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January 8, 2020

Tasya Gray, LG
DOF Dalton, Olmsted & Fuglevand
1001 SW Klickitat Way, Suite 200B
Seattle, WA 98134
ngray@dofnw.com

Re: Comments on the *Revised Data Gaps Work Plan*, dated January 29, 2019, prepared by Dalton Olmsted Fuglevand (DOF).

- **Site Name:** Taylor Way and Alexander Avenue Fill Area (TWAFA)
- **Site Address:** 1500 Block Taylor Way E, Tacoma, Pierce County, Washington
- **Draft Agreed Order:** DE 14260
- **Facility/Site No.** 1403183
- **Cleanup Site ID No.** 4692

Dear Tasya Gray:

Thank you for submitting revised above-referenced revised work plan for the Department of Ecology's (Ecology) review. Below are our comments:

1. Text Table 23 and Appendix K Table 1, Data Gaps Investigation Tasks:

- a. Add analyses for polychlorinated biphenyls (PCBs) to soil samples from borings TWA-8 and -9.
- b. Add selenium to the list of metals constituents.¹
- c. Sample depth for borings TWA-SB1 through –SB4: The vertical extent of the fill needs to be determined. Soil samples at these borings need to be collected throughout the total depth of the fill and/or to the depth of the water table, whichever is deeper.
- d. TWA-SB5: This boring needs to define the vertical extent of contamination and not just stop at a depth of 5 feet below ground surface (bgs). This boring needs to extend to the top of the silt layer (estimated depth approximately 12 feet bgs) and/or the vertical extent

¹ As per comment C of Ecology's August 3, 2018 comment letter on the Data Gaps Work Plan Response to Comments.

2. Section 5.2, Contaminant Characterization Data Gaps and Appendix K: Please revise the text to incorporate the investigation task changes in above comment #1.
3. Section 5.2, page 41 of 47, recent groundwater data, proposed tasks, 2nd sub-bullet: It is not sufficient to only include wells that are anticipated to have higher concentrations of total petroleum hydrocarbons (TPH) for analyses with and without silica gel cleanup. Ecology recognizes that there are situations where the use of silica gel treatment is appropriate at cleanup sites. An example is for sites with highly organic soils, such as peat, where very high concentrations of naturally occurring organic carbon impacts analytical results.

An example of data that may be useful for Ecology to approve the use of silica gel cleanup is high measured carbon fractions both in impacted areas and upgradient of the Site, in adjacent unimpacted areas. Delineation of total and dissolved organic carbon in samples obtained at the Site and upgradient may provide support for use of silica gel cleanup. Additional site reporting may provide sufficient information.

When using silica gel cleanup of samples, reporting of both pre- and post-silica gel treatment results at all locations, chromatograms, calculations and numerical estimations of variability or laboratory measurements based on laboratory QA/QC, and supporting evidence and criteria for use of the method on a location by location basis is requested. Include evaluation of both contaminated and non-contaminated areas. If silica gel cleanup is used at the site, the polar breakdown products should be considered as part the site-specific cumulative risk assessment.²

4. Page 41 and 42, Section 5.2, Indoor Air Assessment: The first paragraph contains a reference to vapor intrusion as a topic to be considered as interim actions during future development and that mapping of lime waste and wood fill will aid in identifying areas that may warrant evaluation. This paragraph also references the 1514 Taylor Way property and Stericycle property as examples. Ecology does not agree that it can be assumed that contamination that has the potential to affect indoor air can be left in place to be dealt with later as development occurs. The remedial investigation needs to fully investigate the potential for vapor intrusion and the feasibility study needs to evaluate the various remedial options.

These remedial options need to include a full range of actions from source removal and/or treatment to vapor intrusion mitigation. The 1514 Taylor Way property is not an appropriate example for the situation beneath the CleanCare facility because the levels of contamination beneath CleanCare are much greater. It is not known how applicable the Stericycle facility example is because a Tier 1 assessment of this facility has not yet been completed. Please revise the text and Appendix K (Sampling and Analysis Plan) accordingly.

