

3004-0604060014

**PRS 411
REMOVAL ACTION**

OSC REPORT

April 2005

Final



**Department of Energy
Miamisburg Closure Project**



CH2MHILL

3004-0604060014



CH2MHILL

CH2M HILL
Mound, Inc.
1 Mound Road
P.O. Box 3030
Miamisburg, OH
45343-3030

SMO-027-05
April 11, 2005

Miamisburg Closure Project
U. S. Department of Energy
Attention: Margaret Marks, Director
1075 Mound Road
Miamisburg, OH 45342

ATTENTION: Paul Lucas

SUBJECT: Contract No. DE-AC24-03OH20152
Contract Clause C.2.3.1.3
Contract Deliverable #39
PRS 411, OSC REPORT, FINAL

Dear Ms. Marks:

Attached is the following Final document for your records:

- PRS 411, OSC Report, Final

If you or members of your staff have any questions regarding the document, or if additional support is needed, please contact me at 937-865-4203.

Sincerely,

A handwritten signature in black ink, appearing to be 'John Lehew', written over a horizontal line.

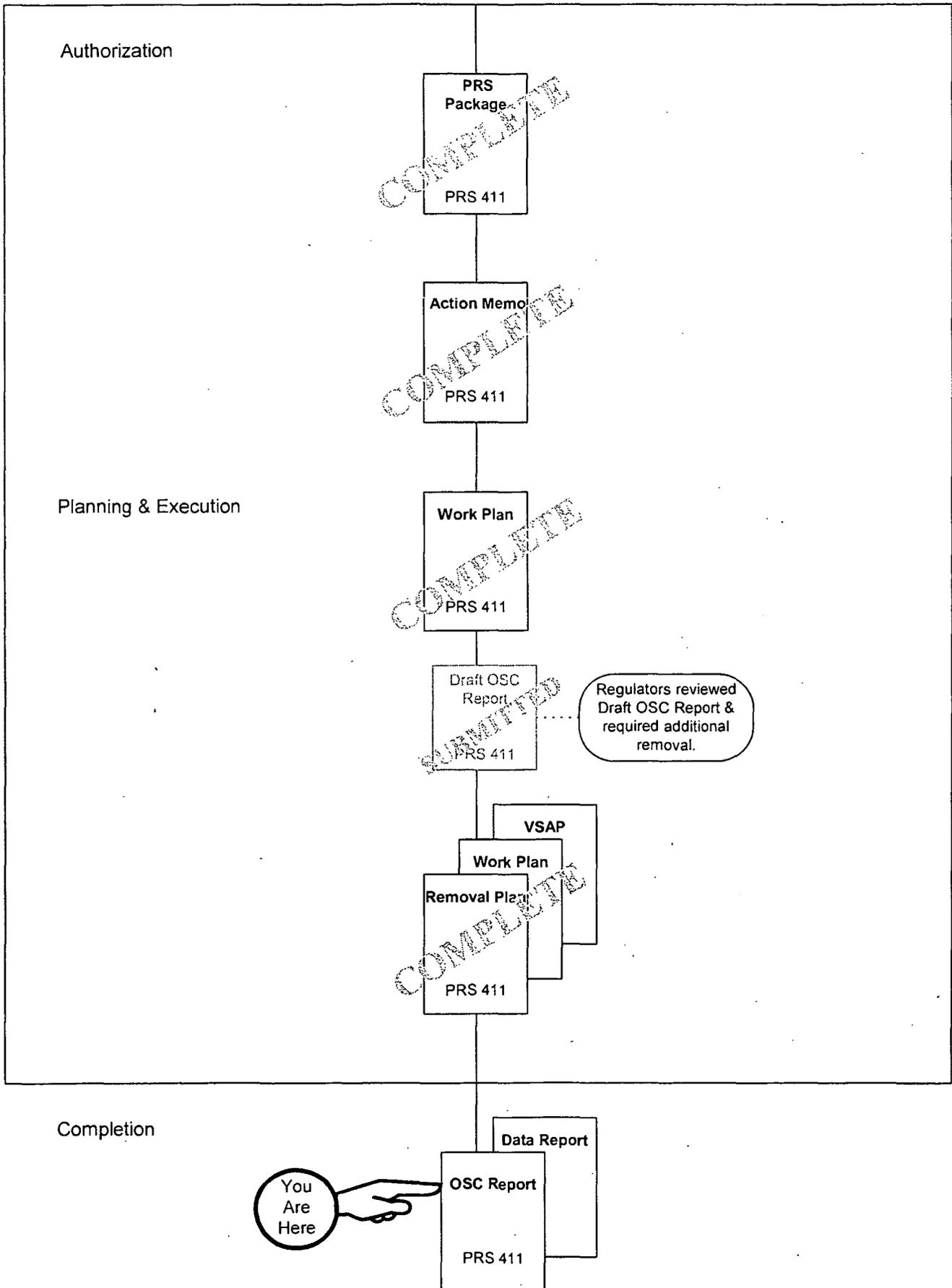
John Lehew
Site Director

JL/ms
Enclosures

cc: Tim Fischer, USEPA, (1) w/attachments
Brian Nickel, OEPA, (1) w/attachments
Ruth Vandegrift, ODH, (1) w/attachments
Mary Wojciechowski, Tetra Tech, (1) w/attach
Sue Smiley, DOE/MCP, (1) w/attachments
Lisa Rawls, MCP, w/o attachments
Randy Tormey, DOE/OH, (1) w/attachments
Git Desai, DOE/HQ, (1) w/attachments
Denny Lammlein, CH2M Hill, (1) w/attachs
Karen Arthur, CH2M Hill, (1) w/attachs
Frank Bullock, MMCIC (2) w/attachments
Public Reading Room (4) w/attachments

ER Records, CH2M Hill, (1) w/attachs
DCC (1) w/attachments
Admin Record (2) w/attachments
John Lehew, CH2M Hill, w/o attachments
Dave Rakel, CH2M Hill, w/o attachments
Val Darnell, CH2M Hill, w/o attachments
Jim Fontaine, CH2M Hill, w/o attachments
MOAT Coordinator
file

PRS 411



This page intentionally left blank.

