industrial sites. The final remedy for this area of the site will be determined through the Feasibility Study/Cleanup Action Plan (FS/CAP) process.
2. Remove, test and depose of debris in the basement of Building B that is currently in contact with soils that contain concentrations of lead and arsenic greater than the MTCA Method A cleanup standards for industrial sites.
3. Demolish and remove Building B, so that soil and groundwater samples can be collected in a safe and efficient manner in the RI. This action will also eliminate the possibility for exposure to residual lead and arsenic in Building B, as identified by the Washington Department of Labor and Industries, Occupational and Safety and Health Division (L&I) (see Section 2.2);
4. As necessary, remove and properly manage surface water that currently overlies the soils in the basement of Building B.
5. Install a layer of gravel or quarry spalls (a minimum of 12 inches thick) over the soil in the basement of Building B that currently contains concentrations of cadmium, lead, arsenic, mercury, gasoline and pentachlorophenol greater than the MTCA Method A cleanup standards for industrial sites. This layer of gravel/quarry spalls will act as a barrier to direct contact to the basement soils and will permit driving access for equipment necessary to collect soil and groundwater samples during the RI. 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;
- A Puget Sound Clean Air Agency (PSCAA) permit for the demolition of Building B;
- City of Tacoma Stormwater permit, Grading permit, Demolition permit, and Exemption to other Permits, for the site preparation and demolition of Building B; and
- A Washington State Environmental Protection Act designation for the demolition of Building B.

2 Background

2.1 Site History

A history of property ownership is as follows:

- In 1925, Latimer-Goodwin Chemical Company (Latimer-Goodwin) purchased an approximately 5-acre parcel from Buffelen Lumber & Manufacturing Company. Latimer-Goodwin developed this property and manufactured lead arsenate, a fruit orchard pesticide, on the Property.
- In 1944, Grasselli Chemicals Department (Grasselli), a subsidiary of E.I. duPont de Nemours and Company (DuPont), purchased Latimer-Goodwin's land parcel and lead arsenate manufacturing facility, including processes, inventories, select contracts, goodwill, and trademarks. In 1945, DuPont purchased another 1-acre land parcel from Buffelen Lumber & Manufacturing Company. Grasselli continued to manufacture lead arsenate and calcium arsenate insecticides until in 1946, perform dust mixing operations until 1949, and warehouse agricultural chemicals. Grasselli also used the Property as their western US sales office. Documentation from DuPont indicates that Grasselli also operated a development program for insecticides in the northwest fruit growing area. According to DuPont this was a market development program. Based on historical aerial photographs and Sanborn maps, the lead arsenate manufacturing facility was confined to Parcel A. The extent of DuPont's land holdings was based upon a title search performed in 2007. In 1946 and 1951, portions of DuPont's land holdings were sold to the City of Tacoma (Parcel C) and Buffelen Lumber Manufacturing Company (Parcel D), respectively. However, the Property remained in DuPont's possession.
- In 1951, DuPont sold the remaining land holding (Parcels A and B, totaling 6.07 acres), including the Property (Parcel A), to V.C. Monahan, who operated as Cabin Creek Lumber Company. In 1968, V.C. Monahan divided the land holding and sold 3.1 acres (Parcel A) to Justus Company, Inc., who operated a wood treatment facility.
- In 1972, Frank B. Lynott, of Justus Cedar Homes and Lindal Cedar Homes, ceased operation of a wood treatment facility on site and sold the 3.1-acre Property (Parcel A) to Mr. Ragnar M. Nars, operating as Superlon Plastics Company, Inc. (Superlon). In 1976, Parcel B was sold to Scott and From Co., Inc.
- From 1992 to present, ownership of the Property (Parcel A) was subdivided evenly into thirds, all of which were re-consolidated and granted through a series of quit claim deeds to White Birch Group, LLC.

2.2 Prior Environmental Assessment Studies

In 1983, a twelve square mile area, including and surrounding the Property, was placed on the National Priorities List, due to widespread contamination of water, sediments, and upland areas. It is referred to as the Commencement Bay- Nearshore Tidal Flats Superfund Site.

In 1990, the United States Environmental Protection Agency (EPA) and Ecology's Urban Bay Action Team (UBAT) found thirty-four corroded, unmarked, and empty drums in the dirt-floored basement of Superlon's Building B. Also in 1990, a 1,000-gallon gasoline underground storage tank (UST) was removed from the site.

In 1991, Ecology and Environment (E&E) completed a site assessment finding elevated concentrations of polycyclic aromatic hydrocarbons (PAHs), lead, and arsenic in soil and surface water. No groundwater samples were collected.

In 2007, an Initial Investigation was completed by the Tacoma/Pierce County Health Department. The condition of Building B appeared to be unchanged from the 1991 E&E investigation.

In 2007, Landau and Associates completed a Phase I Environmental Site Assessment and a Soil and Groundwater Investigation. Concentrations exceeding MTCA cleanup levels were detected in soil, groundwater, and surface water (well water, standing water, and sump water) for the following contaminants:

- Metals: Arsenic, Cadmium, Lead, and Mercury
- Petroleum hydrocarbons: gasoline and oil range
- Semi-volatile organic compounds: pentachlorophenol
- Volatile organic compounds: tetrachloroethylene, trichloroethylene, cis-1,2-dichloroethylene, vinyl chloride, and chloromethane

In 2008, L&I performed sampling within the buildings at the Superlon facility. Wipe samples detected lead and arsenic in dust on the floors of Building B and C, and on the manufactured product stored in Building B. Lead concentrations in certain floor wipe samples exceeded the United States Department of Housing and Urban Development (HUD) guidelines for surface contamination. In addition, asbestos was found in pipe insulation materials on site.

Stormwater, process water from the plastic pipe extruder manufacturing system, and sump water were pumped from the basement of Building B, and have, at times, been discharged to a ditch along the southeastern portion of the property. The historical and current configuration of this ditch system is unknown; however, it appears to have diverted water to the Blair and/or Hylebos Waterways. The extent to which it served as a conduit for contaminant transport is unknown. The pumping activity was discontinued in 2008.

