

Former Wagstaff Battery Supplemental Environmental Soil Sampling/Analysis and Contingency Plan


2124 North Williams Ave.

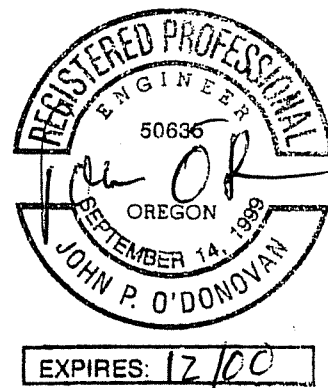
City of Portland
Bureau of Environmental Services
1120 SW 5th Ave. Room 1000
Portland, Oregon 97204-1912

September 18, 2000

Prepared By:

City of Portland
Bureau of Environmental Services
Coordinated Site Analysis Program
Special Waste Division


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Environmental Scientist



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Project Engineer

FORMER WAGSTAFF BATTERY SUPPLEMENTAL ENVIRONMENTAL SOIL SAMPLING / ANALYSIS AND CONTINGENCY PLAN.

INTRODUCTION

The Former Wagstaff Battery manufacturing facility site located at 2124 N Williams Ave., ODEQ Environmental Cleanup Site Information System (ECSI) site ID 1243, received a partial No Further Action (NFA) in 1998. ODEQ project managers requested additional investigation in accordance with the memorandum sent to John W. Finklea and George Scott May 24, 2000 from ODEQ's project manager Sheila Monroe. A copy of this memo is provided in Appendix-1. The additional investigation tasks are listed below in the site investigation section of this report.

BACKGROUND

Before additional development, ODEQ requested further site investigation. This investigation focuses on Building-1, Area-A (Map-3). The northern section of Building-1 includes: Sump-1, a fiberglass box, and surface materials. The surface materials are likely residual manufacturing process waste from the battery operations. They are suspected of containing contaminant concentrations that are above background levels (See photos). The Contaminants Of Concern (COC) are: Lead, Petroleum and pH.

SITE INVESTIGATION

The following tasks were completed:

1. Field screening for potential contamination in previously un-investigated areas.
2. Draft Contingency plan for encountering potentially contaminated soils.
3. Submit contingency plan to ODEQ.
4. Management of demolition debris.

The following actions have been completed:

A grab soil sample was collected from Sump-1 (Lab 001023), and the fiberglass box (Lab 001022). Two composite samples were collected from Area-A (Lab 001025 and Lab 001024) (Map-3). All the composite samples were collected from surface or near surface locations. All samples were collected using Nitrile gloves, laboratory cleaned 4-oz jars, and Teflon lids. The samples were placed in an iced cooler and transported directly to the laboratory using chain of custody procedures.

Results of completed actions

The analytical results are shown in Appendix-1. The results show that leachable lead levels range from 6.81 to 52.4 mg/L. These are Hazardous Waste concentration levels under the Resource Conservation and Recovery Act (RCRA). They are above the ODEQ leachate reference concentration of 2 mg/L as listed in OAR 340-122-045(6)(a). The analysis of these samples also shows a pH range from 1.4 to 3.2. The samples were also analyzed for petroleum contamination using the NWTPH-HCID method. Petroleum related contaminants were found in the fiberglass box (Lab 001022, Heavy Oil 7340 mg/Kg).

The contaminated material within the box (Map-1) is similar in color and consistency to material found on the shop floor in Area-A. During the site visit, several samples were collected and field screened from the floor of building-1 outside of Area-A. Samples that appeared to be contaminated, by discoloration or odors, were placed in plastic bags, allowed to sit for 20 minutes and analyzed using a MiniRae 2000 Photo Ionization Detector (PID). No volatile organic compounds were detected by the PID. Suspect materials within Area-A were analyzed for the COCs. The analytical results are listed in Appendix-1.

Conclusions

The samples (Lab 001024 and Lab 001025) that were taken from Area-A are within the area where construction activities are planned. These construction activities will generate soil. The excavated soil may be contaminated. It is not known if the contaminated material on the shop floor in Area-A (See photo) has affected soils beneath the shop floor. The contaminated material appears to be a mixture of soil, lead sulfate and dross (See photos). It is likely residual from the battery operations conducted at the site (See photos). The contaminated material in Area-A is white and gray (See photos). Area-A is approximately 20 feet by 25 feet (See photo and Map-3). The contaminated material is approximately 1 to 2 inches deep.

There are some holes and cracks in the floor in Area-A. The holes and cracks may have provided a pathway for the migration of contaminants to subsurface soils. The condition of the soils beneath the asphalt in Area-A is not known. It is understood that additional construction activities will include moving the north wall of building-1 south approximately 12 feet. This additional construction will involve excavation of soils for laying a foundation. This will involve removal of soils. The soils excavated during construction activities should be sampled in accordance with the contingency plan in Appendix-1.

An estimated quantity of the contaminated material on the shop floor in Area-A was calculated as follows:

1 (to 2) inch (es) * 1 ft/12 in * 25 ft * 20 ft * 7.48 gallons / 1 ft³ * 1 drum/55 gallon = 6 (to 12) 55-gallon drums.*

*This is an estimate of what will likely need to be managed as a hazardous waste of the known contaminated material described above. This estimate is provided for planning purposes and is not intended to be used to quantify actual amounts of hazardous materials that will require special handling. The actual quantity will need to be established by a certified environmental professional. The management (containerization, shipping, manifesting and monitoring) of this contaminated media should be conducted by a properly certified environmental professional firm. These drums will likely need to be disposed of at a RCRA Subtitle-C landfill or other approved facility or method.