² For example: *Petroleum Metabolites Literature Review and Assessment Framework Technical Resource Document*, San Francisco Bay Regional Water Quality Control Board, June 27, 2016 accessed January 7, 2020 at https://www.waterboards.ca.gov/sanfranciscobay/publications_forms/documents/SF_WB_Petroleum_Metabolites.pdf

5. Section 5.2, Indoor Air Assessment – Proposed Tasks: Enclosed Figure 3 shows the building designations for the CleanCare facility and enclosed Figure 11 shows the approximate extent of buried lime-solvent sludge.³ Enclosed Figure 15⁴ shows the approximate extent of lime-solvent sludge and lime waste beneath both the CleanCare and Stericycle facilities. As shown in these figures, the approximate extent of lime-solvent sludge includes areas beneath CleanCare Buildings 1, 2, and 3. Therefore, the work plan shall include, as an initial task, a Tier 2 vapor intrusion assessment of these buildings. Of additional concern is the oily water sewer system which has the potential to provide preferential pathways for vapor intrusion (see attached Figure 8).⁵ Please revise the work plan text accordingly.

6. Section 6.0, Methods and Schedule:
 - a. Revise this section to indicate that the field inspection shall be performed within 30 days of the effective date of the Agreed Order. The current text shows deadlines for the Aboveground Site Conditions memo, Existing Groundwater Monitoring Network Evaluation and Recommendations memo, and the Soil Vapor Intrusion Status and Recommendations memo within a certain number of days from completing the field inspection but no deadline for conducting the field inspection is shown.

 - b. Initial Field Tasks: Add that a Tier 2 vapor intrusion assessment of CleanCare Buildings 1, 2, and 3 shall be performed. A vapor intrusion assessment workplan for this shall be prepared and submitted to Ecology within 30 days of the effective date of the Agreed Order. The Tier 2 vapor intrusion assessment shall be implemented within 30 days of Ecology's approval of the workplan.

 - c. Page 44, Stage 2 Field Tasks:
 - i. The text states that these tasks will be scheduled after completion of initial field and reporting tasks. Please revise to state that the task schedule for the tasks described in the sub-bullets (well abandonment, repair or redevelopment, well installation, and surveying) shall be provided in the Existing Groundwater Monitoring Network Evaluation and Recommendations memo and/or Soil and Groundwater Data Report.

 - ii. The stage 2 field tasks description needs to include a statement that there will likely need to be sampling activities for additional vapor intrusion assessment of the CleanCare and/or Stericycle facilities.

³ Figures taken from: *Site Characterization and Remedy Evaluation Report, CleanCare, Pierce County, Washington*. Prepared by Landau Associates for Tacoma Taylor Property, LLC, dated June 25, 2014.

⁴ Figure 15 is from: *RCRA Facility Assessment FR/VSI Report: Chemical Processors, Inc., Northwest Processing, Inc., Sol-Pro, Inc., and Chemical Processors, Parcel A*. Prepared by SAIC for EPA, dated February 1990.

⁵ Figure 8 is from: *RCRA Facility Assessment FR/VSI Report: Chemical Processors, Inc., Northwest Processing, Inc., Sol-Pro, Inc., and Chemical Processors, Parcel A*. Prepared by SAIC for EPA, dated February 1990.

7. Table 8:

- a. Please add the total PCBs and the Aroclors rows from PSC (2005)⁶ Table 9-5. The original (2005) table does not explain why some samples include results for Aroclors but do not list a total PCBs result (and visa versa). It is important to show a total PCBs result because the MTCA Method A soil cleanup levels for PCBs⁷ applies to a total value for all PCBs. Please verify the results from the original laboratory data and make appropriate corrections. Please also add explanatory footnotes to the table regarding this.
- b. Please also add the 2-methylnaphthalene results from PSC (2005).