TABLE OF CONTENTS

Section	Page
RECOMMENDATION.....	iii
1.0 SUMMARY OF EVENTS	1
1.1 Site Conditions and Background.....	1
1.2 Organization of the Removal Actions.....	1
1.3 Objectives	2
1.4 Chronological Narrative of the Removal Actions.....	2
2.0 EFFECTIVENESS OF THE REMOVAL ACTIONS.....	2
2.1 Actions Taken by Mound Personnel.....	3
2.2 Actions Taken by Local, State, and Federal Agencies.....	3
2.3 Actions Taken by Subcontractors.....	3
3.0 DIFFICULTIES ENCOUNTERED	3
3.1 Items that Affect the Removal Actions	3
3.2 Issues of Intergovernmental Coordination.....	3
4.0 RECOMMENDATIONS.....	3
4.1 Means to Prevent a Recurrence.....	3

Tables

Table 1:	Organization of the Removal Action.....	4
Table 2:	Materials and Disposition	4
Table 3:	Removal Cost.....	4

Appendices

Appendix A	Data Report
Appendix B	General Media Information
Appendix C	Photograph Documentation

Acronyms

CO	cleanup objective
COC	contaminant of concern
DOE	Department of Energy
FIDLER	Field Instrument for Detection of Low Energy Radiation
MCP	Miamisburg Closure Project
NFA	No Further Assessment
OEPA	Ohio Environmental Protection Agency
OSC	On-Scene Coordinator
PRS	Potential Release Site
RA	Removal Action
RBGV	Risk-Based Guideline Value
UCL	upper confidence limit
USEPA	United States Environmental Protection Agency

This page intentionally left blank.

RECOMMENDATION

Potential Release Site (PRS) 411, also known as the Paint Shop Hot Spot, comprised two isolated asphalt locations with fixed Pu-238 contamination. Per the associated Action Memorandum (PRS 411 Removal Action, Final, Revision 0, June 1999), both locations of contaminated asphalt were removed, one of which required the removal of soil with Pu-238 above the cleanup objective of 55 pCi/g.

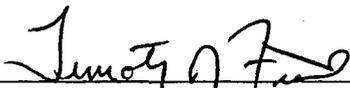
The RA was successfully completed and resulted in the excavation and disposal of less than one cubic yard of material (asphalt and soil). The material was shipped via railcar to Envirocare disposal facility. The contaminant of concern (COC) for PRS 411 was Pu-238 with a cleanup objective (CO) of 55 pCi/g (soil). Fixed surface contamination on asphalt was removed to be below the surface release criteria established by the Mound 2000 Work Plan, and no further radiological surveys are required. All verification surface and soil results for PRS 411 were below the CO.

After a thorough review of the PRS 411 On-Scene Coordinator (OSC) Report, the Core Team agrees that the PRS 411 Removal Action is complete, and that all previously existing environmental issues associated with PRS 411 have been resolved.



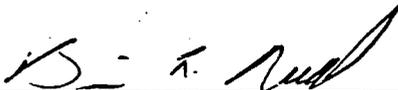
3/24/05

Paul Lucas, OSC
U.S. Department of Energy
Miamisburg, Ohio



3/23/05

Timothy J. Fischer, Remedial Project Manager
USEPA
Chicago, Illinois



3/23/05

Brian K. Nickel, Project Manager
OEPA
Dayton, Ohio

This page intentionally left blank.

1.0 SUMMARY OF EVENTS

This section describes the site background and events leading up to the RA, parties involved in responding to the RA, COC determination, chronological narrative of the RA, and resources committed to complete the project.

1.1 Site Conditions and Background

Background. PRS 411, also known as the Paint Shop Hot Spot, is located as shown on Figure 1 of Appendix A. The PRS 411 Removal Action (RA) was authorized by the Core Team in April 1999, as documented in the associated Action Memo: PRS 411 Removal Action, Final, Revision 0, June 1999. The levels of soil and fixed surface radiological contamination present warranted a RA under CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act). This OSC Report documents the completion of all aspects of the Removal Action activities authorized in the Action Memo, including removal of two sections of asphalt, removal of soil under one of the sections that was found to be contaminated above the cleanup objective (CO), and verification sampling and analysis to demonstrate that the remaining asphalt and soil meet the Cleanup Criteria. The remaining asphalt and soil met COs.

Removal Action. PRS 411 consisted of two (east and west) small (approximately two foot by two foot) areas of fixed Pu-238 contamination on the asphalt adjacent to the former paint shop. An initial field effort was conducted in April and May 1999, and included removal of asphalt at both the east and west locations.

East Location. Onsite gamma spec results for the two soil samples collected in 1999 at the east location (included in Appendix A) met the COs established in the Action Memo; therefore, neither soil removal nor offsite sample analyses were required. The remaining asphalt around the east location was surveyed (see Appendix A) and results met surface release criteria established by DOE Order 5400.5.

West Location. Onsite gamma spec results for soil samples collected in 1999 at the west location did not meet the CO for Pu-238 (55 pCi/g), but did meet the CO for the remainder of the isotopes identified in the Action Memo (Th-230, Th-232, Am-241, Cs-137, and Co-60). Final excavation and verification sampling occurred in September 2004, per the Core Team-approved work plan (PRS 411 Removal Plan, Final, Revision 1, February 2005). COs established in the work plan were more stringent than those in the Action Memo. Both soil samples collected in 2004 met the more stringent requirements, and therefore met the Action Memo requirements. The remaining asphalt around the west location was surveyed (see Appendix A) and results met surface release criteria established by DOE Order 5400.5.

1.2 Organization of the Removal Actions

Table 1 lists the parties responding to the removal actions, and their responsibilities.

1.3 Objectives

Documentation Objective. The objectives of this On-Scene Coordinator (OSC) Report are to describe the RA fieldwork and document successful completion of the project. Material quantities and disposition locations are presented in Table 2. The cost breakdown of the RA is presented in Table 3.

Cleanup Objective. Contaminants and COs identified in the Action Memo for soil are as follows:

Analyte	CO	Analyte	CO
Pu-238	55 pCi/g	Co-60	0.1 pCi/g
Th-232	3 pCi/g	Cs-137	4.6 pCi/g
Th-230	5 pCi/g	Am-241	49.5 pCi/g

The CO associated with surfaces is that established by DOE Order 5400.5.

