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# Routine Environmental Monitoring Schedule, Calendar Year 1995

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**Westinghouse**  
**Hanford Company**

P.O. Box 1970  
Richland, Washington

Hanford Operations and Engineering Contractor for the  
U.S. Department of Energy under Contract DE-AC06-87RL10930

Approved for Public Release



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ROUTINE ENVIRONMENTAL MONITORING SCHEDULE,  
CALENDAR YEAR 1995

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12/12/94  
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TERMS

BHI	Bechtel Hanford, Inc.
DSI	(internal memorandum)
LERF	liquid effluent retention facility
OEM	Operational Environmental Monitoring
PUREX	Plutonium-Uranium Extraction (Plant)
RC	Radiological Control
REDOX	Reduction-Oxidation (S Plant)
TLD	Thermoluminescent dosimeter
URM	underground radiation material
WHC	Westinghouse Hanford Company

**PURPOSE**

This document provides Bechtel Hanford, Inc. (BHI) and Westinghouse Hanford Company (WHC) a schedule in accordance with the WHC-CM-7-5, *Environmental Compliance*<sup>1</sup>, of monitoring and sampling routines for the Operational Environmental Monitoring (OEM) program during calendar year (CY) 1995. Every attempt will be made to consistently follow this schedule; any deviation from this schedule will be documented by an internal memorandum (DSI) explaining the reason for the deviation. The DSI will be issued by the scheduled performing organization and directed to Near-Field Monitoring.

The survey frequencies for particular sites are determined by the technical judgment of Near-Field Monitoring and may depend on the site history, radiological status, use, and general conditions. Additional surveys may be requested at irregular frequencies if conditions warrant. All radioactive wastes sites are scheduled to be surveyed at least annually. Any newly discovered wastes sites not documented by this schedule will be included in the revised schedule for CY 1995.

This schedule does not discuss staffing needs, nor does it list the monitoring equipment to be used in completing specific routines. Personnel performing routines to meet this schedule shall communicate any need for assistance in completing these routines to Radiological Control management and Near-Field Monitoring.

After each routine survey is completed, a copy of the survey record, maps, and data sheets will be forwarded to Near-Field Monitoring. These routine surveys will not be considered complete until this documentation is received. At the end of each month, Radiological Control (RC) shall forward a copy of the Routine Sign-off Sheet and a DSI validating the completion of the scheduled routine surveys for that month.

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<sup>1</sup>WHC-CM-7-5, *Environmental Compliance*, Westinghouse Hanford Company, Richland Washington.

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WHC-SP-0098-6

**ENVIRONMENTAL RESTORATION CONTRACTOR  
(BECHTEL HANFORD, INC.)  
ANNUAL SCHEDULE**

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**JANUARY/FEBRUARY/MARCH****QUARTERLY (Complete in March)**

1. Waste site visual survey (posting, housekeeping, vegetation control, animal activity, unusual conditions, etc.).

**ANNUALLY**

1. 316-1, 316-2, 316-3, 316-4, and 316-5.
2. 618-1, 618-2, 618-3, 618-4, 618-5, 618-7, 618-8, 614-4, 618-10, 618-11.
3. 216-N-2 through 216-N-7.
4. 216-A-25 covered pond.
5. 216-B-3-1, 216-B-3-2, and 216-B-3-3 covered ditches (includes UN-216-E-40).
6. 216-B-3 stabilized pond.
7. 216-B-3A.
8. 216-B-3B.
9. 216-A-29 ditch.
10. 216-A-24.
11. UN-216-E-33.
12. 216-A-18.
13. 216-A-19 and 216-A-20.
14. 216-A-37-1.
15. 216-A-6.
16. 216-A-5 (inside the Plutonium-Uranium Extraction (PUREX) Plant exclusion fence).
17. 200 East B cribs and trenches, drains, and reverse wells (216-B-5, 216-B-6, 216-B-7A, 216-B-7B, 216-B-8, 216-B-9, 241-B-361 tank, 216-B-11A, 216-B-11B, 216-B-12, 216-B-51, 216-B-56, 216-B-57, and 216-B-43 through 216-B-50).
18. 216-B-10A and 216-B-10B.
19. 200-E C cribs and trenches (216-C-1, 216-C-3, 216-C-5, 216-C-6, 216-C-8, 216-C-10).
20. 218-C-9.
21. 216-B-2-1, 216-B-2-2, and 216-B-2-3 covered ditches.
22. 216-B-35 through 216-B-42 trenches.
23. 218-E-1.
24. 218-E-2A.
25. 218-E-4.
26. 218-E-12A.
27. 218-E-12B stabilized portion (includes UN-216-E-32).
28. 218-E-8.
29. 216-A-10 crib.
30. Cribs and trenches, drains, and reverse wells, 216-A-1, 216-A-3, 216-A-7, 216-A-9, 216-A-27, 216-A-36A and -36B.
31. UN-216-E-38.

APRIL/MAY/JUNE

QUARTERLY (Complete in June)

1. Waste site visual survey (posting, housekeeping, vegetation control, animal activity, unusual conditions, etc.).

SEMI-ANNUALLY (Complete in May)

1. BC cribs, controlled area roads, and firebreaks (UN-216-E-11).

ANNUALLY

1. UN-216-E-17.
2. 216-A-34.
3. 218-E-2, 218-E-5A, 218-E-5B, and 218-E-9 burial grounds.
4. 218-E-10 burial ground (stabilized portion).
5. BC cribs, 216-B-14 through 216-B-19.
6. BC trenches, 216-B-20 through 216-B-34, 216-B-52, 216-B-53A and 216-B-53B, 216-B-54, 216-B-58.
7. 218-E-7 burial vault.
8. 216-S-17.
9. 216-S-5, 216-S-6.
10. 216-S-171, 216-S-172.
11. 216-U-11.
12. 216-S-3 and 216-S-15.
13. 216-S-16.
14. 216-S-10 ditch.
15. 216-S-19.
16. 216-S cribs and trenches (216-S-1, 216-S-2, 216-S-4, 216-S-5, 2904-S-170, and 2904-S-160 weirs, 216-S-7, 216-S-8, 216-S-9, 216-S-12, 216-S-13, 216-S-20, 216-S-21, 216-S-22, 216-S-23).
17. 216-U cribs and trenches (216-U-1, 216-U-2, 216-U-3, 216-U-5, 216-U-6, 216-U-8) and 241-U-361 tank.
18. 218-W-1, 218-W-2, 218-W-4A, 218-W-4B (stabilized part), and 218-W-11.
19. 216-Z-4, 216-Z-5, 216-Z-6, 216-Z-7, 216-Z-10, and 216-Z-17 stabilized areas.
20. 216-U-14 ditch (inactive section from 19th Street to 207-U Basin, from 207-U to U Pond).
21. 216-T cribs, trenches, and reverse wells 216-T-2, 216-T-3, and 241-T-361 catch tank, 216-T-5 tile field(to include 216-T-7), 216-T-6, 216-T-8, 216-T-18, 216-T-19, 216-T-20, 216-T-26 through 216-T-28, 216-T-33, 216-T-34, 216-T-35, and 216-T-36.
22. 204-S stabilized area.
23. 216-T-14 through 216-T-17.
24. 216-U-10 covered pond (includes UN-216-W-14, UN-216-W-15, UN-216-W-16, and UN-216-W-17).
25. UN-216-W-23.
26. 218-W-1A burial ground.
27. 218-W-2A burial ground.
28. 218-W-3 burial ground.
29. 216-T-21 through 216-T-25 trenches.

30. UN-216-W-7.
31. UN 216-W-5.
32. 218-W-7 burial vault, 218-W-8 burial vault.
33. 218-W-9 burial vault (includes UN-216-W-19).
34. 216-Z cribs and trenches (216-Z-7, 216-Z-8, 216-Z-11, 216-Z-12, 216-Z-16, 216-Z-18, 216-Z-19, 216-Z-20 (includes UN-216-W-20)).
35. 207-S retention basin (includes UN-216-W-2).
36. UN-216-W-38.
37. Reduction-Oxidation (S Plant) (REDOX) railroad spur.
38. 216-U-12.
39. 216-T-4-2 (216-T-4A) pond.
40. T Plant waste unloading station (alpha contamination).
41. Unplanned release site surveys 200-W: UN-216-W-24, UN-216-W-25, UN-216-W-26, UN-216-W-29, UN-216-W-30, and UN-216-W-31.
42. 216-U-4 reverse well.
43. 216-U-4A French drain.
44. 216-U-4B reverse well.
45. 216-U-7 French drain.
46. 216-U-15 trench.

## JULY/AUGUST/SEPTEMBER

## QUARTERLY (Complete in September)

1. Waste site visual survey (posting, housekeeping, vegetation control, animal activity, unusual conditions, etc.).

## ANNUALLY

1. 100-F underground radiation material (URM) area [includes: 116-F-2, 116-F-5, 116-F-6, 116-F-8, 116-F-9, 116-F-10, 116-F-12, 116-F-13, 118-F-3, UN-100-F-1 (UPR-100-F-1)].
2. 105-F exclusion area (includes: 116-F-3, 116-F-4, 116-F-11, 118-F-4).
3. 107-F retention basin.
4. 100-F ash pit.
5. 116-F-1 Lewis canal.
6. 118-F-1 burial ground.
7. 118-F-2 burial ground.
8. 118-F-5 burial ground.
9. 118-F-6 burial ground.
10. 116-F-7 crib (117-F-7) 68 meters due south of exclusion fence.
11. 100-H URM area [includes: 116-H-1, 116-H-2, 116-H-5, 116-H-4 (105-H Pluto Crib)].
12. 105-H exclusion area (includes: 116-H-3, 118-H-4, 118-H-5).
13. 116-H-6 solar basin (183-H).
14. 116-H-7 retention basin.
15. 118-H-1 burial ground.
16. 118-H-2 burial ground.
17. 118-H-3 burial ground.
18. 116-H-9 (117-H crib) 28 meters west/27 meters north of the southwest corner of 105-H exclusion fence.
19. 100 D/DR URM area (includes: 116-DR-1 and 116-DR-2 (107 trenches), 116-DR-5, 116-DR-6, 118-D-3, 118-D-4, 116-D-5).
21. 105 D/DR exclusion area (includes: 116-D-1A, 116-D-1B, 116-D-2, 116-D-3, 116-D-4, 116-D-6, 116-DR-7, 116-DR-3, 116-DR-4).
22. 118-D-1 burial ground.
23. 118-D-2 burial ground.
24. 116-D-9 (117-D crib).
25. 118-D-5 burial ground.
26. 118-DR-1 burial ground.
27. 116-DR-8.
28. 100-D/DR contamination area (includes 116-D-7, 116-DR-9, and pipeline).
29. D island vent risers and surrounding area.

OCTOBER/NOVEMBER/DECEMBER

**QUARTERLY (Complete in December)**

1. Waste site visual survey (posting, housekeeping, vegetation control, animal activity, unusual conditions, etc.).

**SEMI-ANNUALLY**

1. BC cribs, controlled area roads, and firebreaks (UN-216-E-11).

**ANNUALLY**

1. 100-N Area micro-R survey (1301-N (116-N-1), 1325-N (116-N-3), N Springs (to be completed in October).
2. 1325-N (116-N-3) fence line.
3. 1301-N (116-N-1) fence line.
4. 116-N-4 {emergency dump basin [liquid effluent retention facility (LERF)]} fence line.
5. 118-N-1 burial ground [118-N (100-N Area silos)].
6. N Springs roads and boundary.
7. 100-N parking lot.
8. 100-N paved areas inside exclusion area.
9. 100-K URM area [includes: 116-KW-4, 116-KE-5, 116-K-3 (outfall)].
10. 105-K exclusion area (includes: 116-KW-1, 116-KW-2, 116-KE-1, 116-KE-2, 118-KW-2, 118-KE-2).
11. 100-K flood plain contamination area.
12. 118-K-1 burial ground.
13. 116-K-1 crib.
14. 116-K-2 (mile-long trench).
15. 107-KE (116-KE-4).
16. 107-KW (116-KW-3).
17. 100-B/C URM area [includes 116-B-1, 116-B-2, 116-B-5, 116-B-7, 132-B-6 (116-B-8), 116-B-13, 116-B-14, 116-C-1, 116-C-2A, 132-C-2 (116-C-4), 118-B-2, 118-B-3, 118-B-4, 118-B-5, 118-B-6, 118-B-7, 116-C-5, 116-B-11].
18. 105-B/C exclusion area (includes 116-B-3, 116-B-4, 116-B-6A, 116-B-6B, 116-B-9, 116-B-10, 118-C-2, 118-C-4, 116-C-2B, 116-C-2C).
19. 100 B/C surface contamination area (includes 116-C-5, 116-B-11, 116-B-13).
20. 118-C-1 burial ground.
21. 118-B-1 burial ground.

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OPERATIONS AND MAINTENANCE CONTRACTOR  
(WESTINGHOUSE HANFORD COMPANY)  
ANNUAL SCHEDULE

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**JANUARY**

**WEEKLY**

1. Routine water samples.

**BIWEEKLY**

1. Routine air samples.

**BIMONTHLY**

1. Road surveys inside 200 East Area.
2. Road surveys inside 200 West Area.

**QUARTERLY**

1. Tritium and nitrate water samples.

**SEMI-ANNUALLY**

1. Composite air samples.
2. Outside perimeter roads of 200 East Area.
3. Outside perimeter roads of 200 West Area.
4. Vent station perimeter and surface contamination area (cross site transfer line).

**ANNUALLY**

1. Highway survey (Route 4 South) 1100 Area to Wye Barricade, to include 300 and 400 Area access roads and parking lots.
2. Posted URM pipelines in 200 East Area (excluding cross site transfer line).

**FEBRUARY**

**WEEKLY**

1. Routine water samples.

**BIWEEKLY**

1. Routine air samples.

**QUARTERLY**

1. 244-A lift station perimeter.

**SEMI-ANNUALLY**

1. Route 4 south from 200 West main gate to 200 East Area hill.

**ANNUALLY**

1. 216-T-4-2 ditch.
2. 307 retention basin perimeter.
3. 216-C-4.
4. 216-C-7.
5. 241-TX-155 diversion box.
6. 241-ER-152 diversion box.
7. Original Central Landfill (Located 2.4 km (1.5 mi) southeast of Army Loop Road, 100 feet north of Highway 4 south].
8. Cross site transfer line (200 East Area section) UN-216-E-41.
9. Route 4 south, 200 East Area hill to Wye Barricade.

**MARCH**

**WEEKLY**

1. Routine water samples.

**BIWEEKLY**

1. Routine air samples.

**BIMONTHLY**

1. Survey of roads inside 200 East Area.
2. Survey of roads inside 200 West Area.

**QUARTERLY**

1. Thermoluminescent dosimeter (TLD) exchange 100 Area.
2. TLD exchange 200/600 Areas.
3. TLD exchange 300/400 Areas.
4. Waste site visual survey (posting, housekeeping, vegetation control, animal activity, unusual conditions, etc.).

**SEMI-ANNUALLY**

1. 200/600 Areas emergency plot surveys.
2. 216-A-30 crib.
3. 216-B-55 crib.
4. 216-B-62 crib.

**ANNUALLY**

1. Cross site transfer line from 200 East fence to access road near vent station (UN-216-E-41).
2. Unplanned release sites in 200 East Area: UN-216-E-7, UN-216-E-8, UN-216-E-10, UN-216-E-13, UN-216-E-15, UN-216-E-18, UN-216-E-24, UN-216-E-26.
3. Highway survey, from entrance to 200 West Area to Route 11A, Route 11A to Route 2 south to Highway 240 via Route 10.
4. 216-Z-1 and -2 crib.
5. 216-Z-1 ditch.
6. 216-Z-3 crib.
7. 216-Z-13 French drain.
8. 216-Z-14 French drain.
9. 216-Z-15 French drain.

**APRIL**

**WEEKLY**

1. Routine water samples.

**BIWEEKLY**

1. Routine air samples.

**QUARTERLY**

1. Tritium and nitrate water samples.

**SEMI-ANNUALLY**

1. Railroad survey 300 Area to 400 and 200 West Area, to include all sidings and spurs outside of fence boundaries of areas.
2. 216-U-14 (active section from 207-U to 216-U-10 pond).

**ANNUALLY**

1. UN-300-17 (333 bldg).
2. UN-300-XX (333 bldg).
3. 216-A-40.
4. 216-A-8.
5. 216-B-13.
6. 216-B-64.
7. 216-T-1 ditch perimeter.
8. 300/400 Area soil and vegetation sampling.
9. Cross site transfer line from access road near vent station to 200 West Area fence (UN-216-E-41).
10. Highway survey, Yakima Barricade to Army Loop Road (Route 11A), Army Loop Road to Route 4 south.

**MAY**

**WEEKLY**

1. Routine water samples.

**BIWEEKLY**

1. Routine air samples.

**BIMONTHLY**

1. Road survey inside 200 East Area.
2. Road survey inside 200 West Area.

**QUARTERLY**

1. 244-A lift station perimeter.

**SEMI-ANNUALLY**

1. 200 West Area tank farm perimeters:
  - A. 241-T.
  - B. 241-TX and 241-TY.
  - C. 241-S, 241-SX, and 241-SY.
  - D. 241-U.
2. 200 East Area Tank Farm Perimeters:
  - A. 241-A, 241-AN, 241-AX, 241-AY, and 241-AZ.
  - B. 241-AP.
  - C. 241-AW.
  - D. 241-B.
  - E. 241-BX and 241-BY.
  - F. 241-C.

**ANNUALLY**

1. 200/600 Areas soil and vegetation sampling.
2. 200/600 Area pond and ditch aquatic vegetation sampling.
3. 200/600 Area pond and ditch sediment sampling.
4. Highway survey, 100-N Area to intersection of Route 11A (Route 2N) to include all parking areas, paved access roads to 100 Areas, and Route 1 from Hanford townsite to 100-B Area.
5. Rail survey 200 West perimeter fence to 100-K and 100-N, including the lower route to May Junction. This survey is to include all sidings and spurs.
6. UN-216-E-9 (UN-200-E-81).

JUNE

WEEKLY

1. Routine water samples.

BIWEEKLY

1. Routine air samples.

QUARTERLY

1. TLD exchange 100 Area.
2. TLD exchange 200/600 Areas.
3. TLD exchange 300/400 Areas.
4. Waste site visual survey (posting, housekeeping, vegetation control, animal activity, unusual conditions, etc.).

ANNUALLY

1. Highway survey, West Lake to Route 6 (100-B cut-off), Route 6 to Route 11 A, Route 11 A to Intersection of Route 3.
2. Rail survey, 200 West Area railways, spurs, and sidings.
3. 216-U-16 crib.
4. 216-S-25 crib.
5. 216-S-26 crib.
6. 216-U-17 crib.
7. 400 Area process pond perimeters.
8. 116-K-3.
9. 116-KE-6A.
10. 116-KE-6B.
11. 116-KE-6C.
12. 116-KE-6D.
13. 218-E-13 PUREX tunnel perimeter.
14. 218-E-14 PUREX tunnel perimeter.
15. UN-216-E-25 (UPR-200-E-75).

**JULY**

**WEEKLY**

1. Routine water samples.

**BIWEEKLY**

1. Routine air samples.

**BIMONTHLY**

1. Road surveys inside 200 East Area.
2. Road surveys inside 200 West Area.

**QUARTERLY**

1. Tritium and nitrate water samples.

**SEMI-ANNUALLY**

1. Composite air samples.
2. Outside perimeter roads of 200 East Area.
3. Outside perimeter roads of 200 West Area.
4. Vent station perimeter and surface contamination area (cross site transfer line).

**ANNUALLY**

1. 216-Z-9.
2. 207-B retention basin perimeter.
3. 207-SL retention basin perimeter.
4. 207-T retention basin perimeter (includes 216-T-12 sludge pit).
5. 207-U retention basin perimeter (includes UN-216-W-21 and UN-216-W-22).
6. 216-A-42 retention basin perimeter (207-aa).
7. 100 Area soil and vegetation sampling.
8. Highway survey, from intersection of Route 3 and Route 4 north to 100-N.
9. Rail survey, 200 East Area railways, spurs, and sidings.
10. Manhole covers along supply and discharge lines to the 300 Area Treated Effluent Disposal Facility.
11. UN-216-E-22 (UPR-200-E-94).

**AUGUST**

**WEEKLY**

1. Routine water samples.

**BIWEEKLY**

1. Routine air samples.

**QUARTERLY**

1. 244-A lift station perimeter.

**SEMI-ANNUALLY**

1. Route 4 south from 200 West Area main gate to 200 East Area hill.

**ANNUALLY**

1. UN-300-5 (309 tank farms).
2. UN-200-W-8 (old burial ground east of U Plant).
3. 216-B-63 ditch survey.
4. Unplanned release site surveys 200 West Area: UN-216-W-4, UN-216-W-6, UN-216-W-12, and UN-216-W-28.
5. Rail survey, 300 Area to Columbia Center to include all sidings and spurs.
6. 216-B-3C pond perimeter (active).

**SEPTEMBER**

**WEEKLY**

1. Routine water samples.

**BIWEEKLY**

1. Routine air samples.

**BIMONTHLY**

1. Survey of roads inside 200 East Area.
2. Survey of roads inside 200 West Area.

**QUARTERLY**

1. TLD exchange - 100 Area.
2. TLD exchange - 200/600 Areas.
3. TLD exchange - 300/400 Areas
4. Waste site visual survey (posting, housekeeping, vegetation control, animal activity, unusual conditions, etc.).

**SEMI-ANNUALLY**

1. 200/600 Areas emergency plot surveys.
2. 216-A-30 crib.
3. 215-B-55 crib.
4. 216-B-62 crib.

**ANNUALLY**

1. N Springs water sampling.
2. Unplanned release site survey 200 West Area: UN-216-E-5, UN-216-E-6, UN-216-E-12 perimeter, UN-216-E-14, UN-216-E-16, UN-216-E-23, UN-216-E-30, UN-216-E-34, UN-216-E-36, UN-216-E-43, and UN-216-E-44.
3. 216-A-45 crib.

OCTOBER

WEEKLY

1. Routine water samples.

BIWEEKLY

1. Routine air samples.

QUARTERLY

1. Tritium and nitrate water samples.

SEMI-ANNUALLY

1. Railroad survey, 300 Area to 400 and 200 West Areas, to include all sidings and spurs external of fence boundaries of areas.
2. 216-U-14 (active section from 207-U to 216-U-10 pond).

ANNUALLY

1. UN-300-11 (east of 340 building), UN-216-W-18, UN-216-W-33, UN-216-W-35, UN-216-W-36, UN-216-W-37 and 241-WR vault (includes UN-216-W-9 and UN-216-W-11), 200 West section of cross site transfer line (UN-216-E-).
2. Posted URM pipelines in 200 West Area (excluding east/west transfer line).

**NOVEMBER**

**WEEKLY**

1. Routine water samples.

**BIWEEKLY**

1. Routine air samples.

**BIMONTHLY**

1. Road surveys inside 200 East Area.
2. Road surveys inside 200 West Area.

**QUARTERLY**

1. 244-A lift station perimeter.

**SEMI-ANNUALLY**

1. 200 West Area tank farm perimeters:
  - A. 241-T.
  - B. 241-TX and 241-TY.
  - C. 241-S, 241-SX, and 241-SY.
  - D. 241-U.
2. 200 East Area tank farm perimeters:
  - A. 241-A, 241-AN, 241-AX, 241-AY, and 241-AZ.
  - B. 241-AP.
  - C. 241-AW.
  - D. 241-B.
  - E. 241-BX and 241-BY.
  - F. 241-C.

**ANNUALLY**

1. Outside perimeters of all active West Area burial grounds (218-W-3A, 218-W-3AE, 218-W-4B, 218-W-4C, 218-W-5).
2. Outside perimeters of all active East Area burial grounds (218-E-12B, 218-E-15).

**DECEMBER**

**WEEKLY**

1. Routine water samples.

**BIWEEKLY**

1. Routine air samples.

**QUARTERLY**

1. TLD exchange - 100 Area.
2. TLD exchange - 200/600 Areas.
3. TLD exchange - 300/400 Areas.
4. Waste site visual survey (posting, housekeeping, vegetation control, animal activity, unusual conditions, etc.).

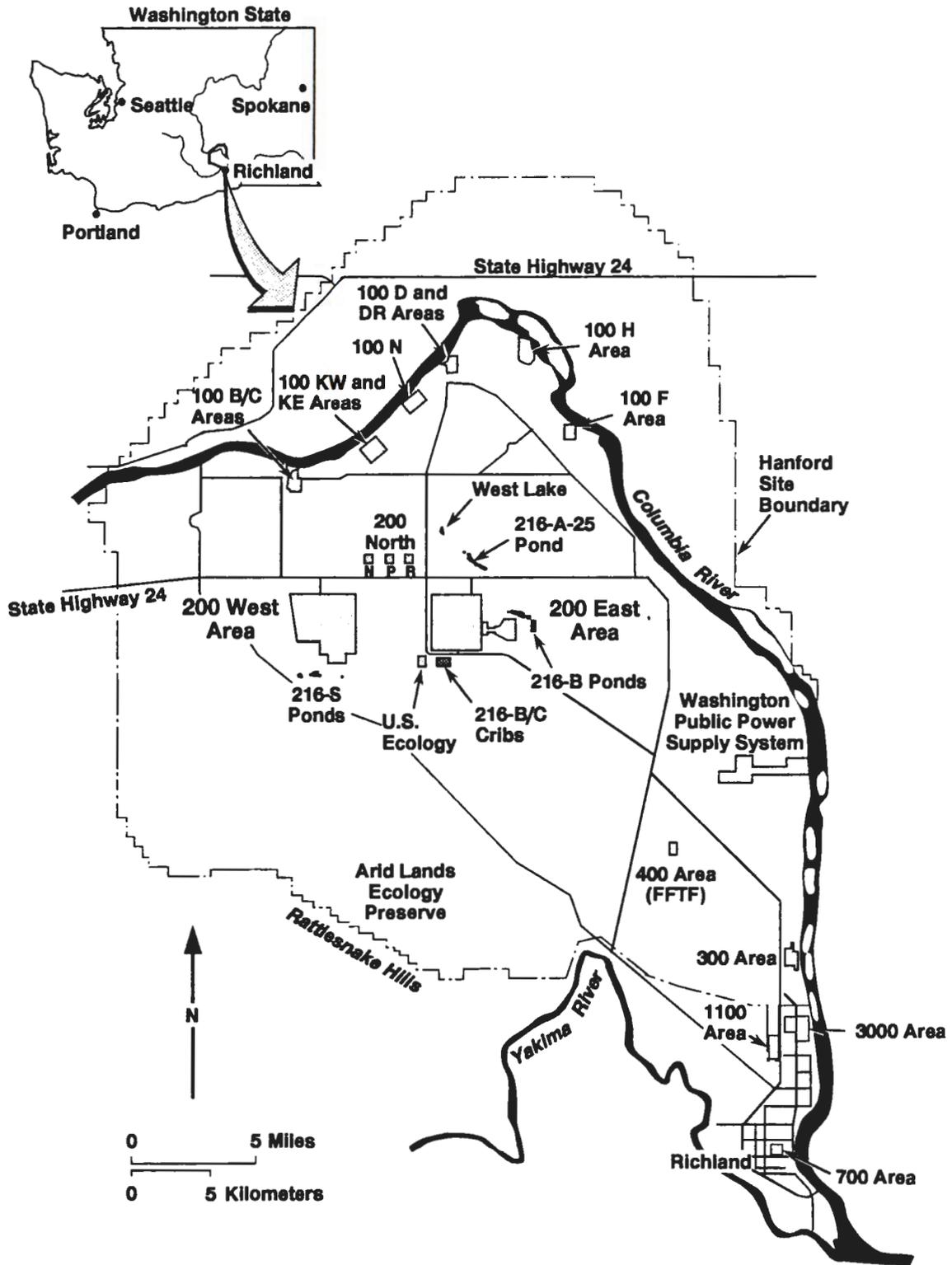
**ANNUALLY**

1. UN-300-4 (321 bldg).
2. UN-300-40 (303-F pipe trench).
3. 216-B-3C pond perimeter.
4. Special surveys (e.g., fresh animal feces, pipelines, etc.), contact Near-Field Monitoring.