Recommendations

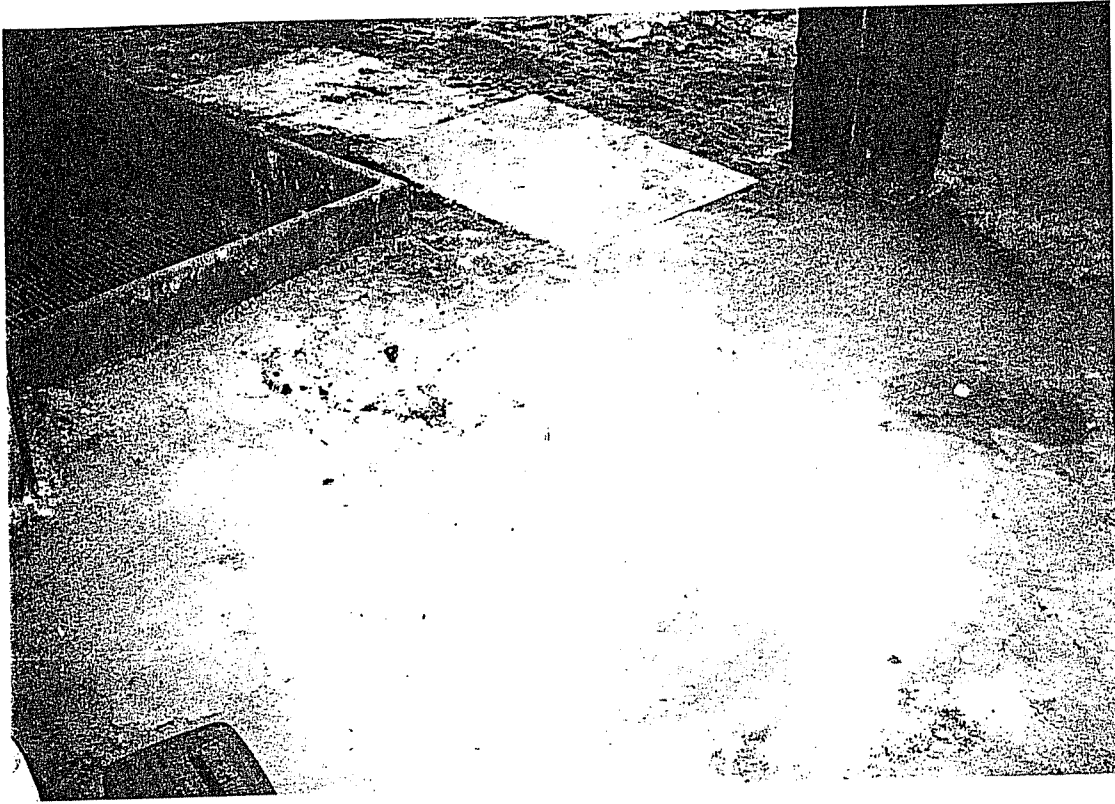
- Hire a properly certified environmental professional firm to manage contaminated material.
- Provide a worker health and safety plan.
- Follow attached contingency plan with respect to other potentially hazardous materials that may be generated during construction activities.

Limitations

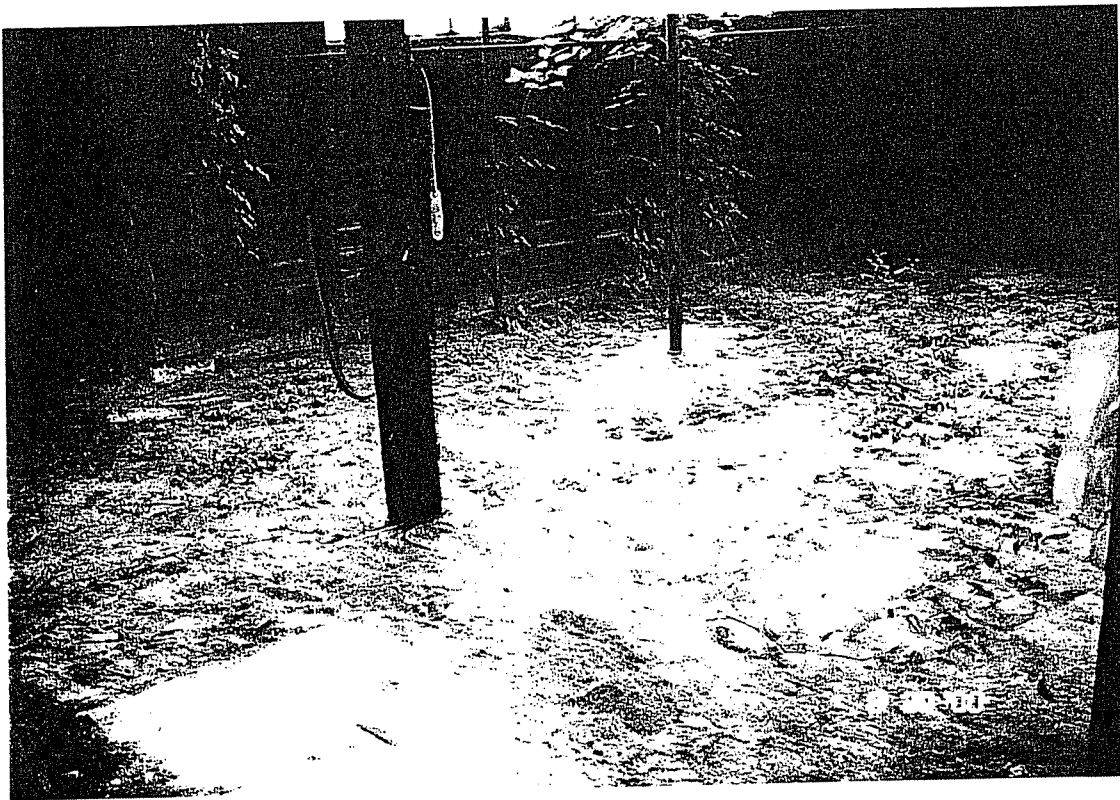
This report is intended to address environmental concerns, specifically items 1 through 4 of the ODEQ memorandum (Appendix-1), related to a specific area (Area-A) within the subject site. It is not intended to address any other area of the site. It *does not* provide information related to any health and safety concerns. The information contained in this report is valid at the time of the site investigation. It is not intended to be an exhaustive investigation of environmental conditions. The focus of this report is on: sampling for hazardous chemicals, and discovery and quantification of hazardous substances within Area-A. The hazardous substances are *likely* to be associated with the activities historically conducted at the subject site.

only in Area-A. In this context, the term hazardous substance includes the chemicals listed as hazardous substances in Title 40 code of Federal Regulations, Parts 302 and 355 and petroleum products.