All soil and surface sample results included in Appendix A were below their respective CO.

Removal Action Objectives: The objectives of the removal action included:

- Project Planning,
- Public Notification,
- Site Preparation,
- Excavation,
- Verification,
- Site Restoration, and
- Documentation of Completion.

1.4 Chronological Narrative of the Removal Actions

The following is a chronological narrative of events surrounding the PRS 411 RA:

Timeframe	Activity
1996	PRS 411 was identified when elevated readings were observed with a FIDLER during a 1996 Health Physics Survey.
1997	The Core Team recommended a Response Action for PRS.411. Action Memo authorized.
1999	Removal Action completed at East Location.
September 2004	Removal Action completed at West Location.
January 2005	OSC Report with Data Report prepared.

2.0 EFFECTIVENESS OF THE REMOVAL ACTION

Verification sample results for PRS 411 are presented in Appendix A. All results are below their respective CO.

2.1 Actions Taken by Site Contractor

Mound Environmental Restoration Project and onsite personnel planned, performed oversight, and performed the excavation, monitoring, sampling and analyses, documentation, and transportation of contaminated soil and debris to the designated onsite soil staging area. Photographic documentation is presented in Appendix C.

The project met the removal action objectives (Section 1.3), as outlined in the Action Memorandum (Final, dated June 1999). CH2M Hill Mound, Inc. personnel prepared this OSC Report, which shows that the Removal Action objectives were achieved.

2.2 Actions Taken by Local, State, and Federal Agencies

The Department of Energy (DOE)/MCP, the United States Environmental Protection Agency (USEPA), and Ohio EPA (OEPA) had oversight responsibility for the removal action. The DOE/MCP was the lead agency for the RA and provided the funding and oversight for the RA. The USEPA and OEPA had oversight responsibility for the RA and review of the Action Memorandum and OSC Report to ensure that the objectives are/were met.

2.3 Actions Taken by Subcontractors

Subcontractors involved in the project included the following:

- Envirocare (disposal facility) received waste via rail transport.

3.0 DIFFICULTIES ENCOUNTERED

3.1 Items that Affect the Removal Actions

No difficulties were encountered during the removal.

3.2 Issues of Intergovernmental Coordination

All DOE/USEPA/OEPA interactions were good. The agencies were updated informally on a regular basis, and formally at monthly Core Team meetings. The Mound 2000 Process worked well.

4.0 RECOMMENDATIONS

4.1 Means to Prevent a Recurrence

The contaminated asphalt and soil was removed and therefore spread of contamination is prevented. These areas will be transferred from federal to private ownership. All State and Federal disposal rules will apply.

Table 1: Organization of the Removal Action

US Environmental Protection Agency SFR-5J 77 W. Jackson Street Chicago, IL 60604 312-353-2000	Timothy J. Fischer	Federal agency responsible for oversight
Ohio Environmental Protection Agency 401 E. Fifth Street Dayton, OH 45402-2911 937-285-6357	Brian K. Nickel	State agency responsible for oversight
Department of Energy, Miamisburg Closure Project 1075 Mound Road Miamisburg, OH 45343 937-847-8350 x-314	Paul Lucas	On-scene Coordinator (OSC) responsible for oversight and success
CH2M HILL Environmental Restoration Project 1 Mound Road Miamisburg, OH 45343-3030 937-608-8220	Jim Fontaine	Provide OSC with technical assistance, administrative support, field oversight, sample management, site safety, photo, site documentation, and preparation of the OSC Report

Table 2: Materials and Disposition

Type of Material (both locations)	Quantity	Disposal Method	Disposal Location
Contaminated soil	<1 yd ³	Rail transport	Envirocare
Contaminated asphalt	<1 yd ³	Rail transport	Envirocare

Table 3: Removal Cost

Cost Category	Cost
Fieldwork	\$350
Transportation of Contaminated Material	\$100
Disposal of Contaminated Material	\$100
Sample Plan, Verification Sampling & Analyses, and Data Validation	\$1,600
Restoration	\$50
Estimated Total Project Cost	\$ 2,200

APPENDIX A

DATA REPORT

VERIFICATION

DATA REPORT

PRS 411

February 2005

Rev. 0



Department of Energy
Miamisburg Closure Project



CH2MHILL

A 1/18

Table of Contents

Section	Page
1.0 PURPOSE	1
2.0 FIELD ACTIVITIES / VARIANCES	1
2.1 Sample Locations.....	1
2.2 Sample Summary.....	1
2.3 Variances	1
3.0 RESULTS	2
3.1 Data Review	2

Figures

Figure 1: Locations of PRS 411

Tables

Table 1: Sample Coordinates
Table 2: Sample and QC Summary
Table 3: Onsite Gamma Spec Results

Appendices

Appendix A Excerpt Removal Plan
Appendix B Figures
Appendix C Tables
Appendix D Onsite Gamma Spec Sheets & Asphalt Survey

Acronyms

MDA minimum detectable activity
PRS Potential Release Site
VSAP Verification Sampling and Analysis Plan

1.0 PURPOSE

This Data Report documents verification activities related to Potential Release Site (PRS) 411.

The purposes of this Data Report are to:

- document the verification of PRS 411,
- describe any variances to the required sampling, and
- present the analytical results.

2.0 FIELD ACTIVITIES / VARIANCES

Verification sampling activities for the East Location occurred in April 1999 in accordance with the Action Memo. Verification sampling activities for the West Location occurred in September of 2004 in accordance with the PRS 411 Removal Plan. Due to the small size of the removal at the West Location, the Core Team approved including required sampling detail in the Removal Plan rather than generating a separate Verification Sampling and Analysis Plan (VSAP). The relevant portion of the Removal Plan is included as Appendix A.

2.1 SAMPLE LOCATIONS

Two soil samples were collected at the base of the West Location and two soil samples were collected at the base of the East Location (locations shown on Figure 1). Coordinates are presented in Table 1.

2.2 SAMPLE SUMMARY

Table 2 documents the total number of verification and quality control samples collected during the investigation for the target analysis. The required quality control collection frequencies were met.

The Radiological Survey Data Sheet documenting surveys performed on the remaining asphalt surface is provided in Appendix D.