**APPENDIX A**  
**SURVEY SITES AND SAMPLE LOCATIONS**

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Figure A-1. Hanford Site.



H9408001.1

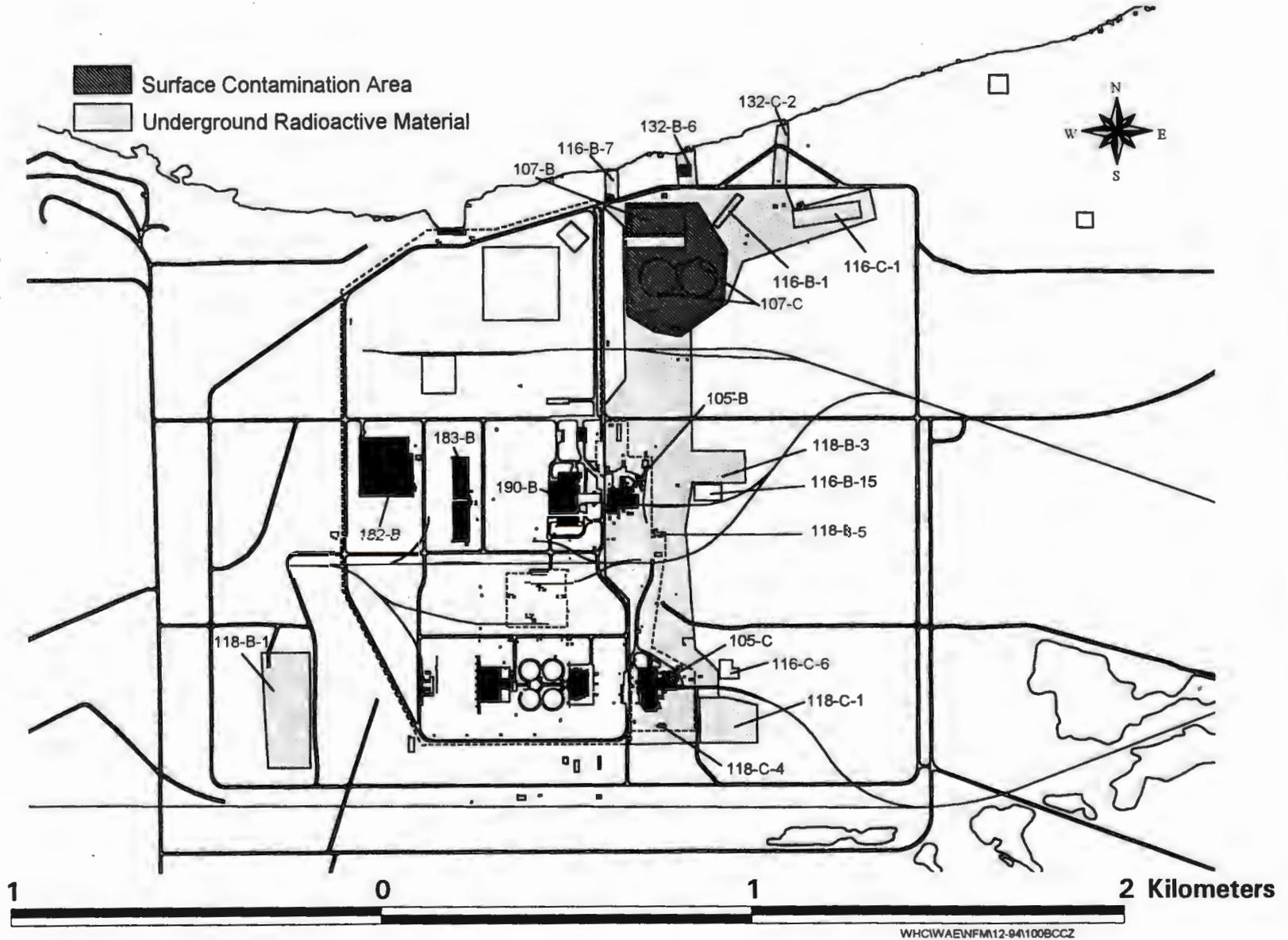


Figure A-2. 100-B and 100-C Waste Sites.

WHC-SP-00198-6

A-4

Figure A-3. 100-K Waste Sites.

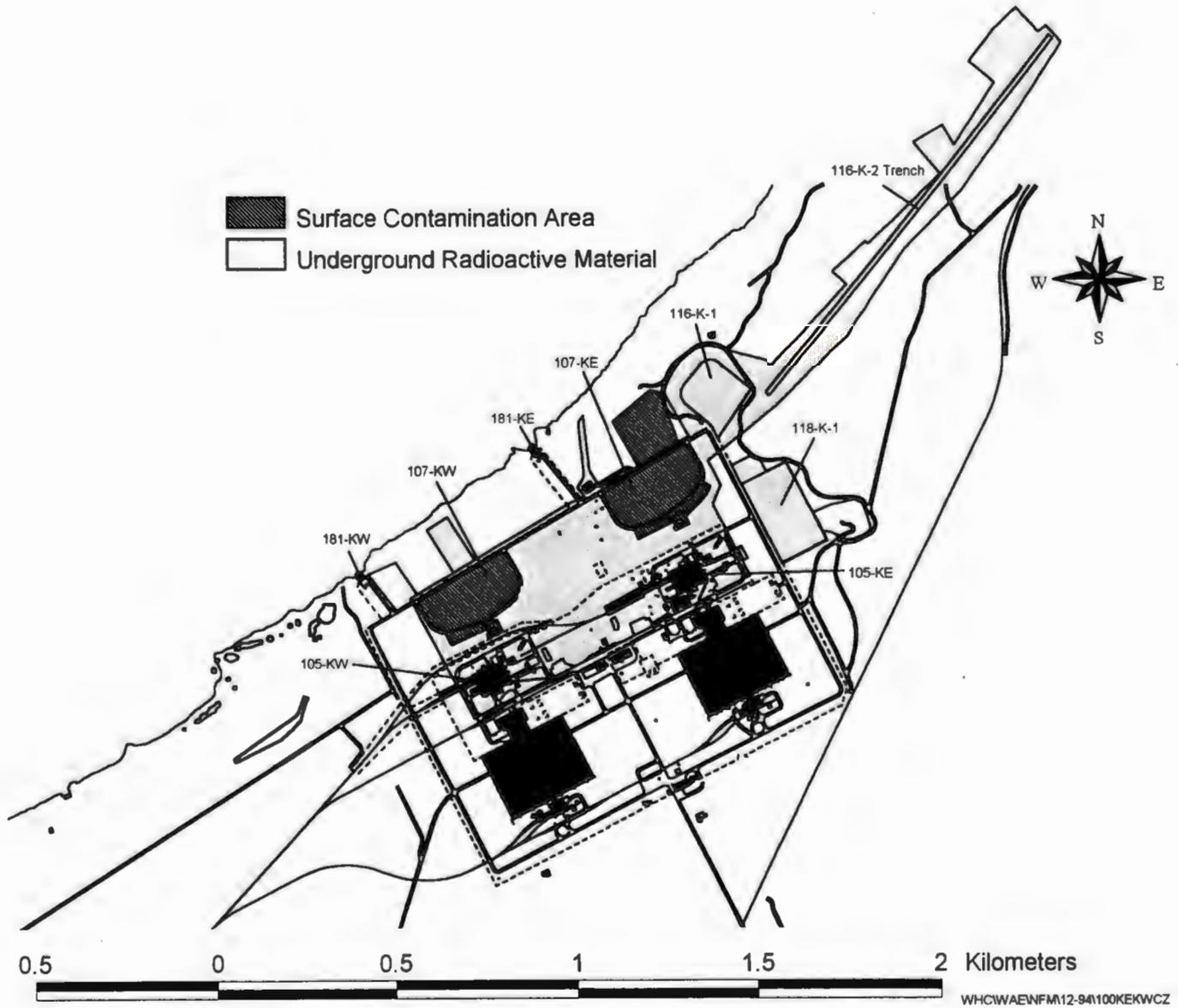
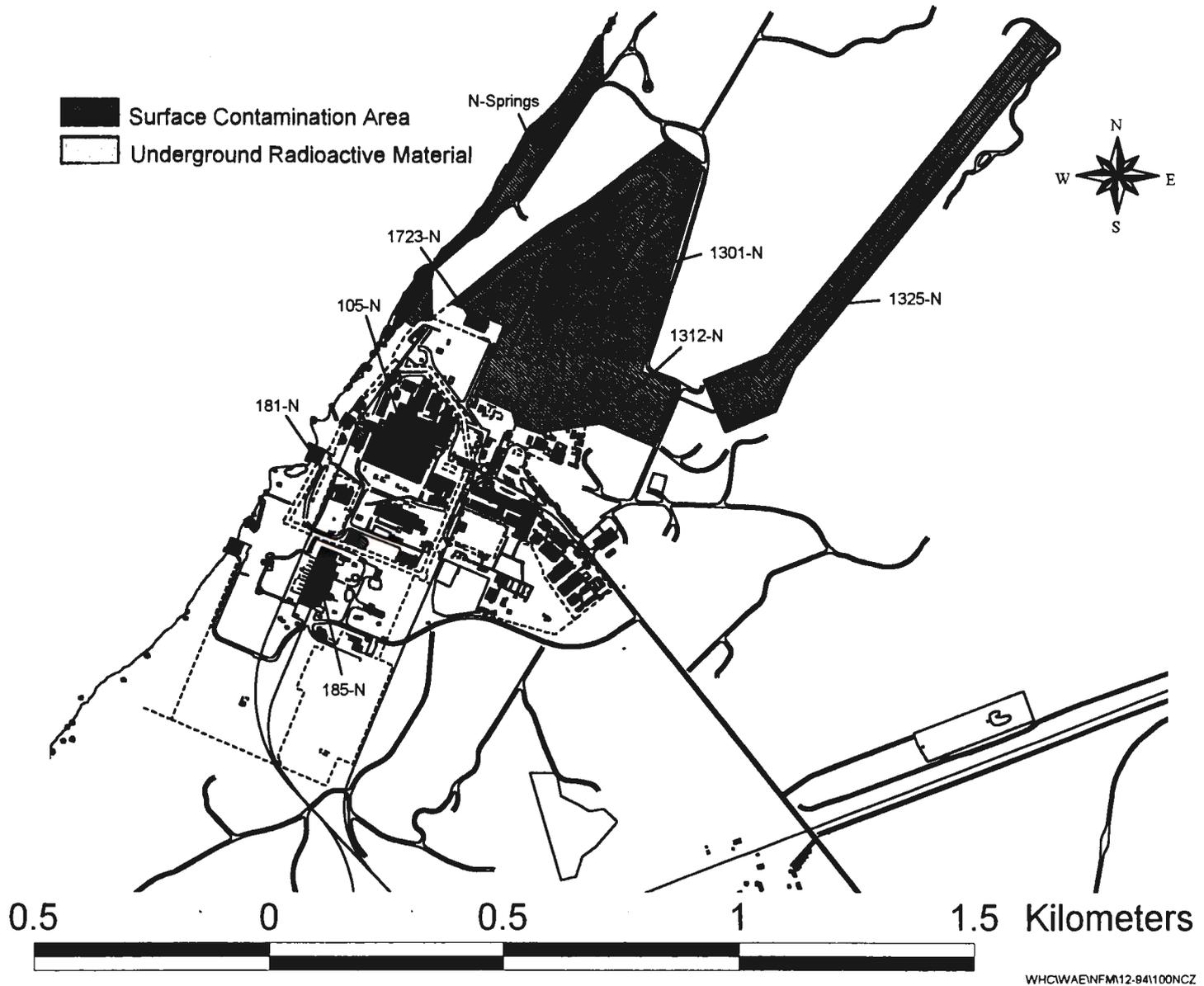


Figure A-4. 100-N Waste Sites.



WHCWAENFM12-941100NCZ

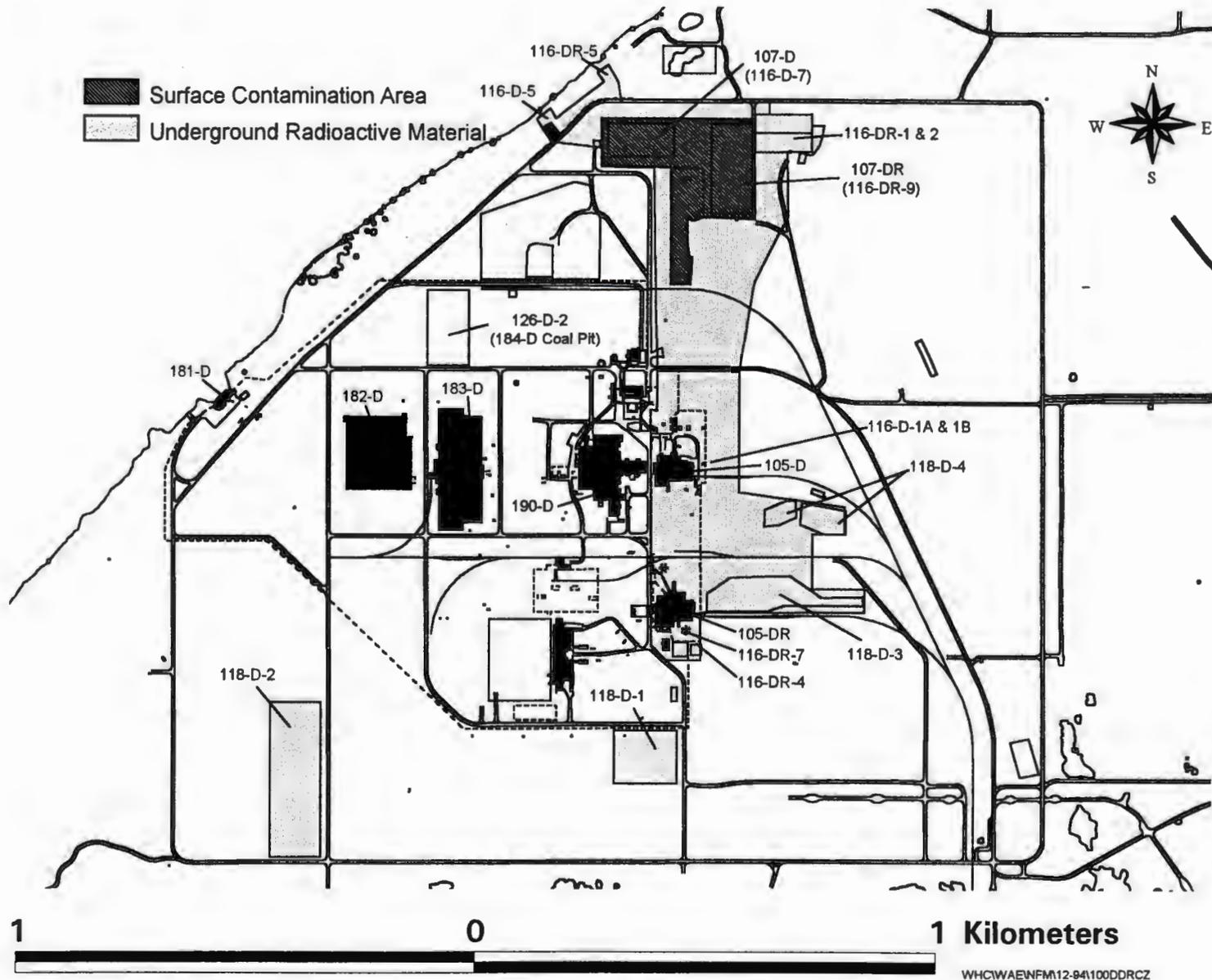
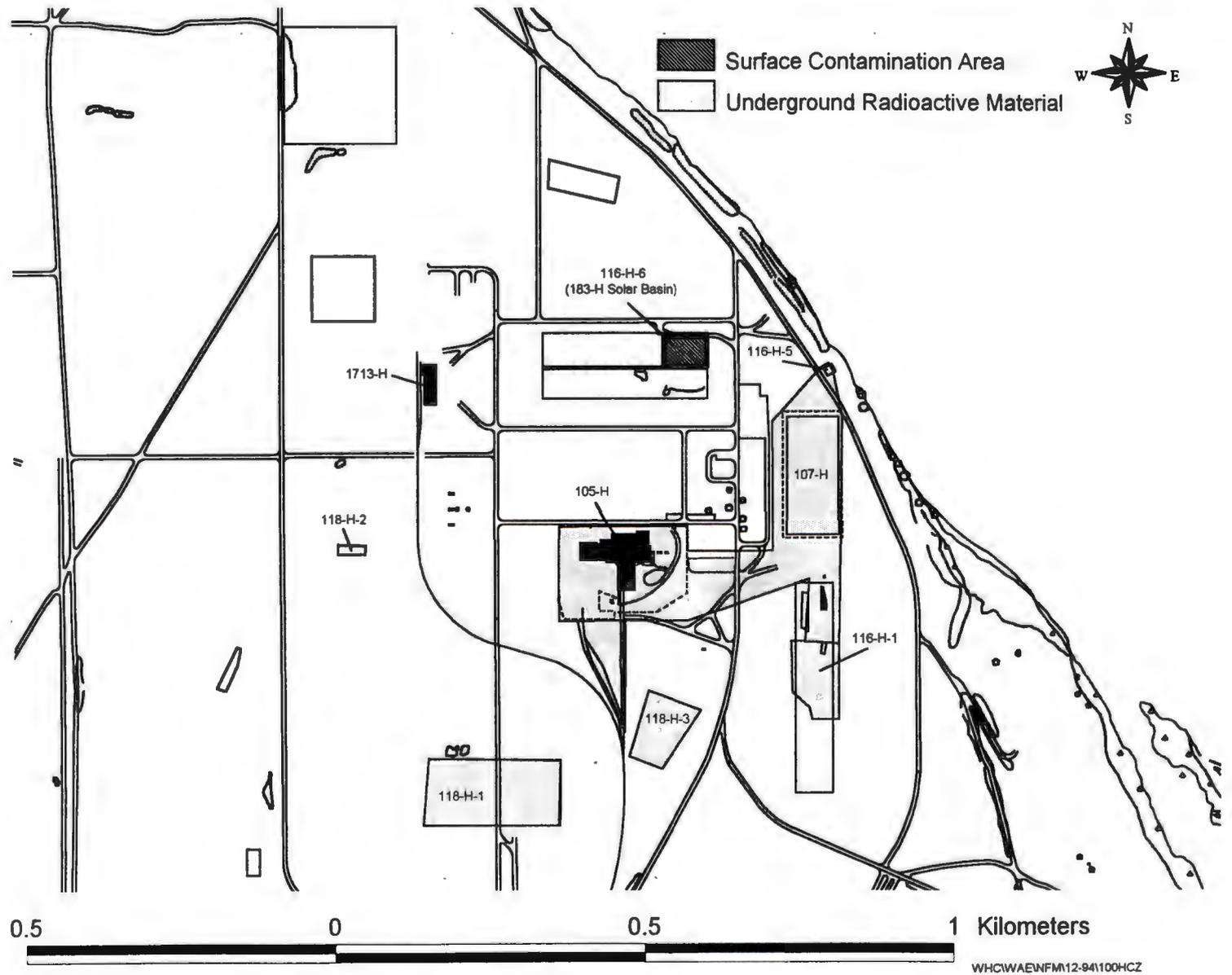


Figure A-5. 100-D Waste Sites.

Figure A-6. 100-H Waste Sites.



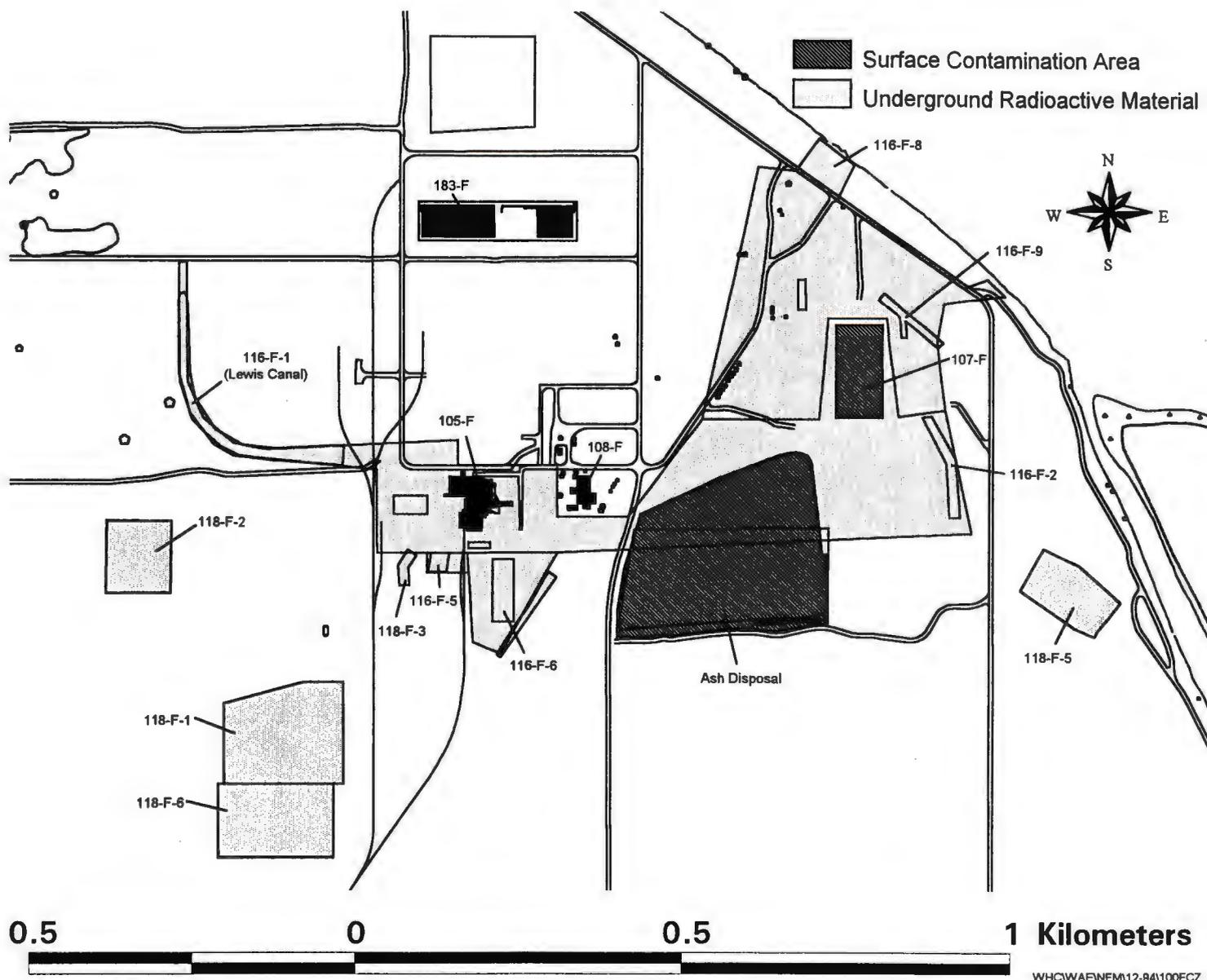


Figure A-7. 100-F Waste Sites.

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Figures A-8 through A-17 show 200 Areas waste sites.

Figure A-8. 200 East Waste Sites.

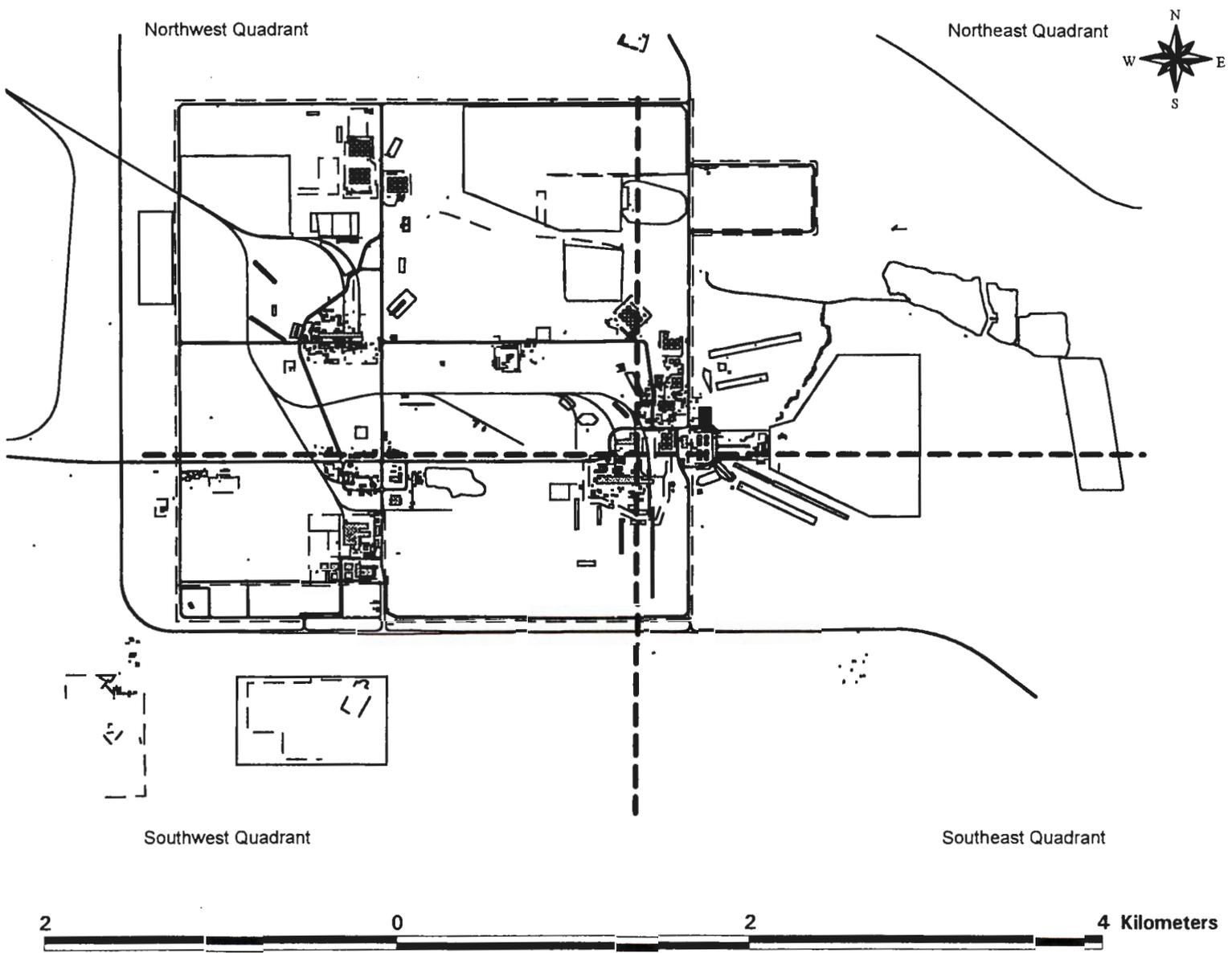


Figure A-9. 200 East Waste Sites, NE Quadrant.