The Port of Tacoma (the Port) developed a plan for redevelopment of the area that encompasses the Site. The 2008 Draft Environmental Impact Statement for the Blair-Hylebos Terminal Redevelopment Project specifies alternatives that, under redevelopment alternative 1, the Property would be used for development of road and rail infrastructure; and, that under redevelopment alternative 2, the Port would develop roadway and utility improvements near the Property. However, in March 2009, the Port indicated they are not pursuing or budgeting for the acquisition of the Property.

In 2009 the Companies and Ecology signed Agreed Order DE 5940, which requires that a RI and FS be prepared for the Site, and that an Interim Action be performed.

2.3 Summary of Past Interim Actions

2.3.1 Asbestos Abatement

During their 2008 inspection L&I discovered approximately 250 linear feet of asbestos-containing pipe insulation. All asbestos-containing materials identified were removed by a qualified asbestos abatement company, Assured Quality Environmental, Incorporated, and deposed of between December 22 and 25, 2008.

2.3.2 Floor Encapsulation Program – Building B

To address the findings of L&I a program was developed to remove and encapsulate dust in Building B. This work was done between December 2008 and February 2009. Unfortunately wipe samples taken from the floor of Building B following the removal/encapsulation program contained concentrations of lead and arsenic above the United States Department of Housing and Urban Development (HUD) guidelines for surface contamination. As a result Building B has been closed to future access until a remedy can be developed.

2.3.3 Floor Cleaning – Building C

To address the findings of L&I, Superlon power washed the floors in the production building (Building C). Superlon intends to seal the floor in Building C with an asphalt sealant to prevent exposure to residual contamination that may be present on the floor. This work is ongoing in coordination with L&I.

2.3.4 Berm Soil and Bunker C Interim Action

According to Ecology records during the summer of 1996, a soil berm along the Property's north side was removed. A total of 4,420 tons of soil was removed and disposed at offsite landfills. Following berm removal, about 5,000 tons of petroleum contaminated soils (PCS) related to a former Bunker C fuel tank were also excavated and properly disposed of at a permitted landfill. Short-term groundwater treatment was implemented during the cleanup. The hydrocarbon cleanup was completed as an independent remedial action.

Interim actions were completed in accordance with MTCA Method A cleanup levels in effect at the time. Following its removal, residual arsenic concentrations in soils underlying the former berm ranged between <7.5 and 210 milligrams per kilogram (mg/kg). The Method A industrial soil cleanup level for arsenic was 200 mg/kg. Subsequent PCS excavation removed an additional one-half of the soils underlying the former berm down to the native tideflat layer. Total petroleum hydrocarbons (TPH) identified as diesel and motor oil were detected in one of the 15 confirmatory samples collected. TPH concentrations in this one sample were below the Method A cleanup level of 200 mg/kg in effect at the time. At the conclusion of groundwater treatment, the concentration of diesel range petroleum hydrocarbons was about 1.5 milligram per liter (mg/L) - slightly above the Method A groundwater cleanup level that was in effect at the time, but well below the presumed site-specific cleanup level of 10 mg/L, which at that time was considered applicable for diesel range petroleum hydrocarbons for protection of surface water at industrial sites.

3 Interim Action – Scope of Work

3.1 Overview

This section addresses the methods that will be used to meet the objectives outlined in Section 1.3. Following the completion of the interim action the Companies will submit a report to Ecology describing the work taken and the result. Figure 4 shows the location on site where each 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 for Ecology's approval.

3.2 Phase I - Installation of the Gravel Cap in Open Areas

3.2.1 Current Conditions

Soils in certain open areas of the Property contain concentrations of lead and arsenic greater than the MTCA Method A cleanup standards for industrial sites.

3.2.2 Grading and Installation of the Gravel Cap

In the initial phase of the interim action a gravel/quarry spalls layer no less than four inches thick will be placed and compacted over the area identified in Figure 4. The process to complete this action is as follows:

Vegetation removal: Vegetation in the work area will be cut to a height of no greater than two inches.

Surface preparation: A thin layer (<4 inches) of surface soil and residual vegetation will be graded from the work area into a windrow. The windrow will be covered with 20-mil thick plastic and secured with sandbags to isolate the soil from contact.

Gravel placement: Following the removal of the thin layer of soil, the surface will be compacted, and a layer of gravel or quarry spalls no less than four inches thick will be placed and compacted. In areas where it is necessary to the create a surface suitable for vehicular movement, a filter fabric will be placed on the soil surface prior to the placement and compaction of the gravel/quarry spalls.

3.3 Phase II - Debris Removal in the Basement of Building B

3.3.1 Current Conditions

Debris in the basement of Building B consists of thirty-four rusted 55-gallon drums, an empty above-ground storage tank, and piles of wood. The drums are of unknown origin, are generally rusted through, and are currently empty. The storage tank is also of unknown origin, but the current site owner indicates that it was used for water storage. The wood debris is mostly cut timber and appears to be of recent (<20 years) age. Surface water covers north and south portions of the basement. No analytical data exist for the basement debris other than testing of the water in the storage tank (Landua, 2007). The only constituents detected in the tank water

were lead and arsenic, and the concentration of arsenic was below the drinking water standard and the concentration of lead was two times the drinking water standard.

3.3.2 Removal, Testing and Disposal Process

Basement wood debris and pilings will be tested prior to the interim action to determine their regulatory status. A complete Materials Characterization and Waste Management Plan has been developed (PERC, 2010). The metal materials that cannot be recycled will be disposed of offsite at an appropriate landfill(s) and wood materials will not be recycled.