8. Appendix A, Boring, Well, and Test Pit Logs:

- a. The current electronic version is not searchable. This makes it very difficult to find a particular boring or well log in an appendix that is 522 pages long. Please provide an electronic copy that is searchable so that a particular well log can be found. If this is not possible then another way of organizing and presenting the logs should be used so that individual logs can be easily found.
- b. The logs for CTP-1A and -1B, -2A and -2B, and -15A and -15B, are cut off. Please replace these logs with complete copies.

9. Please provide complete copy(s) in hard copy and electronic format of the 1987 Sweet, Edwards, & Associates, Inc. report(s) that are the source of the CTP- series boring logs and TR- series test pit logs to Ecology for our files.

10. Appendix K, Sampling and Analysis Plan: The cover sheet for this appendix identifies it as Appendix J. Please correct this page so that the correct appendix letter is shown.

11. Appendix L, Groundwater Monitoring Plan:

- a. Section 1.0, Introduction, 1st paragraph: As noted in our previous comment letter,⁸ the groundwater monitoring plan (GWMP) for the Stericycle Facility shall be merged with the GWMP for the TWAAFA Site. Therefore, please remove the reference to a separate plan for the Stericycle property and make appropriate revisions to incorporate the Stericycle GWMP in the TWAAFA GWMP.
- b. As noted in our previous comment,⁹ Stericycle wells CTMW-23 and PZ-4 need to be replaced since they were damaged during construction activities and had to be decommissioned. Since these wells are part of the monitoring network for the Site, their replacement shall be included in the work plan.

⁶ *Final Comprehensive RI Report*. Prepared by Phillip Services Corporation (PSC), dated January 21, 2005.

⁷ WAC 173-340-900, Tables 740-1 and 745-1.

⁸ See comment 41 of Ecology's February 7, 2018 comment letter on the Pre-Agreed Order Data Gaps Work Plan.

⁹ See comment EE of Ecology's August 3, 2018 comment letter on the Data Gaps Work Plan Response to Comments.

- c. The work plan references an older (2011) version of the Stericycle groundwater monitoring plan. The most recent version of the monitoring plan was approved in 2019.¹⁰ Please update the reference.

12. Environmental Information Management (EIM) Data: All environmental samples collected and analyzed after August 1, 2005, shall be uploaded to EIM. Ensure to comply with the requirements provided in [Ecology Policy 840](#).¹¹

When you submit the revised work plan, please also include a redline electronic copy.

If you have any questions, please contact me at (360) 407-6247 or via e-mail at steve.teel@ecy.wa.gov.

Sincerely,



Steve Teel, LHG
Cleanup Project Manager/Hydrogeologist
Toxics Cleanup Program
Southwest Regional Office

Enclosures: A – Figure 3, Historical Operations Site Plan
B – Figure 8, Solid Waste Management Unit Locations, NW Processing, Inc.
C – Figure 11, Approximate Extent of Buried Lime-Solvent Sludge
D – Figure 15, Areal Extent of Lime Waste Fill

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Ecology Site File

¹⁰ Revised Ground Water Monitoring Plan, Stericycle Tacoma Facility, Tacoma, Washington. Prepared by Dalton, Olmsted, Fuglevand, revised May 2010. Approved via email from Kaia Petersen to Tasya Gray, dated June 3, 2019.

¹¹ <https://fortress.wa.gov/ecy/publications/documents/1609050.pdf>

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Enclosure A

Figure 3, Historical Operations Site Plan

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CleanCare Site, Tacoma Washington