2.3 VARIANCES

The Removal Plan required collection of one sample; however, two were collected and analyzed. There were no other variances to the sampling plan.

3.0 RESULTS

Per the Action Memo and Removal Plan, verification samples were processed at the onsite gamma spec lab and received long-count gamma spec analysis. All results are below cleanup objectives (see Table 3).

3.1 DATA REVIEW

All onsite data were reviewed and no anomalies were identified that would impact the usability of the data.

APPENDIX A

REMOVAL PLAN EXCERPT

A 5/18

3.1.6 Transport contaminated soil to the spoils area via the route shown on Figure 3 (Appendix A).

3.2 Equipment Decontamination

3.2.1 Survey equipment if needed to allow for its release.

4.0 Verification Sampling

4.1 PRS 411 Final Field Verification Sampling Plan

Note: Based on the PRS 411 Removal Action, Action Memorandum, dated June 1999, statistically-based verification sampling is not required. If unexpected contamination is encountered, the Standard Mound VSAP will be considered.

4.1.1 At the base of excavation, collect one sample per Mound MD-80036, Mound Radiological Operations Procedures. Sample will be analyzed per MD-80030, Mound Environmental Analytical procedures.

4.1.2 Process samples onsite (gamma spec long count). Data will be entered into MEIMS database.

4.1.3 Results will be retained for inclusion in the On-Scene Coordinator (OSC) report.

5.0 Site Restoration

5.1 Backfill Excavated Area

5.1.1 Backfill and compact PRS 411 excavated area based upon favorable results.

5.2 Road Repair/Restoration

5.2.1 Patch roadway section as necessary.

5.3 Top soil and seeding

5.3.1 Restore area to original condition.

6.0 Post-Job Conference

6.1 Conduct a Post-Job Conference at the conclusion of the project, documenting what went right and what went wrong during the course of the project. Lessons Learned will be captured and documented for future projects.

A 6/18

APPENDIX B

FIGURE

A7/18

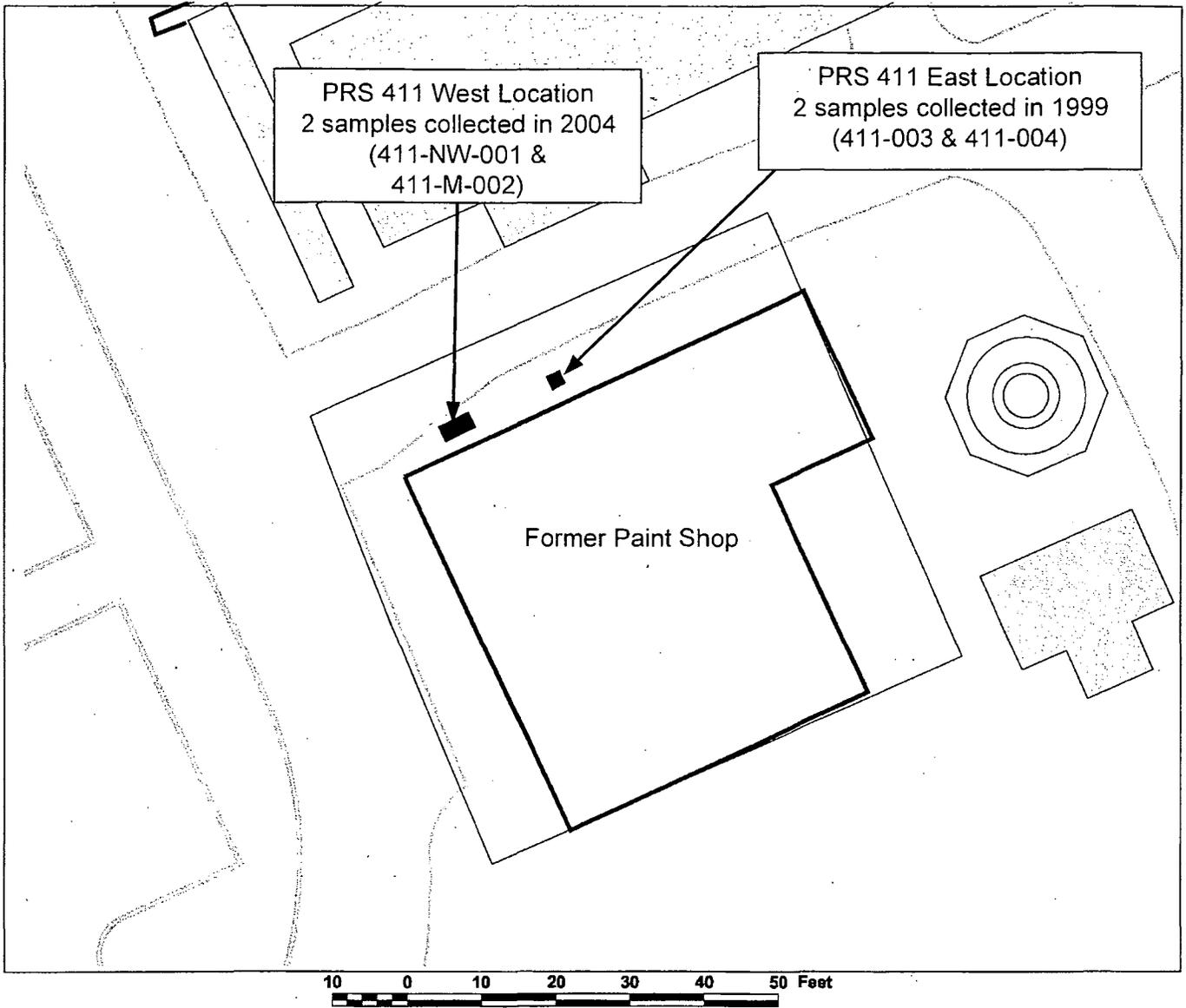


Figure 1: Locations of PRS 411

A8/18

APPENDIX C

TABLES

A9/18

Table 1: Sample Coordinates

sample location	X coordinate	Y coordinate
411-NW-001	1465277.272	599075.366
411-M-002	1465278.144	599075.081
411-003	1465293.992	599083.130
411-004	1465294.856	599082.836

Table 2: Sample and QC Summary

Analysis	verification samples (soil)	field duplicates (soil)	samples identified for MS/MSD (soil)	equipment rinsates (water)	trip blanks
onsite gamma spec	4	na	na	na	na

na: not applicable. Not performed for onsite screening.