Removal Process: If it is possible to do it safely, all recoverable basement debris will be collected prior to the demolition of Building B. Removal of the basement debris will be done by hand. Appropriate PPE will be used to manage exposure to the debris, surface water, surface soils and dust. The Health and Safety program to be used during these interim actions is described in the Health and Safety Plan (HASP) (PERC, 2010a).

Laboratory Testing: Materials will be tested by collecting representative samples (see PERC, 2010c). These samples will be provided to the lab who will then grind up the material, homogenize the material, and analyze the resulting sample using the analytical methods presented in the Project's SAP/QAPP (see PERC, 2010b). The samples will then be analyzed for site-related constituents and, depending on the results, other constituents as well (see PERC, 2010c). Metal debris, including the drums and storage tank, are empty and do not contain any coatings. Sampling is therefore not necessary. This debris will be taken to a metal recycling facility.

Disposal: Once the proper disposition of the material is determined it will be directly loaded into trucks and hauled to its final destination. If direct loading is not possible, the materials will be placed in temporary staging areas.

Staging Area: Materials will be directly loaded for disposal. However, if there is a delay in the ability to remove materials, staging areas for each type of material (i.e., recyclable, construction debris, and hazardous waste) will be constructed. Each of these staging areas will be built upon the gravel/quarry spalls cap created in prior actions. Each will be constructed in the same manner:

1. A layer of 20-mil thick plastic will be laid on top of the compacted gravel/quarry spalls to isolate the drums and materials from the gravel/quarry spalls base.
2. Silt fencing or straw bales will be placed around each stockpile to manage rain water runoff.

Each stockpile will be covered with a layer of 20-mil thick plastic once material is stockpiled, and kept in place until the material is either disposed of at an appropriate landfill or recycled.

3.4 Phase III - Building Demolition

3.4.1 Current Conditions

The Building B is in a deteriorated condition. Testing of the floors in Building B by L&I identified lead and arsenic in dust at concentrations that exceed HUD guidelines for surface contamination. Moreover, the presence of Building B would impede the collection of subsurface soil and groundwater samples during the upcoming remedial investigation (RI).

The demolition of Building B will proceed as part of this IA so that the RI can be completed in a safe and efficient manner.

3.4.2 Analysis of Demolition Building Materials

Laboratory Testing: Building Materials will be tested by collecting representative samples from wood (i.e., core samples) and other materials as appropriate (see PERC, 2010c). These samples will be provided to the lab who will then grind up the material, homogenize the material, and analyze the resulting sample using the analytical methods presented in the Project's SAP/QAPP (PERC, 2010b). The samples will then be analyzed for site-related constituents and, depending on the results, other constituents as well (PERC, 2010c). LeadCheck® screening will be done on painted surfaces of these building materials to determine if they contain lead-based paint. This screening will be peformed in order to notify recylers of the presence of lead-based paint, if it is found to be present.

Disposal: Once the proper disposition of the material is determined it can then be directly loaded into trucks and hauled to its final destination. If direct loading is not possible the materials will be temporarily stockpiled.

3.4.3 Demolition Process

Working from the gravel pad described in section 3.2, a licensed demolition contractor will demolish Building B using both standard and high-reach track-hoes. Using this process the building will be selectively demolished in a controlled manner. At no time will the demolition equipment, other than the buckets of the track-hoes, be in contact with contaminated soils or surface water. The buckets of the track-hoes, if they come in contact with contaminated soils or surface water, will be pressure washed with clean water prior to their demobilization from the site. Since they will not be in contact with contaminated soils or surface water, decontamination of the track-hoes (other than the buckets), other equipment, and the trucks used to haul the demolition materials off site will not be necessary.

The material will be loaded in trucks and transported to the appropriate landfill/recycling center. In the interest of applying sustainable solutions to this project, the goal will be to salvage as much of metal as possible, with the remaining debris being disposed of at a licensed landfill(s).

The anticipated duration for the demolition work is 5-10 days.

3.5 Phase IV - Removal of Surface Water from the Building B Basement Area

3.5.1 Current Conditions

Surface water is present in the basement of Building B. Prior testing of this surface water indicated the presence of lead, arsenic, tetrachloroethylene, trichloroethylene, cis-1,2-dichloroethylene, and chloromethane. Once Building B is demolished, these surface waters will be more accessible to workers. Additionally, installation of the gravel cap in this area (Phase V, below) will be greatly facilitated by the removal of these surface waters. As such, it is appropriate to remove or cover the standing water currently in the Building B basement area.

3.5.2 Surface Water

Following the demolition and removal of building B and associated debris, surface water may be pumped from the basement floor into either a truck for off-site treatment and disposal or a Baker Tank for short-term storage. This water will be analyzed for site-related constituents to determine the proper method for its disposal. The Baker tank (or similar containment vessel) also will be used to contain water collected during the decontamination of personnel and equipment used during the interim actions.

3.6 Phase V - Installation of the Gravel Cap in Building B

3.6.1 Current Conditions

Prior testing of the soils in the basement of Building B detected concentrations of cadmium, lead, arsenic, mercury, gasoline and pentachlorophenol greater than the MTCA Method A cleanup standards for industrial sites. Once Building B is demolished, these soils will be more accessible to site workers. As such, it is necessary to install a gravel barrier in the basement area.

3.6.2 Installation of a Gravel Cap:

Following the demolition and removal of building B a minimum 12-inch thick layer of gravel or quarry spalls will be placed and compacted. This layer will act as an exposure barrier for direct contact to the basement soils. It will also act as a drivable base for the direct push drilling rigs needed for the collection of soil and groundwater samples during the RI. RI sample locations will be identified before the material is place and a 12 inch pipe will be placed at that location so that the there is no barrier to future sampling.