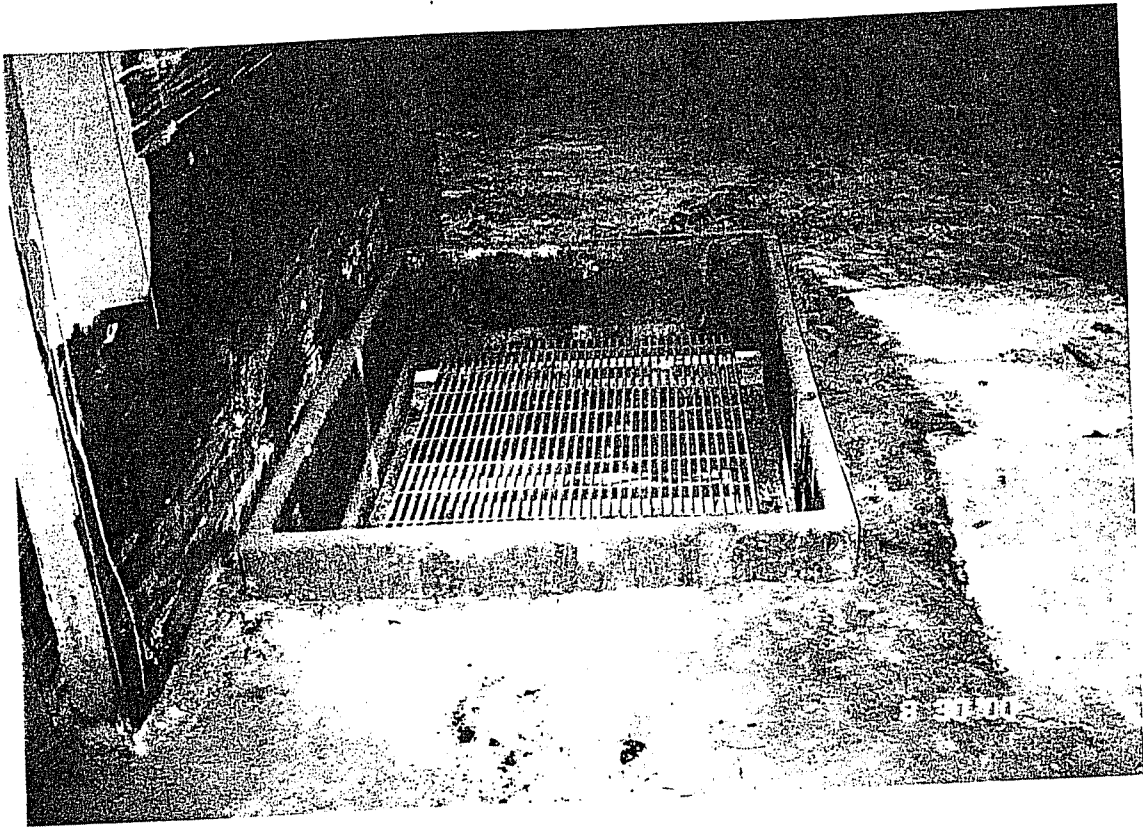
Appendix-1



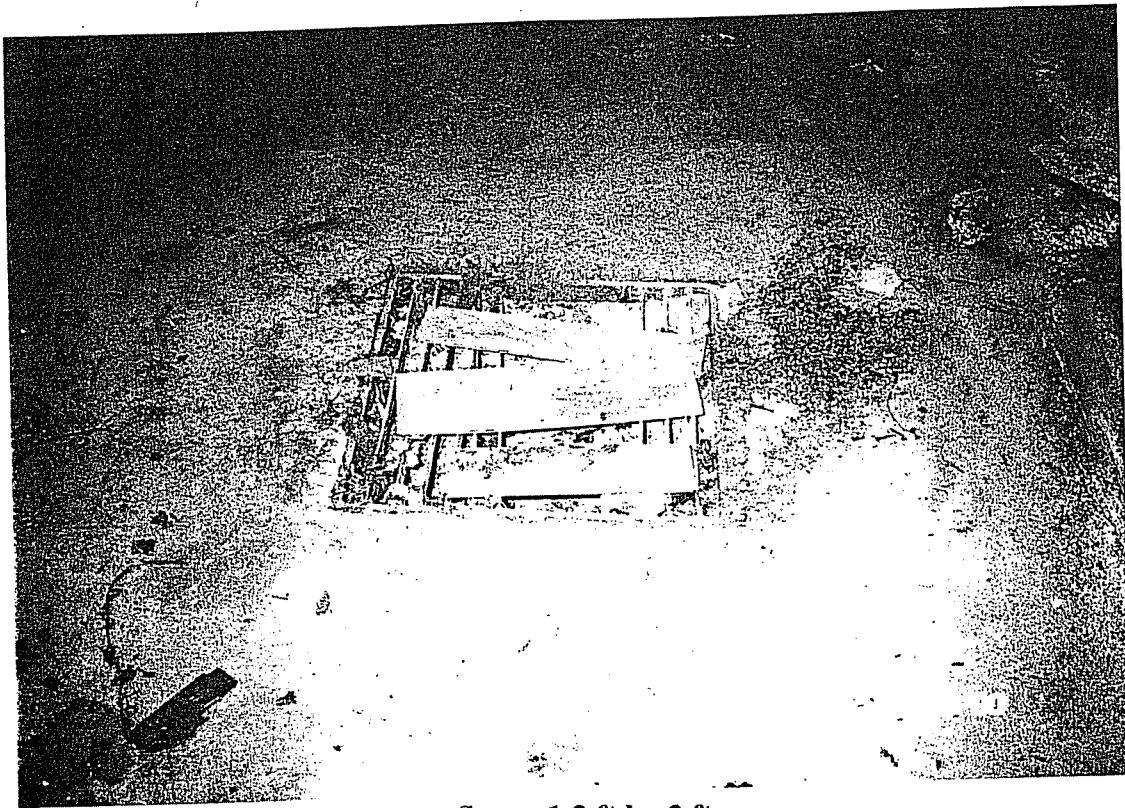
Surface contamination near fiberglass box