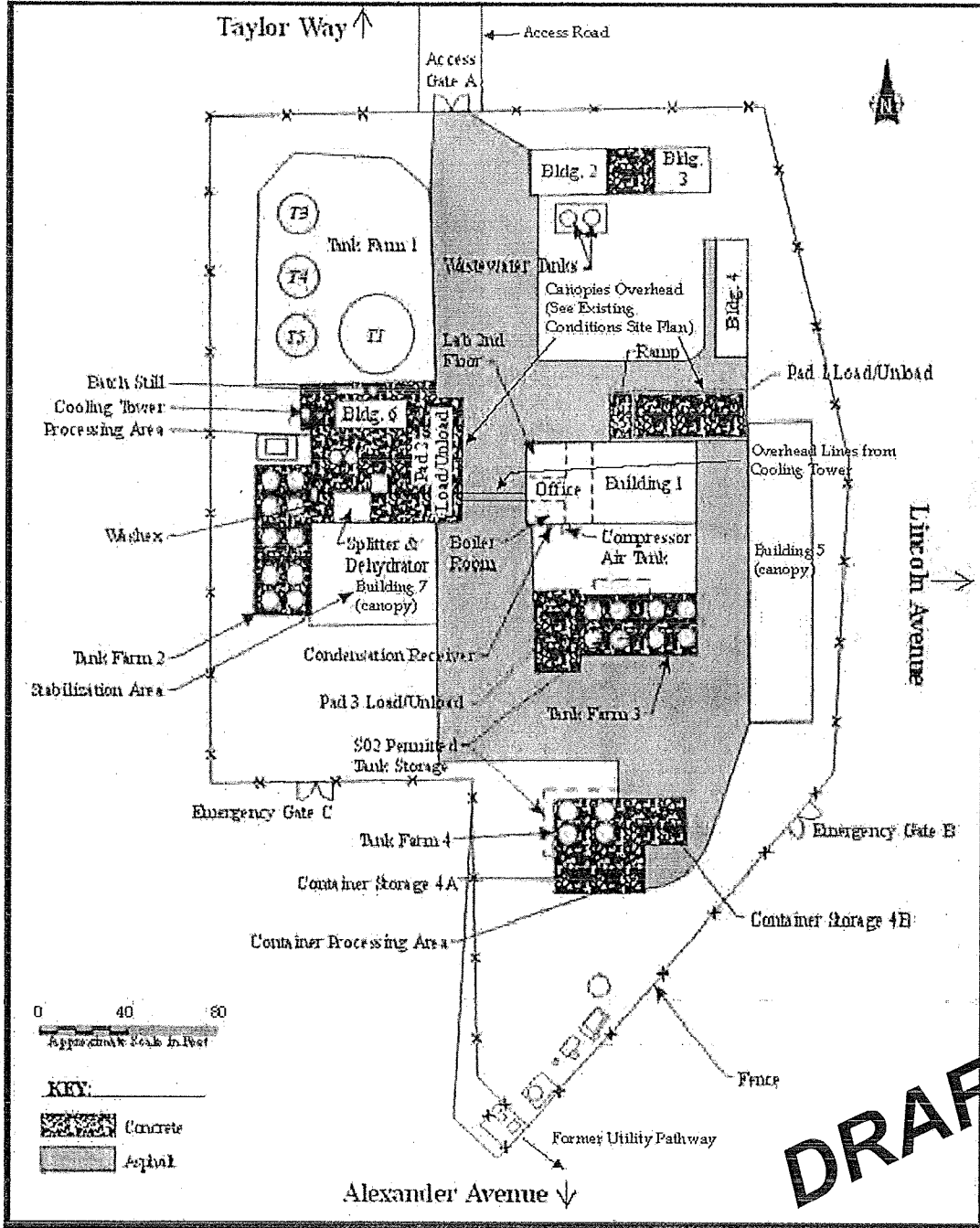


Figure source: EPA CleanCare Superfund Fact Sheet

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Enclosure B

Figure 8, Solid Waste Management Unit Locations, NW Processing, Inc.