3.7 Decontamination of Equipment and Personnel

Decontamination of personnel and equipment will follow the processes described in the attached HASP, with the following additions:

1. Prior to the start of the actions listed above, a decontamination pad will be constructed near the work area (Figure 4).
2. A wheel wash is not planned at this time because at least of four inches of gravel/quarry spalls will be placed over the area where the IA will occur. This will result in a barrier that will prevent trucks or equipment from coming into contact with potentially affected soils. If necessary, a wheel wash area will be constructed near the exit from the property along Taylor Way. If needed, the wheel wash area will be constructed in a manner that is consistent with the Ecology Best management practices (BMPs) (Ecology, 2005) and using one of the methods described below:
    - Option One:
        - An 18-inch deep excavation will be made roughly 10 feet wide and 15 feet long;
        - The base of the excavation will be compacted, and a 20-mil layer of plastic will be laid on the compacted soils;
        - A six-inch thick layer of sand will be place upon the plastic layer to prevent tearing of the plastic.
    - Option Two:
        - An 18-inch deep excavation will be made roughly 10 feet wide and 15 feet long;
        - The base of the excavation will be compacted and;
        - A three-inch thick layer of asphalt will be laid over the compacted soils.
3. Water used in the wheel wash area and during the decontamination of equipment and personnel will be pumped to the Baker Tank (see Section 3.5.2).
4. Following the completion of the interim action the decontamination pad will be disassembled. The wheel wash area, if option two is used, will be cleaned of sediment and wash water so that it can be retained and used during future work. If the wheel wash area is retained, rain water collected in times of inactivity will be managed according to applicable regulations.

4 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 be used during the creation of the Interim Action Report.

4.1 Draft IA Report

The Companies, or their authorized representatives, will prepare a Draft Interim Action Report as described below and in accordance with the schedule set forth in Section 5, and will submit this report to Ecology.

The Draft IA Report will include:

- A description of work completed, noting any exceptions to the methodology described in this work plan;
- Tables presenting the laboratory analyses of water collected in the Baker Tank, the debris collected from the basement of Building B, and the demolition materials;
- A list of disposal/recycling locations for each material collected during the described actions;
- A photographic record of the processes used and facility conditions following the work; and,
- A figure showing post-work facility features.

5 Schedule

The estimated schedule to complete the IA is summarized as follows:

- Mobilization and initiation of the field work will commence within 45 days of completion of permitting and Ecology approvals, weather permitting.
- The activities described in this Work Plan will be completed within 60 days of mobilization.
- The Draft IA Report will be issued to Ecology within 60 days of the receipt of the final laboratory analyses and the disposal/recycling records/manifests.

6 References

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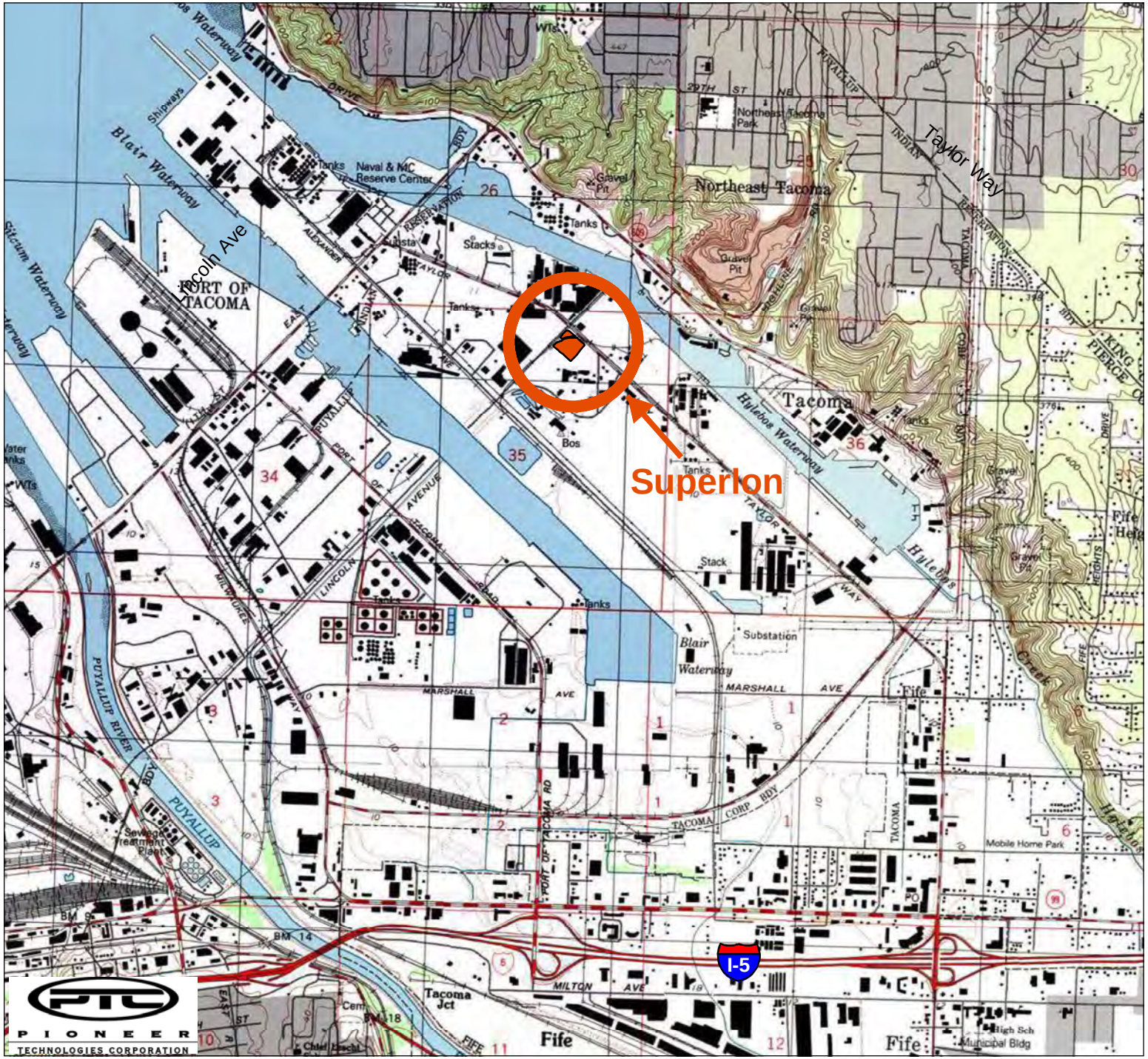
Washington State Department of Ecology (Ecology). 2005. Stormwater Management Manual for Western Washington Volume IV – Source Control BMPs. http://www.ecy.wa.gov/biblio/0510032.html (Ecology Publication Numbers 05-10-029 through 05-10-033).