North wall contaminated material in shop floor area



Fiberglass Box



Sump-1 2 ft by 2 ft

Map-1

NE THOMPSON ST

0 50 100

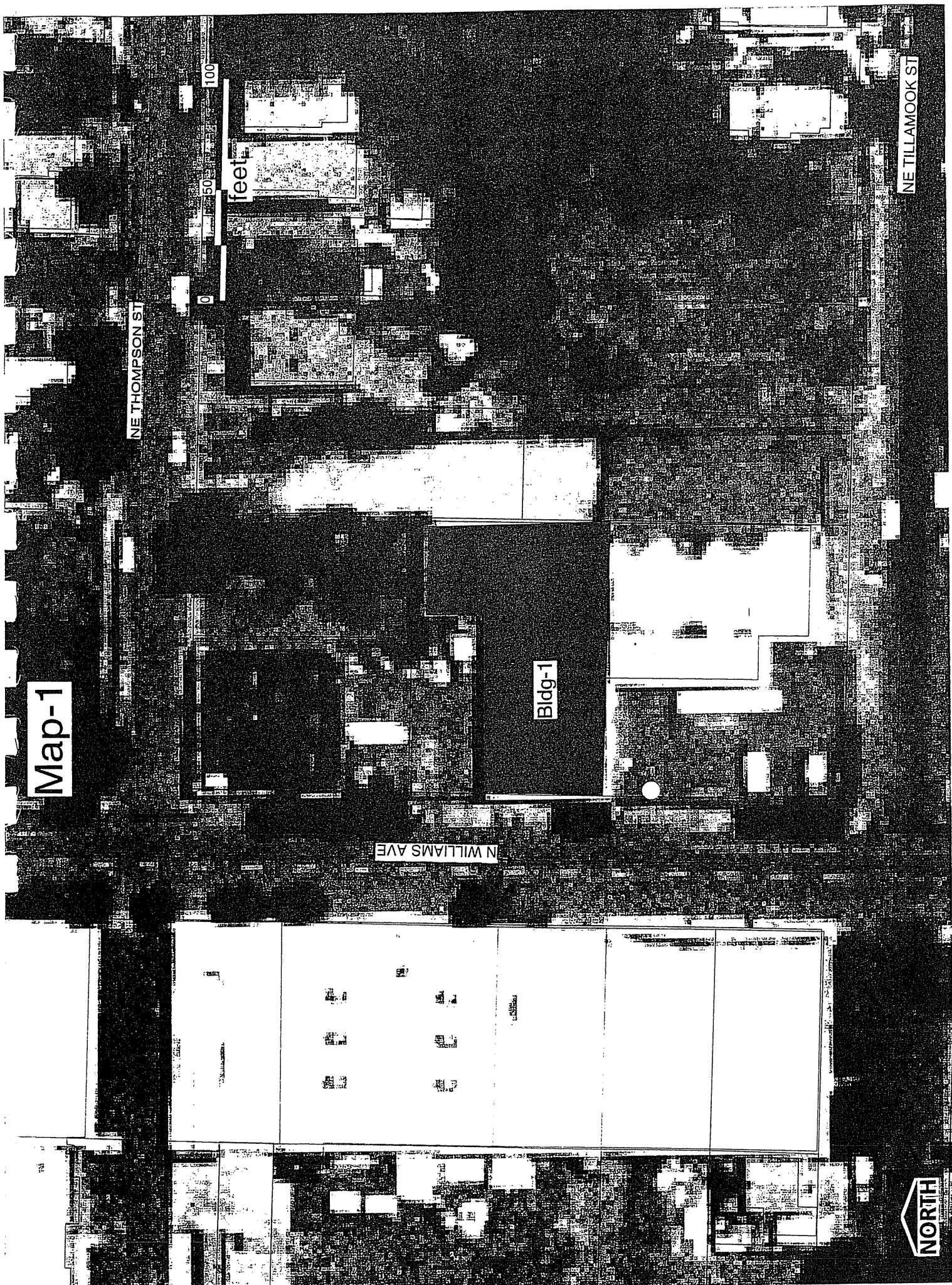
feet

N WILLIAMS AVE

Bldg-1

NE TILLAMOOK ST

NORTH



Map-2

0 35 70
feet

Sample
Locations

Fiberglass
Box

Sump-1

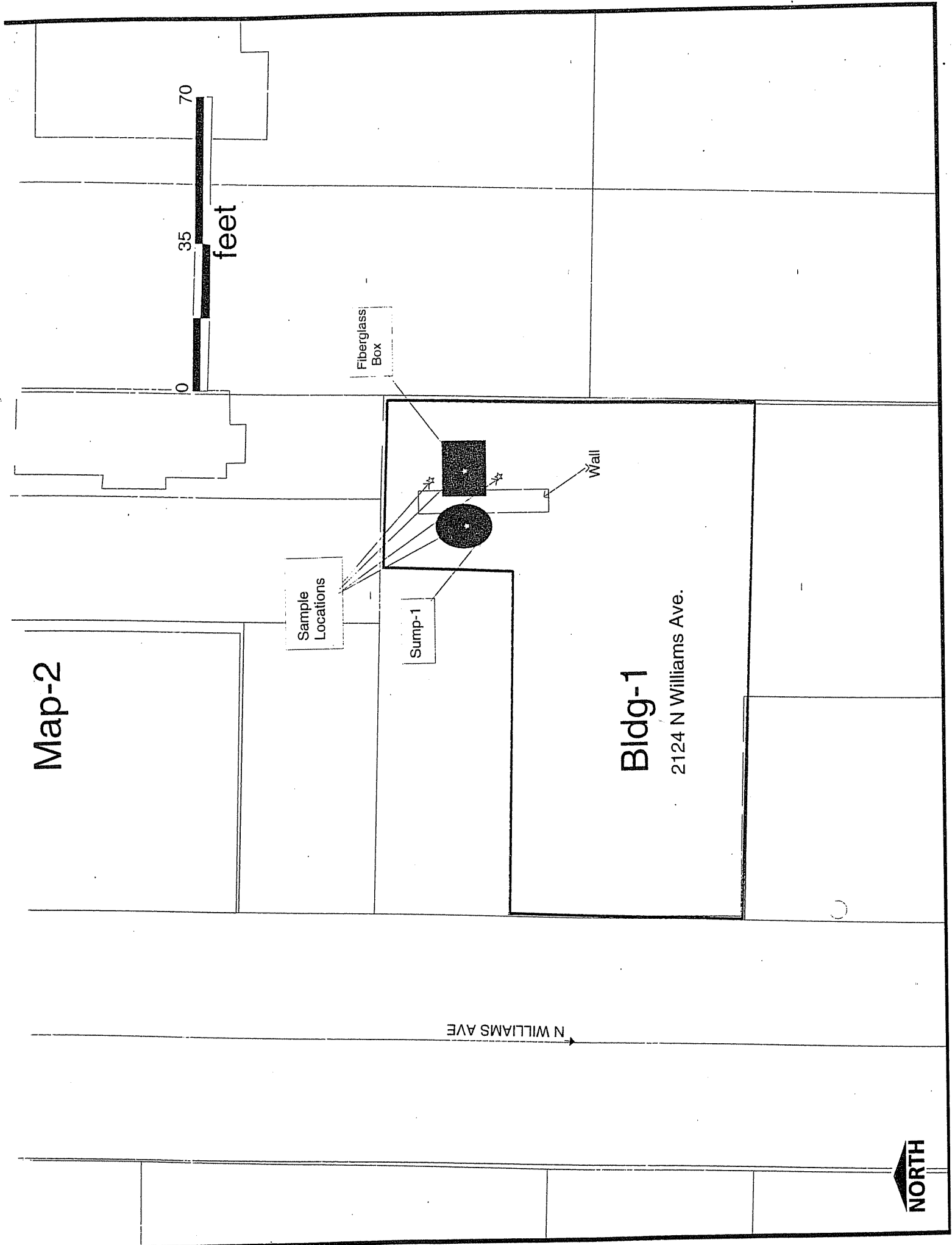
Wall

Bldg-1

2124 N Williams Ave.

N WILLIAMS AVE

NORTH

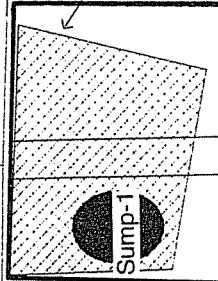


Map-3

N WILLIAMS AVE



Bldg-1
2124 N Williams Ave.