**Table 3: Onsite Gamma Spec Results (pCi/g)
soil analysis reports in Appendix D**

1999 Cleanup	Co-60	Cs-137	Pb-210	Ra-226	Ac-227 (D)	Th-230	Th-232 (D)	Pu-238	Am-241
CO per AM>	0.1	4.6	na	na	na	5	3	55	49.5
411-003	<0.01	0.05	0.38	<0.13	0.09	<3.47	0.2	<40.1	<0.04
411-004	0.02	0.01	1.82	1.07	0.15	3.14	0.84	10.74	0.01

2004 Cleanup	Co-60	Cs-137	Pb-210	Ra-226	Ac-227 (D)	Th-230	Th-232 (D)	Pu-238	Am-241
CO per Work Plan>	0.7	3.6	7.4	2.9	4.6	2.8	2.1	55	63
411-NW-001	< 0.07	0.07	< 0.75	1.36	< 0.33	< 6.88	0.48	< 11.6	< 0.08
411-M-002	< 0.09	< 0.06	0.93	1.57	< 0.28	< 7.72	0.64	< 13.5	< 0.09

< indicates not detected at the detection limit specified

na: not applicable

CO: cleanup objective

AM: Action Memo

A10/18

APPENDIX D

ONSITE GAMMA SPEC SHEETS & ASPHALT SURVEY

A11/18

East Loc.

Form 1

AC227	AM241	CO60	CS137	PA231	PB210	PU238									
0.09	0	0.01	0.05		0.38	0									
PU239	RA226	RA228	TH228	TH229	TH230	TH232									
	0				0	0.2									
U233	U235	U238	DATE	RPTHP	LT	OTHERS1	OTHERS2	OTHERS3							
			04/30/99	5390											
LT1	LT4	LT5	LT6	LT7	LT8	LT9	LT10	LT11	LT12	LT13	LT14	LT15	LT16	OTHERS1VAL	
OTHERS2VAL	OTHERS3VAL	SAMPLE	FILE	DESCRIP											
			F9900028.S	PAINT SHOP FCA EAST 3	// 411-003										
DESCRIP2	COLLECTOR	CNTHP	DATERECD	PRIORITY	CNTIME										
		5890	04/28/99												
DATECOL	Instrument	DATECALL	Comment												
Comment2	Collector Signature:	CO60MDA	CS137MDA	Fieldsampid											
	8234	0.01	0.01												
LABSAMPID	PB210MDA	RA226MDA	AC227MDA	TH230MDA	TH232MDA	PU238MDA									
HPG03549	0.42	0.13	0.11	3.47	0.04	40.1									
AM241MDA	LT2	LT3	otherresp2	otherresp1	otherresp3	OTHERS1MDA	OTHERS2MDA	OTHERS3MDA							
0.04															

East Location

Sample ID:
411-003

COPY

A 12/18

Form 1

AC227	AM241	CO60	CS137	PA231	PB210	PU238								
0.15	0.01	0.02	0.01		1.82	10.74								
PU239	RA226	RA228	TH228	TH229	TH230	TH232								
	1.07				3.14	0.84								
U233	U235	U238	DATE	RPTH	LT	OTHERS1	OTHERS2	OTHERS3						
			04/30/99	5390										
LT1	LT4	LT5	LT6	LT7	LT8	LT9	LT10	LT11	LT12	LT13	LT14	LT15	LT16	OTHERS1VAL
OTHERS2VAL	OTHERS3VAL	SAMPLE	FILE	DESCRIP										
			GEA00687.S	PAINT SHOP FCA EAST 4 // 411-004										
DESCRIP2	COLLECTOR		CNTHP	DATERECD	PRIORITY	CNTTIME								
			5890	04/28/99										
DATECOL	Instrument	DATECALL		Comment										
Comment2	Collector Signature:		CO60MDA	CS137MDA	Fieldsampid									
	8234		0.01	0.01										
LABSAMPID	PB210MDA	RA226MDA	AC227MDA	TH230MDA	TH232MDA	PU238MDA								
HPG03550	0.28	0.16	0.15	2.69	0.05	32.75								
AM241MDA	LT2	LT3	otherresp2	otherresp1	otherresp3	OTHERS1MDA	OTHERS2MDA	OTHERS3MDA						
0.03														

East Location

Sample ID:
411-004
COPY

A13/18

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02570
File ID: 1SC00420.S0
Priority: Yes

Description\Location

411-NW-001
Long Count

Collector: 4488
Date Received: 9/7/04
Date Collected: 9/2/04

<u>Radionuclide</u>		<u>Activity (pCi/g)</u>	<u>MDA</u>
Co-60	*	0	0.07
Cs-137		0.07	0.04
Pb-210	*	0.14	0.75
Ra-226		1.36	0.74
Ac-227 (D)	*	0.03	0.33
Th-230	*	2.27	6.88
Th-232 (D)		0.48	0.18
Pu-238	*	4.68	11.63
Am-241	*	0.01	0.08

West Location
Verification
Sample # 1
(411-NW-001)

✓
WWS

Other Nuclides

<u>Radionuclide</u>	<u>Activity (pCi/g)</u>	<u>MDA</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Σ
DOT 0.02 nCi/g

Instrument type: High Purity Germanium

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 9/8/04

Counted By: 5268

Analyzed By: 5755

Initials



A14/18

Y2

SOIL ANALYSIS REPORT

Field Sample ID:
Lab Sample ID: GL02569
File ID: 1SC00419.S0
Priority: Yes

Description\Location

411-M-002
Long Count

Collector: 4488

Date Received: 9/7/04

Date Collected: 9/2/04

<u>Radionuclide</u>		<u>Activity (pCi/g)</u>	<u>MDA</u>
Co-60	*	0	0.09
Cs-137	*	0.04	0.06
Pb-210		0.93	0.74
Ra-226		1.57	0.81
Ac-227 (D)	*	0.13	0.28
Th-230	*	0	7.72
Th-232 (D)		0.64	0.15
Pu-238	*	10.66	13.52
Am-241	*	0.01	0.09

*Nest Location
Verification
Sample #2
✓ (411-M-002)*

Other Nuclides

<u>Radionuclide</u>	<u>Activity (pCi/g)</u>	<u>MDA</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Σ
DOT 0.02 nCi/g

Instrument type: High Purity Germanium

Σ DOT 2nCi/g limit, total activity.