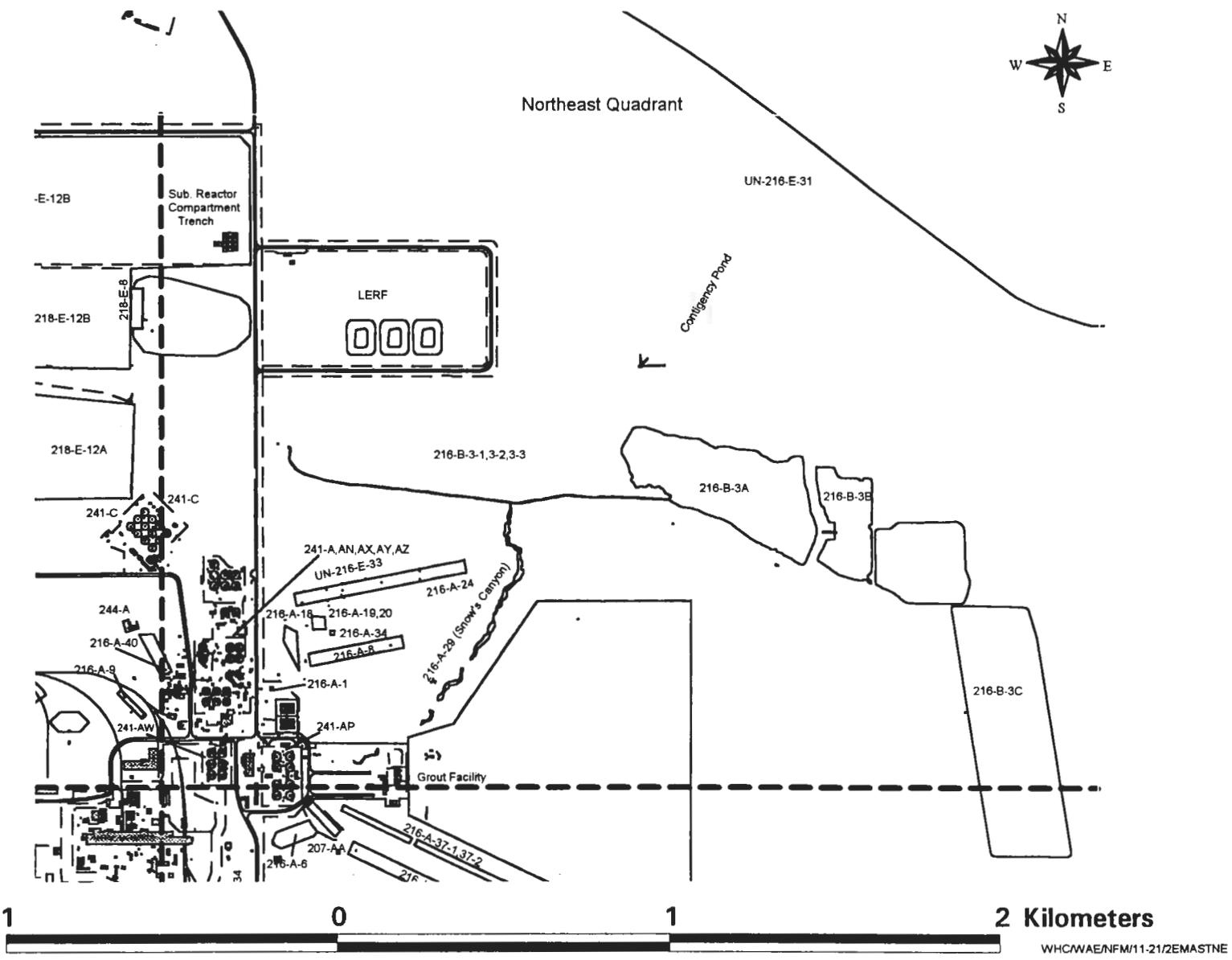
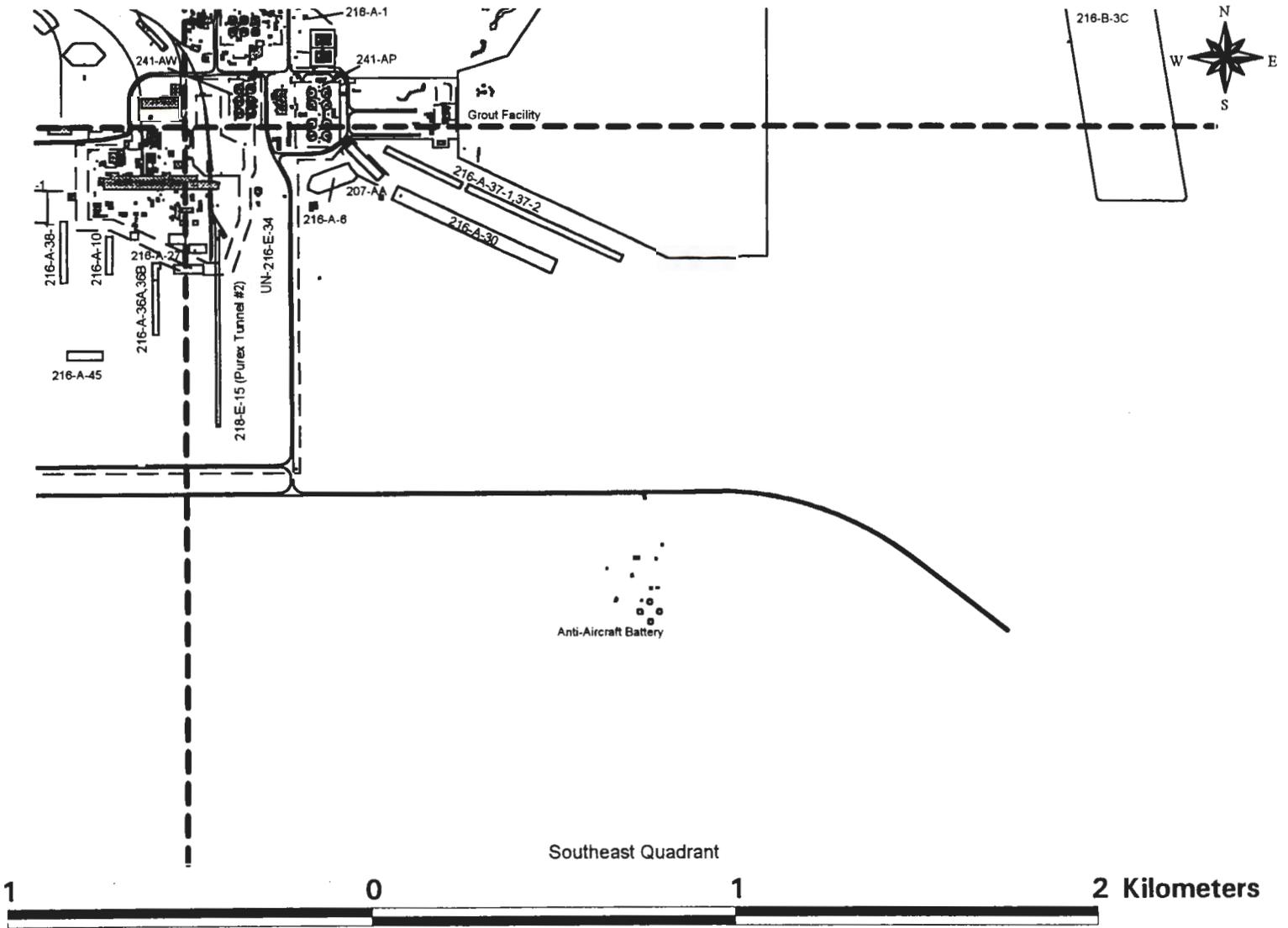




Figure A-11. 200 East Waste Sites, SE Quadrant.





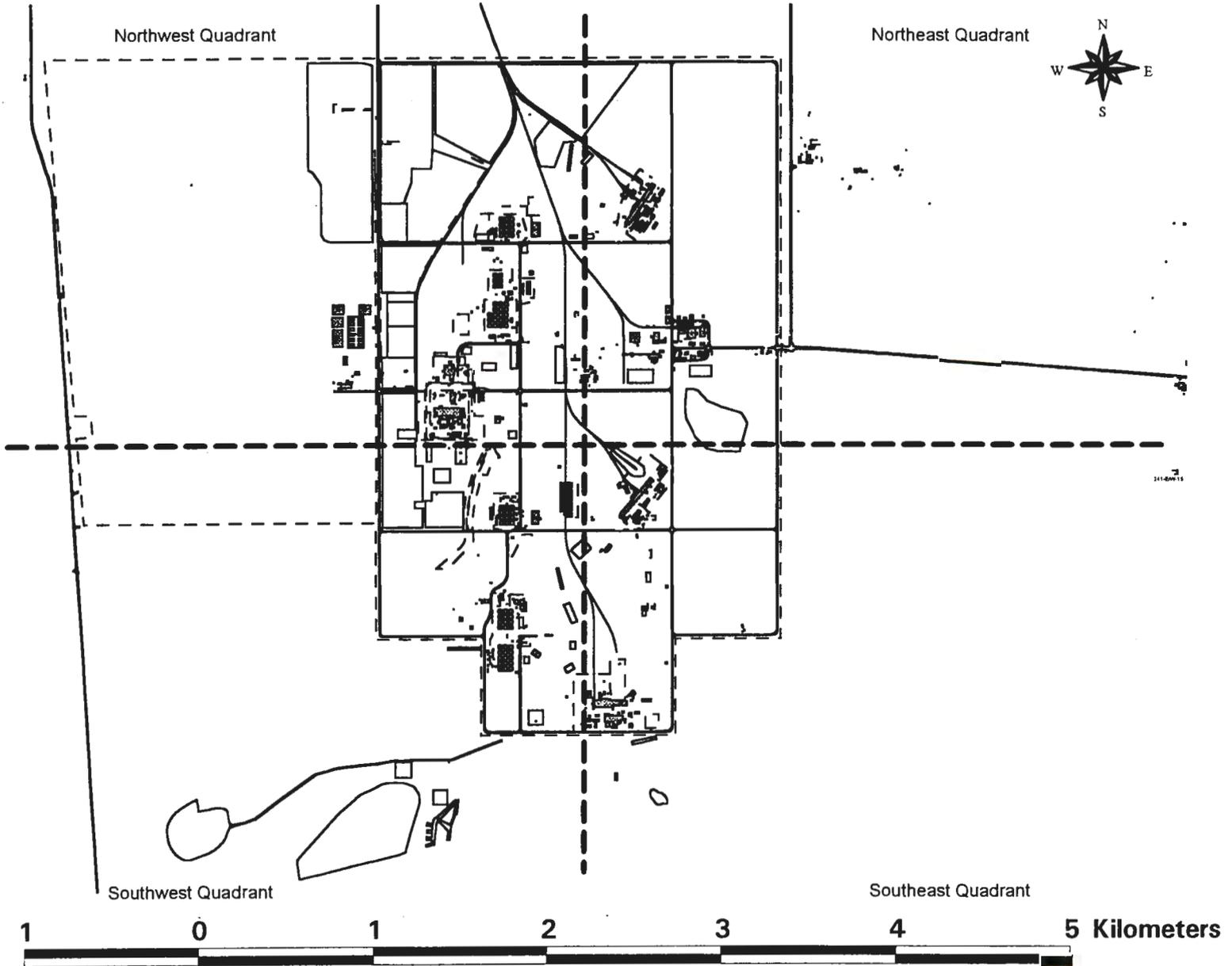


Figure A-13. 200 West Waste Sites.

Figure A-14. 200 West Waste Sites, NE Quadrant.

A-18

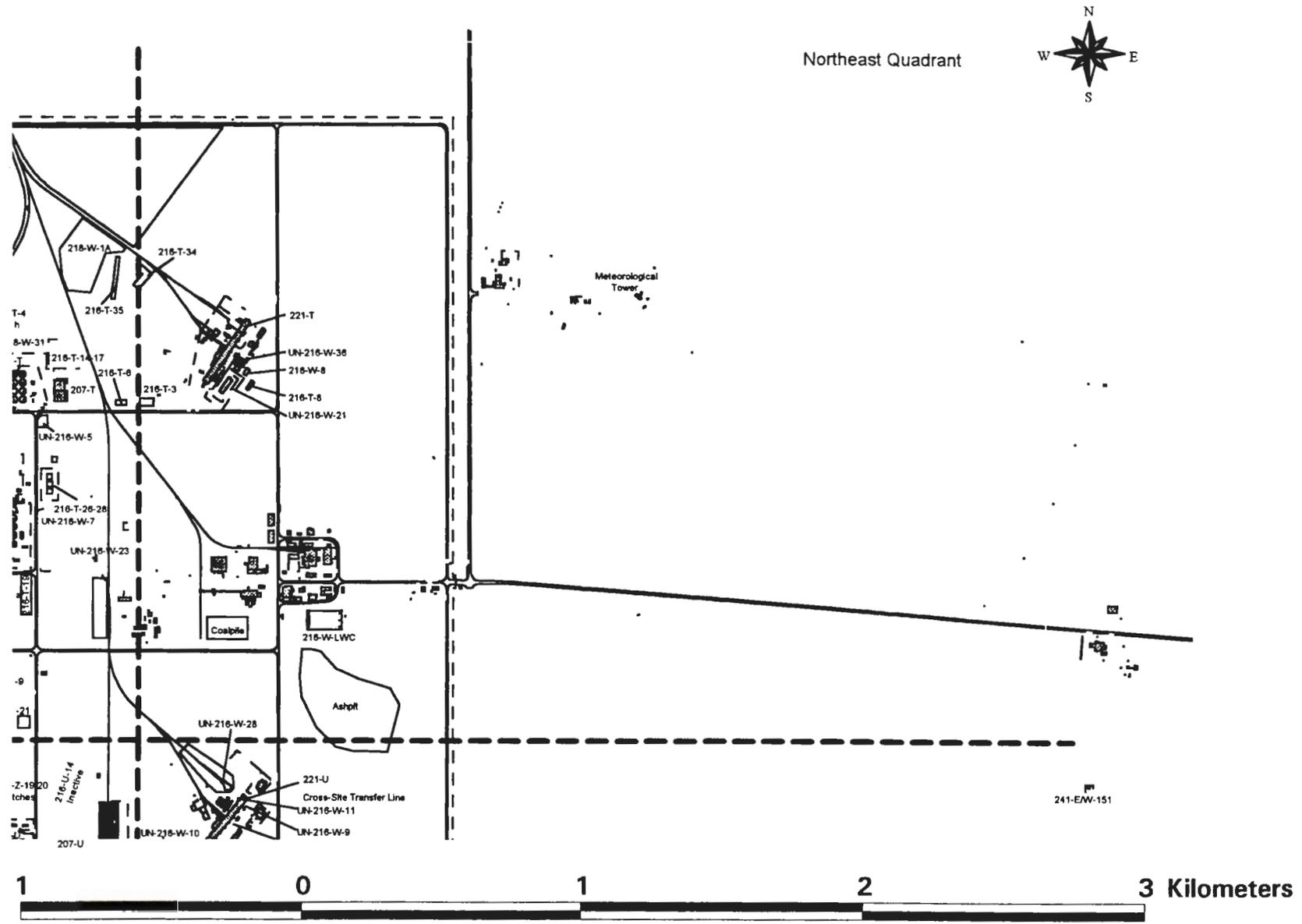
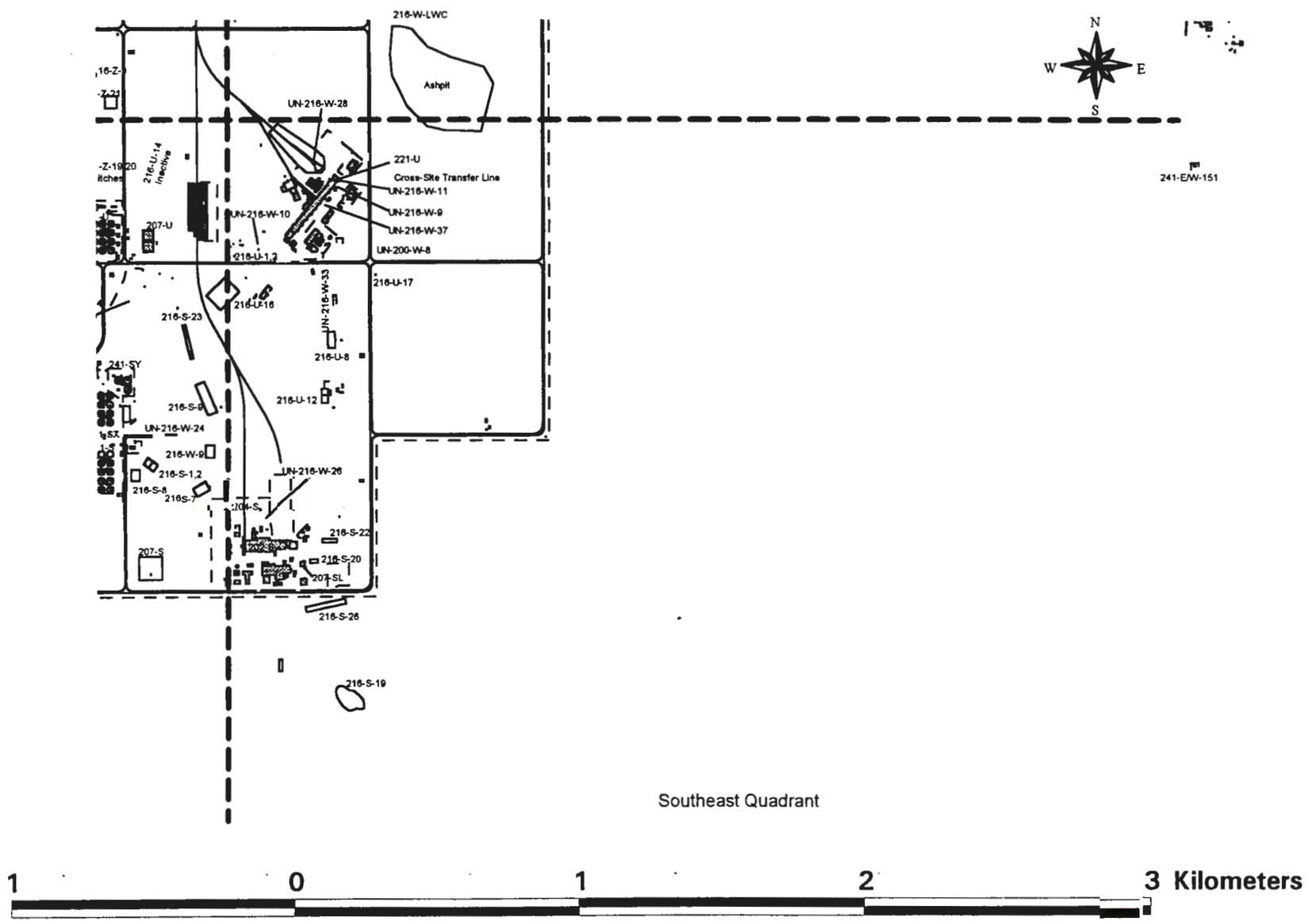




Figure A-16. 200 West Waste Sites, SE Quadrant.



A-20

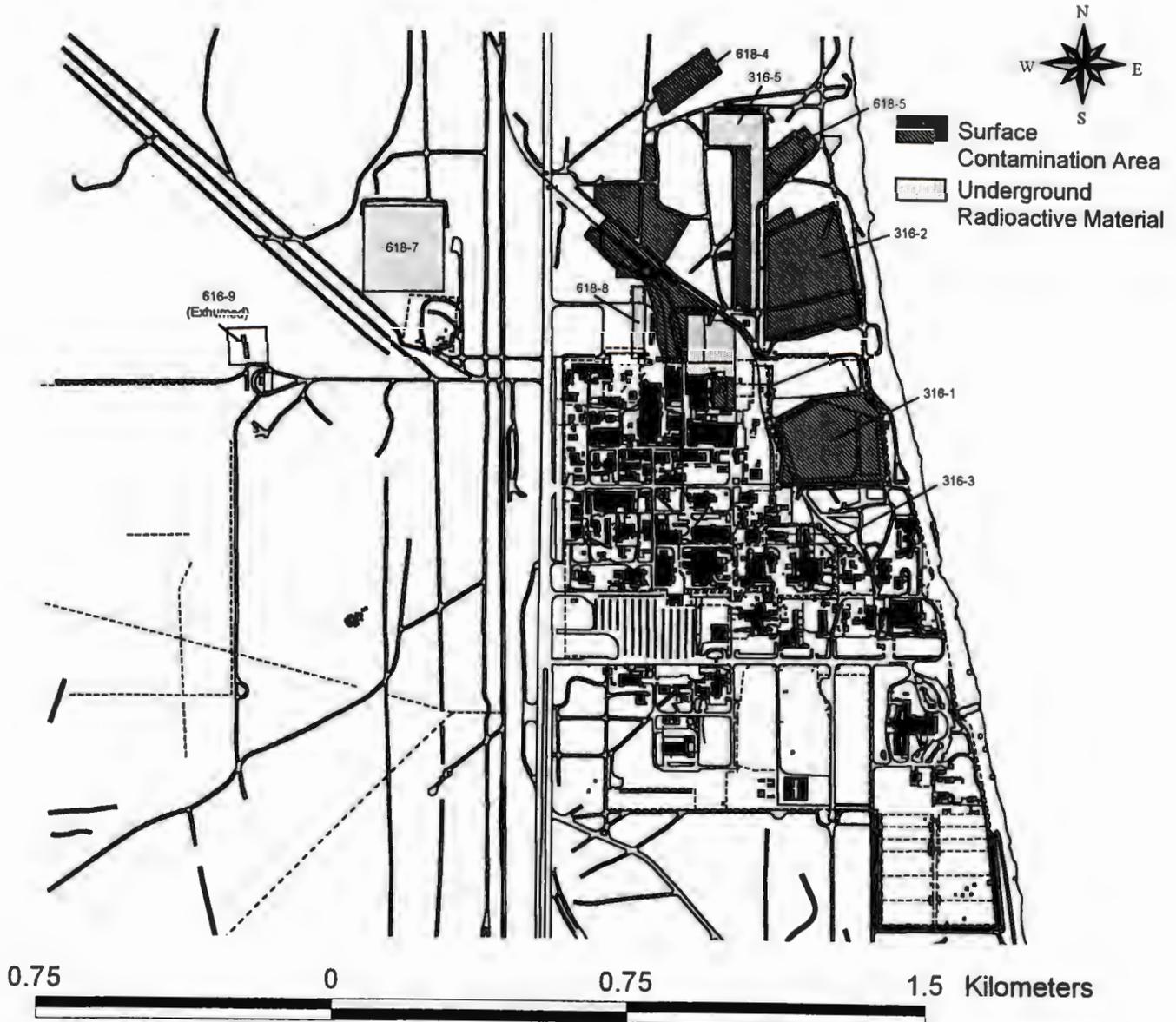


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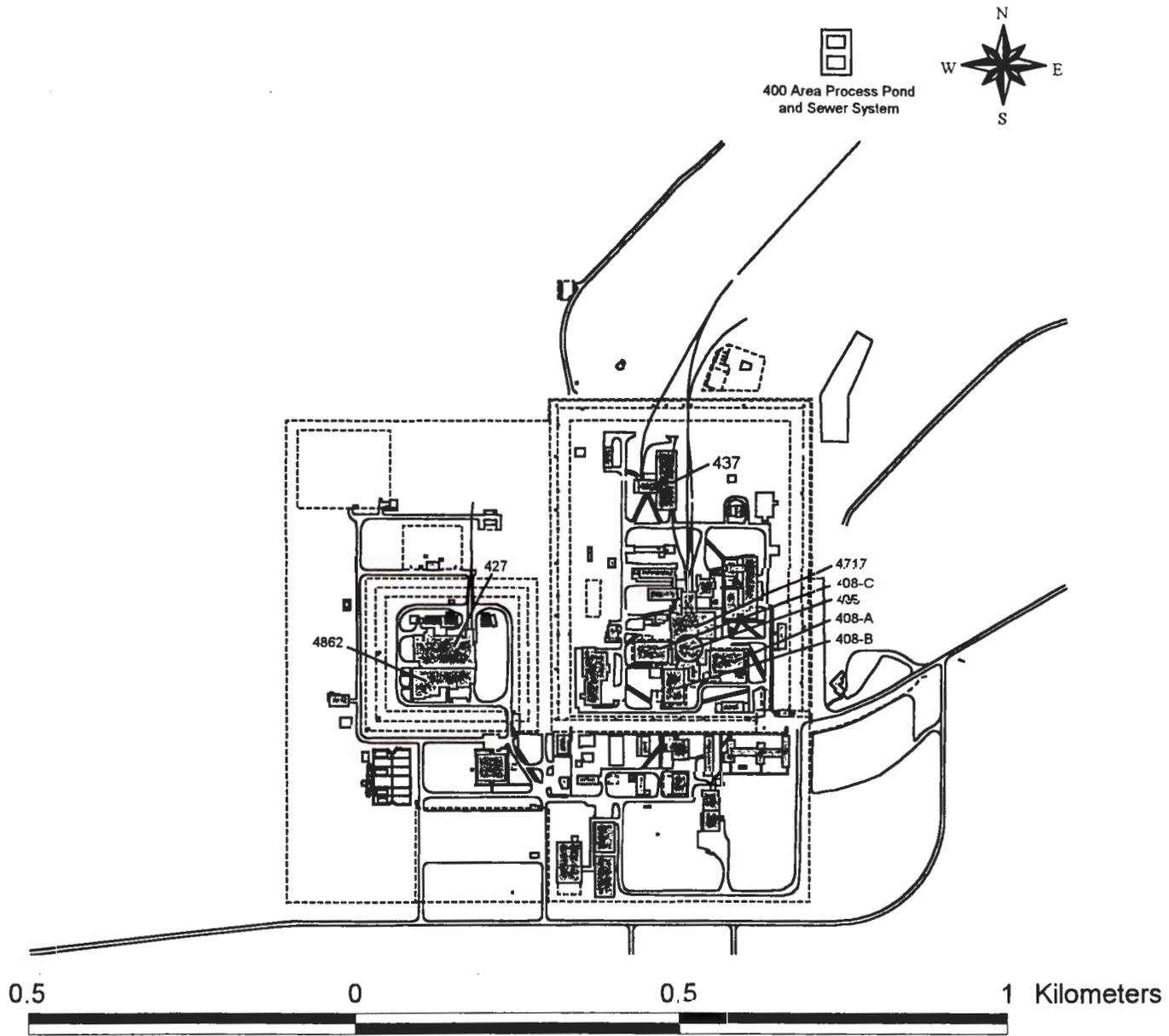




Figure A-20. 300 Area Waste Sites.