Wall

Area-A
Approximate Location
of contaminated material

0 35 70
feet



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality

Northwest Region

2020 SW Fourth Avenue

Suite 400

Portland, OR 97201-4987

(503) 229-5263 Voice

TTY (503) 229-5471

May 24, 2000

George Scott
Port City Development Center
1847 East Burnside Street
Portland, Oregon 97214

John W. Finklea
3223 SW Naito Parkway
Portland, Oregon 97201

Re: Port City Development
A.k.a. Wagstaff Battery
ECSE # 1243

Dear Mr. Finklea and Mr. Scott:

The Department of Environmental Quality (DEQ) has completed its review of development plans for the Port City Development Center to be located at 2124 N. Williams Avenue in Portland, Oregon. In conjunction with this review, we were also given a copy of the November 23, 1999 "Phase I Environmental Site Assessment" completed by PNG Environmental, Inc. This review was performed in accordance with the terms of the Prospective Purchaser Agreement (PPA) between DEQ and Port City Development. The PPA requires certain actions to be performed in order not to jeopardize the state's release from liability. A partial listing of the required actions are as follows:

- Port City Development shall place and maintain caps over Sump 1 and the former dry well location. ✓
- Port City Development shall submit building plans for DEQ approval. ✓
- Surface water shall be directed away from the former dry well.
- Contaminated soils may not be disturbed without prior written approval from DEQ, unless performed in accordance with a DEQ-approved work plan for this activity. ✓
- After construction begins, Port City Development shall submit brief quarterly progress reports to DEQ. ✓

The DEQ has completed its review of the "Phase I Environmental Site Assessment." New information was provided in the Phase I that was not included in DEQ's February 24, 1998 "no further action" determination. The DEQ recommends the following additional work be performed prior to construction:

- A. An additional sump (1A) or catch basin was discovered. A hazardous waste characterization should be performed on any sludge or residues that have accumulated in sump 1A. The characterization should include testing for lead (total and TCLP), pH, and total petroleum hydrocarbons. The sump contents should then be managed or disposed of in accordance with the results of the hazardous waste determination.

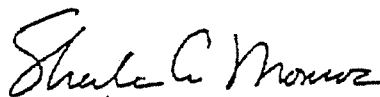
- B. After cleaning sump 1A of sludge, inspect for holes, cracks, corrosion points, etc., where fluids may have leaked from the sump to the subsurface. If the integrity of the sump has been compromised, then investigate for potential contaminants beneath the sump. DEQ would become more involved in a sampling plan (and removal action, if necessary) pending the results of the sump inspection.
- C. The Phase 1 also recommends sampling beneath the paved areas (pg. 27) and at a water valve opening. DEQ recommends having a contingency plan to address potentially contaminated soil. Testing the soils prior to demolition/construction is also an option. A contingency plan shall be required as part of the following development plan approval. Either pre-testing or the contingency plan should allow for construction to proceed in a timely fashion and for appropriate management of potentially contaminated soils.

The development plans are approved with the following requirements:

1. Perform field screening for potential contamination when previously, uninvestigated areas or suspect areas are uncovered.
2. Draft a contingency plan for encountering potentially contaminated soils. For example, designate a temporary storage location for suspect soils. This will allow construction to continue pending the results of analytical testing for potential contamination. Also, excavated soils should be tested prior to re-use or disposal because, although field screening will likely be effective in identifying petroleum contaminated soils, visual evidence (discoloration) may or may not be evident for lead-contaminated soils.
3. Submit your contingency plan to DEQ for comment.
4. Demolition debris (esp. wood, sheetrock, or other absorptive materials) may be coated with lead-containing dust and may require special handling and disposal. The demolition debris should be handled in accordance with the attached policy for "Management of Building Demolition Waste."

If you have additional questions or if I can be of assistance, please contact me at 229-5445. At your convenience, we would like to schedule a site inspection, probably concurrent with cleaning/inspecting sump 1A.

Sincerely,

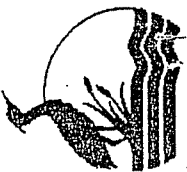


Sheila A. Monroe
Project Manager

Voluntary Cleanup and Portland Harbor Section

Cc: Tom Roick, DEQ
Tom Gainer, DEQ

Enclosure: Management of Building Demolition Waste Policy



**City of Portland
Bureau of Environmental Services
Chain of Custody**

Project Name: SPECIAL WASTE MISC SAMP

Project Subcat. SPECIAL WASTE

File Number: 3030.000

Matrix: SOIL

Date:

Page: 1 of 1

Collected by: J. H. C.

Sample ID No.	Location (Rep Address 1)	Sample Type	Point Code	Date	Time	Tests Requested			
LAB 001022	WAG STAFF	GRAB	WS-1 FN	8/30/00	09:15	PCBs by 8082	VOCs by 8260	NWCHID ²	Other: TCIP, PH (see)
	EAST SURF					RCRA Metals ¹	SVOCs by 8270	Other:	Pesticides/PCBs by 8081
LAB 001023	WAG STAFF	GRAB	WS-2		09:45	PCBs by 8082	VOCs by 8260	NWCHID ²	Other: TCIP (see)
	WEST SURF					RCRA Metals ¹	SVOCs by 8270	Other:	Pesticides/PCBs by 8081
LAB 001024	WAG STAFF	Comp	WS SURF		09:50	PCBs by 8082	VOCs by 8260	NWCHID ²	Other: TCIP, PH
	SURFACE					RCRA Metals ¹	SVOCs by 8270	Other:	Pesticides/PCBs by 8081
LAB 001025	WAG STAFF	Comp	WS SURF		09:58	PCBs by 8082	VOCs by 8260	NWCHID ²	Other: TCIP, PH
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						PCBs by 8082	VOCs by 8260	NWCHID ²	Other:
						RCRA Metals ¹	SVOCs by 8270	Other:	Pesticides/PCBs by 8081
						PCBs by 8082	VOCs by 8260	NWCHID ²	Other:
						RCRA Metals ¹	SVOCs by 8270	Other:	Pesticides/PCBs by 8081
						PCBs by 8082	VOCs by 8260	NWCHID ²	Other:
						RCRA Metals ¹	SVOCs by 8270	Other:	Pesticides/PCBs by 8081

¹ As, Ba, Cd, Cr, Pb, Hg, Se, Ag

2 run NWTPHDX and NWTPHGX if detects on NWHCID

Relinquished By - 1:

Signature: Law Time: 10:40

Signature: WD

Time: 1040

Signature: _____

Time:

Printed Name:	Signature:
---------------	------------

Page:

Relinquished By - 1:

Signature: Law Time: 10:40

Signature: WD

Time: 1040

Signature: _____

Time:

Printed Name:	Signature:
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Page:

Sample Progress Report

Portland Water Pollution Control Lab
 User: Chauvin, Renee
 Date: 09-12-2000 Time: 08:19:15

Sample ID: **AE07913**
 Status: Analyses incomplete
 Received By: WAS
 Sample Matrix: SOIL
 Proj/ind code: SPECWAST
 Sample collector: JPO
 Proj_id: **LAB001022**

Date collected: 08/30/00 00:00
 Date submitted: 08/30/00 10:40
 Due date: 09/13/00 23:59
 Specification checking: on
 Project/Company name: SPECIAL WASTE MISC SAMP
 Login record file: SP083000
 Samplet: 0

Analysis	Viol	Result	Unit	Finished	Anl
NWTPH-HCID		Completed	mg/Kg	09/05/00	MF
TCLP METALS		Completed	mg/L	09/08/00	JRD
pH (LAB)	LSPC	1.4	pH Units	09/01/00	JD
NWTPH-Dx					

Results of multicomponent analysis **NWTPH-HCID**
 Result source: **MANUAL ENTRY**