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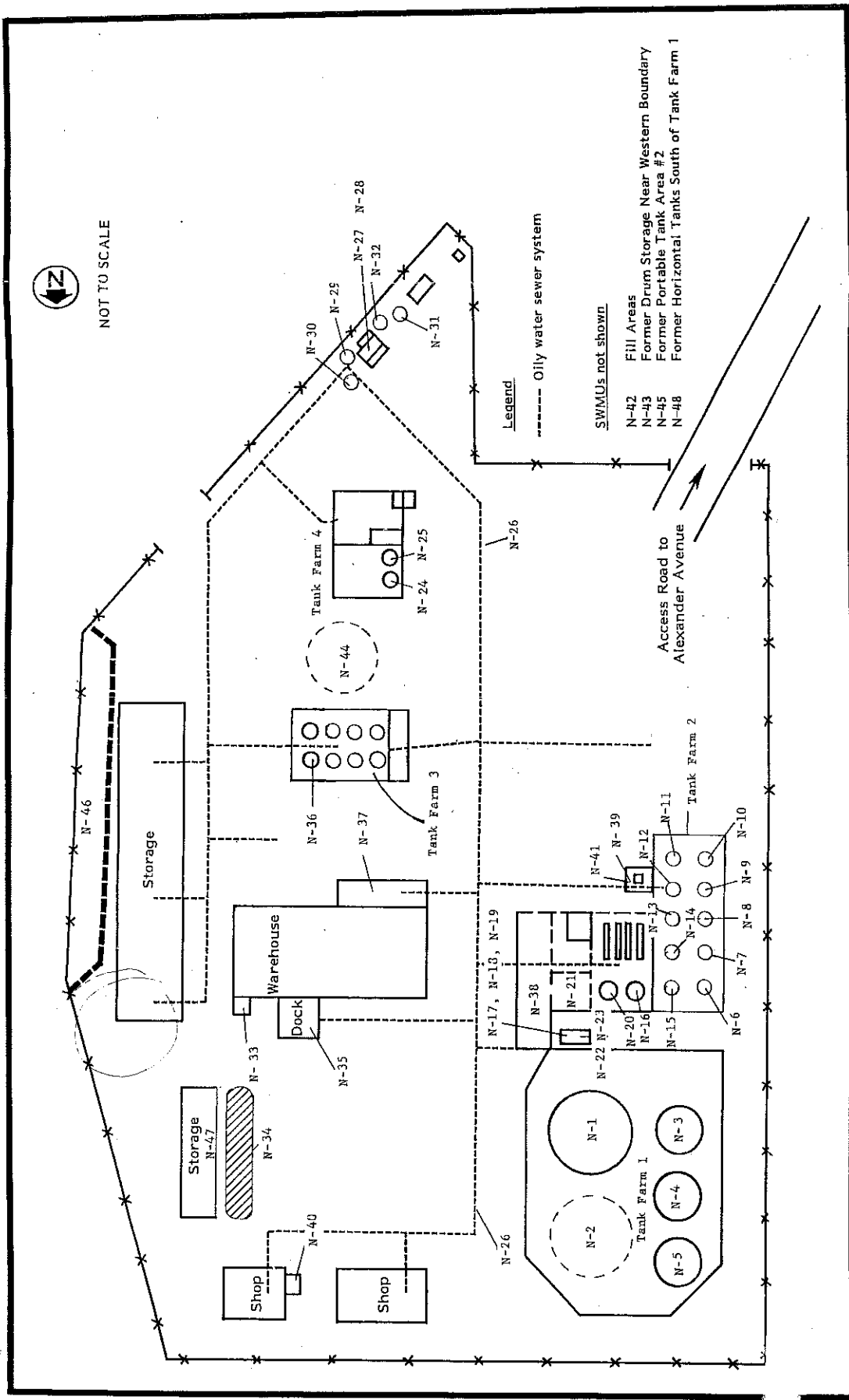