Figures



N
W
E
S

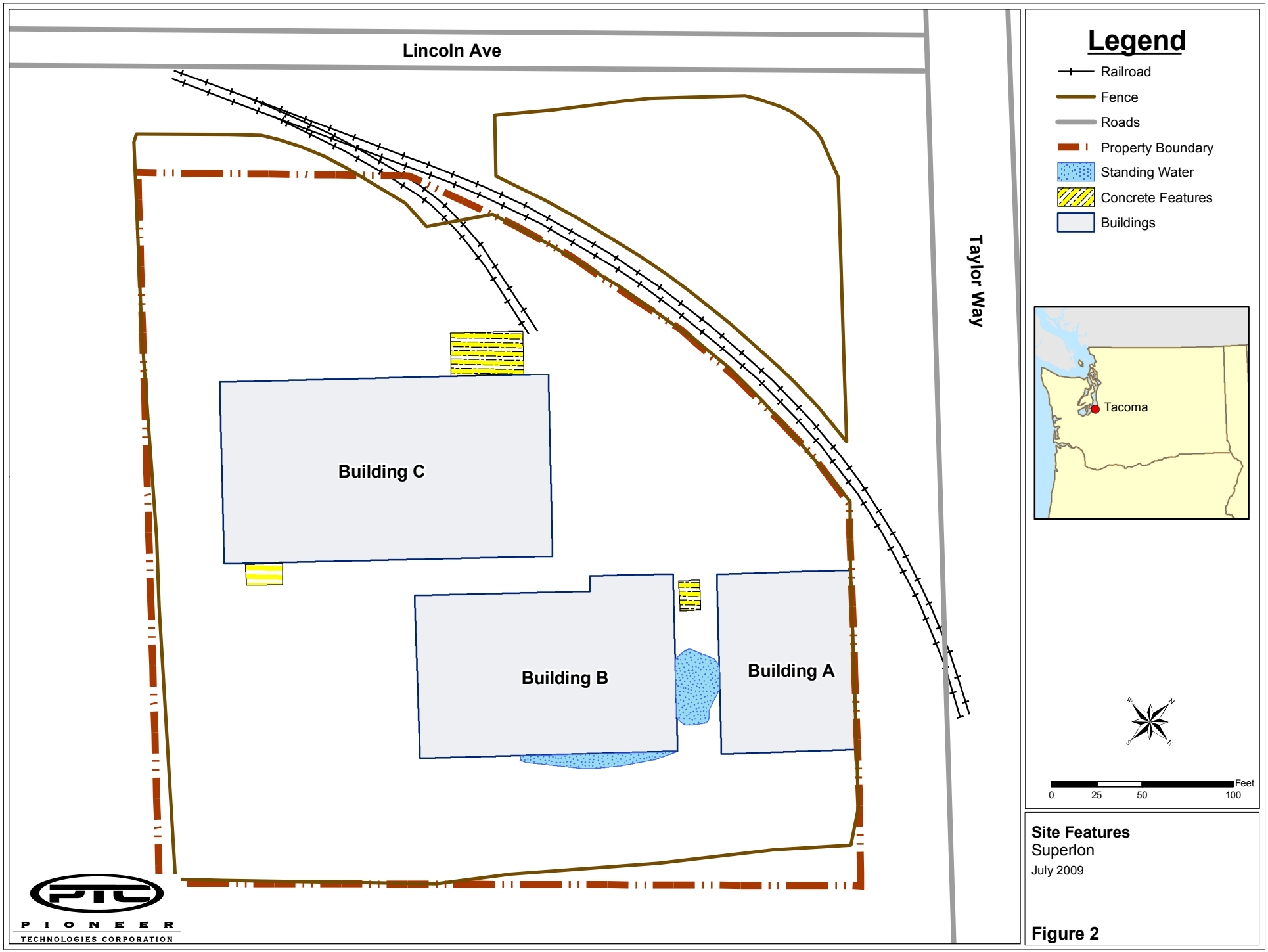
0 0.25 0.5 Miles

PIONEER TECHNOLOGIES CORPORATION

Site Location
Superlon

June 2009

Figure 1


Lincoln Ave
Taylor Way
Building C
Building B
Building A
Legend
Railroad
Fence
Roads
Property Boundary
Standing Water
Concrete Features
Buildings
Tacoma
0
25
50
100
Feet
PIONEER
TECHNOLOGIES CORPORATION
Site Features
Superlon
July 2009
Figure 2

Legend

Tax parcel

Note: The Site boundaries are currently undefined. The Site includes impacted media on Parcel A. Historic land holdings by DuPont also include Parcels B, C, and D.