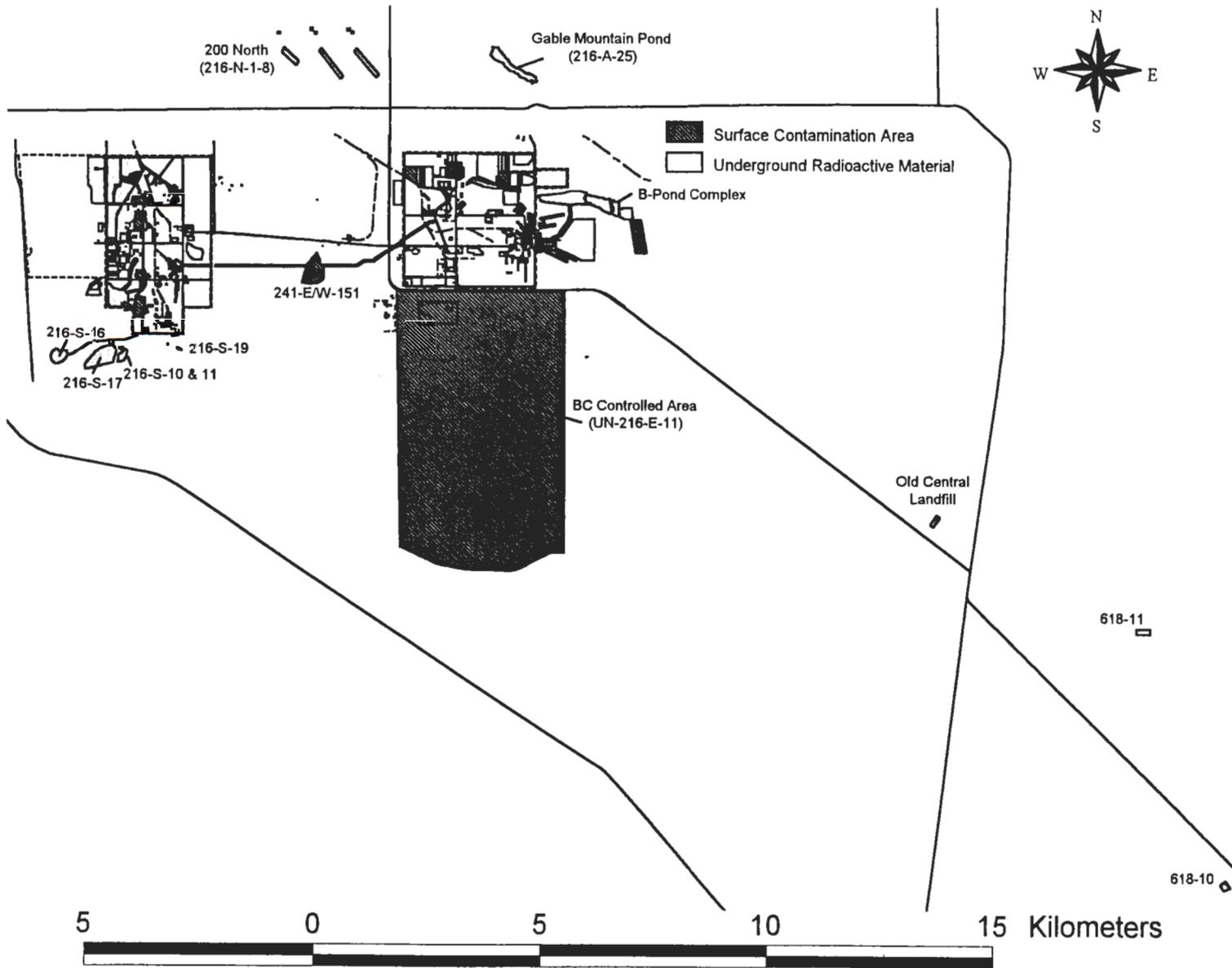
WHCWAENFM12-84\300CZ



WHCWAENFM12-941400CZ

Figure A-21. 400 Area Waste Sites.

Figure A-22. 600 Area Waste Sites.



WHCWAENFM12-94/600CZ

Figure A-23. Site Highways and Railways.

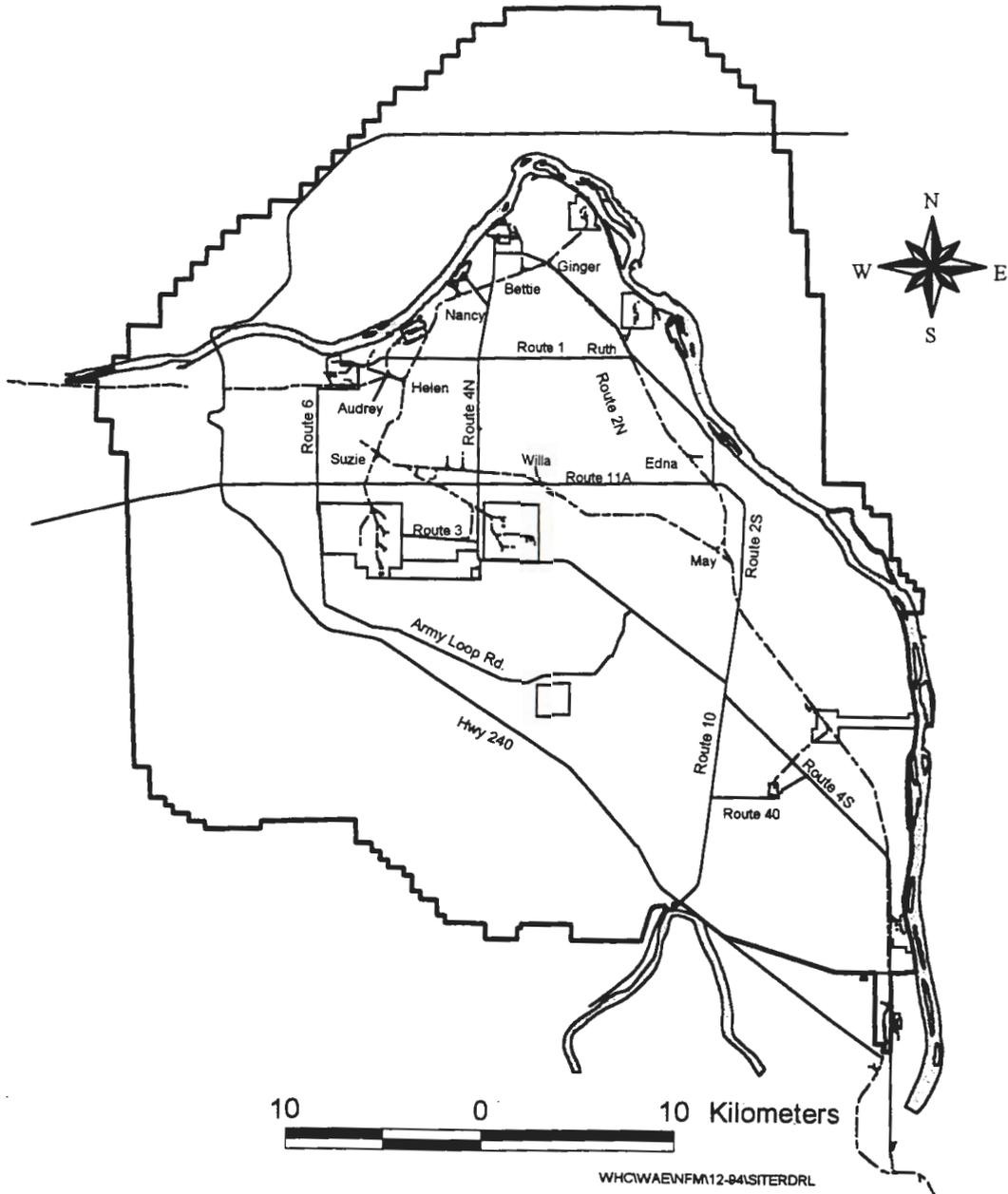
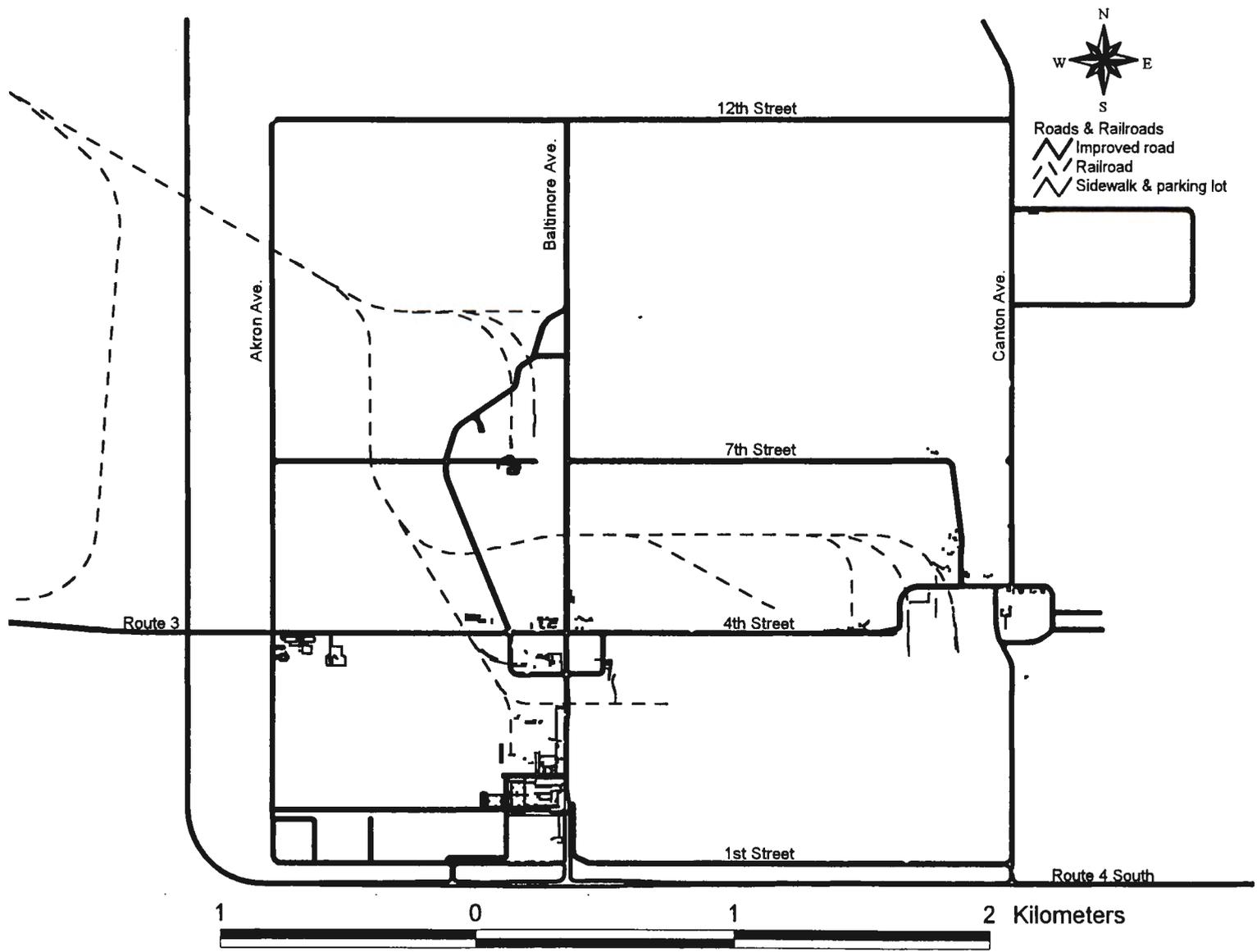
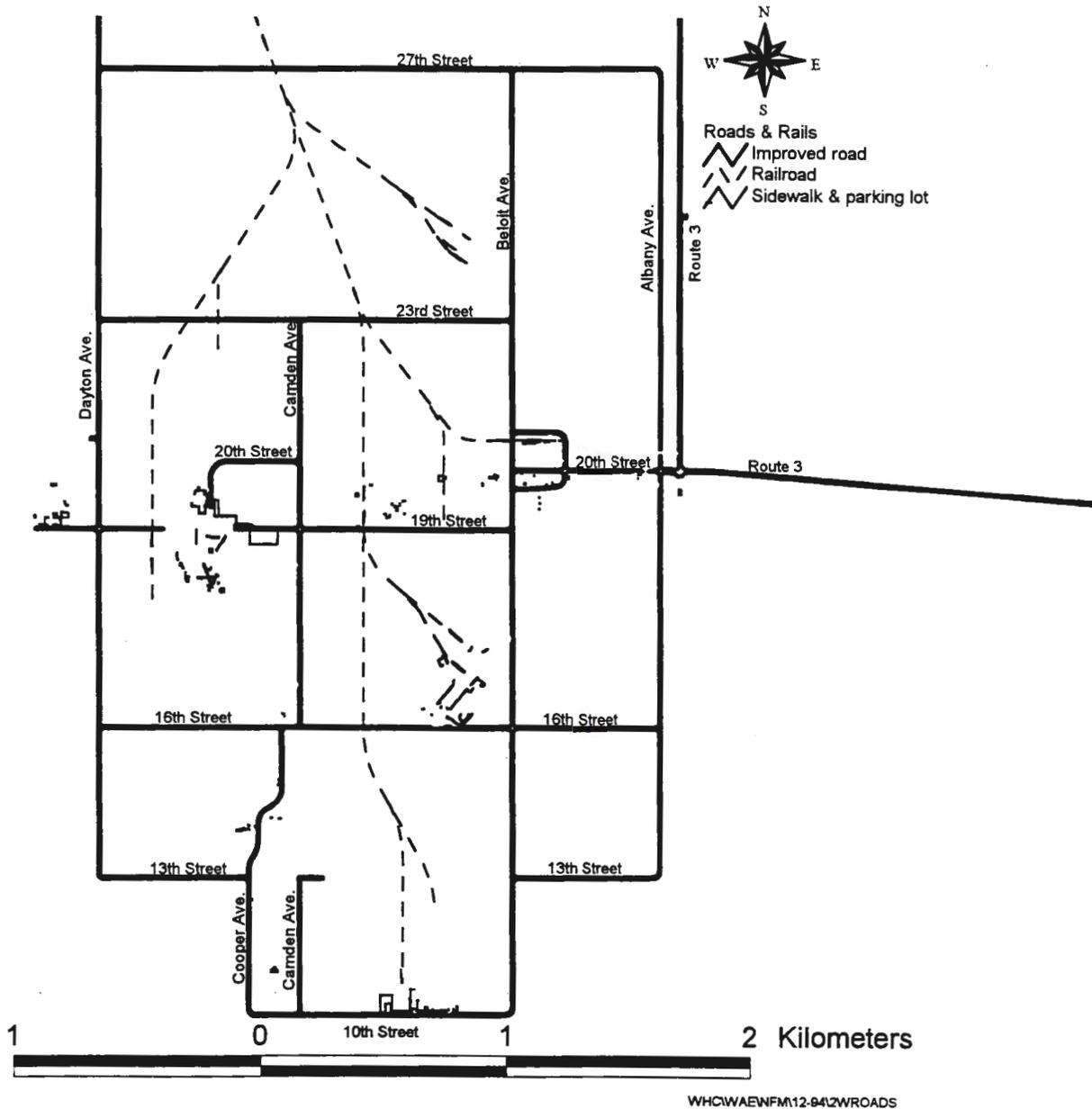


Figure A-24. 200 East Area Roads and Railways.



WHCWAENFM112-9412EROADS

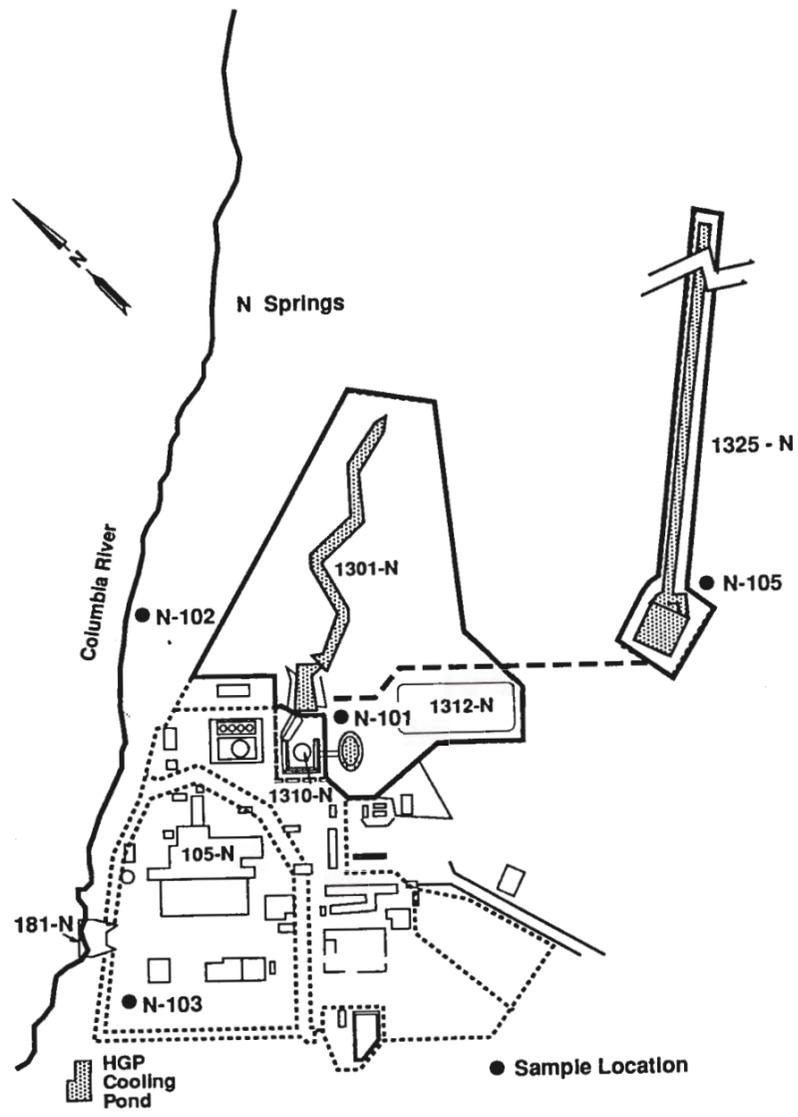
Figure A-25. 200 West Area Roads and Railways.



Figures A-26 through A-32 show air sample locations.

WHC-SP-0098-6

Figure A-26. 100-N Ambient Air Sample Location.



29204047.1

Figure A-27. 100-K Ambient Air Sample Location.

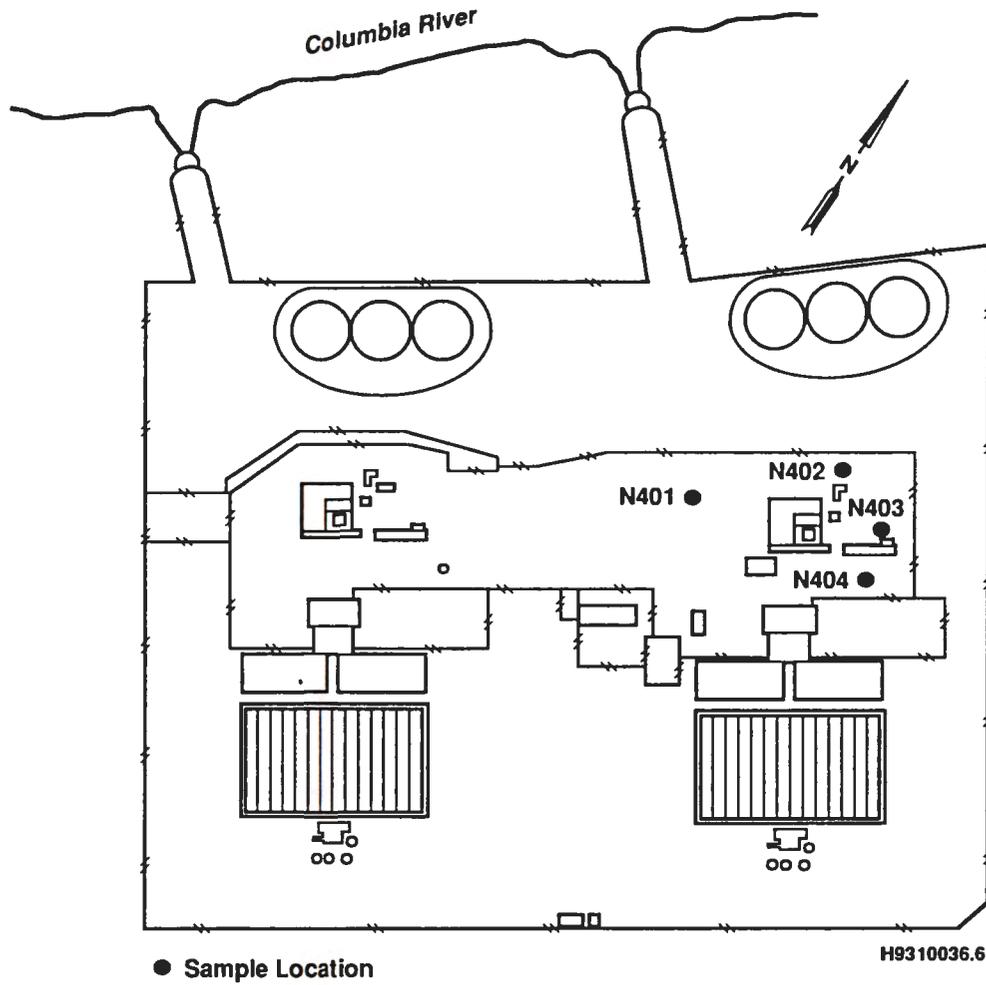


Figure A-28. 200 East Air Sample Locations.

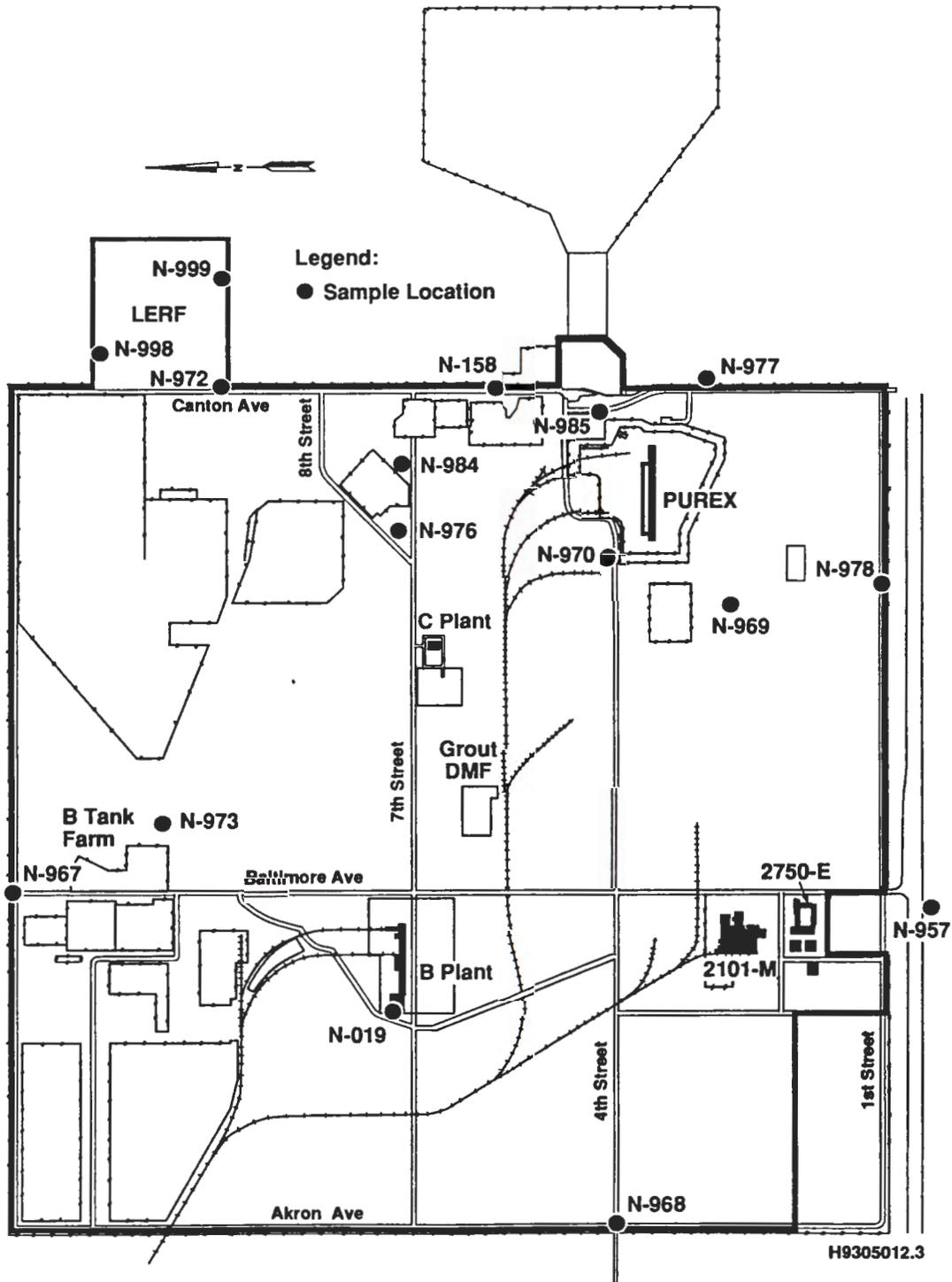


Figure A-29. 200 West Air Sample Locations.