Analyte Name	Viol	Result	MDL
GASOLINE RANGE HYDROCARBONS		<20.0	20.0
DIESEL RANGE HYDROCARBONS		<50.0	50.0
HEAVY OIL RANGE HYDROCARBONS		DET	100
Surrogate Recovery (%)		162	

Results of multicomponent analysis **TCLP METALS**
 Result source: **MANUAL ENTRY**

Analyte Name	Viol	Result	MDL
LEAD		39.5	0.2

End of progress report on sample: **AE07913**



**City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report**



Sample Date/Time 8/30/00 0:00

System ID AE07913

Sample ID LAB001022

Page: 1

Proj./Company Name: SPECIAL WASTE MISC SAMP
Address/Location: WAGSTAFF EAST SUMP
WS-1 EAST

Date Received: 8/30/00
Sample Status: REPORT QUEUE

Proj Subcategory: SPECIAL WASTE
Sample Point Code: 0
IMS File/Invoice #: 3030.000

Sample Type: GRAB
Sample Matrix: SOIL
Collected By: JPO

Comments: LAB: THE SURROGATE RECOVERY FOR THE NWTPH-HCID ANALYSIS EXCEEDS THE NORMAL ACCEPTANCE LIMIT DUE TO MATRIX INTERFERENCE FROM THE DETECTED HYDROCARBONS.

Test Parameter	Result	Units	MRL	Method
WETCHEM				
pH (LAB)	1.4	pH Units	0.1	SM 4500-H B
TCLP METALS				
LEAD	39.5	mg/L	0.2	EPA 1311
NWTPH-HCID				
DIESEL RANGE HYDROCARBONS	<50.0	mg/Kg	50.0	NWTPH-HCID
GASOLINE RANGE HYDROCARBONS	<20.0	mg/Kg	20.0	NWTPH-HCID
HEAVY OIL RANGE HYDROCARBONS	DET	mg/Kg	100	NWTPH-HCID
Surrogate Recovery (%)	162	mg/Kg		NWTPH-HCID
NWTPH-Dx				
DIESEL RANGE HYDROCARBONS	<2000	mg/Kg	2000	NWTPH-Dx
HEAVY OIL RANGE HYDROCARBONS	7340	mg/Kg	4000	NWTPH-Dx

End of Report for Sample ID: LAB001022



**City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report**



Sample Date/Time 8/30/00 0:00

System ID AE07914

Sample ID LAB001023

Page: 1

Proj./Company Name: SPECIAL WASTE MISC SAMP
Address/Location: WAGSTAFF WEST SUMP
WS-2 WEST

Date Received: 8/30/00
Sample Status: REPORT QUEUE

Proj Subcategory: SPECIAL WASTE
Sample Point Code: 0
IMS File/Invoice #: 3030.000

Sample Type: GRAB
Sample Matrix: SOIL
Collected By: JPO

Comments:

Test Parameter	Result	Units	MRL	Method
WETCHEM				
pH (LAB)	3.2	pH Units	0.1	SM 4500-H B
TCLP METALS				
LEAD	52.4	mg/L	0.2	EPA 1311
NWTPH-HCID				
DIESEL RANGE HYDROCARBONS	<50.0	mg/Kg	50.0	NWTPH-HCID
GASOLINE RANGE HYDROCARBONS	<20.0	mg/Kg	20.0	NWTPH-HCID
HEAVY OIL RANGE HYDROCARBONS	<100	mg/Kg	100	NWTPH-HCID
Surrogate Recovery (%)	93	mg/Kg		NWTPH-HCID

End of Report for Sample ID: LAB001023



City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report



Sample Date/Time 8/30/00 0:00

System ID AE07915

Sample ID LAB001024

Page:

1

Proj./Company Name: SPECIAL WASTE MISC SAMP

Address/Location: WAGSTAFF SURFACE
WS SURF SOUTH

Proj Subcategory: SPECIAL WASTE

Sample Point Code: 0

IMS File/Invoice #: 3030.000

Comments:

Date Received:

8/30/00

Sample Status:

REPORT QUEUE

Sample Type:

GRAB

Sample Matrix:

SOIL

Collected By:

JPO

Test Parameter	Result	Units	MRL	Method
WETCHEM				
pH (LAB)	1.7	pH Units	0.1	SM 4500-H.B
TCLP METALS				
LEAD	6.81	mg/L	0.2	EPA 1311

End of Report for Sample ID: LAB001024



City of Portland
Water Pollution Control Laboratory
Laboratory Analysis Report



Sample Date/Time 8/30/00 0:00

System ID AE07916

Sample ID LAB001025

Page: 1

Proj./Company Name: SPECIAL WASTE MISC SAMP
Address/Location: WAGSTAFF SURFACE
WS SURF NORTH

Date Received: 8/30/00
Sample Status: REPORT QUEUE

Proj Subcategory: SPECIAL WASTE
Sample Point Code: 0
IMS File/Invoice #: 3030.000

Sample Type: GRAB
Sample Matrix: SOIL
Collected By: JPO

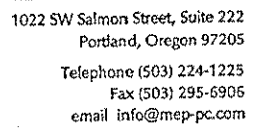
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Test Parameter	Result	Units	MRL	Method
WETCHEM pH (LAB)	3.3	pH Units	0.1	SM 4500-H.B
TCLP METALS LEAD	8.86	mg/L	0.2	EPA 1311

End of Report for Sample ID: LAB001025

CONTINGENCY PLAN

- Excavation spoils should be stored at the northern parking lot. The storage area shall be lined with 10-mil thick plastic sheeting, covered with 10-mil thick plastic sheeting and the perimeter lined with hay bales to control runoff and keep plastic sheeting in place.
- The contractor should collect samples every 4 to 6 cubic yards of excavated soils, unless visual or olfactory indications of contamination are noted. If contaminated soil is suspected a field screen should be conducted using a PID or other accepted method.
- Contractor shall analyze for the listed COCs to characterize for disposal. Depending on the results of analysis the management of excavation spoils will vary.
- If COCs levels are found to be below levels of regulatory concern, it may be considered clean and no special management or handling would be indicated.
- If COCs levels are found to be above levels of regulatory concern but not at hazardous waste levels (characteristic or listed) they will need to be disposed of at a Subtitle-D landfill, an approved treatment facility or other ODEQ approved method.
- If COCs levels are found to be at hazardous waste levels (characteristic or listed) they will need to be disposed of at a RCRA Subtitle-C landfill as a hazardous waste or other ODEQ approved method.
- Demolition debris should be sampled and analyzed for Lead and asbestos before disposal and managed according to all applicable laws.
- All excavation spoils should be managed as hazardous waste unless chemical analysis indicates otherwise.