(D) Denotes identification by daughter emissions.
Sample is Assumed to be in secular equilibrium.

* Indicates activity < MDA. MDA used in limits calculation

Comments:

Date: 9/8/04

Counted By: 5268

Analyzed By: 5755

Initials

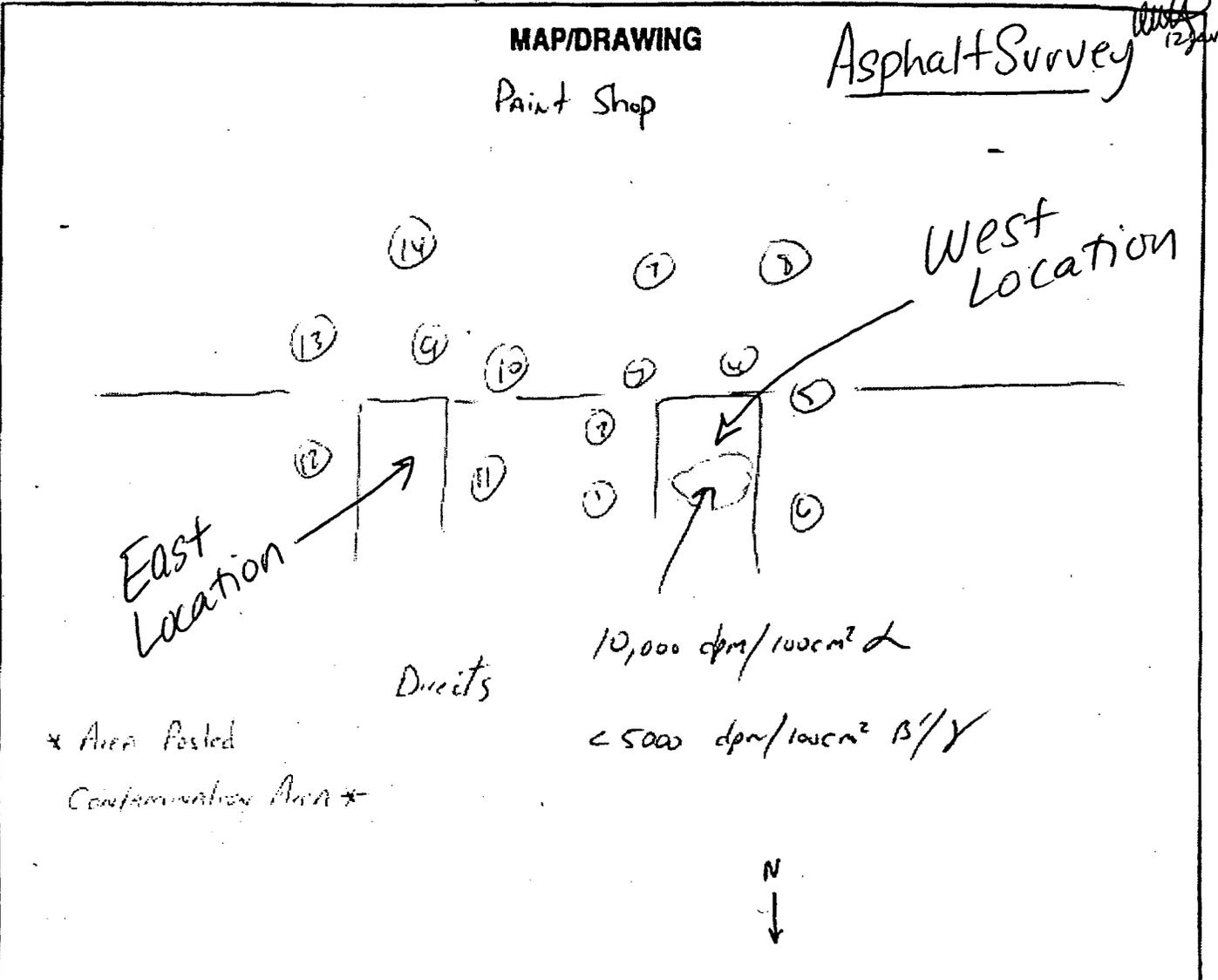


A15/18

2/2

RADIOLOGICAL SURVEY DATA SHEET

LOCATION: (BLDG/AREA/ROOM) <i>PS Bldg</i>	SURVEY NO. <i>99-LS-79</i>
PURPOSE: <i>Contamination Survey</i>	RWP NO. <i>LS-009-99</i>
	DATE: <i>4/28/99</i>
	TIME: <i>1200</i>



LEGEND:

- # = mrem/hr (γ) whole body
- # E = mrem/hr ($\beta + \eta + \gamma$) extremity on contact
- △ = mrem/hr neutron
- = air sample number
- = swipe number
- /α or β = direct cont. measurement in dpm/100cm²

INSTRUMENTS USED

Instrument	Serial Number	Cal. Due Date
<i>NE Elnora</i>	<i>5305/5716</i>	<i>9/17/97</i>
<i>A</i>		
<i>N</i>		

	HPG <i>8274</i>	Date: <i>4/28/99</i>
	HPG <i>5681</i>	Date: <i>4-28-99</i>
	HPG <i>5520</i>	Date: <i>5-3-99</i>

Reviewed/Approved by: (Print Name) _____

A16/18

99-LS-079
p 30 of 3
Rem

COPY

Smear Analysis

Unit Type: LB4100/W
Counting Unit ID: Blue
Data file name: SMEAR042
Batch Ended: 4/28/99 12:45
Cal. Due Date: 6/8/99
Serial Number: 26966-3

Alpha activity action level (DPM): 20
Beta activity action level (DPM): 200

Batch ID: 99-LS-79 SMITH PS-BLDG. (14) CYR

Detector ID	Sample ID
A1	1
A2	2
A3	3
A4	4
B1	5
B2	6
B3	7
B4	8
C1	9
C2	10
C3	11
C4	12
D1	13
D2	14