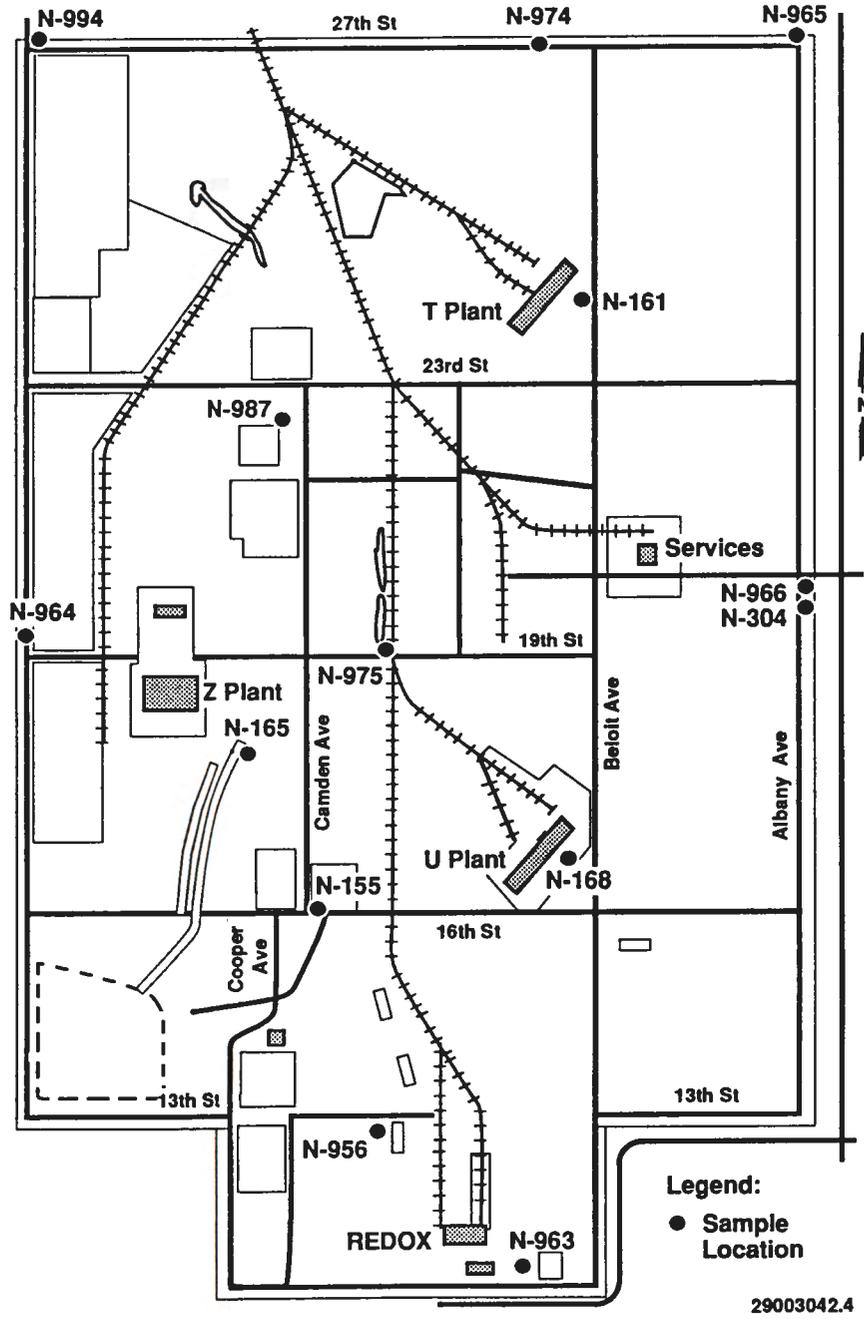
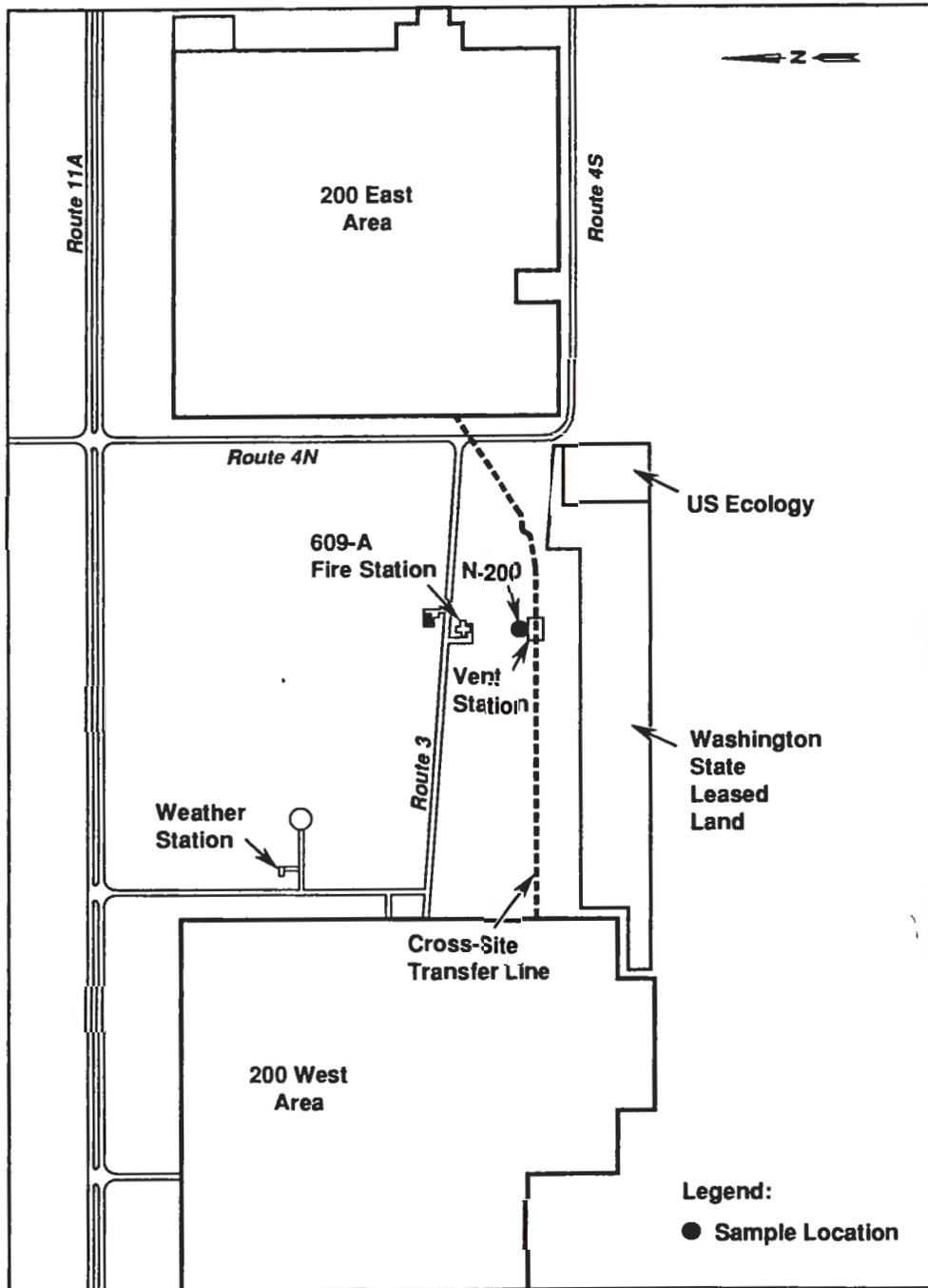


Figure A-30. 200 East/West Vent Station Air Sample Locations.



H9306026.1a

Figure A-31. 600 Area Air Sample Locations.

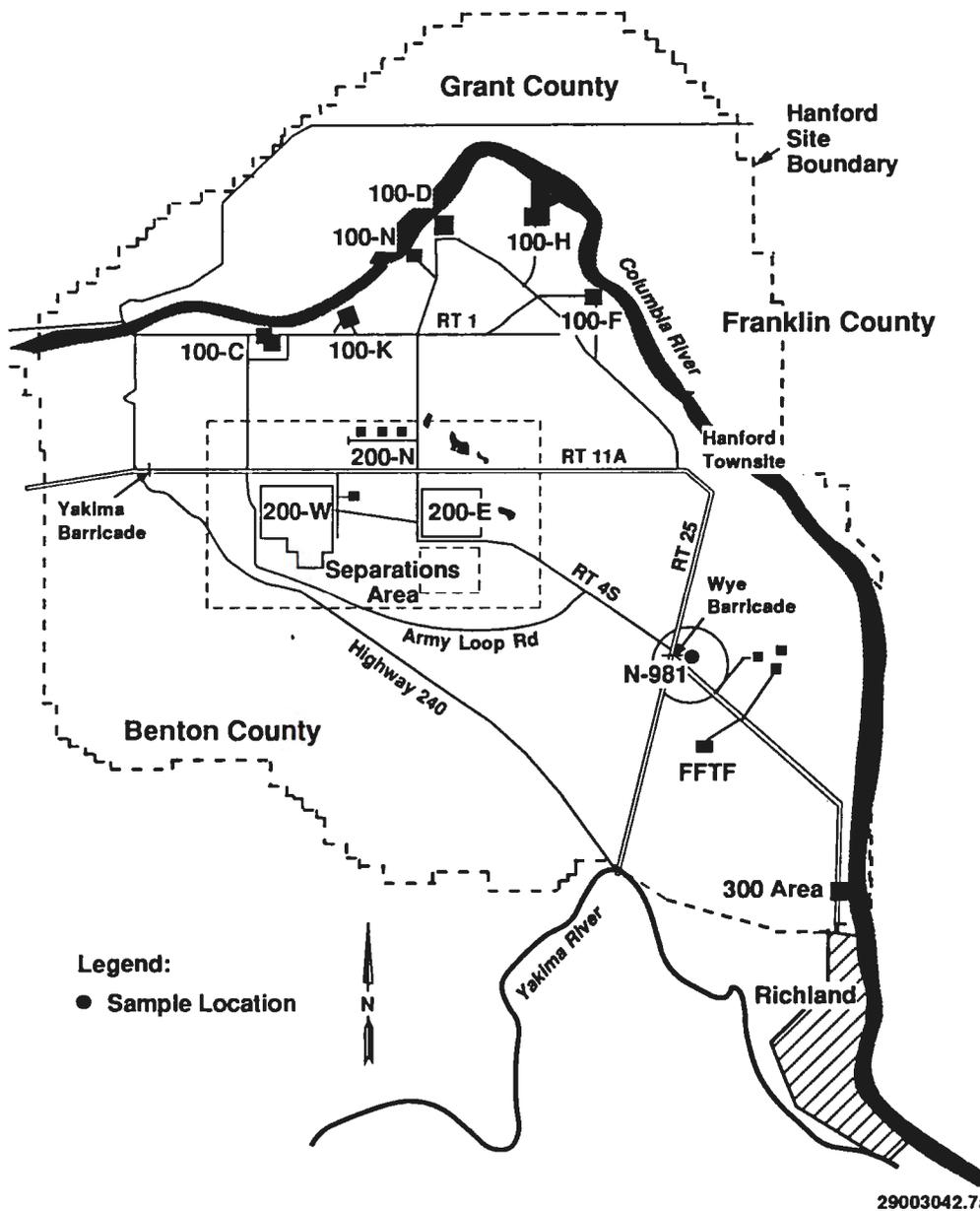
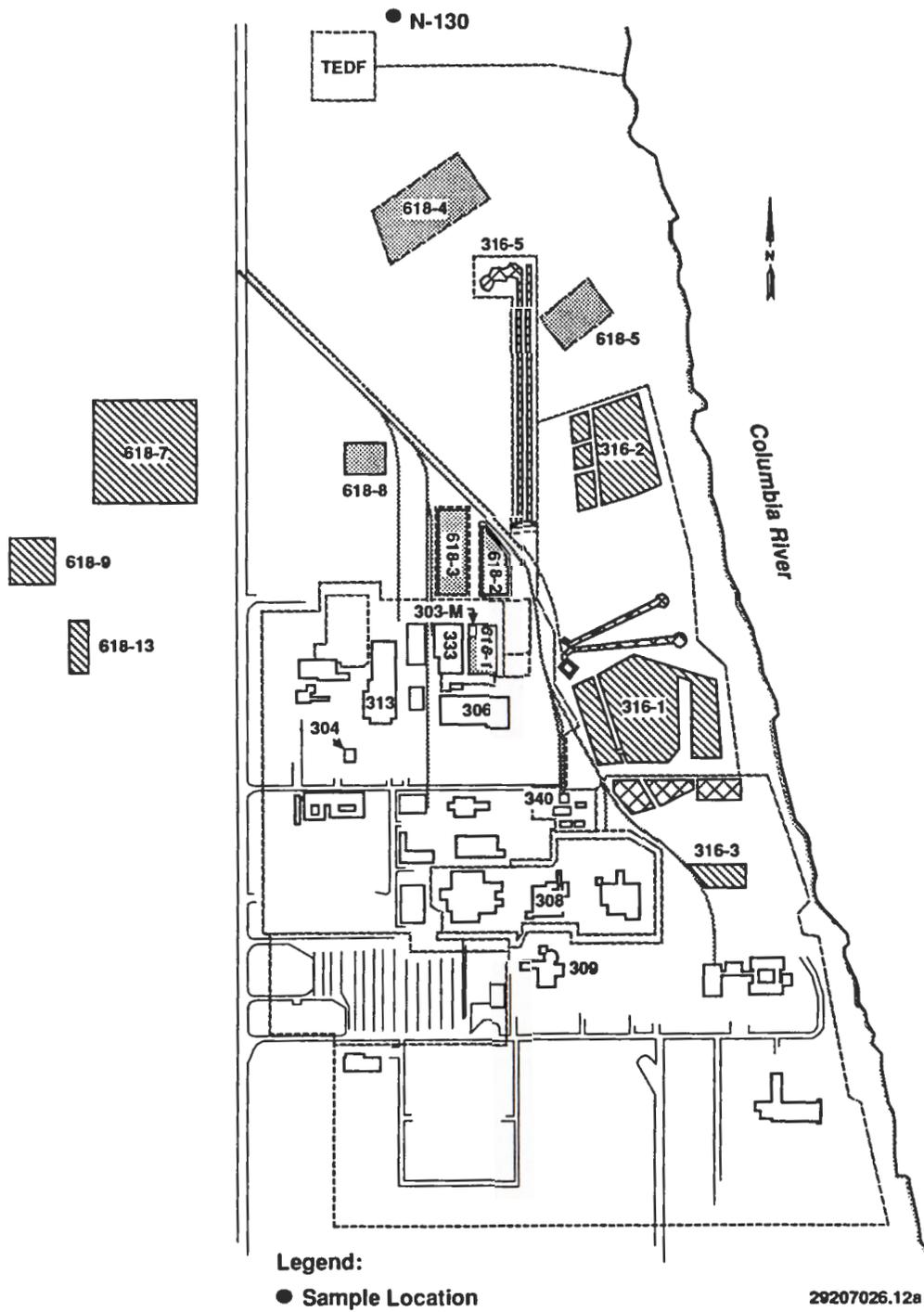
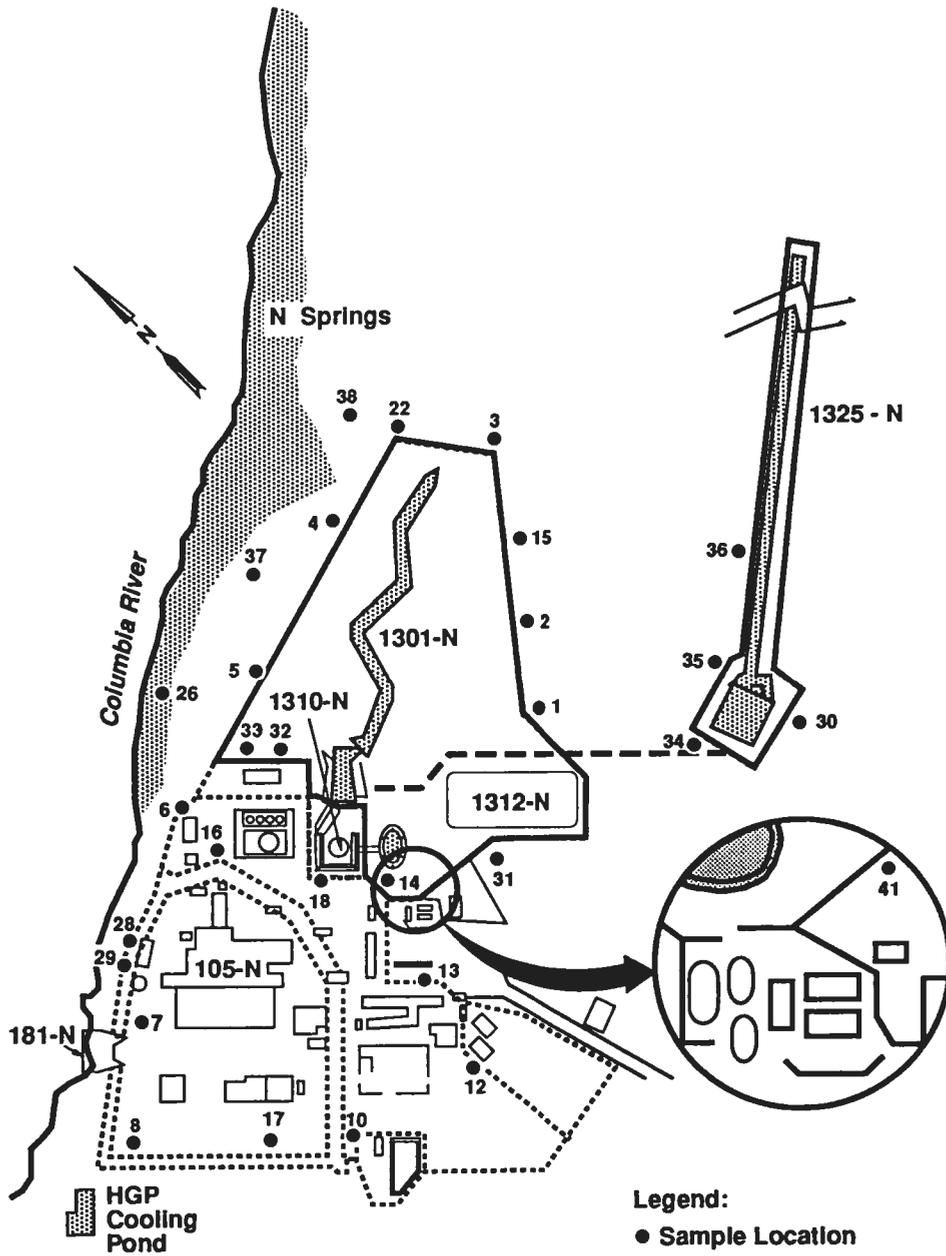


Figure A-32. 300 Area Ambient Air Sampler Locations.



Figures A-33 through A-45 show TLD and dose rate locations.

Figure A-33. 100-N Area TLD Locations.



29202060.1A

Figure A-34. N Springs Dose Rate Locations.

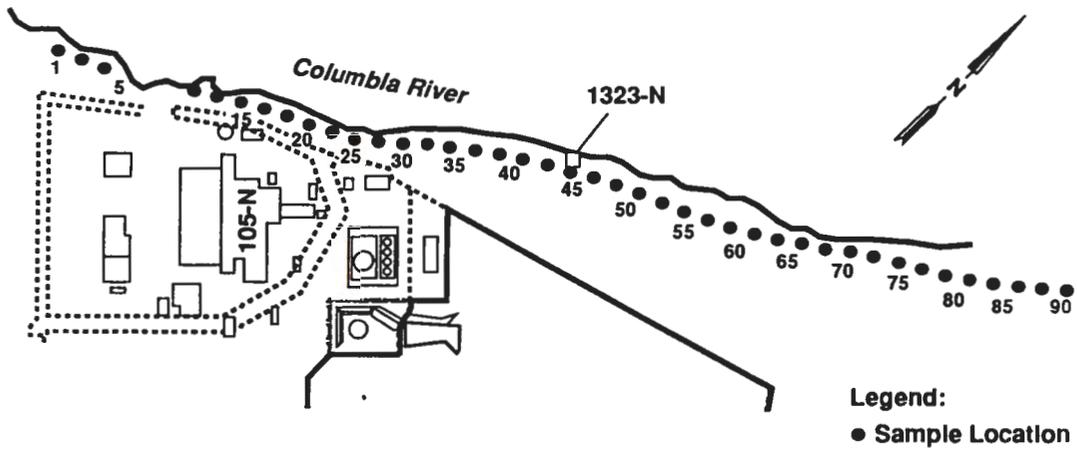
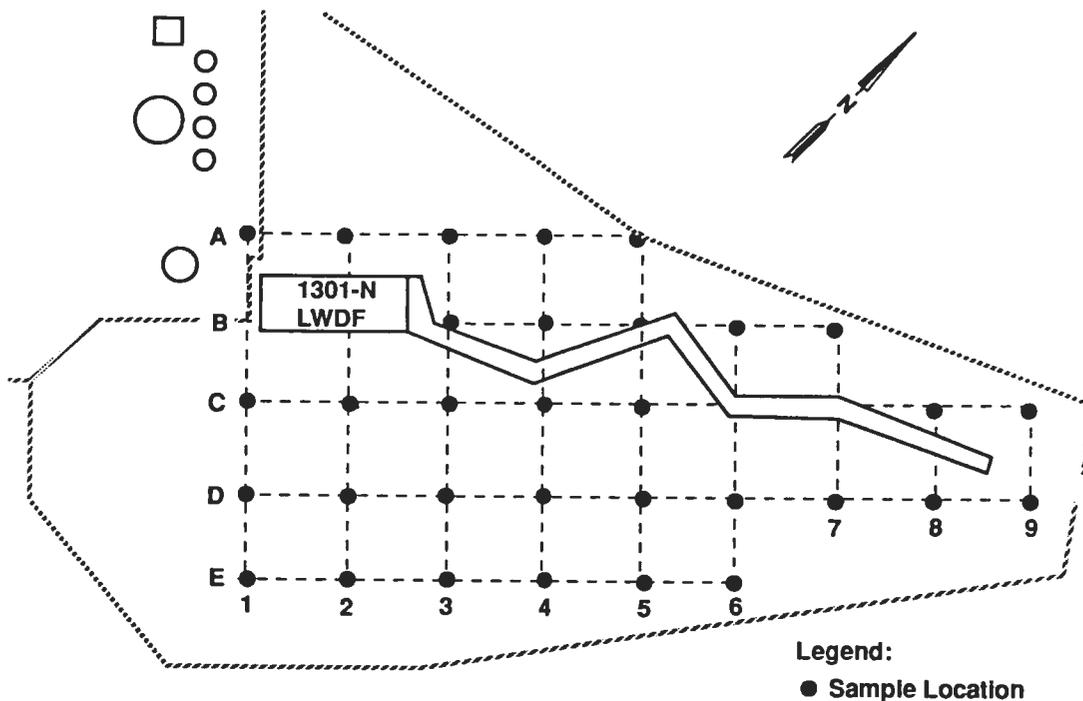


Figure A-35. 1301-N Dose Rate Locations.



29204022.10a

Figure A-36. 1325-N Dose Rate Locations.

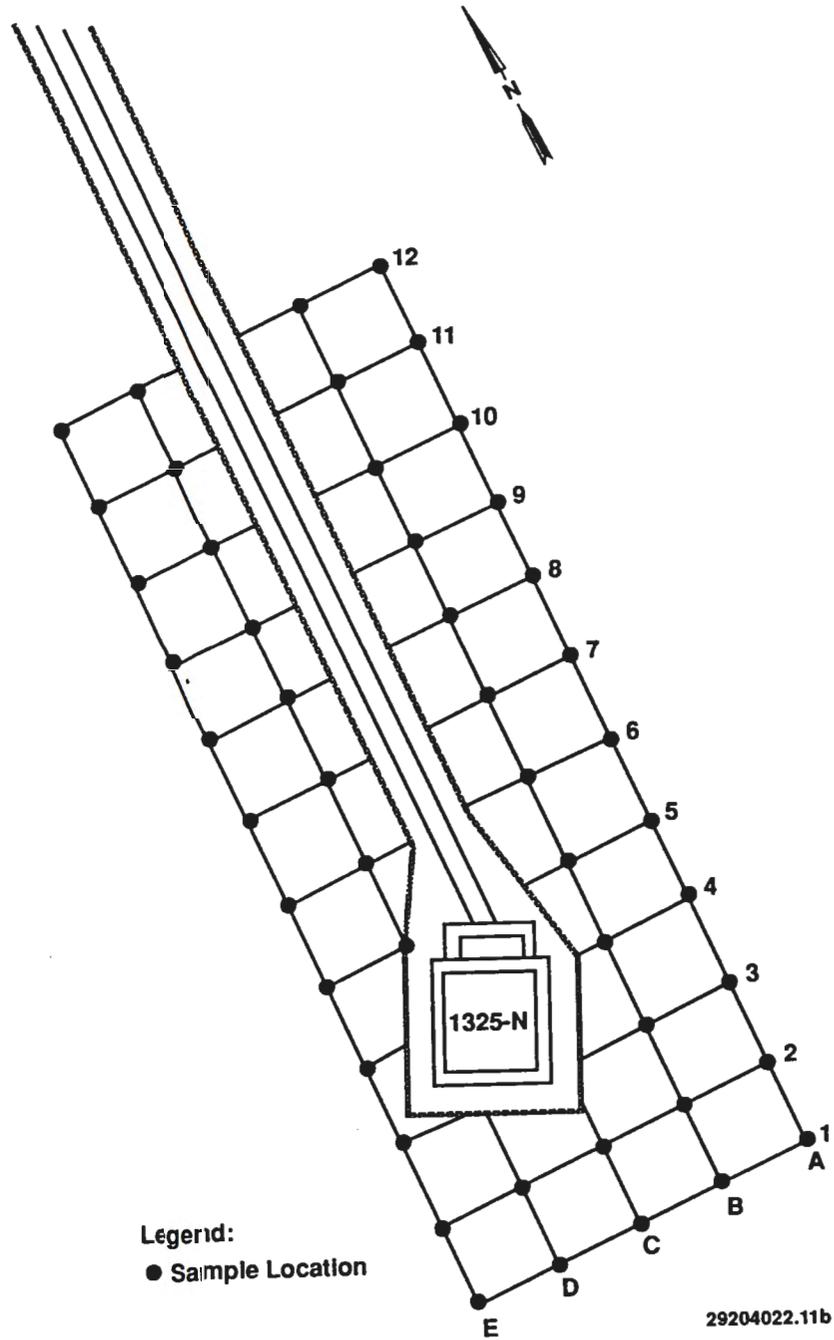


Figure A-37. 100-K Area TLD Locations.