PORT CITY DEVELOPMENT CENTER
2124 North Williams Avenue
Portland, OR 97212



Environmental Remediation Plan

GCS ENVIRONMENTAL
18395 Wood Thrush Street
Lake Oswego, OR 97035

JOHN W. FINKLEA
ARCHITECT
3223 SW NAITO PARKWAY
PORTLAND OREGON 97201
503-248-0817 FAX 503-222-9284

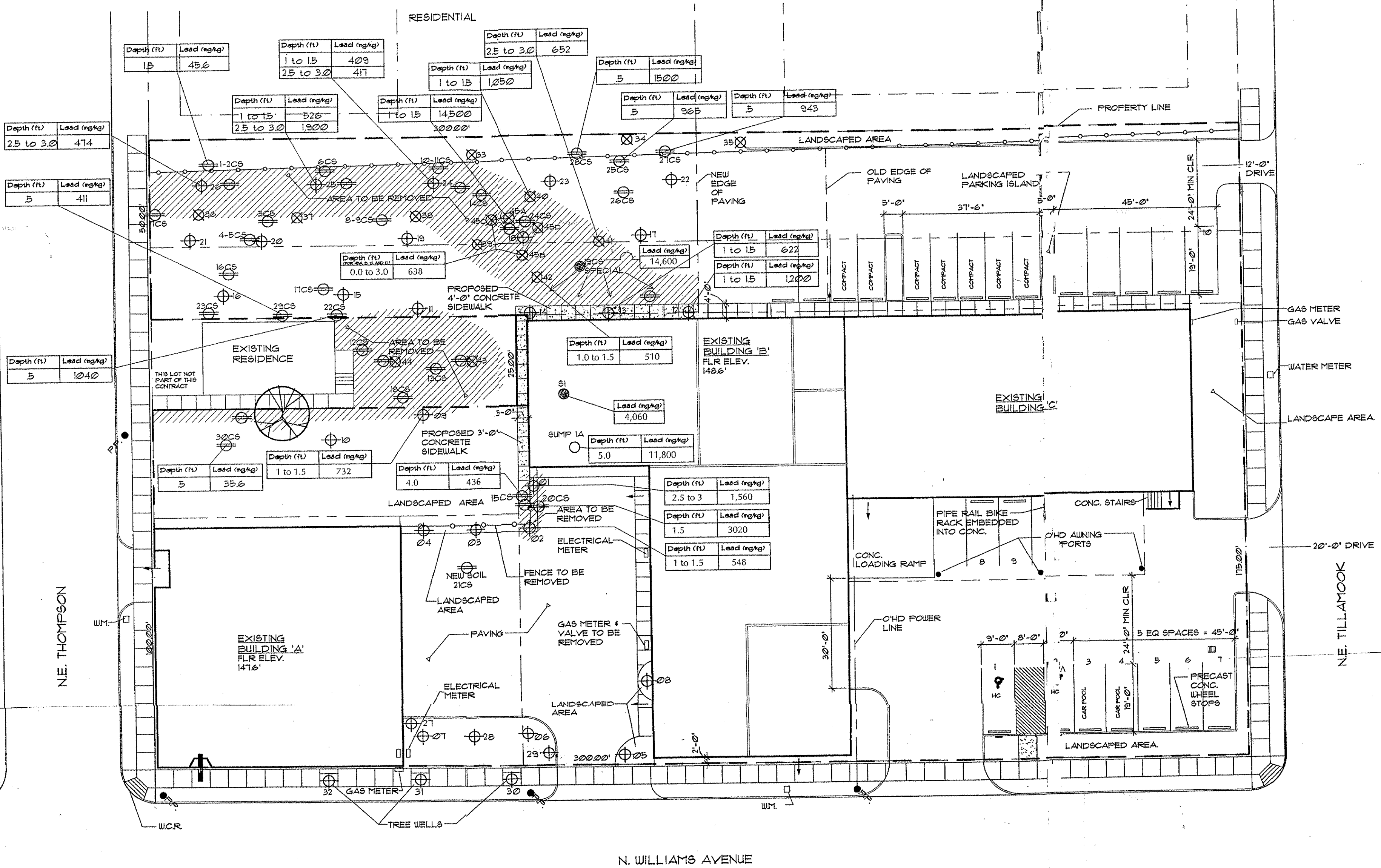
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Drawn:	ADS
Checked:	LMB

Date:	03/02/04
	03/11/04
	03/24/04
	04/29/04
05/24/04	09/10/04
09/19/04	12/29/04
Project No:	2403









NORTH 

SCALE: 1" = 20'

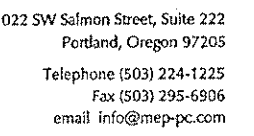
1 of 3



LEGEND

- | | | | |
|---|--------------------------------------|---|----------------------------------|
|  | Property Line |  | PROPOSED
Soil Sample Location |
|  | Fence |  | Confirmation
Sample |
|  | January 2003
Soil Sample Location |  | Composite
Sample |
|  | Sump | | |
|  | Proposed Area
To be Removed | | |

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PORT CITY DEVELOPMENT CENTER
2124 North Williams Avenue
Portland, OR 97212