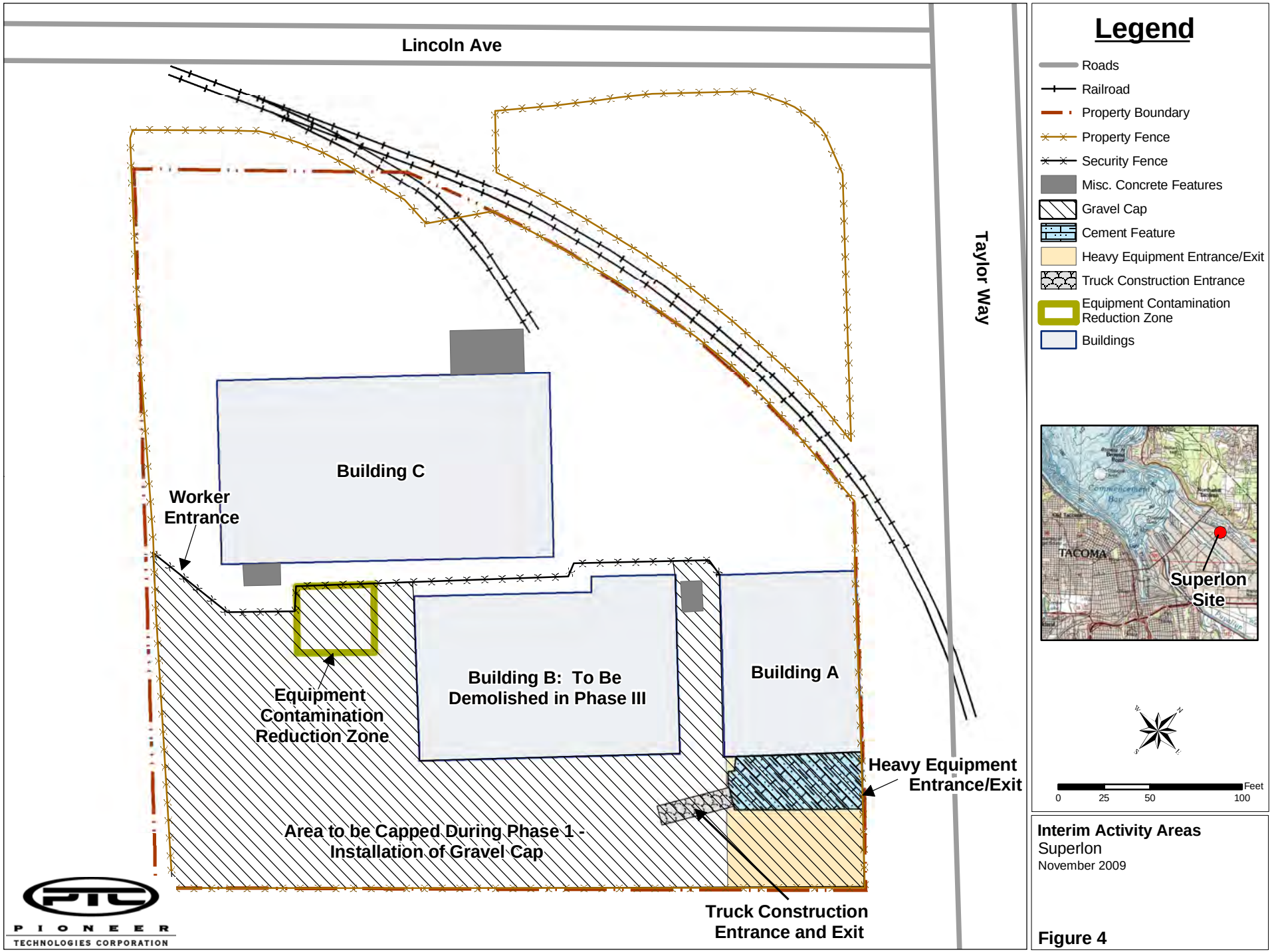
N
W E
S

Feet
0 50 100 200

PIONEER TECHNOLOGIES CORPORATION

Tax Parcel Map
Superlon
July 2009

Figure 3



PIONEER TECHNOLOGIES CORPORATION

Interim Activity Areas
Superlon
November 2009

Figure 4

Appendix A: Responses to Ecology Comments on the Draft Interim Action Work Plan

The Washington State Department of Ecology provided comments on the August 25, 2009 Interim Action Work Plan for the Superlon Plastics Site, Tacoma, Washington on October 22, 2009. The purpose of this document is to provide responses to the comments. In addition, the Interim Action Work Plan was revised in response to the comments. Below the Ecology comment is presented in black italic font and the responses are presented in green font.

This letter provides White Birch Group, LLC (White Birch) and E.I. du Pont de Nemours and Company (DuPont) with comments from the Washington State Department of Ecology (Ecology) on the above-referenced work plan, for the Superlon Plastics, Inc. cleanup site (Site). Written approval by Ecology is required by Agreed Order Number DE 5940, negotiated between Ecology, White Birch, and DuPont. Ecology understands that a finalized version of the work plan will be provided. The comments listed below should be addressed within the updated work plan.

Ecology comments on the work plan:

1. Section 1.2. Atofuia should be changed to Atofina.

Response

Change was made.

2. *Section 1.3, numbers 1 and 5. Ecology encourages sustainable product use wherever possible; however, we are concerned about potential pH changes in surface water runoff caused by the proposed use of recycled concrete material (RCM) because it will be exposed to precipitation and pooled water. If RCM is utilized, an evaluation of predicted changes in pH and resulting affects to other contaminants of concern should be conducted. In addition, stormwater discharges must be monitored for pH and the facility should have best management practices (BMPs) readily available to address pH problems, if needed. The rationale for these requirements is as follows:*

    a. *RCM has a high pH and can adversely impact water quality if not managed properly. In the presence of water, left over reactants in RCM will dissolve into solution, resulting in increased leachate pH (up to pH 12, highly basic or alkaline). The proposed RCM use described in this work plan has the potential to increase the pH of stormwater runoff and pooled water within the lower level of Building B, which may in turn increase groundwater pH at the Site or, if discharged, impact aquatic life at the stormwater outfall.*

    b. *With respect to Site cleanup, pH is a controlling factor in arsenic speciation, adsorption, and desorption and, therefore, a pH increase could potentially affect arsenic mobility and toxicity at the Site.*

    c. *With respect to stormwater discharges from the Superlon facility, Washington water quality rules establish pH criteria for discharges to the Blair and Hylebos waterways as follows: "pH must be within the range of 7 to 8.5, with a human-caused variation within the above range of less than 0.5 units" [Washington*

Administrative Code (WAC 173-201 A), Aquatic Life pH Criteria in Marine Water].

d. *Also, for your consideration, I have attached a copy of King County, WA Department of Transportation's, Guideline for Use of RCM as Fill.*

Response

We understand Ecology's concerns about using recycled concrete and the potential for changes in pH which could affect fate and transport at the Superlon Site. Based on Ecology's concerns, no recycled concrete will be used for fill at the site. Instead the Work Plan will be updated to provide the option to use gravel or quarry spalls instead of recycled concrete.