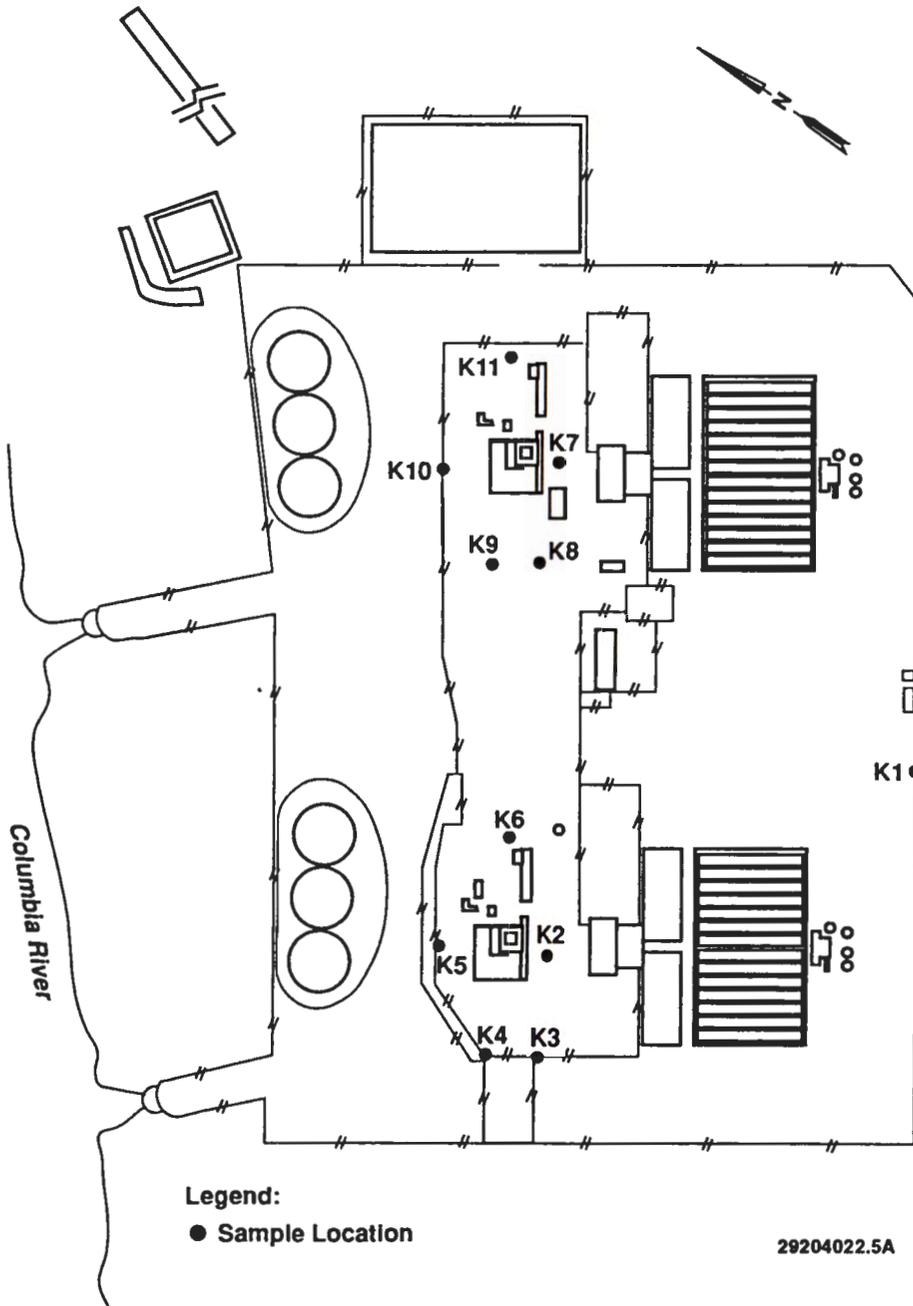


Figure A-38. 200 East TLD Locations.

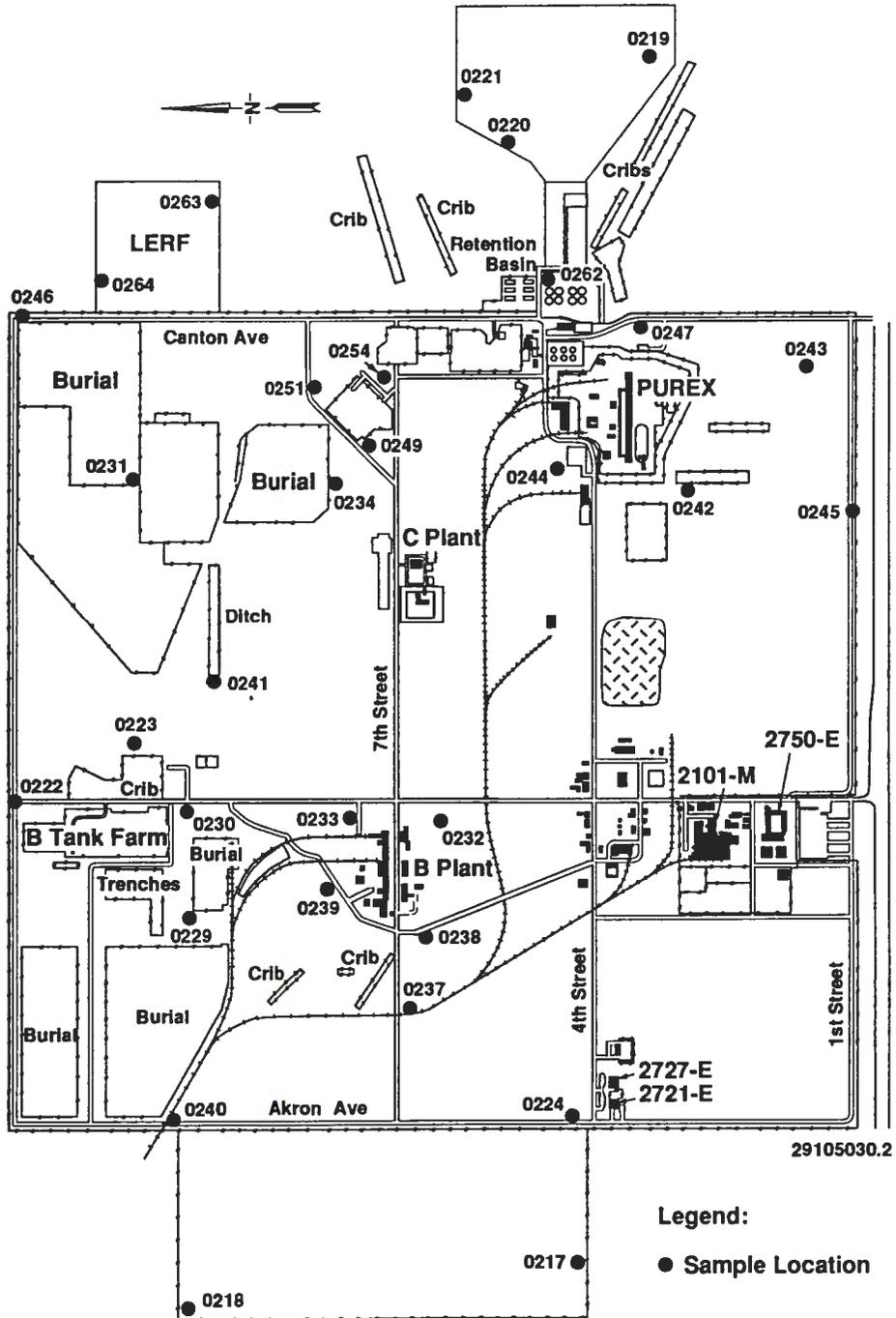


Figure A-39. 200 East A-Tank Farm TLD Locations.

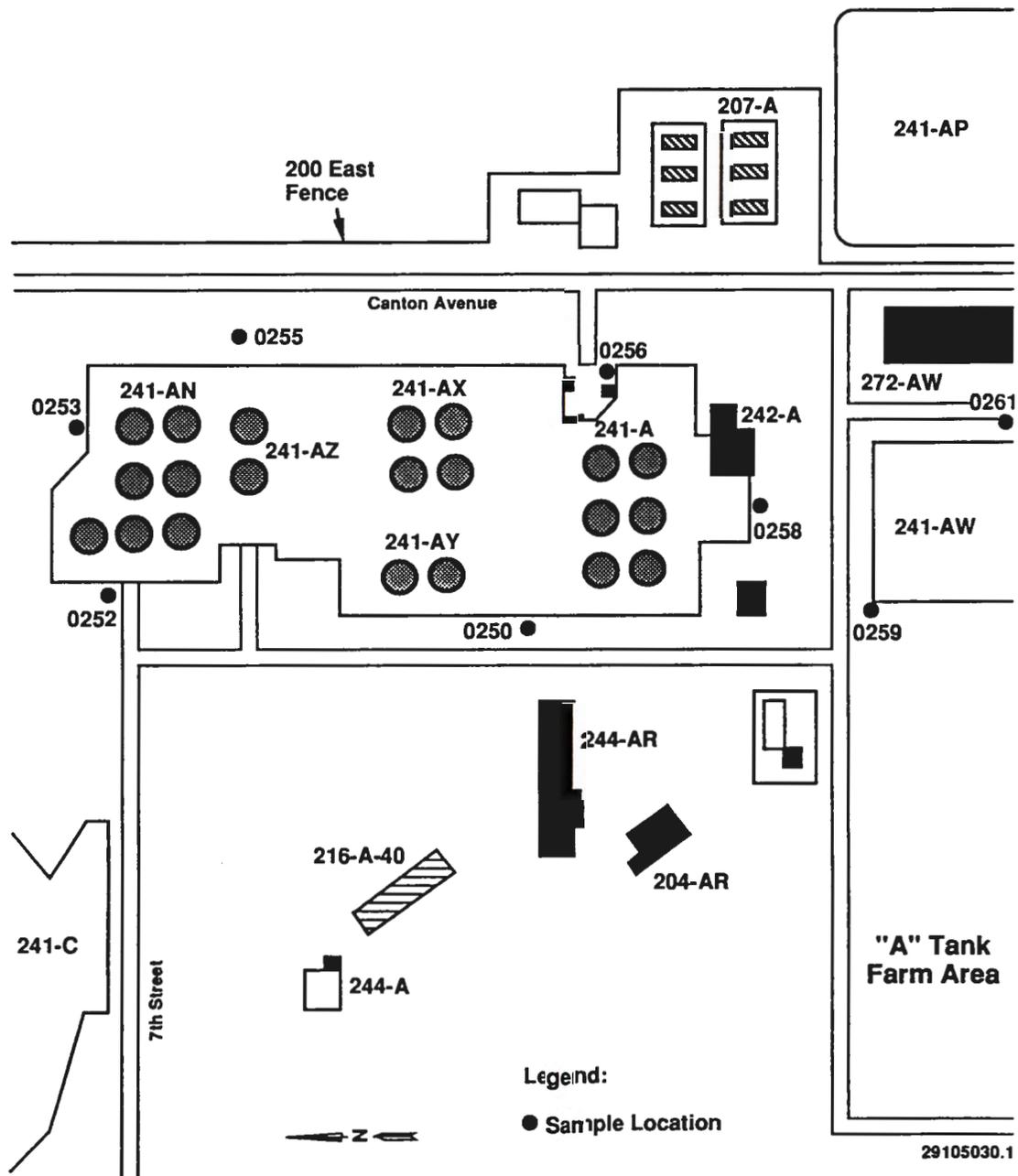




Figure A-41. 200 West Area Dose Rate and Contamination Survey Plot Locations.

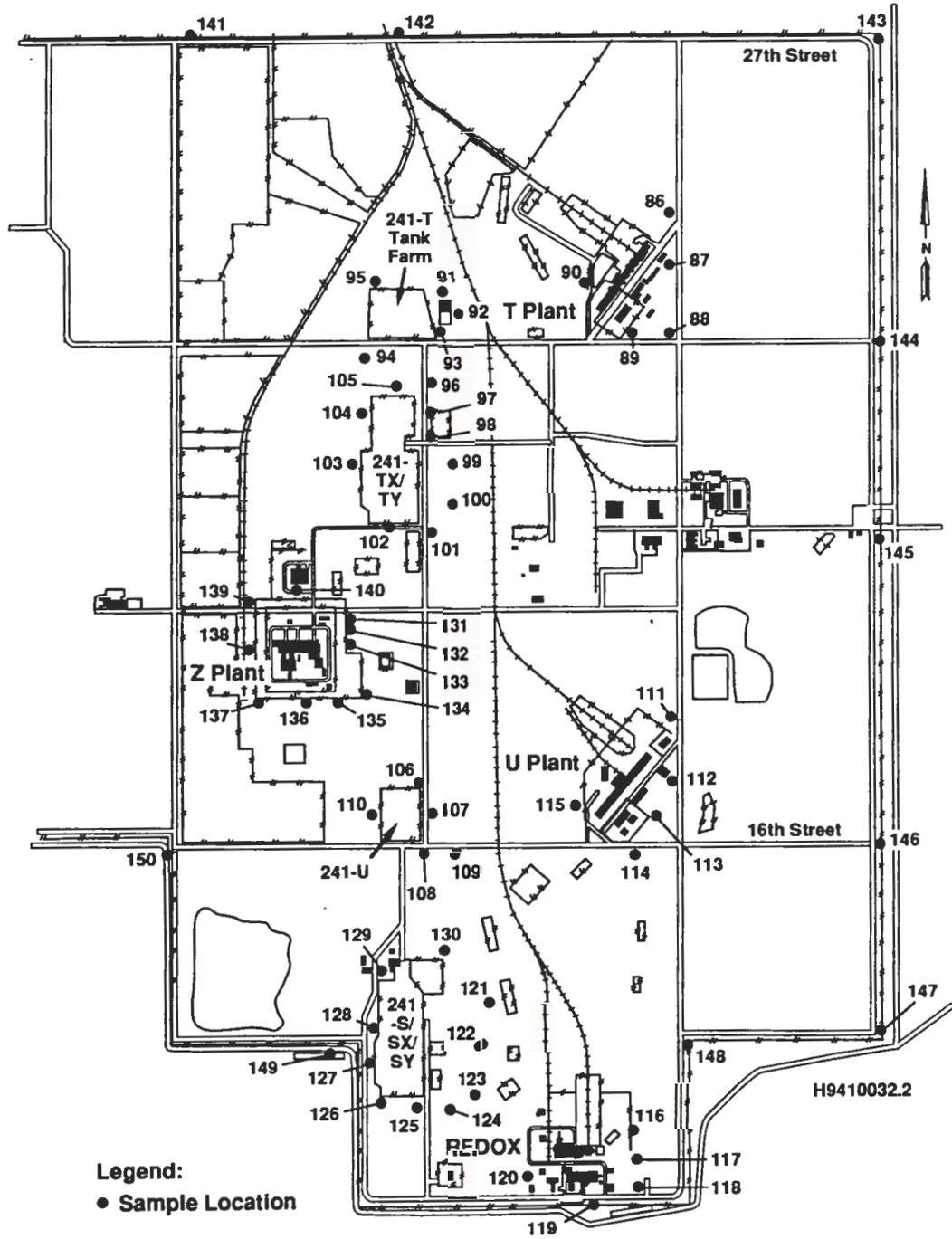


Figure A-42. 200 East Area Dose Rate and Contamination Survey Plot Locations.

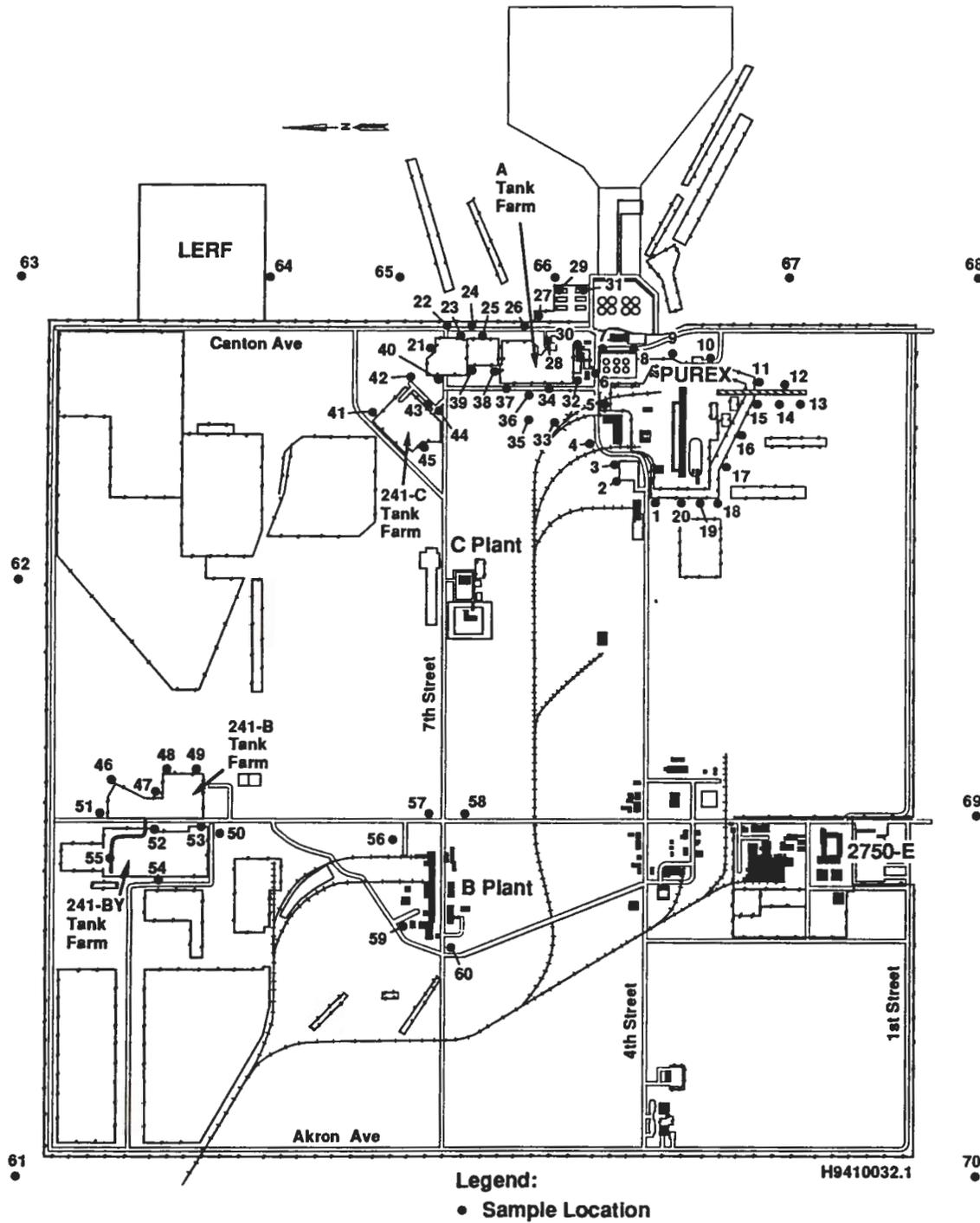


Figure A-43. 300 Area TLD Locations.

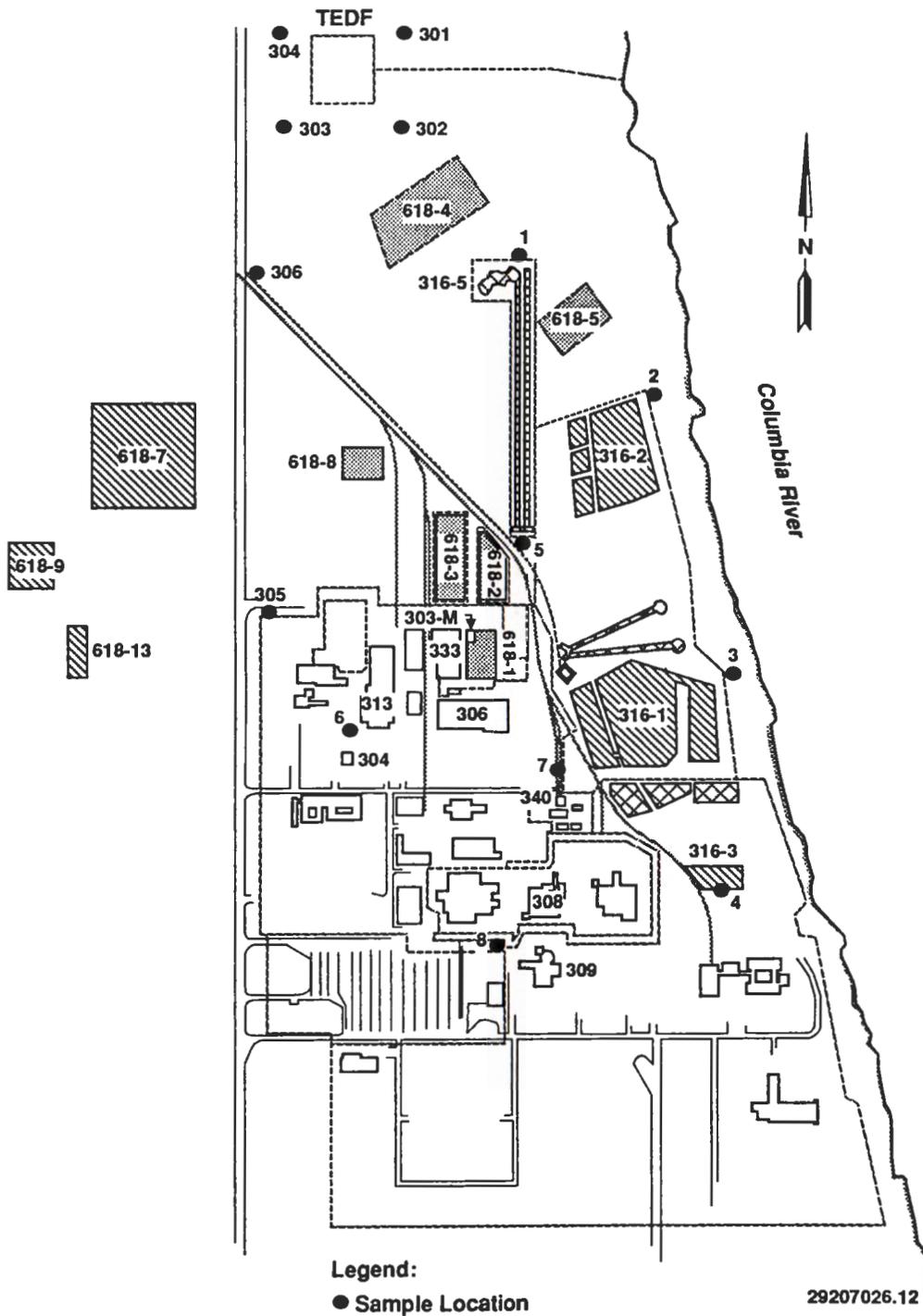
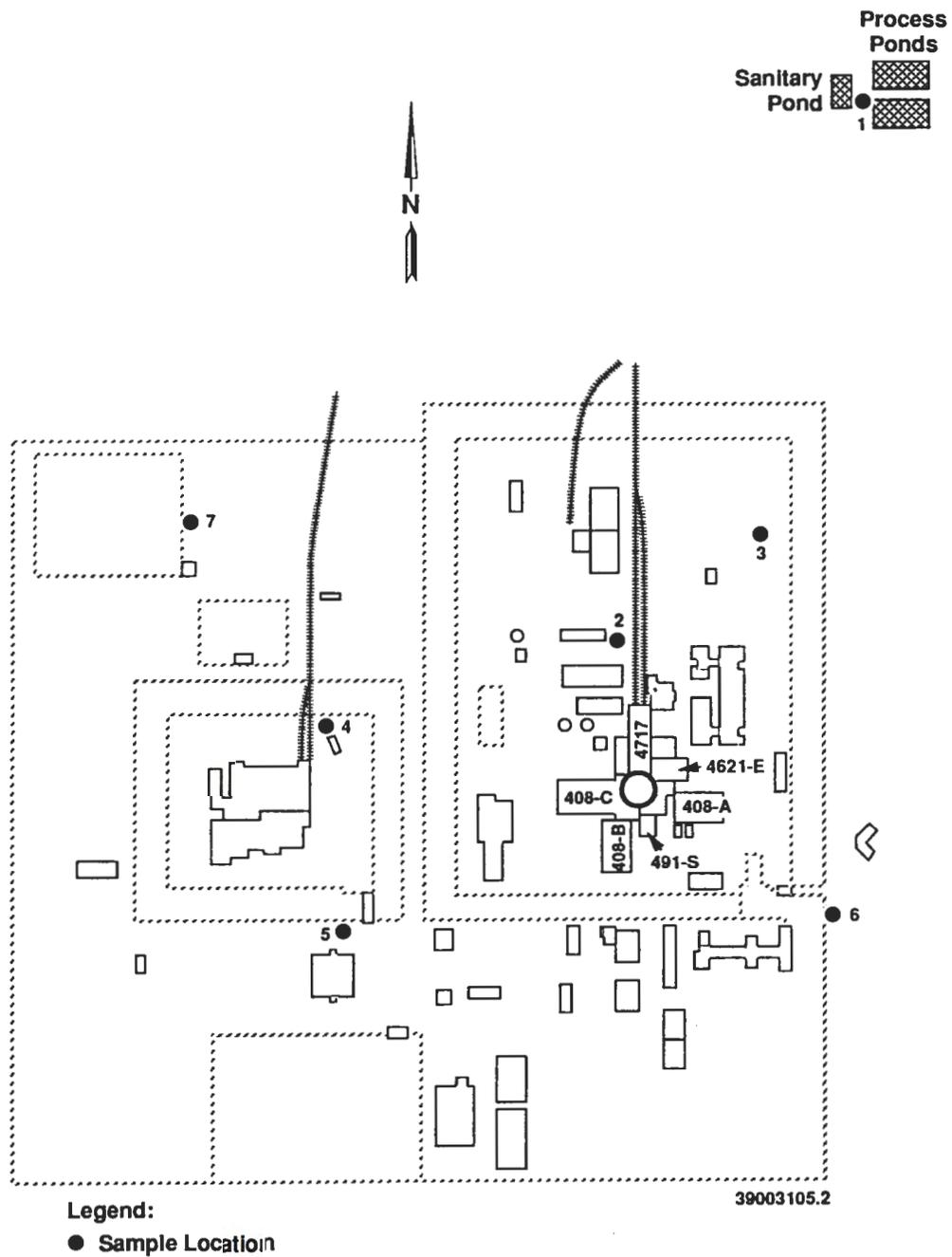


Figure A-44. 400 Area TLD Locations.



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Figures A-45 through A-51 show soil and vegetation sample locations.

Figure A-45. 100-N Vegetation Sample Locations.