Alpha Activity		
DPM	α	flags
94.03	12.77	**>AL
5.71	3.58	<AL
0.00	2.04	<MDA
1.54	2.21	<MDA
0.00	2.06	<MDA
6.86	3.71	<AL
0.00	2.02	<MDA
0.00	1.93	<MDA
1.59	2.02	<MDA
1.56	2.02	<MDA
0.00	2.15	<MDA
1.16	2.07	<MDA
0.00	1.97	<MDA
3.42	2.81	<AL

Beta Activity		
DPM	α	flags
0.00	3.25	<MDA
0.00	1.46	<MDA
0.00	1.33	<MDA
0.00	1.57	<MDA
3.38	2.88	<AL
0.03	1.91	<MDA
1.96	2.53	<MDA
0.65	1.96	<MDA
4.04	2.94	<AL
3.57	2.82	<AL
1.89	2.20	<MDA
0.00	2.25	<MDA
0.00	1.47	<MDA
0.00	1.49	<MDA

A 18/18

APPENDIX B

GENERAL MEDIA INFORMATION

(There was no information released
to the media regarding PRS 411)

APPENDIX C

PHOTOGRAPH DOCUMENTATION

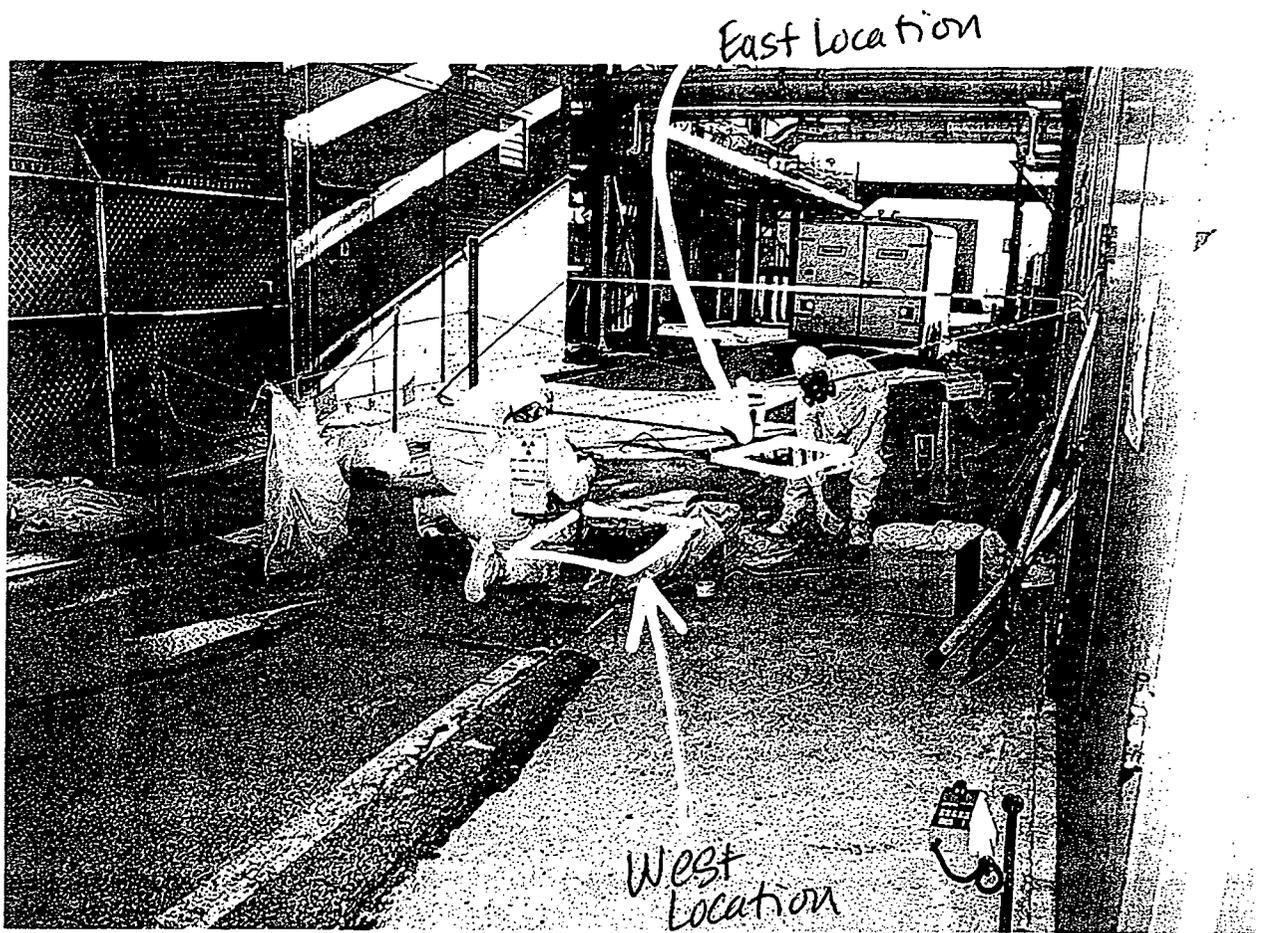


1999 photo

East Location excavated & backfilled.
West Location removal underway.