3. *Section 1.3. Scope of Work and Sampling and Analysis Plan (SAP):*

a. *Stormwater Sampling: Because this is a contaminated Site, additional sampling and monitoring, above and beyond the Industrial Stormwater General Permit requirements, are necessary to evaluate the impact to surface waters and to determine if additional BMPs or Interim Actions are needed. Sampling and monitoring requirements within the Industrial Stormwater General Permit will also need to be fulfilled.*

Response

Superlon has been working with Ecology to renew the Industrial Storm Water General Permit for the facility. This permit is focused on storm water runoff from existing manufacturing areas.

i. *Ecology understands that stormwater on the eastern, unpaved, and more contaminated portion of the Site flows into the topographic depression of the Building B footprint and does not discharge from the Site. This should be verified through a professional survey, visual monitoring, and stormwater sampling. Although the Superlon facility is in the process of applying for the General Permit, sampling and visual monitoring of stormwater events should begin immediately. The wet season in western Washington begins October 1, 2009 and precipitation events are predicted this week.*

Response

ESM has developed a grading plan and a storm water plan for submittal to City of Tacoma. The plans document that the grading associated with the Interim Action (IA) will eliminate the potential for runoff from Building B area. Storm water from the area affected by the IA will continue to be directed overland to the low area where Building B is/was located as shown in Figure 1. In other words, no storm water associated with the IA will leave the Site. Therefore, no additional storm water sampling or analysis will be conducted as part of the IA.

ii. *Visual Monitoring: Throughout all precipitation events, visually monitor the Site regularly. Look for sheet flow across the land surface, flow into and within the ditch, and flow into and within the storm drain.*

Document and photograph flow, direction, turbidity, evidence of erosion, oil sheen, etc. During heavy storm events, if no flow is noted towards the ditches, indicating "no flow" and taking photographs are still advised to document observations and verify that stormwater is draining to the Building B depression and not discharging offsite.

Response

No storm water will runoff from the IA area off-site. Therefore, no additional visual monitoring will be performed other than what is required of Superlon in the general NPDES permit.

iii. *Sampling: Two sample points representative of discharge from the remediation activity area as well as flow from the ditch along the southern property boundary into the Lincoln Avenue catch basin will need to be chosen. Within the Interim Action Work Plan figures, indicate the proposed locations of where the samples will be collected, based on Site conditions and past experience. A single grab sample should be taken from each location within the first hour after discharge begins during any storm event where discharge occurs. This means you should be keeping an eye out for sheet flow on the property and in the ditch throughout the storm event to time your sampling. Superlon is not required to sample outside of regular business hours or during unsafe conditions.*

Response

No storm water will be "discharged" from the IA area. Therefore, no storm water sampling will be done.

Ecology indicated during discussions subsequent to this comment letter that three surface water samples should be collected in the ditch that runs along the western boundary of the property. These three samples will be collected at the outfall into the Lincoln Avenue ditch, adjacent to the Superlon southern property boundary, and one-halfway between the property corner and the outfall. These samples will be collected during the IA and analyzed consistent with the project Sampling and Analysis Plan (PERC, 2009)

iv. *Analysis: For the purpose of evaluating contaminants of concern found in shallow soils and typical of slag, analysis of stormwater samples should include: Metals, Total Petroleum Hydrocarbons, and Pentachlorophenol. Use appropriate EPA methods that meet Model Toxics Control Act cleanup levels (https://fortress.wa.gov/ecy/clarc/CLARCHome.aspx).*

Response

The three ditch surface water samples will be analyzed for the recommended suite of analytes.

v. *Reporting: Copies of visual monitoring documentation and analysis results from precipitation events should be submitted monthly to the*

Ecology, TCP Site Manager for 2009-2010 wet season. Once the first month's results are received and reviewed by Ecology, the need for additional sampling beyond the permit requirements should be evaluated and discussed with the TCP Site Manager.

Response

The results of the three ditch surface water samples will be reported to Ecology. Storm water monitoring performed as part of the general NPDES permit will continue to be reported as stipulated in the General Permit.

b. *Sampling for Recycling and Disposal of Demolition Debris:*

i. *Ecology understands that a waste management plan will be submitted prior to beginning demolition work.*

Response

A Materials Characterization and Waste Management Plan is currently being developed. The materials characterization plan is currently being developed in order to characterize the different materials in Building B before demolition takes place. The results of the sampling will be used in combination with the decision logic in the Waste Management Plan to determine the appropriate disposition of the materials. The Waste Management Plan and the Materials Characterization Plan will be submitted to Ecology for review before the demolition occurs.

ii. *For your information, Ecology's Hazardous Waste & Toxics Reduction Program has developed helpful websites on the topic of building demolition:*

Demolition Debris:
http://www.ecy.wa.gov/programs/hwtr/demodebris/dw_building.html.

Sampling Plans (Plan 3):
http://www.ecy.wa.gov/programs/hwtr/demodebris/pages2/sampleplans.html

Other Potentially Regulated Building Wastes:
http://www.ecy.wa.gov/programs/hwtr/demodebris/pages2/demowasteother.html

Response

Thank you for this information. We will consider it as we finalize the draft Material Characterization and Waste Management Plan.