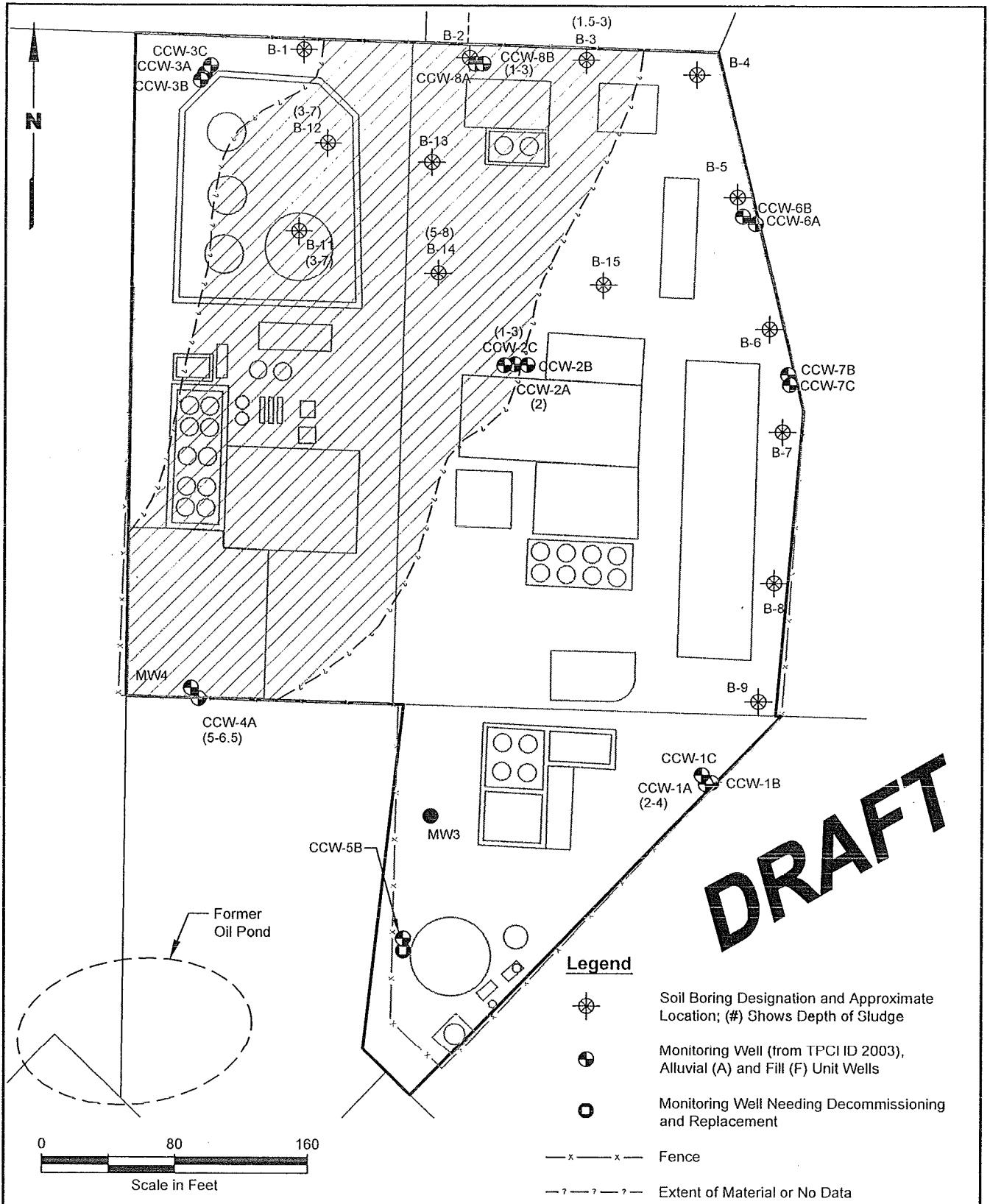
Figure 8
 SOLID WASTE MANAGEMENT UNIT LOCATIONS
 NORTHWEST PROCESSING, INC.