Figure 2

CCS ENVIRONMENTAL
18395 Wood Thrush Street
Lake Oswego, OR 97035

JOHN W. FINKLEA
ARCHITECT
3223 SW NAITO PARKWAY
PORTLAND OREGON 97201
503-248-0817 FAX 503-222-9284

Designed:	ADS
Drawn:	ADS
Checked:	LMB

ate:	09/10/04
	10/18/04

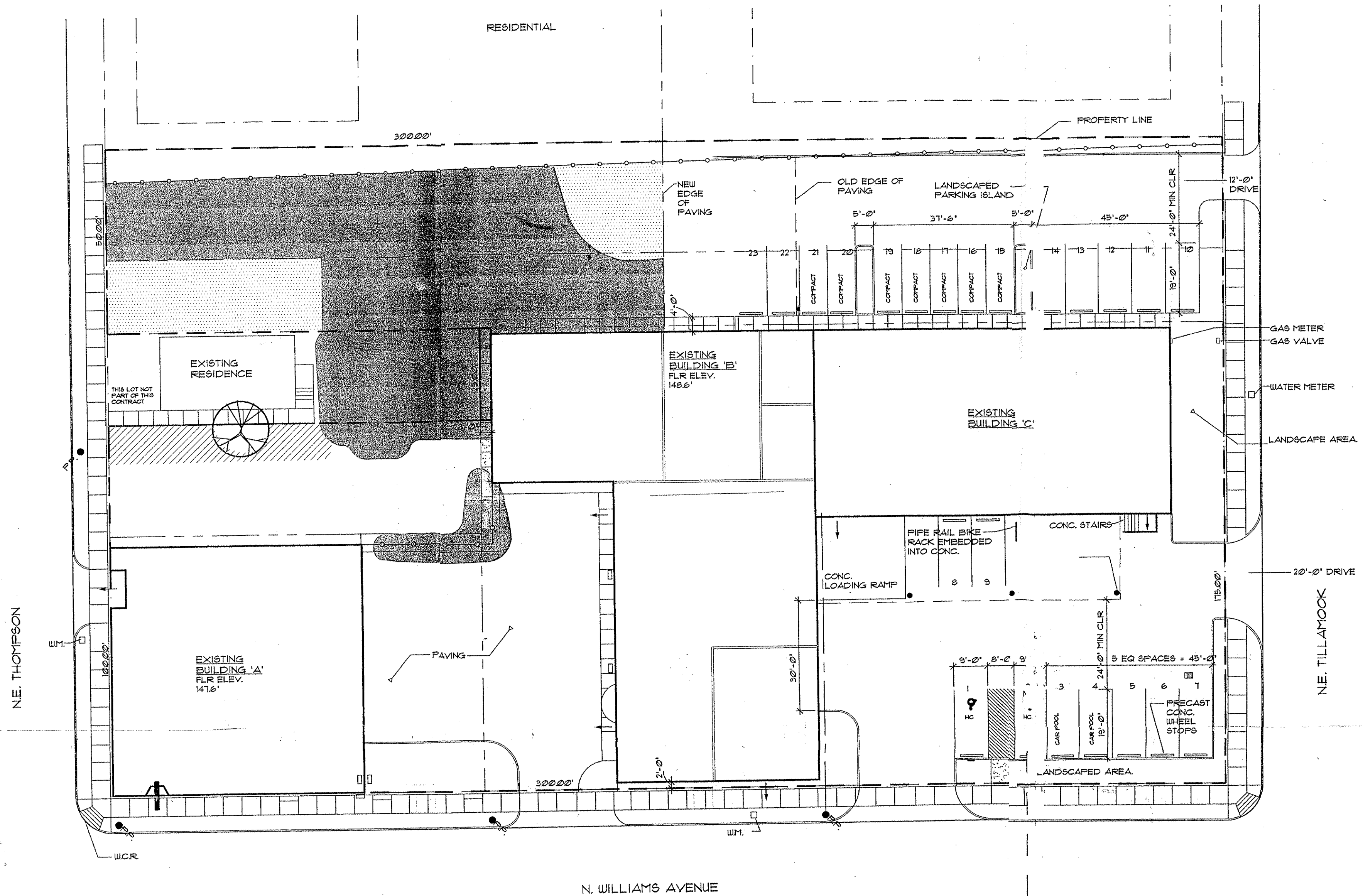
Project No: 2403

NORTH 

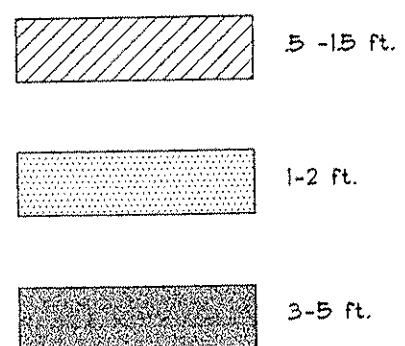
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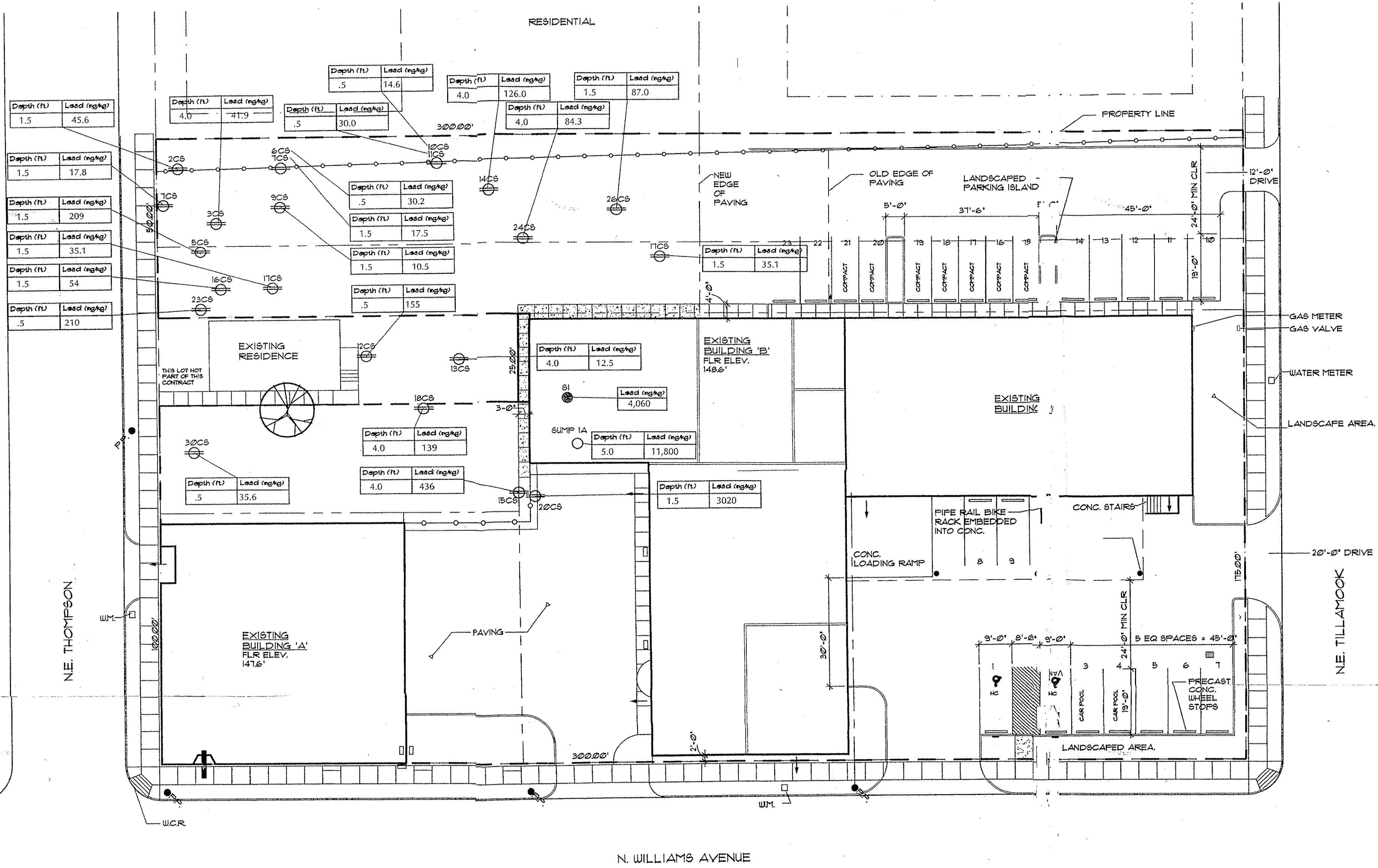
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2 of 3



SOIL REMOVAL





LEGEND - AFTER REMEDIATION

-  CONFIRMATION SAMPLE (CS)
-  SUMP
-  COMPOSITE SAMPLE

NORTH 
 SCALE: 1" = 20'