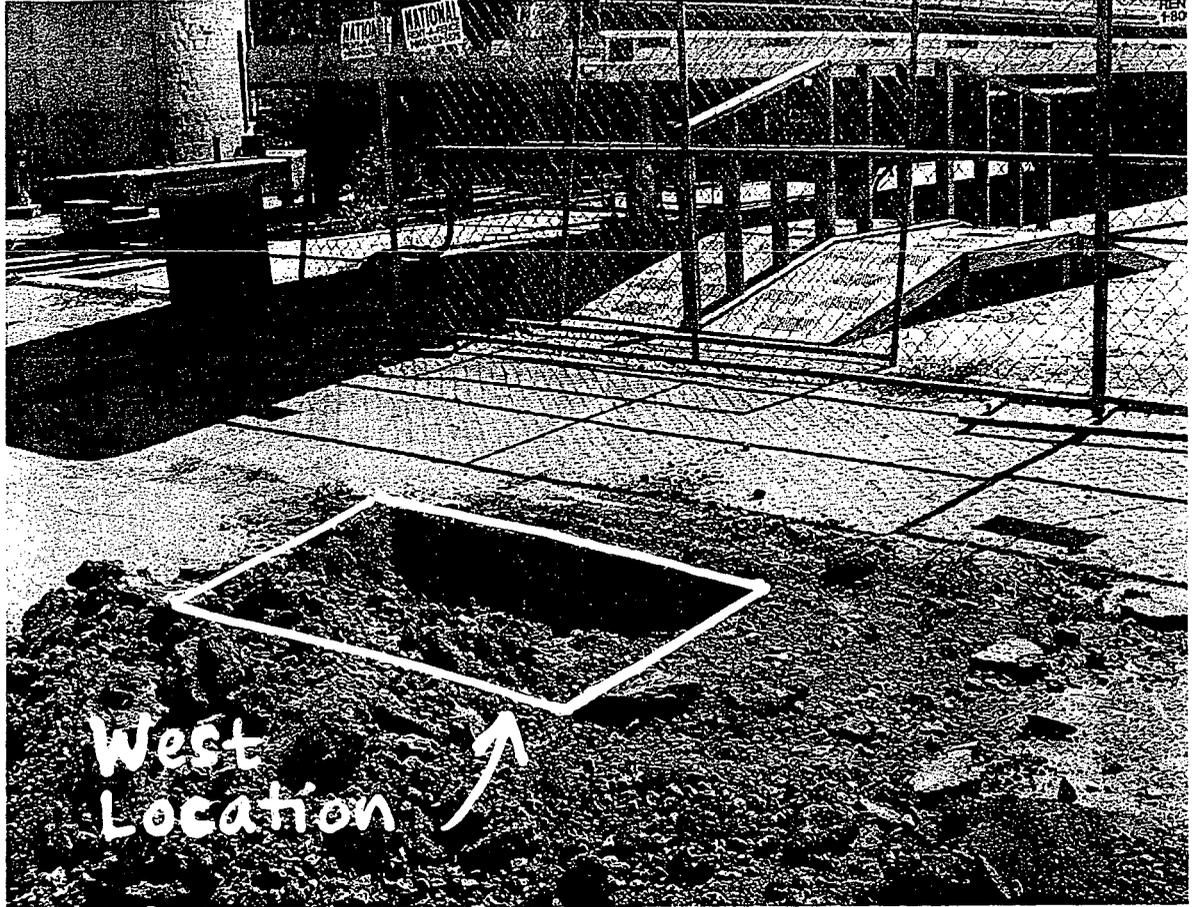


C 1/4



1999 photo .



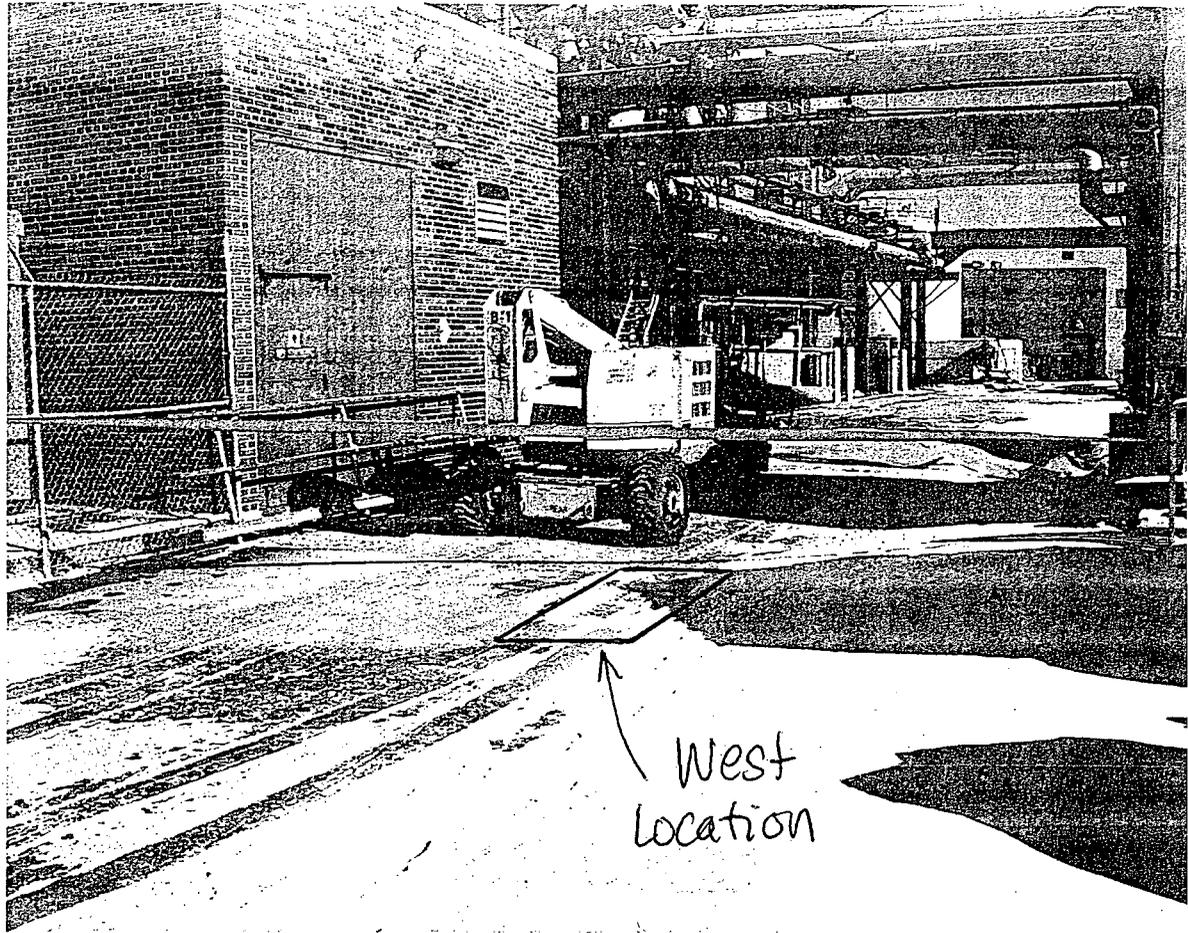


2004 Photo

West Location additional removal,
before backfilling.



C 3/4



2005 Photo

West Location restored.



C 4/4