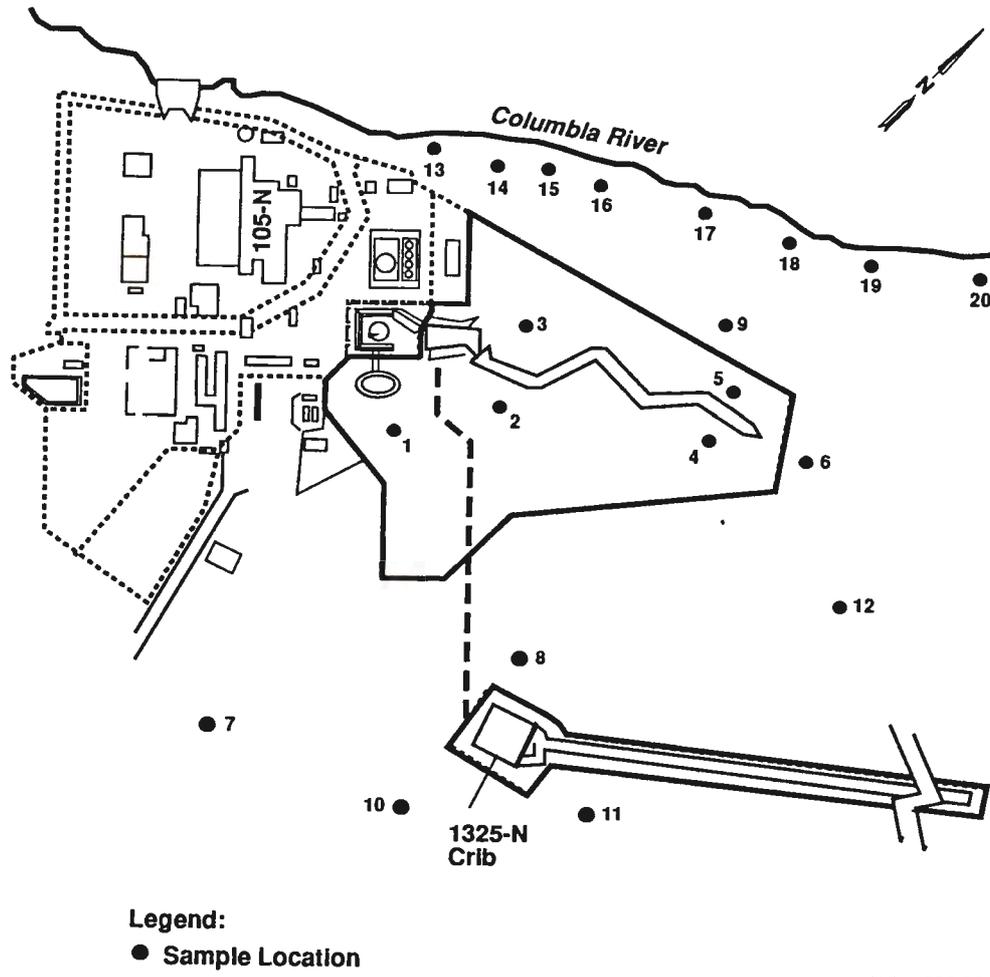
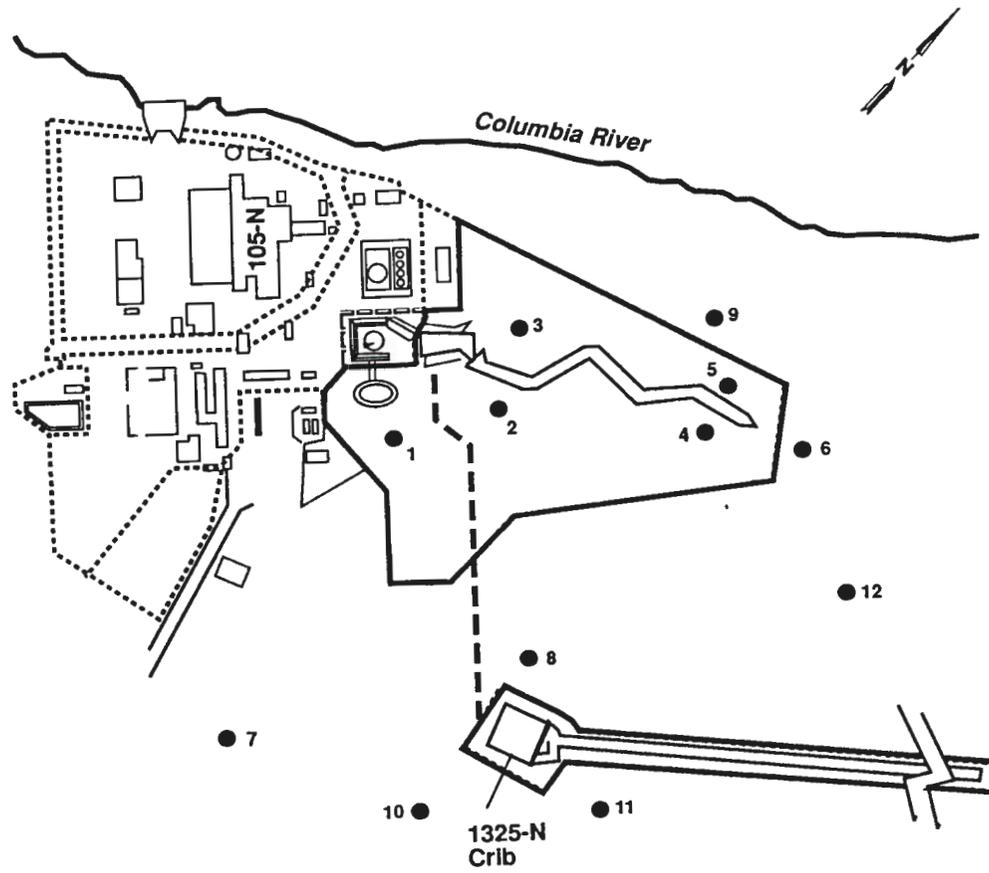


Figure A-46. 100-N Soil Sample Locations.



Legend:  
● Sample Location

29204022.24a



Figure A-48. 200 West Soil and Vegetation Sample Locations.

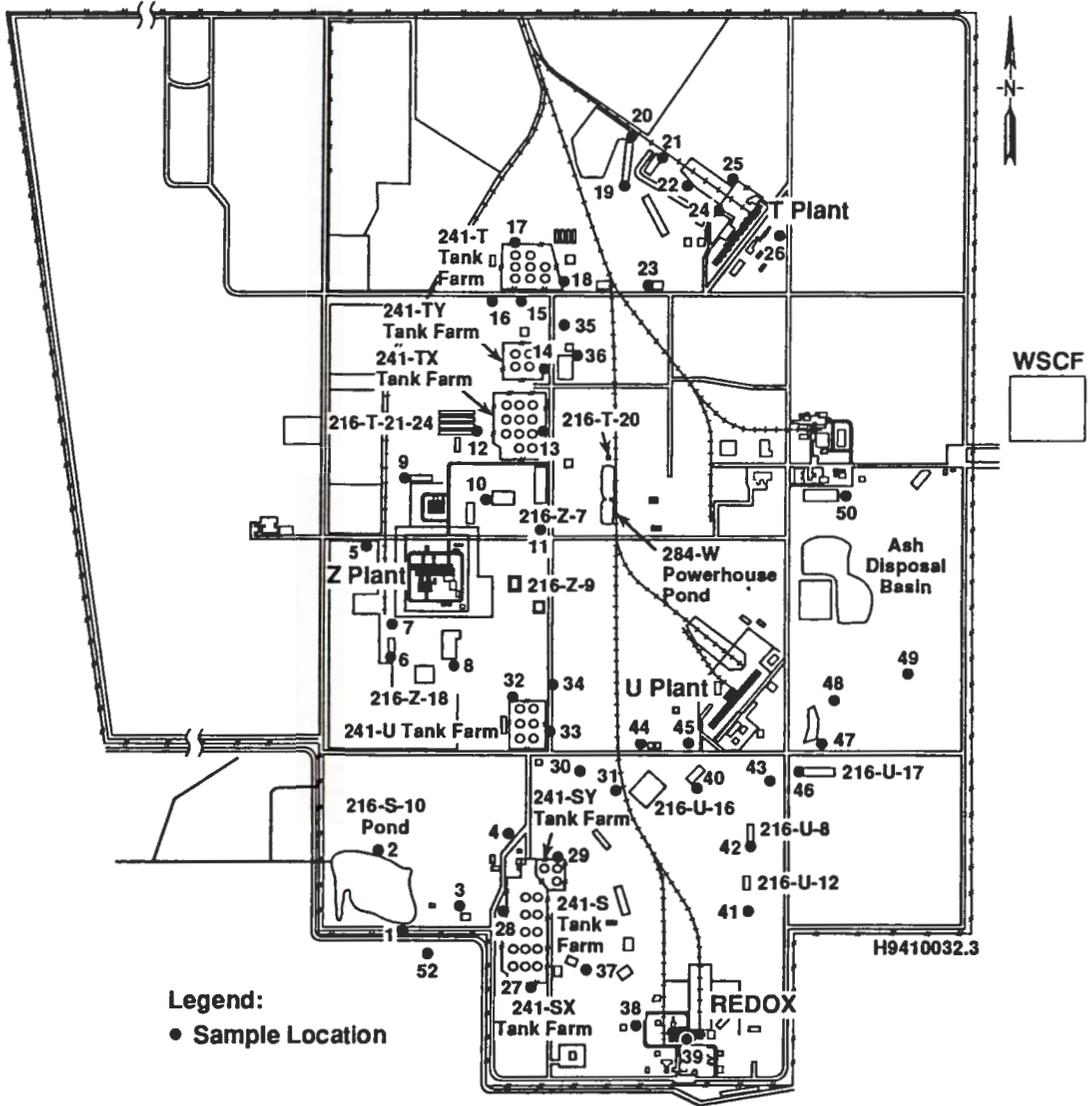


Figure A-49. 600 Area Soil and Vegetation Sample Locations.

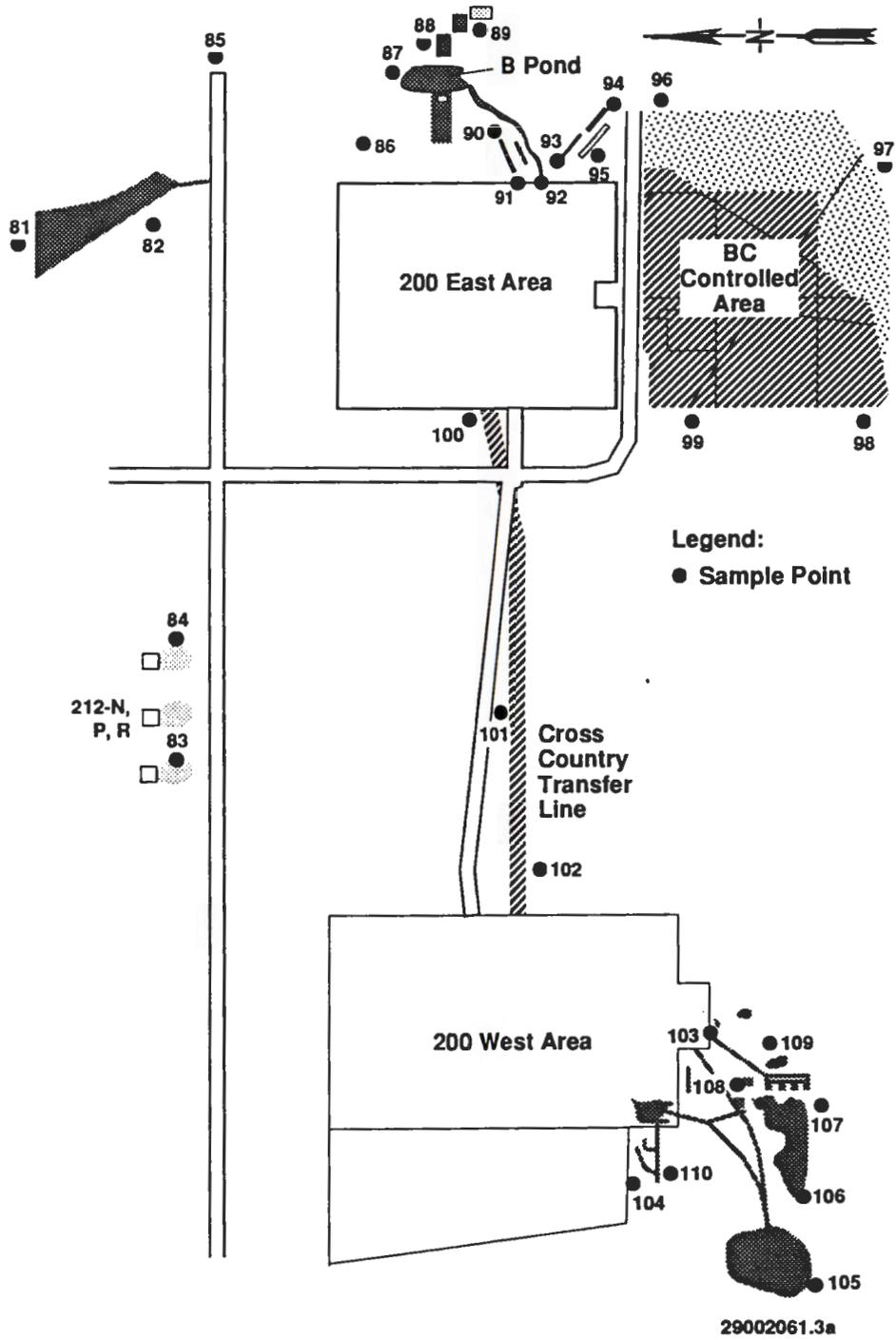


Figure A-50. 300 Area Soil and Vegetation Sample Locations.

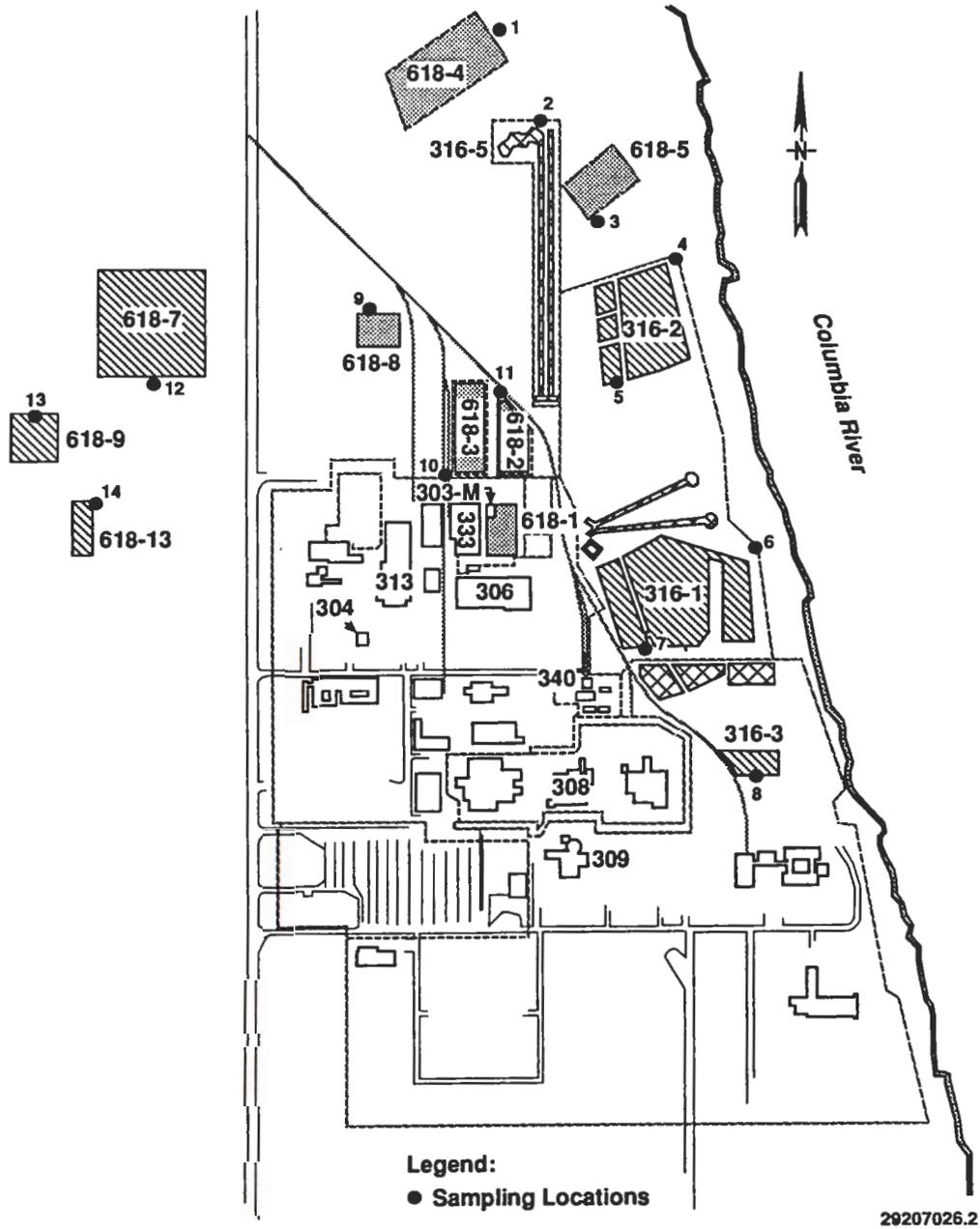
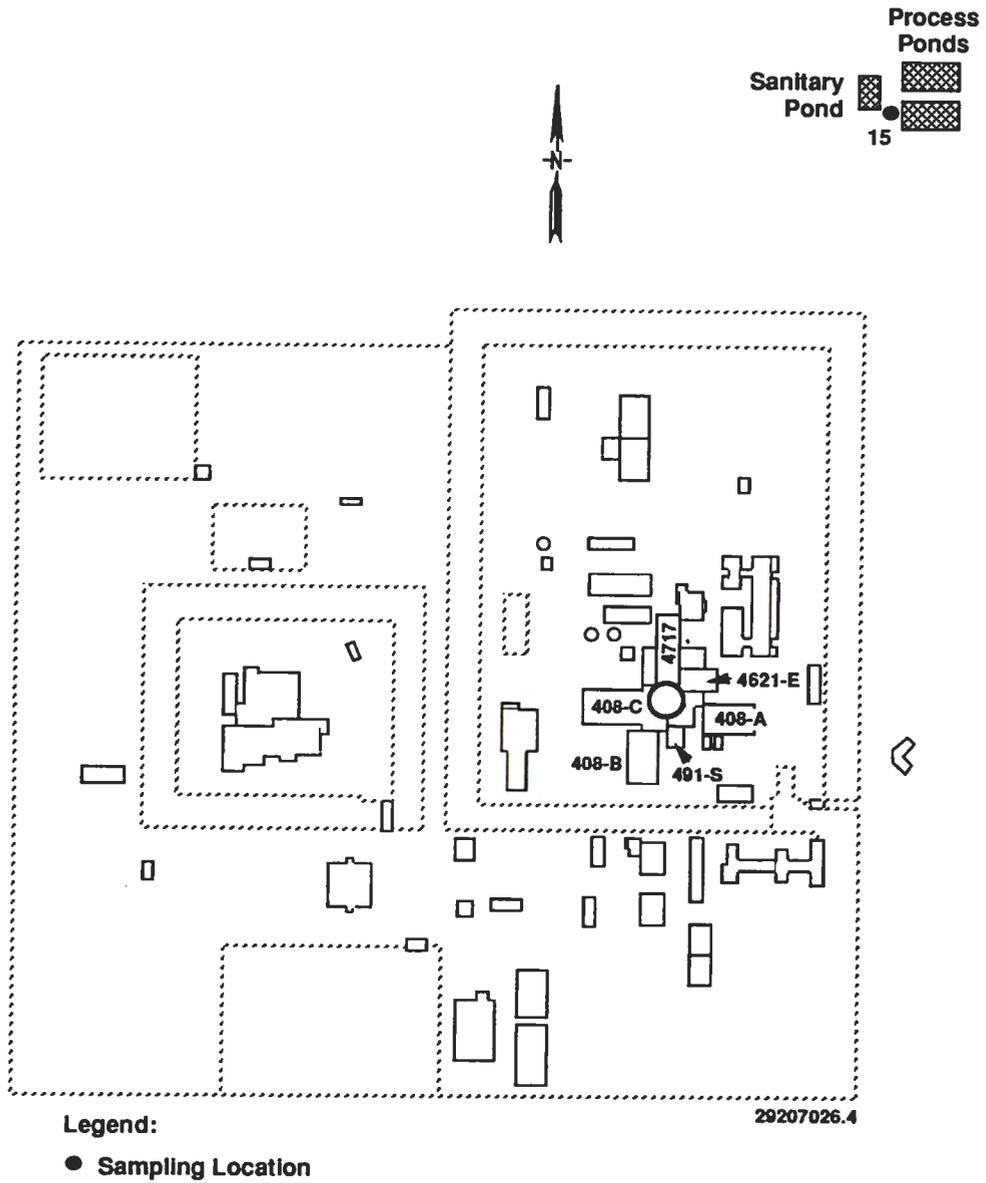
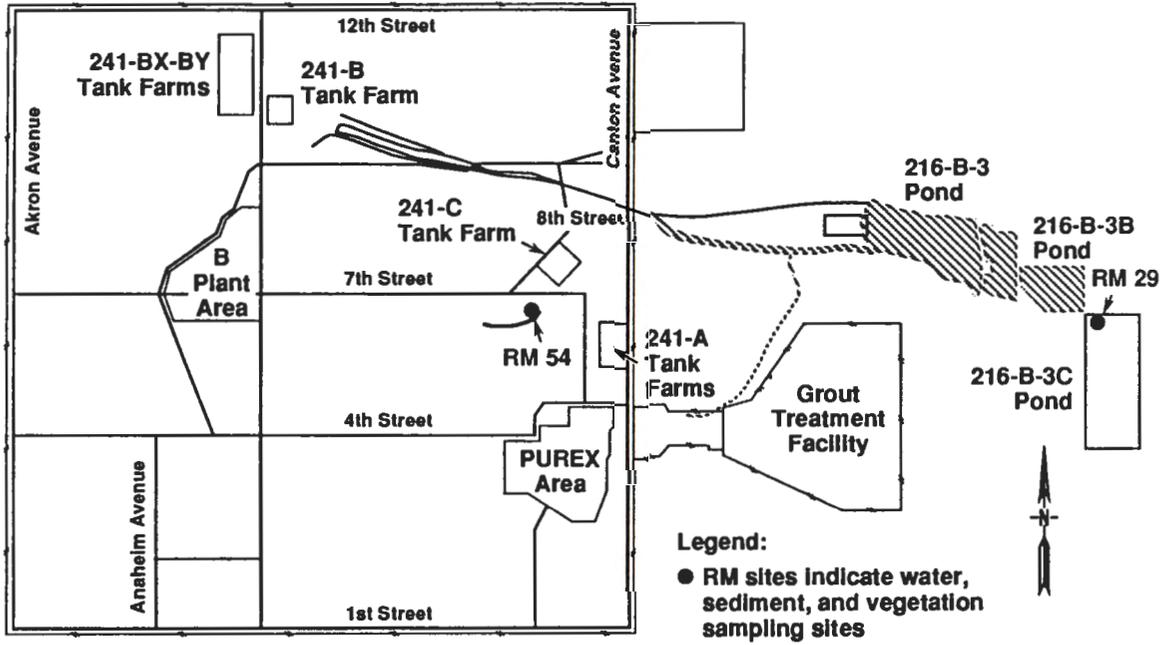


Figure A-51. 400 Area Soil and Vegetation Sample Locations.



Figures A-52 through A-54 show water, sediment, and aquatic vegetation sample locations.

Figure A-52. 200 East Water, Sediment, and Aquatic Vegetation Sample Locations.



H9310036.7a

Figure A-53. 200 West Water, Sediment, and Aquatic Vegetation Sample Locations.

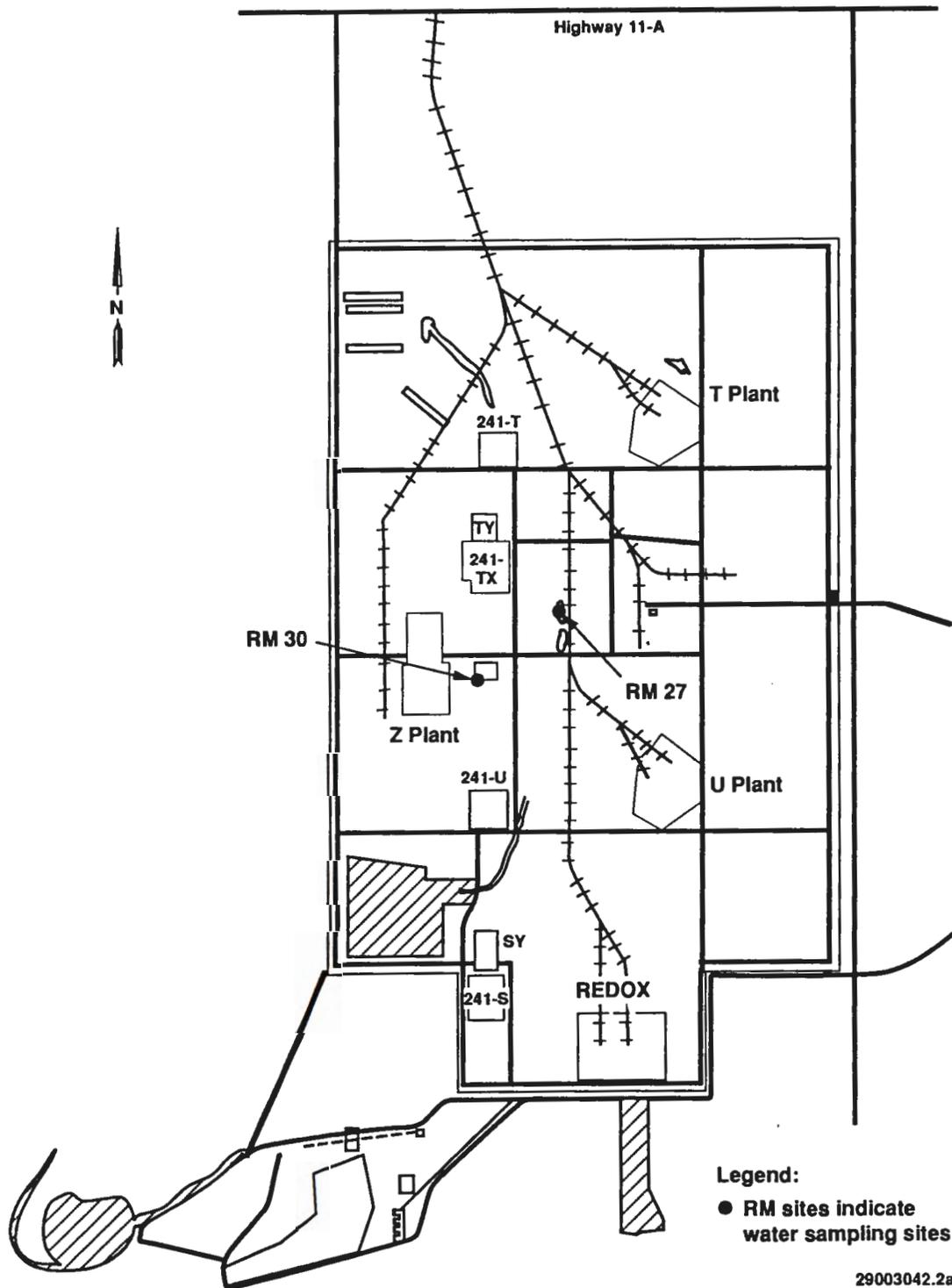
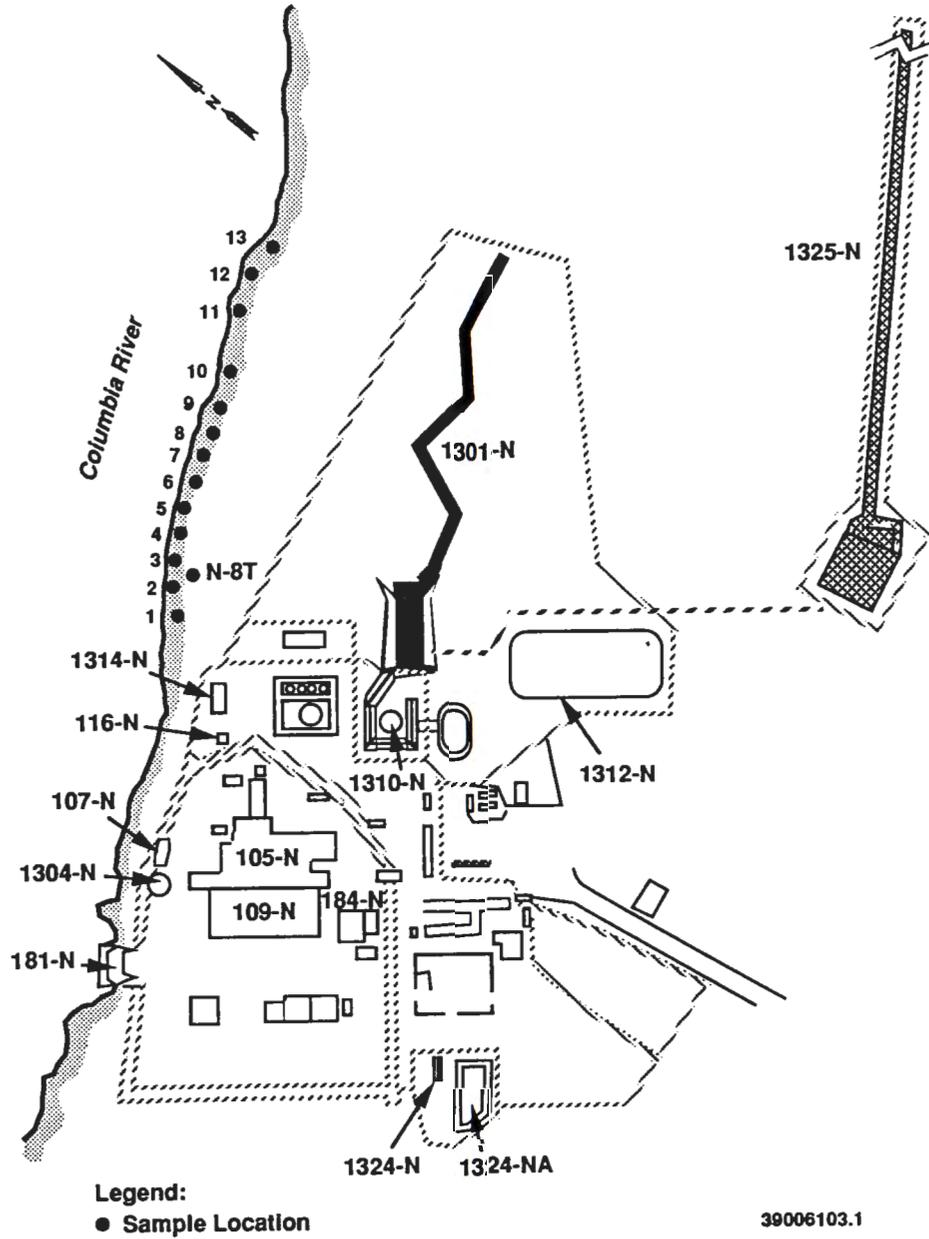


Figure A-54. N Springs Seepage Sample Locations.