Enclosure C

Figure 11, Approximate Extent of Buried Lime-Solvent Sludge

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LANDAU ASSOCIATES, INC. | C:\Projects\92\006\10\1014\F11-F12-F13 Extent.dwg (A) | Figure 10-5/13/2014



DRAFT

Base map source: City of Tacoma GIS Data 2005; Notes from TPCHD 2003



CleanCare Property
Port of Tacoma
Tacoma, Washington

**Approximate Extent of Buried
Lime-Solvent Sludge**

Figure
11

Enclosure D

Figure 15, Areal Extent of Lime Waste Fill

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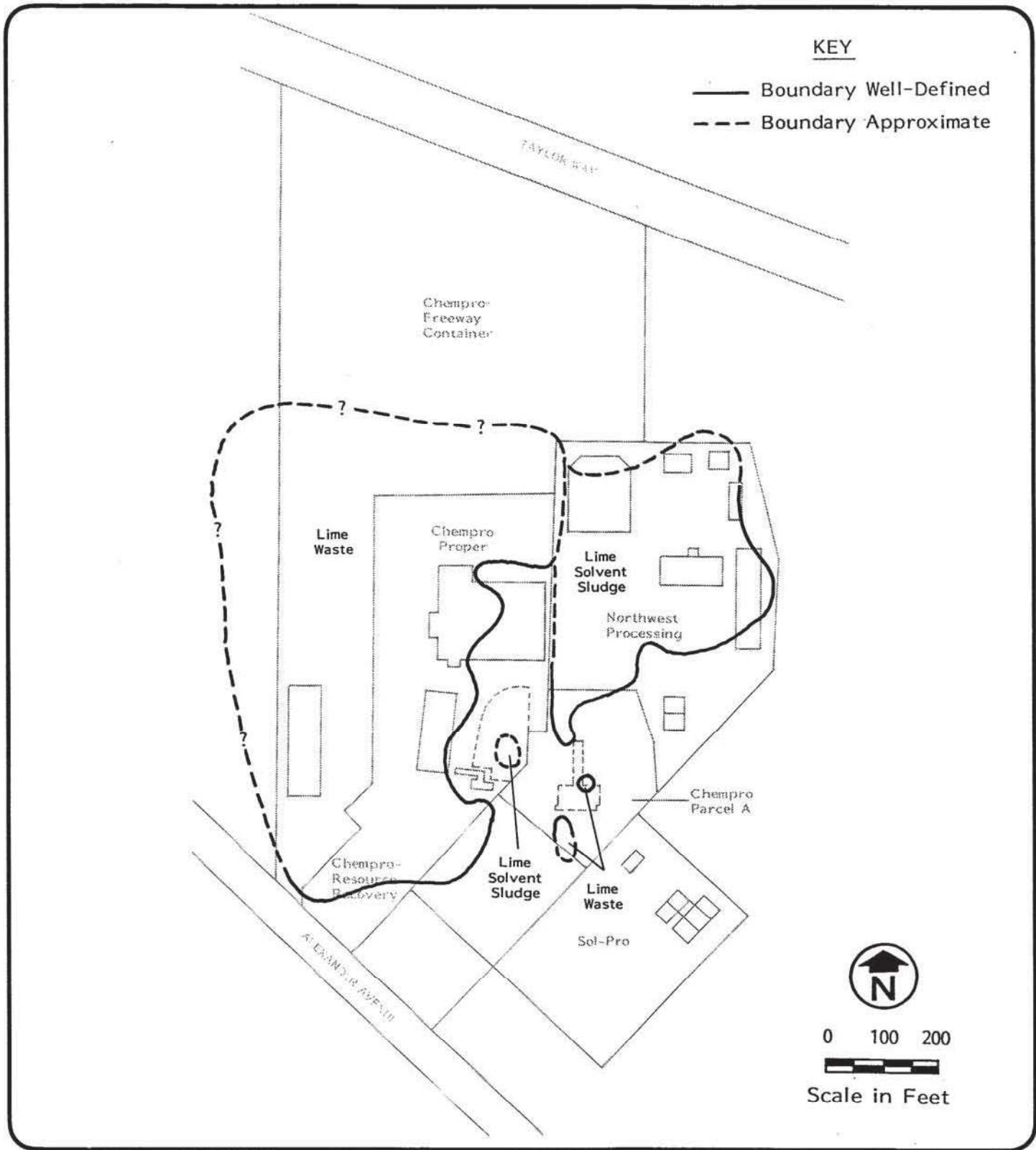


Figure 15

AREAL EXTENT OF LIME WASTE FILL