4. *Section 1.4. Required Permits and Approvals:*

a. *Ecology: An Industrial Stormwater General Permit is required for general operations at Superlon Plastics Co., Inc. This permit details discharge limitations; monitoring, reporting, and record keeping requirements; a*

Stormwater Pollution Prevention Plan (SWPPP) with Best Management Practices (BMPs); etc. Refer to early comment on Scope of Work for additional stormwater sampling requirements.

Response

Storm water from the area affected by the IA will continue to be directed overland to the low area where Building B is/was located as shown in Figure 1. In addition, no storm water associated with the IA will leave the Site. Therefore, no additional storm water sampling or analysis will be conducted as part of the IA. ESM is developing a Construction Stormwater Pollution Prevention Plan and Stormwater Site Plan that are going to be submitted to Ecology for review and approval. Once Ecology approves of the Plans, they will be submitted to the City of Tacoma for their review.

b. *City of Tacoma: Work plans and other necessary information should be submitted to the City of Tacoma, c/o Misty Blair and Merita Trohimovich Pollard, for consultation to ensure compliance with any substantive requirements. Ecology will provide a letter to accompany the work plans that will verify that the proposed remedial actions are required by the Model Toxics Control Act (MTCA) at a facility under an Agreed Order. This letter will also document progress on the required Industrial Stormwater General Permit. The proposed remedial activities may be considered exempt from the procedural requirements of any laws requiring or authorizing local government permits or approvals for the remedial action (per RCW 70.105D.090). Substantive requirements are required to be followed.*

Response

We appreciate your help in working with the City of Tacoma to ensure that the substantive requirements are met. We have been working with Ms. Blair and Ms. Trohimovich-Pollard to ensure that we provide them with the needed information.

c. *Recycling and Disposal of Demolition Debris:*

   i. *Ecology should be provided information documenting waste characterization of the stockpiles for review and approval prior to disposal or recycling of the demolition debris (including analytical results, recommended waste designation, description of stockpile, quantity). Dangerous waste manifests and solid waste bills of lading should also be provided to Ecology. Submittals of waste characterization and disposal documentation should be provided to the Toxic Cleanup Program Site Manager. Contained-in determination requests for demolition debris recommended for disposal as solid waste should be addressed to Samuel Iwenofu, Hazardous Waste and Toxics Reduction Section, Southwest Regional Office, PO Box 47775, Olympia, WA 98504-7775. Each contained-in determination request should include information listed in the attached document titled "Contained-In Determination Request – Information Required".*

Response

The Waste Management Plan will identify the decision criteria for determining the appropriate disposition of materials. White Birch, LLC is the owner of the property and Superlon is the operator and who will obtain a USEPA Waste Generation Number and will be the signatory on the waste manifests. Copies of the Waste Manifests will be provided to Ecology.

Materials that are characterized as hazardous will be disposed of at Arlington, OR. Materials that are not characterized as hazardous will be disposed of at a solid waste landfill or recycled, as appropriate.

ii. *Waste disposal: The current work plan states that all demolition debris will be disposed of at appropriate Waste Management, Arlington, OR landfills (Chemical Waste Management or Columbia Ridge Landfill). If waste or demolition debris is disposed of within Pierce County, the Tacoma/Pierce County Health Department (T/PCHD, c/o Andy Comstock) should be consulted regarding disposal requirements for building demolition materials. T/PCHD oversees the handling and disposal of solid waste in Pierce County through a Waste Disposal Authorization (WDA) process.*

Response

We anticipate that much of the demolition debris, other than the material in the basement of Building B, will be disposed of as solid waste in Pierce County. We are contacting the individual landfills that accept construction and demolition debris to identify specific requirements. In addition, we will contact Tacoma/Pierce County Health Department to get their input.

5. *Section 3.4.2 and Sampling and Analysis Plan (SAP) Section 3.8.2. Wood Sampling: The SAP states that a representative core sample will be taken from each stockpile at a rate of one sample per ten cubic yards of debris. Ecology understands that sampling will occur prior to demolition and that following demolition material types will be segregated into individual stockpiles. Samples should be collected at a rate of one samples per five cubic yards. One composite sample should be submitted per material type stockpile. Samples should be analyzed for metals and Pentachlorophenol. Visually inspect wood and document if there is any indication of creosote treatment.*

Response

The Materials Characterization and Waste Management Plan will identify the sampling frequency for each material. The goal is to collect samples that are representative of the materials and quantities that may have to be disposed of at a specific location. The frequency of sampling will be based on the requirements of the disposal facilities which are typically 1 sample for every five hundred cubic yards. We agree that composite samples should be collected for each type or type(s) of materials based on the percentage of material in the waste.

6. *Section 3.7 and Figures. Please indicate the locations of the entrance, decontamination pad, and wheel wash in one of the Figures (item 1 indicates Figure 4). Best management*

practices (BMPs) for stormwater should follow Ecology's Stormwater Management Manual for Western Washington (Ecology Publication Numbers 05-10-029 through 05-10-033). For example, BMP C105 and BMP C106 describe construction entrance and wheel wash specifications, respectively.

Response

A wheel wash was identified as an option in the IA. If a wheel wash is constructed it will done in a manner that is consistent with the BMPs you provided. Figure 4 will be updated to identify the entrance and decontamination pad. The location of the decontamination pad may be moved as necessary.

7. *Section 4. The Agreed Order requires monthly reporting to the TCP Site Manager. A communication schedule should also be established with the TCP Site Manager for interim action activity updates. Significant changes to the Interim Action work plan or unexpected findings must be communicated to the Ecology Site Manager immediately, on an as needed basis.*

Response

We will continue to have regular communications with the Department of Ecology. In addition, as part of the IA implementation we will schedule regular bi-weekly calls once work is ready to commence and will also communicate significant changes or unexpected findings as they occur.

8. *Section 5. Schedule: Mobilization and initiation of the field work will commence within 45 days of completion of permitting and Ecology approvals, weather permitting.*

Response

We appreciate Ecology's efforts to complete this work in a timely manner while at the same time accounting for all of the different necessary permits and requirements.