**APPENDIX B**  
**DESCRIPTIONS OF 200 AREA UNPLANNED RELEASE SITES**

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SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-E-1	UPR-200-E-73	Area around the 241-B-151 diversion box within the 241-B tank farm, contaminated with approximately 10 Ci of mixed fission products in 1951 and 1952. These inactive units have been isolated and weather covered.
UN-216-E-2	UPR-200-E-74	50 ft <sup>2</sup> of soil around the 241-B-152 diversion box, southwest corner of 241-B tank farm, contaminated with approximately 1 Ci of mixed fission products in 1954. These inactive units have been isolated and weather covered.
UN-216-E-3	UPR-200-E-75	50 x 100 ft area of soil around the 241-B-153 diversion box, southwest corner of 241-B tank farm, contaminated with approximately 1 Ci of mixed fission products in 1954 and 1955. These inactive units have been isolated and weather covered.
UN-216-E-4	UPR-200-E-76	Area from the 241-B-153 line break that connected the 9-2 Tank in the 221-B Plant to the 110-B Underground Storage Tank, contaminated with approximately 4,780 Ci <sup>144</sup> Ce, 340 Ci <sup>106</sup> Ru, and 850 Ci <sup>95</sup> Zr/Nb in 1968. The contaminated soil was covered with clean gravel.
UN-216-E-5	UPR-200-E-77	Area around the 241-B-154 diversion box, corner of Baltimore and 7th Streets, contaminated with approximately 1 Ci of mixed fissile products in 1946. This inactive unit has been isolated and weather covered.
UN-216-E-6	UPR-200-E-78	200 ft <sup>2</sup> of soil around the 241-B-155 diversion box, 900 ft south of 241-BX tank farm, contaminated with approximately 10 Ci of mixed fission products in 1955. This inactive unit has been isolated and weather covered.
UN-216-E-7	UPR-200-E-79	Area on the waste line that runs from 242-B facility to 207-B retention basin, contaminated with approximately 10 Ci of mixed fission products in 1953. Area was covered with approximately 2 in. of clean soil. No postings mark the area.

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-E-8	UPR-200-E-80	100 x 500 ft area from 221-B R-3 line break, south of 221-B and north of 7th Street, contaminated with approximately 10 Ci of mixed fission products in 1946. The ground above the line break caved in, but was backfilled with several feet of clean gravel. The majority of the contaminated material was moved to the 200 East Dry Waste Burial Ground. Approximately 5 Ci of material remain.
UN-216-E-9	UPR-200-E-81	Area west of the 241-CR-151 diversion box, west of 241-C tank farm, contaminated from a line break between the 202-A facility and the 102-C waste tank, with approximately 360 Ci of <sup>90</sup> Sr, 720 Ci of <sup>137</sup> Cs, 360 Ci of <sup>144</sup> Ce, 1,080 Ci of <sup>95</sup> Zr/Nb, and 1,080 Ci of <sup>103</sup> Ru in 1969 (36,000 gal.). The contamination was covered with earth backfill and clean gravel.
UN-216-E-10	UPR-200-E-82	5-ft <sup>2</sup> area, northeast of the 241-C tank farm near the 241-C-152 diversion box, contaminated from a line leak between the 241-C-105 tank to the 221-B facility, with approximately 100 Ci of <sup>134</sup> Cs, 11,300 Ci of <sup>137</sup> Cs, 260 Ci of <sup>144</sup> Ce, 260 Ci of <sup>95</sup> Zr/Nb, and 130 Ci of <sup>106</sup> Ru (2,600 gal.) in 1969. Area was cleaned during the decontamination outage of 241-C tank farm following the 241-C-151 release in 1985.
UN-216-E-11	UPR-200-E-83	4-mi <sup>2</sup> area south of 200 East Area, encompassing BC cribs and trenches, contaminated by radioactive rabbit and coyote feces containing approximately 14 Ci of <sup>137</sup> Cs and <sup>90</sup> Sr. Routine surveillance indicates the contamination to be fixed beneath a good growth of vegetation. No significant evidence of resuspension. Area designated as "BC-Controlled Area."
UN-216-E-12	UPR-200-E-84	Area approximately 800 ft southwest of the 221-B facility near the 241-ER-151 diversion box had a release of approximately 1,700 gal from a leak in the catch tank in 1953. No contamination was detected.
UN-216-E-13	UPR-200-E-85	Area south of 221-B facility, northwest corner of the R-13 utility pit, contaminated with approximately 15 Ci of <sup>137</sup> Cs, by a leak in the pipeline from Tank 18-1 to the 154-BX diversion box in 1972. Contamination levels were reduced to approximately 14 Ci by 12/31/73.

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-E-14	UPR-200-E-86	Area outside the southwest corner of the 241-C tank farm, contaminated from a leak in the vicinity of Line #812 (8 ft deep) used to transfer waste from AR vault to 241-C tank farm in 1971. The line contained 25,000 Ci of <sup>137</sup> Cs.
UN-216-E-15	UPR-200-E-87	Area on the south side of the 224-B facility, contaminated with approximately 75 g of <sup>239</sup> Pu, assumed to have resulted from leaks in the underground pipe joints that entered the back of 224-B to feed its cells during processes performed between 1945 and 1953.
UN-216-E-16	UPR-200-E-88	Area about 900 ft northwest of the 202-A facility designated "TC-4 Railroad Spur," contaminated by leakage from railroad well/tank cars in 1980. No contamination levels recorded.
UN-216-E-17	UPR-200-E-89	Area bounding the north and northeast sides of 241-BY tank farm contaminated up to 2,000 cpm by airborne particulate matter, resuspended by wind from activities during the time of 241-BY operations (reported in 1978). Interim stabilization occurred in 1991.
UN-216-E-18	UPR-200-E-90	Area adjacent to the 291-B stack sand filter, about 300 ft south of the 221-B Facility. Contamination possibly spread from Unplanned Release Site UN-216-E-8 (UPR-200-E-80) in 1980. No contamination levels recorded.
UN-216-E-19	UPR-200-E-91	Area adjacent to the northeast corner of the 241-C tank farm, contaminate by downhill seepage of the decontamination station, vapor emissions, and windblown particulate matter from inside the tank farm in 1980. Contaminated soil was excavated and buried in the location now designated UN-216-E-33 (no "UPR" number assigned) adjacent to the north side of 216-A-24 crib.
UN-216-E-20	UPR-200-E-92	Area along the eastern outer perimeter of 200 East Area, contaminated by windblown Russian thistle from various waste sites in the area. The thistle decomposed on the fenceline and infiltrated the soil in 1980. Contaminated soil was excavated and buried in the location now designated UN-216-E-33 (no "UPR" number assigned) adjacent to the north side of 216-A-24 crib. Area has been removed from posting.

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-E-21	UPR-200-E-93	Area along the eastern inner perimeter of 200 East, contaminated by windblown Russian thistle from various waste sites in the area. The thistle decomposed on the fenceline and infiltrated the soil in 1980. Contaminated soil was excavated and buried in the location now designated UN-216-E-33 (no "UPR" number assigned) adjacent to the north side of 216-A-24 crib. Area has been removed from posting.
UN-216-E-22	UPR-200-E-94	Gravel pit east of 200 East Area and north of 216-B-3-1 ditch diverter station, contaminated when decontamination efforts of earthmoving equipment (contaminated up to 8,000 cpm) left a 300 cpm residue at the bottom of the pit in 1979. Area has been removed from posting.
UN-216-E-23	UPR-200-E-95	Railroad spur north of 221-B facility and between 218-E-2A and 218-E-5 burial grounds, assumed contaminated in excess of 100,000 cpm by leaking railroad tank/well cars. Established as an Unplanned Release Site in 1980.
UN-216-E-24	UPR-200-E-96	Area southeast of the 202-A facility (PUREX) to the protected area southern fenceline, contaminated from the residue produced by 291-A stack and diversion box work during the operational years of the facility (reported in 1980). No contamination levels reported.
UN-216-E-25	UPR-200-E-97	Area of unknown origin south of the 202-A facility near the railroad tunnel. The surface contamination was removed during the construction of the double-exclusion fence and posting was removed when area was established as an Unplanned Release Site in 1980. No contamination levels reported.
UN-216-E-26	UPR-200-E-98	Area east of the C facility (hot semiworks) near the base of the 291-C stack and around the 216-C-2 reverse well, contaminated from particulate matter spread from operation of the facility between 1955 and 1965. No contamination levels reported. The contamination has been removed and the site stabilized.

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-E-27	UPR-200-E-99	Portion of the ground surface surrounding the 244-CR vault, in the south corner of 241-C tank farm, contaminated during numerous piping changes associated with the facility. No contamination levels reported. The site was decontaminated in 1981.
UN-216-E-28	N/A	This number not assigned.
UN-216-E-29	UPR-200-E-100	Area south and east of 241-C tank farm (corner of 7th Street and Buffalo), assumed contaminated by windblown particulates and biological transport from the tank farm. The area has merged with UN-216-E-43, which surrounds most of the 244-A lift station and 216-A-40 retention basin. Decontamination and decommissioning efforts were active as of 4/1/94.
UN-216-E-30	UPR-200-E-101	Area between 242-B evaporator and the 241-B tank farm fence, possibly contaminated by windblown particulates from the tank farm or spills out of the 242-b Evaporator. The contamination has been removed and the site stabilized.
UN-216-E-31	UPR-600-E-21	Area northeast of 200 East Area, size and boundaries not determined, contaminated in excess of 100,000 cpm with windblown Russian thistle and decomposed Russian thistle from various facilities within 200 East Area. The contamination was removed from the most concentrated areas in 1986, but the area is too large for unrestricted release.
UN-216-E-32	N/A	Area adjacent to and northeast of the 218-E-12B burial ground. This area has been incorporated into the expansion of the 218-E-12B burial ground. An accurate history of the area is unknown.
UN-216-E-33	N/A	Area adjacent and north of the 216-A-24 crib, contaminated by biological transport of contamination buried there during decontamination of other problem areas. The contamination was buried under approximately four feet of clean fill in 1988 and posted as URM.
UN-216-E-34	N/A	Area southeast of 202-A (PUREX) facility, outside the exclusion area, contamination possibly caused by 291-A stack emissions. No contamination levels reported.

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-E-35	N/A	Area northwest of 216-B-3-1 and 216-B-3-2 backfield ditches.
UN-216-E-36	N/A	West side of the 216-B-64 basin.
UN-216-E-37	N/A	Area east of hot-semiworks. Area cleaned up and release from all posting in 1991.
UN-216-E-38	N/A	Area around hot-semiworks building.
UN-216-E-39	N/A	Area east of hot-semiworks, south of 7th Ave and north of the powerhouse ditch. Area was decontaminated and released from posting in 1989. Contamination was placed in 218-C-9 burial ground before it was stabilized.
UN-216-E-40	N/A	Area north of the 216-B-3-3 ditch east of 200 East Area.
UN-216-E-41	UPR-600-20	The cross site transfer line, including the 241-ER-151 vent station, contaminated by biological transport of radioactive materials that leaked into the pipeline encasement and windblown particulates from the vent station. No contamination levels reported.
UN-216-E-42	N/A	Number assigned then canceled. This site was the same as UN-216-E-36.
UN-216-E-43	UPR-200-E-143	Area 50 ft south of 244-A lift station and 100 ft east of 216-A-40 basin.
UN-216-E-44	UPR-200-E-144	Area north and east of 241-B tank farm. This area of migration covers about 12 acres. Area was interim stabilized and released from posting status in 1992.
UN-216-W-2	UPR-200-W-95	Area inside the 207-S retention basin, contaminated with approximately 10 Ci of mixed fission products in 1954 when coil leaks in the 202-S Facility contaminated cooling water. The basin was buried with clean soil in 1993.
UN-216-W-4	UPR-200-W-96	Area adjacent to and directly north of the 233-S filter house, contaminated with approximately 0.1 g of <sup>239</sup> Pu (>40,000 dpm) when contaminated water backed up in the filter house drain and overflowed into a low spot in the ground in 1969. The area was originally covered with 18 in. of washed gravel and was ultimately covered with an asphalt roadway.

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-W-5	UPR-200-W-97	Area on the southeast corner of 23rd St and Camden Ave, contaminated with approximately 10 Ci of fission products in 1954 when an underground pipeline between 152-T and 153-TX broke and again when it was mistakenly reused in 1966. The area was excavated to 3 to 4 ft and covered with clean soil.
UN-216-W-6	UPR-200-W-98	Area at the southeast corner of the 221-T facility, near section R19, contaminated with mixed fission products, which surfaced from a broken process waste transfer line in 1945. Russian thistle contaminated with <sup>90</sup> Sr and <sup>137</sup> Cs was discovered growing on the spill site in 1968, but ensuing crops became less contaminated until no contamination was found in 1975. The area was originally covered with 4 ft of clean soil, and has since been covered by an asphalt roadway.
UN-216-W-7	UPR-200-W-99	Area 750 ft north and south along Camden Ave, extending 75 to 100 ft east of the roadway, contaminated with approximately 1 Ci of <sup>90</sup> Sr (up to 700 mrad/hr) when two plumes of airborne particulates escaped from 153-TX diversion box in 1966. The area on the west side of Camden was covered with gravel, but was recontaminated by windblown particulates from 241-TX tank farm in 1993. The area on the east side of Camden was covered with approximately 4 ft of clean soil and revegetated in 1990.
UN-216-W-8	UPR-200-W-100	Area in 241-TX tank farm, on the process line between 241-TX-105 and 241-TX-118 tanks, contaminated with approximately 10 Ci of fission products with a maximum dose rate of 4.5 R/hr at 4 ft in 1954. The contaminated area was covered with 1 ft of clean soil.
UN-200-W-8	UPR-200-W-8	Area near the northeast corner of Beloit Ave and 15th St, designated "The Old Burning Ground," contaminated with approximately 1 Ci of fission products with a maximum dose rate of 45 R/hr at the surface, from an unknown source in 1950. The area has been covered with 10 ft of clean soil.

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-W-9	UPR-200-W-101	Area on the southeast side of 221-U facility, between sections R1-R5, contaminated with reclaimed acid containing approximately 1 Ci of <sup>90</sup> Sr that was spilled on the ground in 1957. Radiological surveys performed in 1976 revealed 300 cpm on the surface. The area was covered with 3 in. of sand and gravel.
UN-216-W-10	NA	Area approximately 500 ft west of 271-U facility and 550 ft north of 16th St. Cannot locate. No additional information.
UN-216-W-11	UPR-200-W-138	Area at the northwest corner of 221-U facility near section R3, contaminated when an estimated 300 lb of uranium (UNH solution) overflowed into the 221-U building vessel vent blower pit and then went to ground through the French drain in 1953. No record of decontamination efforts.
UN-216-W-12	UPR-200-W-102	50- X 12- X 12-ft area on the southeast side of the 224-T facility, contaminated with about 10 g of <sup>239</sup> Pu, when alpha-laden moisture seeped through the jointed tile piping from process tanks entering the rear of the building at ground level during the years of process operations (discovered in 1972). 139 drums of soil were excavated and removed for burial.
UN-216-W-13	UPR-200-W-103	Area about 6 ft south and 12 ft west of the 236-Z facility, contaminated with about 10 g of <sup>239</sup> Pu (7.6 E+07 dpm/100 cm <sup>3</sup> of ground) when the 216-Z-18 crib line from 234-5Z facility broke in 1971. An area 25 ft long by 6 ft wide by 7 ft deep was excavated, producing approximately 100 55-gal drums of soil, which were buried in the 200 West area plutonium "storage for recovery" burial ground. Much contamination remains under 6 ft of clean soil.
UN-216-W-14	UPR-200-W-104	580-ft-long by 40-ft-wide by 10-ft-deep trench running northwest from the northeast corner of 216-U-10 pond, dug to give additional leaching surface for overflow water, contaminated to about 2,000 cpm in the bottom of the trench. Maximum soil sample analyses were 5.2 E+00 pCi/g <sup>90</sup> Sr, 1.9 E+03 pCi/g <sup>137</sup> Cs, 2.8 E+04 pCi/g <sup>241</sup> Am in 1978. Area was buried under about 4 ft of clean soil.**

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-W-15	UPR-200-W-105	500-ft-long by 45-ft-wide by 15-ft-deep trench running east from the center of the east side of 216-U-10 pond, dug to give additional leaching surface for overflow water, contaminated to about 3,000 cpm in the bottom of the trench. Maximum soil sample analyses were 8.0 E+01 pCi/g <sup>90</sup> Sr and 2.0 E+03 pCi/g <sup>137</sup> Cs in 1978. Area was buried under about 4 ft of clean soil.**
UN-216-W-16	UPR-200-W-106	400-ft-long by 25-ft-wide by 8-ft-deep trench running east from the southeast side of 216-U-10 pond, dug to give additional leaching surface for overflow water, contaminated to about 2,000 cpm in the bottom of the trench. Maximum soil analyses were 5.9 E+01 pCi/g <sup>90</sup> Sr and 1.4 E+03 pCi/g <sup>137</sup> Cs in 1978. Area was buried under about 4 ft of clean soil.
UN-216-W-17	UPR-200-W-107	Area south of 216-U-10 pond, inundated by rising water from the pond, which received waste water from the 216-U-14 laundry ditch, the 216-Z-11 ditch, and cooling water from the 401-SX building condensers in the 241-SX tank farm. Contamination reached a maximum level of 8,000 cpm on the surface of the ground. Maximum soil analyses were 9.8 E+01 pCi/g <sup>90</sup> Sr and 2.6 E+03 pCi/g <sup>137</sup> Cs in 1978. Area was buried under about 4 ft of clean soil.
UN-216-W-18	UPR-200-W-108	Area at the south end of 216-S-9 crib, contaminated with an unknown amount of radioactive material (40 R/hr from the bottom of the waste line) when REDOX (202-S) process condensate from the D-2 receiver tank flowed from the 240-S Diversion Box to the "Y" in the line between the 216-S-9 crib and the 216-S-23 crib, which was found to be buckled in two places in 1969. The waste water was allowed to seep into the bottom of the 20-ft-deep hole, which was dug to maintain the line, and filled after the work was complete. Area is still a Surface Contamination Area within the 216-S-9 crib boundary.

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-W-19	UPR-200-W-109	Area inside the east perimeter of 218-W-9 burial ground, contaminated with an unknown amount of radioactive material (40 R/hr from the bottom of the waste line) when REDOX (202-S) process condensate from the D-2 receiver tank flowed from the 240-S diversion box to the "Y" in the line between the 216-S-9 crib and the 216-S-23 crib, which was found to be buckled in two places in 1969. The waste water was allowed to seep into the bottom of the 20-ft-deep hole, which was dug to maintain the line, and filled after the work was complete. The area was covered with clean soil and revegetated along with 218-W-9.
UN-216-W-20	UPR-200-W-110	A covered area (216-Z-1 ditch), 425 ft long by 15 ft deep adjacent and parallel to the head-end (north) of the 216-Z-19 ditch, contaminated up to 100,000 dpm (alpha) by intrusion of process leaks into the 234-5Z Plant cooling water discharge system, which settled out or was absorbed by aquatic vegetation along the bottom and sides of 216-Z-1 ditch, mistakenly uncovered during the construction of the new 216-Z-19 ditch in 1971. The soil was assumed to have been returned to its original location when it was decided to construct the 216-Z-19 ditch 35 ft further west.
UN-216-W-21	UPR-200-W-111	40-ft-long by 8-10-ft-deep by 15-ft-wide area within 10 ft of the south wall of the 207-U retention basin, constructed to contain sludge from the bottom of the southern section of 207-U retention basin at an unknown time. The sludge was originally covered with 4 ft of clean soil, but has been recontaminated and is presently a Surface Contamination Area.
UN-216-W-22	UPR-200-W-112	40-ft-long by 8-10-ft-deep by 15-ft-wide area within 10 ft of the north wall of the 207-U retention basin, constructed to contain sludge from the bottom of the northern section of 207-U retention basin at an unknown time. The sludge was originally covered with 4 ft of clean soil, but has been recontaminated and is presently a Surface Contamination Area.

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-W-23	UPR-200-W-113	Area near the 241-TX-155 diversion box, contaminated by rabbit feces in 1977. Surveys of the area to determine the contamination source revealed low-level beta/gamma contamination, below and to the west of the 241-TX-155 diversion box. Radiation levels increased during attempted excavation of the contamination causing assumptions that a nearby waste transfer line was the underground source of contamination. The area was covered with clean soil and revegetated in 1990.
UN-216-W-24	UPR-200-W-114	Radioactive particulate matter resulting from operations activities in the 241-SX tank farm, the 241-SX-151 diversion, and the 241-S-151 diversion box spread over the ground surface of the subject area during the many years of operations. A number of cleanup campaigns reduced the amount of contamination, but a residue of the original remains on the ground.
UN-216-W-25	UPR-200-W-115	This site consists of a surface contamination zone associated with clean-out boxes on the feed line. Area posted as Surface Contamination.
UN-216-W-26	UPR-200-W-116	This area became contaminated with particulate matter spread by wind from the 204-S waste storage tank exhaust and the related railroad tanker waste unloading station. The site is located ~300 feet north of the 202-S building, next to the REDOX railroad cut. Area was interim stabilized in 1993.
UN-216-W-27	UPR-200-W-117	This site results from contaminated liquid and particulate matter dropping from railroad cars servicing the 221-U facility during the Uranium Recovery and Equipment Decontamination Programs, and the various storage and unloading activities. These activities started in 1952 with the Uranium Recovery Program (1952-1957) and have continued intermittently to the present. The site was designated as a radiation zone, but has since been released as contamination has decayed to background levels.

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-W-28	UPR-200-W-118	This site is the result of drippings and spills from the reclaimed nitric acid unloading stations in the 211-U chemical tank farm. Wind-borne particulate matter spread to the ground surface outside the concrete unloading station. This site was designated a radiation zone, but has since been released as contamination has decayed to background levels.
UN-216-W-29	UPR-200-W-164	The site consists of spotty surface contamination beneath the steam line from the 204-S storage tanks to the 224-U building. In 1986 the zone was reduced to a small area of spotty surface contamination beneath the steam line. Interim stabilized in 1993.
UN-216-W-30	UPR-200-W-165	The site consists of speck surface contamination measuring 200 cpm to 45mr/hr, and the sites location is northeast of 241-S/SX/SY tank farms.
UN-216-W-31	UPR-200-W-166	The site contains spotty contamination which is suspected to have originated from 241-T tank farm. In 1991, the interior fenced area of 241-T tank farm was decontaminated, and a layer of clean gravel was placed over the area. In 1991 and 1992 radiologically contaminated soil was scraped and consolidated along the hillside on the west side of 216-T-14 through 216-T-17 units. A layer of clean soil was placed over the consolidated contaminated soil area.
UN-216-W-32	UPR-200-W-167	Migration of contamination from TY tank farm over time. The site location is northeast of the 241-T tank farm west of 216-T-14 through 17 trenches; it surrounds the 207-T retention basin. The contaminated soils were scraped and disposed in the 200 West burial grounds. Clean gravel was placed over the excavated surface.
UN-216-W-33	UPR-200-W-163	The site contains radiologically contaminated vegetation growing above the underground pipeline. The contamination came from an underground pipe line from 224-T (U03) to the 216-U-8 crib. Area interim stabilized in 1994. Pipeline was reposted as URM rest of area was released from posting status.
UN-216-W-34	N/A	Waste water sump inside the 2724-W laundry facility.

SITE	UPR NUMBER	SITE DESCRIPTION/LOCATION
UN-216-W-35	UPR-200-W-161	~50 ft east of the 241-U tank farm and 100 ft north of the 207-U retention basin.
UN-216-W-36	UPR-200-W-160, UPR-200-W-21	
UN-216-W-37	UPR-200-W-162	The area adjacent to and east of the 221-U building; (UN-216-W-9 and 216-W-11 are located within this larger unplanned release site). The site consists of surface speck contamination. This site also encompasses previous spill areas UPR-200-W-101 and UPR-200-W-138. Some contamination was removed using buckets and shovels by Tank Farm Operations in March and October 1991.

cpm = counts per minute

dpm = disintegrations per minute

URM = underground radioactive material

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